LIME TOWNSHIP PLANNING COMMISSION
Regular Meeting September 24, 2026 - 5:00 p.m.
Mankato Regional Airport
3030 North Airport Road, Mankato MN
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Any person speaking to the Commission shall give to the Secretary of the Commission the NAME and HOME ADDRESS of such person prior to speaking.
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1. **CALL TO ORDER**

2. **APPROVAL OF AGENDA**

3. **APPROVAL OF MINUTES**

   1. August 27th, 2026 Draft Planning Commission Minutes

4. **BUSINESS ITEMS**

   1. CYL-0008-26 Updated

Request of Mark Pahl with Dem Con, on behalf of property owner, OMG Midwest Inc, for an amendment to the previously approved Conditional Use Permit for the existing demolition landfill. The subject property is described as the North half of the Southeast quarter of Section 25, Township 109 North, Range 27 West lying easterly of the easterly water's edge of the Minnesota River and northeasterly of the centerline of the Creek, more particularly described as: Beginning at the East quarter corner of Section 25; (the East line of Section 25 to have an assumed bearing of North 00 degrees 02 minutes 41 seconds East) thence North 89 degrees 50 minutes 25 seconds West, along the East-West centerline of Section 25, a distance 1,180 feet to a point on the easterly water's edge of the Minnesota River; thence South 02 degrees 30 minutes 00 seconds West along said water's edge, 457.8 feet to the intersection with the Creek centerline; thence South 34 degrees 30 minutes East along said Creek centerline 337.4 feet; thence South 04 degrees 20 minutes 56 seconds West, along said Creek centerline, 339.0 feet; thence South 81 degrees 34 minutes 32 seconds East, along said Creek centerline, 114.5 feet ;thence South 41 degrees 08 minutes East along said Creek centerline 208.0 feet; thence South 19 degrees 23 minutes 23 seconds East along said Creek centerline, 50.3 feet to the intersection with the South line of the North half of the Southeast quarter of Section 25; thence easterly along said South line, 7666.7 feet to the Southeast corner of the North half of the Southeast quarter of Section 25; thence North 00 degrees 02 minutes 41 seconds East along the East line of Section 25, a distance of 1291.61 feet to the point of beginning. The North half of the Southwest quarter of Section 30, Township 109 North, Range 26 West excepting therefrom the North 74.58 feet of the East 94.39 feet. The West 251.62 feet of the Southeast quarter of Section 30, Township 109 North, Range 26 West, excepting therefrom the North 74.58 feet and except the South of 1365.50 feet, Lime Township, Blue Earth County (PID 400430300001) and Tract 1, Registered Land Survey 178, Lime Township, Blue Earth County (PID R400431200039, R400431100014, R400430300007).

The anticipated date of Lime Township Board action is October 13, 2026 at 7:30 p.m. at the Mankato Regional Airport.

2. CYL-0013-26

Request of Lime Township Board for review of Lime Township Zoning Ordinance.

5. **MISCELLANEOUS**

6. **ADJOURNMENT**

Lime Township Planning Commission **3. 1.**

Meeting Date: 09/24/2026

Title

August 27th, 2026 Draft Planning Commission Minutes

Attachments

August 27th, 2026 Draft Planning Commission Minutes

Lime Township Blue Earth County Minnesota

Planning Commission Minutes

August 27, 2026 5:00 pm

ALL MOTIONS ASSUMED TO BE UNANIMOUS UNLESS NOTED

Present: Amanda Dyslin, Jody Swanson, Marnie WIll, Jimmy Blount, Ili, Victoria Potts, ZOOM: Christine Gregory, Molly Westman, Mark Konz, Members of the Public.

Amanda called the Meeting to Order at 5:00 pm and led the Pledge of Allegiance.

Motion 26.08.01 Jimmy, Second Christine to Approve the Agenda as amended.

Motion 26.08.02 Jimmy, Second Jody to Approve the Minutes as presented.

Jill informed the Commission Members that they received a pay adjustment from the Lime Township Board of Supervisors. Going forward, they will receive $150 per meeting, and can submit hours of study for reimbursement at $50 per hour, billed on the quarter hour, starting from July 1, 2026.

Business Items:
CYL-0009-26 Xcel Energy, on behalf of property owner Gerald Rausch, for a CUP to replace a deteriorating power pole. Jody mentioned that she would like to be sure that there will be no change to the lighting of the pole.

Motion 26.08.03 Marnie, Second Jimmy for a recommendation of approval of the permit.

CYL-0010-26 Xcel Energy, on behalf of property owner Vetter Stone, for a CUP to replace a deteriorating power pole. Jody expressed concern that the contractor should follow MnDot standards of erosion control due to the location of the replacement pole.

Motion 26.08.04 Jody, Second Amanda for a recommendation of approval of the permit with the additional condition of following MnDot standards of erosion control.

CYL-0011-26 Xcel Energy, on behalf of property owner OMG Midwest, Inc., for a CUP to replace a deteriorating power pole. Jody wanted to add the condition of using the MnDot erosion control standard to this permit as well.

Motion 26.08.05 Jody, Second Amanda for a recommendation for approval of the permit with the additional condition of following MnDot standards of erosion control.

CYL-0008-26 Mark Pahl of DemCon, on behalf of property owner OMG Midwest, Inc., for an amendment to a previously approved CUP for the existing demolition landfill, known as Pilgrim's Demo Landfill. Staff presented the application and staff report, as well as additional conditions that were drafted by the Township attorney, Bob Ruppe, for the Planning Commission to consider before sending a recommendation to the Lime Township Board. There was discussion about sharing the material fully during the meeting for the public to understand all of the points in the additional conditions. Staff also clarified that there are three options for the item tonight: the Commission can Approve, Deny or Table and ask for a 60 day extension from the applicant. The Township has asked for an outside consultant to review the application to ensure there are no red flags in regards to environmental impacts on the surrounding property and water table due to the nature of the request. This should be complete by September 10, 2026. Christine suggested opening the Public Hearing to allow the public to give

comments. This would give the applicant the time and ability to respond to the public's concerns, as well as give the Commission and Township Board time to review the environmental engineering consultant's draft recommendations before moving on this item. Mark Pahl, the applicant, made a statement to the Commission to help clarify some of the questions from the Commission. The expansion of the materials collected and the amount of material collected were explained. A leachate system allows more types of materials to be accepted. Lining the site will allow regrading from a 4:1 to a 5:1 slope, and will make the amount of material able to be collected larger than previously allowed without changing the footprint or height of the current permit.
Chair Amanda Opened the Public Hearing. There were a number of questions submitted.
Beth Proctor was unhappy with the lack of information prior to the Planning Commission meeting. Beth asked if the MPCA is keeping track of what is currently leaking out of the "old part" of the landfill and how that will be corrected. Beth's general comment was that maps of the locations of each permit application would be helpful. She also listed the "What's in my neighborhood" MPCA for anyone to check on properties under review.
Rich Resch, acting as a citizen, asked when the Planning Commission got the email from the Township Attorney. He said receiving it the day of the meeting is unacceptable. He wanted to know how the applicant will be monitoring the materials that are dropped off at the site. He also wanted to know what types of materials will show up in the leachate. He also advised that the Planning Commission study the material from the outside consultant. Rich wanted to know about mercury in past materials. Would disturbing the old pile expose the toxic materials to runoff. Rich asked if there is asbestos in the previous materials, or was that screened out of the prior materials. **Robert Miller** wanted to state his concerns that there is an open ended list of materials. He wanted to encourage the Commission to do further study before approving the CUP.
The applicant has no problem tabling the item for the next meeting.
Chair Amanda Closed the Public Hearing.
Jody asked if we needed to reply to questions prior to tabling it. Marnie also wanted to list his questions about the conditions so they can be worked on during the Tabling. Victoria stated that she will collect Planning Commission member questions so she can coordinate with the applicant and Bob Ruppe for answers before the next Planning Commission meeting.

> **Motion 26.08.06** Amanda, Second Jimmy to Table the Application from DemCon, with a 60 day Notice to Extend be sent to the applicant per State Statute.

CYL-0012-26 Kyle Kaldor, on behalf of property owner Joe Holtmeier, for an amendment to the previously approved CUP Reclamation plan at the property listed in the permit. The applicant is requesting an Interim Use Permit for the proposed use of an outdoor campground and recreation development. Additionally, there are three variance requests: one, to reduce the front yard fencing setback from 65 feet to 35 feet of 230th Lane, second, to reduce the front yard fencing setback from 130 feet to 45 feet off Third Avenue, and third, to to increase the allowable height of an accessory structure in the Rural Conservation District from 35 feet to 100 feet given that the applicant is requesting to place a historic Quarry Derrick Crane.
Staff presented the report prepared for the item. There were expanded and additional conditions prepared by Township Attorney Ruppe just prior to the meeting and were handed out at the meeting for review. Jody has issues with the variances, especially with the setbacks. She was concerned about the safety of both users of the site and motorists. She didn't like that the first variance request gave the applicant extra space for trails and not stay undisturbed property, as per the Ordinance. The second variance was concerning due to the location to Third Avenue. She wanted to know if that was a

reasonable request due to being one third of the setback allowed by Ordinance. The applicant has been working closely with Ryan Thilges, Blue Earth County, on the Third Avenue setback.
Amanda wanted to know if the maximum number of campsites was listed in the application. It is proposed at 315 campsites. What was unique in having the Derrick Crane on the site? It is for history and a decorative piece, not to be utilized as a feature for biking. The viewshed analysis from Deerhaven, Third Avenue and 230th Lane, needs to be done prior to setting of the crane, and is a condition in the staff report. Amanda also wanted to see Blue Earth County's storm water comments for review. She also asked for any unresolved concerns with the ground water connected quarry pits. With there being water recreation, why is testing only being required prior to the season and not during the season on a regular basis? Blue Earth County requested that all solid waste materials be hauled by an approved septic handler to an approved septic waste disposal site, with a contract in place prior to the opening of the campground.
Jody wanted to ask if the wells were being monitored in terms of supply and quality. Blue Earth County is the Local Government Unit responsible for wells, septic and wetland oversight in the county. Is there a reclamation bond stipulated for the site? There is one for the landscaping plan. She was also unhappy that the variances have been filed and that the applicant didn't choose to stay within the bounds of the Ordinance.
Marnie shared his concerns that there are two bodies of water listed, but it looks like five separate bodies of water. He also wanted to see the pit for the runoff. There are 14 swales or "infiltration basins" that will collect the runoff. They should be named for consistency. He also wanted to ensure the historical crane would not be used for any purposes other than to view. He wanted to clarify when the mining would cease. It will be done once the new grading plan begins. The new IUP will revoke the original CUP Jordan Sands permit on the recreation property. The original CUP will continue on the rest of the property that is not included in the recreation parcels.
Amanda Opened the Public Hearing at 7:32 pm:
Beth Proctor: Doesn't agree with reducing the 3rd Ave. setbacks due to accidents and speed. She cited three examples. She doesn't necessarily disagree with the crane as it is intended as an educational piece, but is concerned about it becoming a lightning rod in storms. She had issues with fire pits and needs to know how they will be policed during dry times. In the past she was told that there would be benefits to Township residents regarding the facility - she has not seen any of those things listed and would like that added to the permit to be carried forth upon any sale or transfer of the property in the future.She wanted to know if there would be "trained personnel" onsite. The matter of rental units or RV's onsite for rent was asked. Would there be those types of units and if so, how will those be managed? No washing of RV's or any vehicles in the park should be added. The "dog policy" should cover cats as well - maybe a "Pet Policy". She was unhappy with the lack of information for the public.
Barry Rosenau: He wanted to know what type of fence and how close to his property line would this be. He doesn't like that the applicant is trying to go around the setbacks in the ordinance and doesn't like any of the variance requests. Being the last house on Deerhaven, he is concerned that he'll be looking at a 100 high foot crane. Is the view shed complete? He has concerns about the amount of water that the park will need and the strain on already strained wells since the aquifer was punched through. He was not happy with the term "Mostly Industrial" in the Staff report. There are just as many houses as industry in the area.
Rich Resch: He didn't like that the paper copy of conditions from Ruppe were handed out at the meeting, making it hard to review for all involved. He was not happy about the changing of setbacks - and termed it a "Land Grab". He would have liked to hear from more of the Planning Commissioners - he felt that there should have been input from them all. He was also unsure of the benefit of having the

crane in the project. Rich suggested that with time running out, it should be tabled by the Commission. The petitioner was adamant that this not be tabled.
Chair Amanda Closed the Public Hearing at 7:52 pm.
Joe Holtmeier replied to Barry's comment about the fenceline and the berms. It was recommended that they talk after the meeting since they were discussing a specific portion of the project.
Jody was asking to table the item tonight since she didn't have time to look at all the materials.
Kyle commented on Ruppe's recommended items, stating that they are having to abide by the Ordinance per the conditions.
Ruppe wanted to ensure that the Commissioners review Condition 9: the timeline for IUP to be valid per State Statute. He also wanted clarity on the total number of campsites. Jody asked about adding the condition of a performance bond as part of a reclamation plan in case the RV Park closes.

Motion 26.08.07 Christine, Second Amanda to move this item forward to the Lime Township Board, with all of Ruppe conditions and the additional conditions listed tonight: no RV washing onsite, recreation water monitoring throughout the season, quantity of water usage monitored, no RV/Unit rentals, and a decommissioning bond in place. 4-1 with Jody against.

Motion 26.08.08 Jimmy, Second Amanda to Adjourn at 8:00 pm.

DRAFT

Lime Township Planning Commission **4. 1.**

Meeting Date: 09/24/2026

Title

CYL-0008-26 Updated

Request of Mark Pahl with Dem Con, on behalf of property owner, OMG Midwest Inc, for an amendment to the previously approved Conditional Use Permit for the existing demolition landfill. The subject property is described as the North half of the Southeast quarter of Section 25, Township 109 North, Range 27 West lying easterly of the easterly water's edge of the Minnesota River and northeasterly of the centerline of the Creek, more particularly described as: Beginning at the East quarter corner of Section 25; (the East line of Section 25 to have an assumed bearing of North 00 degrees 02 minutes 41 seconds East) thence North 89 degrees 50 minutes 25 seconds West, along the East-West centerline of Section 25, a distance 1,180 feet to a point on the easterly water's edge of the Minnesota River; thence South 02 degrees 30 minutes 00 seconds West along said water's edge, 457.8 feet to the intersection with the Creek centerline; thence South 34 degrees 30 minutes East along said Creek centerline 337.4 feet; thence South 04 degrees 20 minutes 56 seconds West, along said Creek centerline, 339.0 feet; thence South 81 degrees 34 minutes 32 seconds East, along said Creek centerline, 114.5 feet ;thence South 41 degrees 08 minutes East along said Creek centerline 208.0 feet; thence South 19 degrees 23 minutes 23 seconds East along said Creek centerline, 50.3 feet to the intersection with the South line of the North half of the Southeast quarter of Section 25; thence easterly along said South line, 7666.7 feet to the Southeast corner of the North half of the Southeast quarter of Section 25; thence North 00 degrees 02 minutes 41 seconds East along the East line of Section 25, a distance of 1291.61 feet to the point of beginning. The North half of the Southwest quarter of Section 30, Township 109 North, Range 26 West excepting therefrom the North 74.58 feet of the East 94.39 feet. The West 251.62 feet of the Southeast quarter of Section 30, Township 109 North, Range 26 West, excepting therefrom the North 74.58 feet and except the South of 1365.50 feet, Lime Township, Blue Earth County (PID 400430300001) and Tract 1, Registered Land Survey 178, Lime Township, Blue Earth County (PID R400431200039, R400431100014, R400430300007).

The anticipated date of Lime Township Board action is October 13, 2026 at 7:30 p.m. at the Mankato Regional Airport.

Applicant

The applicant, Mark Pahl with Dem Con, on behalf of the property owners, OMG Midwest Inc.

Request

Request of Mark Pahl with Dem Con, on behalf of property owner, OMG Midwest Inc, for an amendment to the previously approved Conditional Use Permit for the existing demolition landfill.

Location

The subject property is described as the North half of the Southeast quarter of Section 25, Township 109 North, Range 27 West lying easterly of the easterly water's edge of the Minnesota River and northeasterly of the centerline of the Creek, more particularly described as: Beginning at the East quarter corner of Section 25; (the East line of Section 25 to have an assumed bearing of North 00 degrees 02 minutes 41 seconds East) thence North 89 degrees 50 minutes 25 seconds West, along the East-West centerline of Section 25, a distance 1,180 feet to a point on the easterly water's edge of the Minnesota River; thence South 02 degrees 30 minutes 00 seconds West

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Existing Land Use

The land consists of a parcel located West of 3rd Avenue and northwest of 231st Lane. The property is currently being used as a landfill.

Zoning

The southern portion of the property is zoned Industrial and the northern parcels are zoned in the rural conservation district within Lime Township.

Other Board or Commission

The Lime Township Planning Commission reviewed the Dem Con CUP amendment request at their August 27th, 2026 meeting to which they recommended a 60 day extension to have a 3rd party consultant, Carlson McCain, review environmental concerns about the landfill. A technical memorandum from Carlson McCain was sent to Dem- Con Companies on September 11th, 2026 to address the concerns of the board, which Dem Con Companies responded to in a letter on September 17th, 2026. Enclosed in the report are the concerns from both the Lime Township Planning Commission and Carlson McCain as well as the responses from Dem Con Companies.

Environmentally Sensitive Areas

There are ravines located throughout the proposed parcels. The properties also contain flood zones, wetlands, and the shoreland district on the west side of the property.

City Code

The Lime Township Ordinance can be found at this link: Lime Township Ordinances

Review

The applicant, Mark Pahl with Dem Con is requesting, on behalf of property owner, OMG Midwest Inc, for an amendment to the previously approved Conditional Use Permit for the existing demolition landfill. The total acreage for the proposal is 192.29 acres with a 75 acre waste footprint. The request is to take the current footprint of the existing demolition landfill and modernize the waste pile with a synthetic liner, a leachate collection system, and a synthetic cap which will enhance the environmental impacts of the surrounding areas.

The Lime Township Planning Commission reviewed the Dem Con CUP amendment request at their August 27th, 2026 meeting to which they recommended a 60 day extension to have a 3rd party consultant, Carlson McCain, review environmental concerns about the landfill. A technical memorandum from Carlson McCain was sent to

Dem- Con Companies on September 11th, 2026 to address the concerns of the board, which Dem Con Companies responded to in a letter on September 17th, 2026. Enclosed in the report are the concerns from both the Lime Township Planning Commission and Carlson McCain as well as the responses from Dem Con Companies.

The owner of the operation will be Dem Con and the individuals responsible for the actual operation and maintenance of the operations will be Mark Pahl, the applicant, and Bill Keegan for at least the first year of Dem-Con's ownership of the site. Going forward, it is anticipated that a facility manager will be assigned to the site for daily questions or concerns. A condition has been included herein for the Lime Township Board to receive the point of contact's information and in the future if the individual changes contact information shall be forwarded to the board. Dem-Con's employees will receive the MPCA training for certification to operate a landfill in addition to the monthly safety training offered by the employer.

The parcels where the demolition landfill will be operating are currently zoned as Rural Conservation, which currently does not describe a landfill to be permitted via land development permit nor Conditional Use Permit nor an Interim Use Permit. However, a Conditional Use Permit (CUP) was previously approved in 2004 by the Lime Township Board to allow Southern Minnesota Construction for a demolition landfill, that collected yard and tree waste composting, wood recycling, concrete and asphalt recycling and sales of landscaping supplies. Making the use a legal nonconformity. Lime Township Zoning Ordinance states "A legal non-conforming use, and accessory use, shall not be structurally or physically enlarged or expanded. Legal non-conformities may be continued or restored in accordance with this Section" (Article 1, Section 8, Part A, subpart 1). So, the applicant has applied to amend the previously approved CUP to continue to the use of a demolition landfill and to update the current conditions of the site.

The applicant has resubmitted a permit with the Minnesota Pollution Control Agency in April 2026 as required by Blue Earth County ordinance, "no person shall establish, operate, or maintain a sanitary landfill or demolition landfill without first obtaining a permit from the agency and a license from the county board" (Chapter 16 Solid Waste Management, Section 16-13 Sanitary landfill or demolition landfill, part 1). The applicant has since revised their MPCA Permit Application as of September 11, 2026, to reflect changes Carlson McCain and the applicant have agreed to. The applicant has submitted for a CUP to receive proper licensing from the Lime Township Board as they are the Local governing unit (LGU) of the proposed parcels. Once the applicant has secured approval from both the MPCA and the Lime Township Board the requirement shall be fulfilled. A condition has been added herein the applicant shall obtain both MPCA approval and Lime Township approval prior to the commencement of operating the demolition landfill.

Enclosed with the submittal items is a schedule of daily operations that shall occur between the hours of 6am and 7pm Monday through Friday and 7am-5pm on Saturday. Additionally, the applicant has stated that "extended hours may needed for special projects or emergency purposes" (Lime Township Conditional Use Permit (CUP) Narrative, Operational Schedule and facility charges). The hours of operation and noise levels shall conform to Minnesota Rules Chapter 7030 and a condition has been listed herein for the operation of business to adhere to such requirement. Noise generated from the site will remain the same given similar activities will continue to occur.

Dem Con does not anticipate nuisance litter given the type of waste they will be accepting into their facility, however they have proposed to inspect 231st Lane and CSAH 5 (3rd Avenue) on a weekly basis and will monthly check the site for scattered waste.

The facility will charge fees by the cubic yard or by the ton. Tip fees will vary depending on waste type and volume. The range for cubic yards will vary from $6.00 to $50.00 and the fees per ton will vary from $10-$100. Thus, meeting Blue Earth County Code of submitting a "schedule of charges to be levied at the solid waste facility" and for demolition landfills to "charge disposal fees for all users in a fair and equitable manner" (Chapter 16 Solid Waste Management, Section 16-13 Sanitary landfill or demolition landfill, part 1). Since the applicant will be charging all users the same fees, they will be meeting this requirement.

Drainage on-site will continue to remain the same causing water to drain on the east side of the property where a stormwater pond currently exists. Carlson McCain reviewed the Stormwater site plans submitted by the applicant

and requested additional information from the applicant addressing six items. The first being construction details for ponds and a narrative amendment to state “that ponds shall be constructed according to the active Multi-Sector General Permit for Industrial Stormwater and Construction Stormwater General Permit, or any individual NPDES/SDS stormwater permits, if issued for the site” (Technical Memorandum, Specific Township Concerns 5, Part A). Dem con responded to the request and stated they agreed to add the following statement into their narrative.

Secondly, Carlson McCain requested the applicant to reflect HydroCAD Stormwater calculations based on a 72 hour Cycle. Dem-Con agreed to update the HydroCAD model to reflect what it would look like after a storm event occurs on site in periods of 24 hours, 48 hours and 72 hours.

Additionally, Carlson McCain asked the applicant to add pond nodes to the HydroCAD Model to illustrate a scenario where erosion is a concern after the final cover has been added. Once the site has been completed, the applicant is proposing to drain stormwater to the newly proposed stormwater ponds to the west and to the north of the mound. Dem Con stated that they added pond nodes to catch basins in the HydroCAD model to ensure stormwater berms are not overtopped. Pond Nodes are part of the modeling system located in catch basins to simulate how surface water acts during storm events. The applicant shall receive final approval from Blue Earth County for the stormwater ponds and drainage plan and copy of the approval shall be forwarded to the Lime Township Board. Blue Earth County has provided commentary about potential impacts to a wetland, named Lime 30 Calcareous Fen, stating that the “attached project documents do not show anticipated direct impacts, but indirect impacts appear likely” (Septic, Well, and Shoreland-Wetland Review). An additional condition has been enclosed herein requiring the applicant to meet the Minnesota Wetland Conservation Act and if any indirect impacts are discovered from the development of the project a restoration order will be issued from the impacts.

An additional request for the applicant is to provide a scour protection plan and a description on best management practices they will use to prevent damage to outlet pipes in either the narrative or permit drawings. The applicant stated they intend to use riprap for scour protection at all pipe outlets for water dissipation. Meaning that the applicant is taking precautions by using riprap to prevent erosion from the water coming from the outlet pipes.

The applicant was asked to clarify which stormwater conveyance method will be utilized and Dem- Con stated that they will be utilizing a downslope drop pipe as a pathway to transport rainwater runoff safely from the landfill area to be drained out of the southwest corner of the area described as phase 5C in the enclosed phasing site plan.

Site access will remain unchanged, continuing from 231st Lane, as identified in the submitted plans. Any modifications to access will require additional review and approval by the Township Board and Blue Earth County.

Landscaping surrounding the landfill will remain the same; left in a natural state and in well-kept conditions. The existing berms and topography surrounding the demolition landfill will remain the same; acting as fencing around the property.

A phasing site plan and narrative have been submitted by the applicant illustrating the changes of how the previously buried demolition items will be excavated, then lined with a synthetic fabric, filled back in and covered. The applicant has indicated that they will be relocating the waste within the first two phases of construction. There are two disposal areas currently onsite called DD001 and DD002. The DD002 disposal site has 178,196 cubic yards of remaining airspace and DD001 disposal volume is 111,000 cubic yards. Meaning the applicant will have enough space to relocate all of DD001 into DD002 and still have enough left-over room for cover soils as well. This movement of the previously placed demolition items will be a part of phase 3A, and materials coming from DD001 will be visually inspected and classified upon excavation. Demolition debris and materials will be placed in the DD002 area if they meet the Class 1 criteria and if not, they will be placed in a 30–40-yard roll-off box to be disposed of at an appropriate permitted facility.

A variety of equipment will be utilized at the site, including, but not limited to a landfill compactor, a dozer, a water truck, and a skid and front end loader. The applicant has stated in their narrative that additional equipment

may be brought in during construction activities. The dozer or excavator will strip cover from the existing waste, a hydraulic excavator will then load the waste into articulated haul trucks, to which the trucks will haul the waste to the area of placement, to which a dozer and landfill compactor will compact the relocated waste into place.

An ultimate land use plan has been submitted illustrating the five different phases and subphases the applicant will be completing as they collect waste. Phasing will commence on the east central side of the landfill mound and will continue westward. Dem-con estimates it will move about 2,000-3,000 cubic yards per day while using the excavation equipment as described above during the workweek, Monday through Friday, during the approved hours allowed under the Lime Township Conditional Use Permit. The applicant enclosed in their response letter that they will start on the Southern portion of each section and work north while minimizing the area of cover removed to "no more than two weeks worth of work at a time". During each work sections the applicant has stated that they will maintain cover over both the existing pile and the relocated waste in accordance with MPCA permit requirements.

It is a requirement by the MPCA to cover waste, cover soils consist of on-site materials and adequate cover soils currently onsite. The applicant will continue to utilize the previously approved cover soils onsite and during the winter months Dem Con will rip the frost with equipment to access unfrozen soils or use frost protections measures, such as frost blankets, hay, woodchips to prevent the cover piles from freezing.

Cross section plans were submitted illustrating a current height of 840 feet with a proposed 868 feet in height. The cross section displays how the applicant is proposing to redistribute the current waste in phases in order to add a synthetic liner to prevent the continuation of contamination to the groundwater and to be able to accept additional waste. The site plans shows what the current excavation levels are approximately at 792 feet and the applicant is proposing to keep the levels the same to avoid any damage to the groundwater tables.

The applicant is proposing to service a population of 350,000 residents, meaning they are planning on serving the residents and the businesses within Blue Earth County and the surrounding counties.

Enclosed in the Minnesota Pollution Contral Agency's (MPCA) permit application proposing for the applicant to accept commercial and demolition (C&D) debris, industrial waste, composting yard waste, composting Source-Separated Organic Material, and recyclables. A full list of the items that the landfill will be accepting and rejecting can be found in the submitted Industrial Solid Waste Management Plan (SW-254) Part 2.0 Acceptable and Unacceptable Wastes on pages 2 through 7 out of 13. The applicant has stated that they will not be accepting any hazardous waste nor any waste that can combust. The current 2004 CUP ultimate capacity design for an unlined commercial and demolition landfill is 5,514,388 cubic yards and the proposed capacity for an unlined C&D debris landfill is for 1,044,918 cubic yards and 5,352,518 cubic yards of lined class III C&D debris and industrial waste. Odors on the property will remain the same given that similar material will be accepted and the applicant plans to rotate piles while managing moisture content of the composting activities.

The applicant has submitted a soil borings and a soil boring map illustrating the areas where the previously approved CUP had tested soil throughout the property.

Information relating to MPCA ss 1,2, 4 and SW 6 is a requirement listed within the Blue Earth County's Solid Waste Management ordinance and is currently being reviewed by the County's staff. County staff has stated that the requirement was a reference to Minnesota Rule that existed at that time and not statue. The applicant has submitted a full copy of their MPCA Permit application as a fulfillment of this requirement.

The applicant shall submit documentation illustrating compliance of a Subsurface Treatment System (SSTS) on the site. A recommended condition requires the applicant to coordinate with Blue Earth County to obtain approval for the septic system location. For the parcel ending in 0039, the county has provided commentary stating that the septic system (holding tank) serving the 57032 231st Lane bathroom facilities is compliant. However, the septic tank serving the old Limestone building located at 57077 231st Lane is non-complaint and will need the tank to be properly abandoned. The MPCA tank abandonment form is required and will need to be submitted prior to Dem Com commencing the use of the demolition landfill. A copy shall be forwarded to Blue Earth County for final review and approval.

There are multiple wells located throughout the landfill site, some of which were installed in the past for mining activities and to monitor the Wetland called Lime 30 calcareous fen. According to the site plans submitted by the applicant there are seven active monitoring wells including six water table wells and one deeper well. Minnesota rules require inactive or unused wells to be sealed or covered under a maintenance permit until they are returned to service. Carlson McCain states that "large or complicated sites may require multiple upgradient and downgradient wells" (Technical Memorandum, Specific Township Concerns 6). The applicant agreed to not only keep the MW-1monitoring well in the northeast corner of the property as the upgradient well, but to also add a second upgradient well in the area between the quarry and the landfill. Coordination with the County and MPCA will be required for the compliance of wells prior to Dem Con commencing the use of the demolition landfill. There are currently three monitoring wells located within the proposed fill area and the applicant will be abandoning one of the wells MW-7. Dem Con has proposed to the MPCA to construct a new well along the southern edge of the property that is outside of the fill area when it becomes necessary, which at that time they will also request to abandon MW-7. The County has recommended a condition, that requires not in-use wells to be properly sealed, wells to be issued annual maintenance permits, or active wells to be put back into use. Any changes to the site will require coordination and approval from both the County and the MPCA. The applicant shall submit a copy of approval from both agencies reflecting its compliance of well use on the proposed site prior to the Dem Com commencing the use of the site.

Routine water testing of the wells on site is a general requirement outlined in Minnesota Rules and may be required by the Minnesota Pollution Contral Agency given the use. For most facilities the MPCA requires a monitoring network to detect potential contaminants before the landfill leaves the facility, however, the township may require additional monitoring for specific concerns, such as sampling vulnerable drinking water, supply wells, nearby surface waters, or stormwater management facilities. If contaminants are detected in the testing of onsite wells, then additional testing off-site may be required. Additionally, the applicant shall submit a groundwater receptor survey as required by the MPCA in the event of a compliance boundary monitoring well exceeding an intervention limit. Dem-Con responded to the request stating they are "proposing to add a liner and leachate collection system to the facility to enhance the environmental and groundwater protection at the landfill facility" (Technical Memo Response Letter). The applicant also agreed to install an additional up-gradient well that will be added to the proposed groundwater monitoring network.

Dem-Con will use best management practices including watering internal dust roads and routine sweeping of paved surfaces to control dust emissions.

During Carlson McCain's review they recognize that landfill gas is generated at a much lower rate than solid waste landfills however, given the acceptance of industrial waste and the incorporation of a synthetic liner and cover system there is a potential for generation and accumulation of landfill gas. It was requested for the applicant to submit a Landfill Gas Control Plan, to which, Dem Con agreed and will submit the item in the MPCA permit application.

A Hydrologic Evaluation of Landfill Performance (HELP) model is a computer program used to estimate water movement across, into, through, and out of landfills. The program will calculate water balance as well as leachate and leakage estimations. Carlson McCain reviewed the submitted HELP model from Dem-Con and had requests for the applicant to amendment their current model. Dem-Con is currently working with the Carslon McCain to update said requests and a final copy shall be submitted to the Board for final review and approval prior to Dem Con commencing the use of the demolition landfill.

Findings

Staff respectfully submits the following findings:

1. The establishment, maintenance, or operation of the conditional use allowing the continuation of a demolition landfill will not be detrimental or endanger the public health, safety, comfort or general welfare.
2. The Conditional Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purpose already permitted, nor substantially diminish and impair property values within the

neighborhood given that the demolition landfill will be a continued use.

3. The establishment of the conditional use permit will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.
4. Adequate utilities, access roads, drainage and necessary facilities have been or will be provided given that the applicant will be utilizing the property in the same manner as previously approved.
5. Adequate measures have been or will be taken to provide ingress or egress so designated as to minimize traffic congestion in the public streets. Access will remain the same off of 231st Lane.
6. The use of the property shall, in all respects other than conditional use, conforms to the applicable regulations of the district in which it is located, because the current use has been previously approved in the Conservation Residential district and will not change based on the proposal.
7. The proposed use does not create a potential pollution hazard. Since the applicant is proposing to modernize the current landfill with a synthetic liner to prevent the continuation of groundwater contamination.
8. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for predominant uses in the area because the use will remain the same.
9. Adequate measures have been or will be taken to prevent or control offensive odor, fumes, dust, noise, and vibration so that none of these will constitute a nuisance, and to control lighted signs and other exterior lights in such a manner that no disturbance to neighboring properties will result. Since the applicant will take best management practices to control dust and litter throughout the surrounding area of the landfill.
10. The Conditional Use conforms to the joint resolution for orderly annexation.
11. Site-specific conditions and such other conditions are established as required for the protection of the public's health, safety, morals, and general welfare.

Attachments

General Location Map

Aerial Map

Site Plan

Project Narrative

Kasota Fire Department

Amended MPCA Application

Industrial Solid Waste Management Plan

Soil Borings and Monitoring Wells

Carlson McCain- Technical Memo

Dem- Con Response Letter

Updated Civil plans

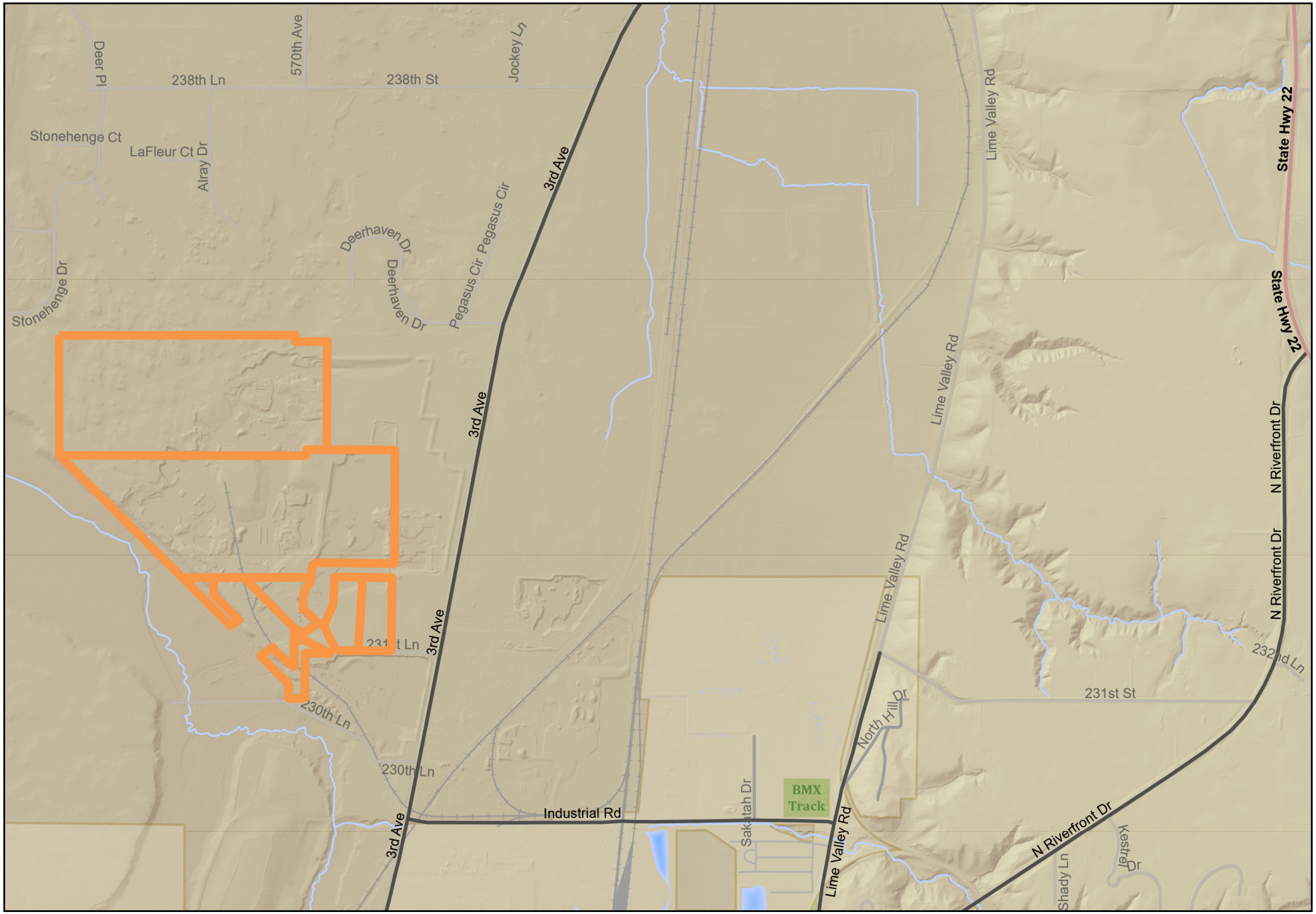
Landfill Gas Control Plan

Stormwater Memo

HELP Model Memo

Blue Earth County Review

General Location Map



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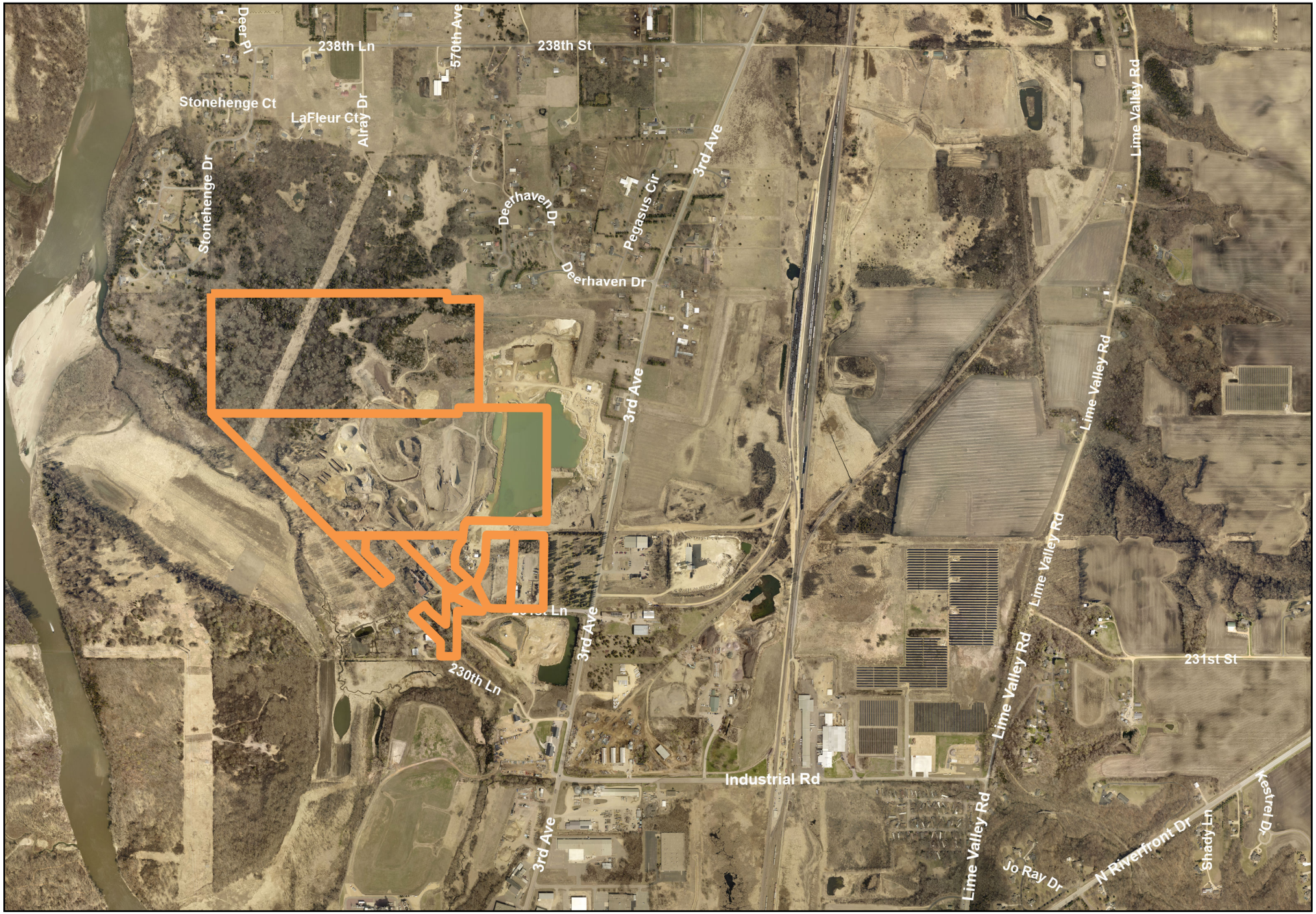
This information is to be used for reference purposes only. The City of Mankato does not guarantee accuracy of the material contained herein and is not responsible for misuse or misinterpretation.

Produced by: City of Mankato GIS
Published: August 13, 2026

Aerial Map



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Produced by: City of Mankato GIS
Published: August 13, 2026

City of Mankato
Leading the way...

N

0 200 400
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING WETLAND AREA
- EXISTING ROAD EDGE
- MW-1 EXISTING MONITORING WELL
- COMPLIANCE BOUNDARY
- INCOMING TRAFFIC FLOW
- OUTGOING TRAFFIC FLOW

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY AND AERIAL FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME ETHAN KETELSEN

SIGNATURE

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

EXISTING CONDITIONS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 1	1

Plot Date & Time: 27 July 2026 2:02 PM

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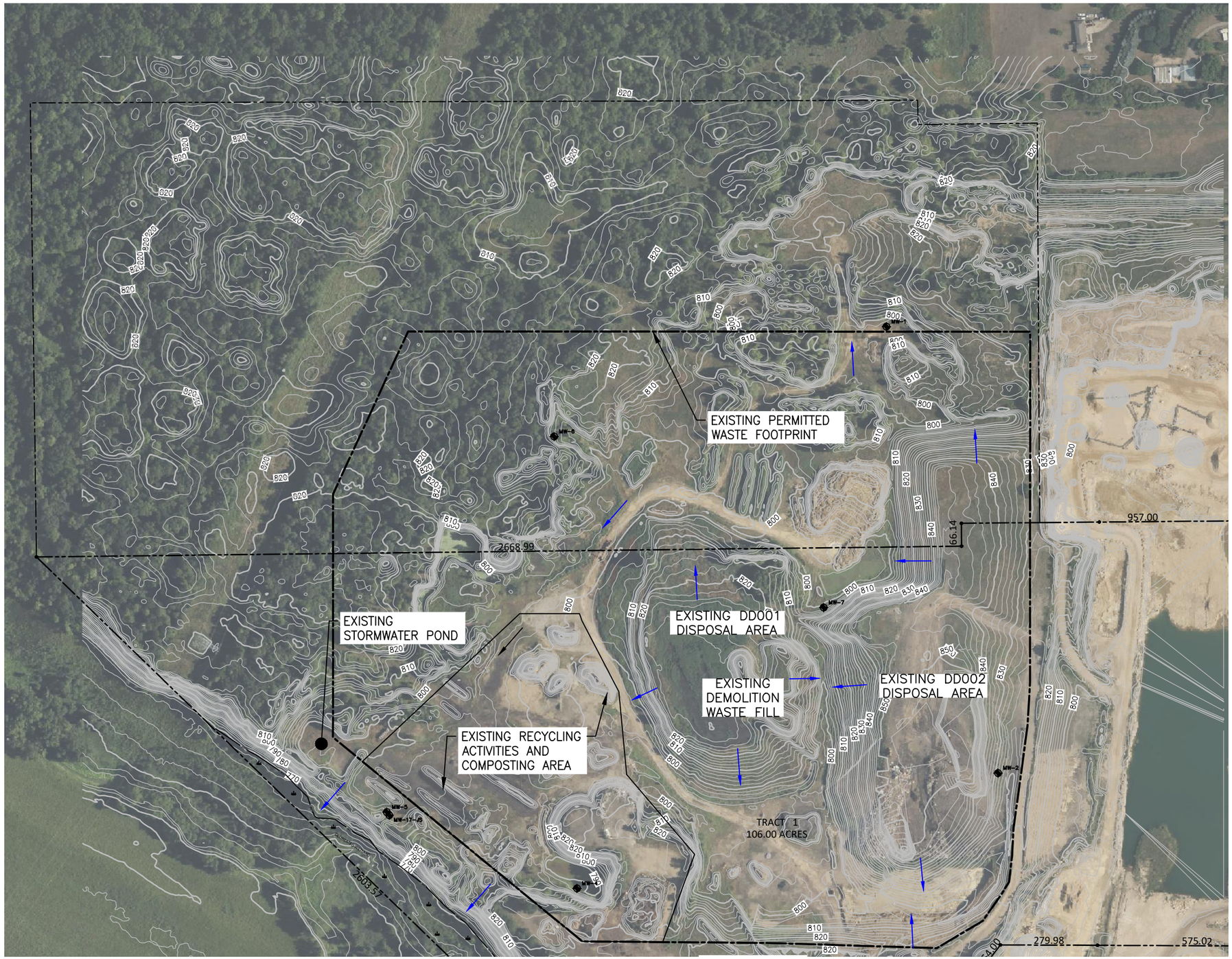
Plot Date & Time: 29 July 2026 2:40 PM



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GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING WETLAND AREA
- EXISTING ROAD EDGE
- MW-1 EXISTING MONITORING WELL
- COMPLIANCE BOUNDARY
- INCOMING TRAFFIC FLOW
- OUTGOING TRAFFIC FLOW
- STORMWATER FLOW DIRECTION

SURVEY NOTES:

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REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE Ethan Ketelsen

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

EXISTING CONDITIONS – NORTH

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 1A	1

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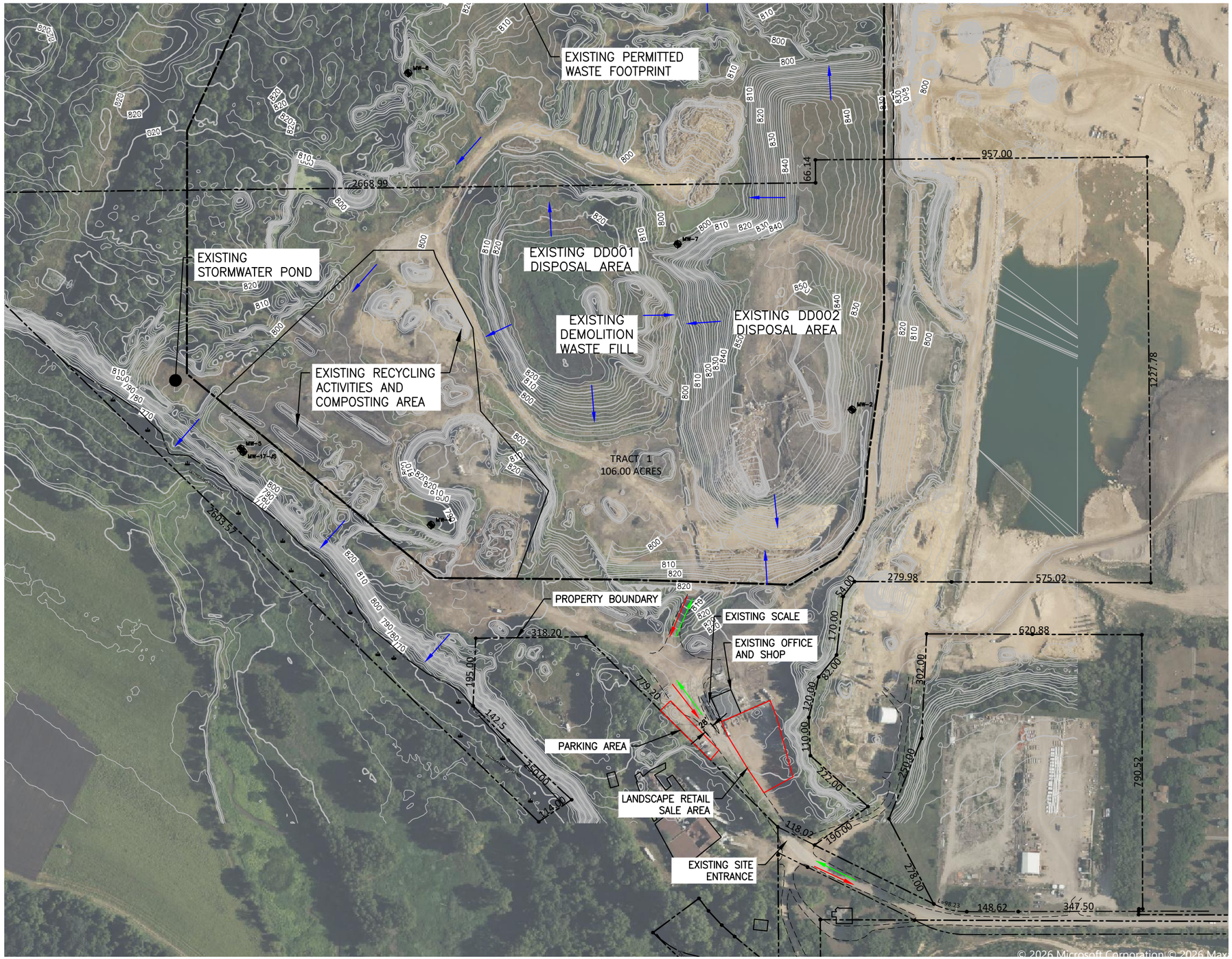
Plot Date & Time: 29 July 2026 3:24 PM



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GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING WETLAND AREA
- EXISTING ROAD EDGE
- EXISTING MONITORING WELL
- COMPLIANCE BOUNDARY
- INCOMING TRAFFIC FLOW
- OUTGOING TRAFFIC FLOW
- STORMWATER FLOW DIRECTION

SURVEY NOTES:

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3. TOPOGRAPHY SURVEY AND AERIAL FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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PRINT NAME ETHAN KETELSEN

SIGNATURE Ethan Ketelsen

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

EXISTING CONDITIONS – SOUTH

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 1B	1

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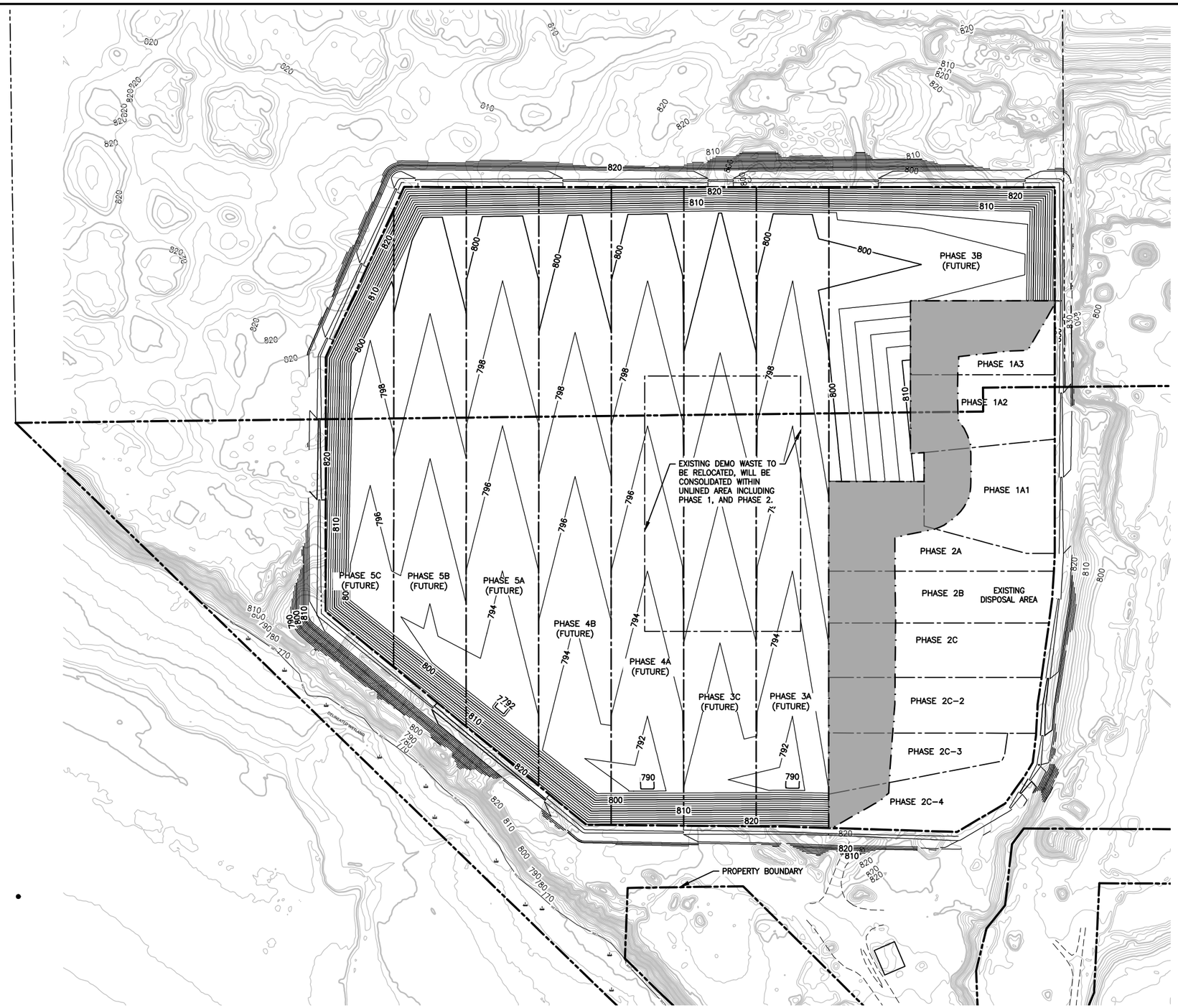
Plot Date & Time: 28 July 2026 3:02 PM



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GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED OVERLINER AREA

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TOP OF HDPE LINER GRADES.
2. BASE GRADES ARE DESIGNED A MINIMUM 5-FEET ABOVE HISTORICAL HIGH GROUNDWATER ELEVATIONS.
3. SEE FIGURE 6A FOR WASTE RELOCATION CROSS SECTIONS.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE Ethan Ketelsen
DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE
CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
BASE GRADING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 2	1

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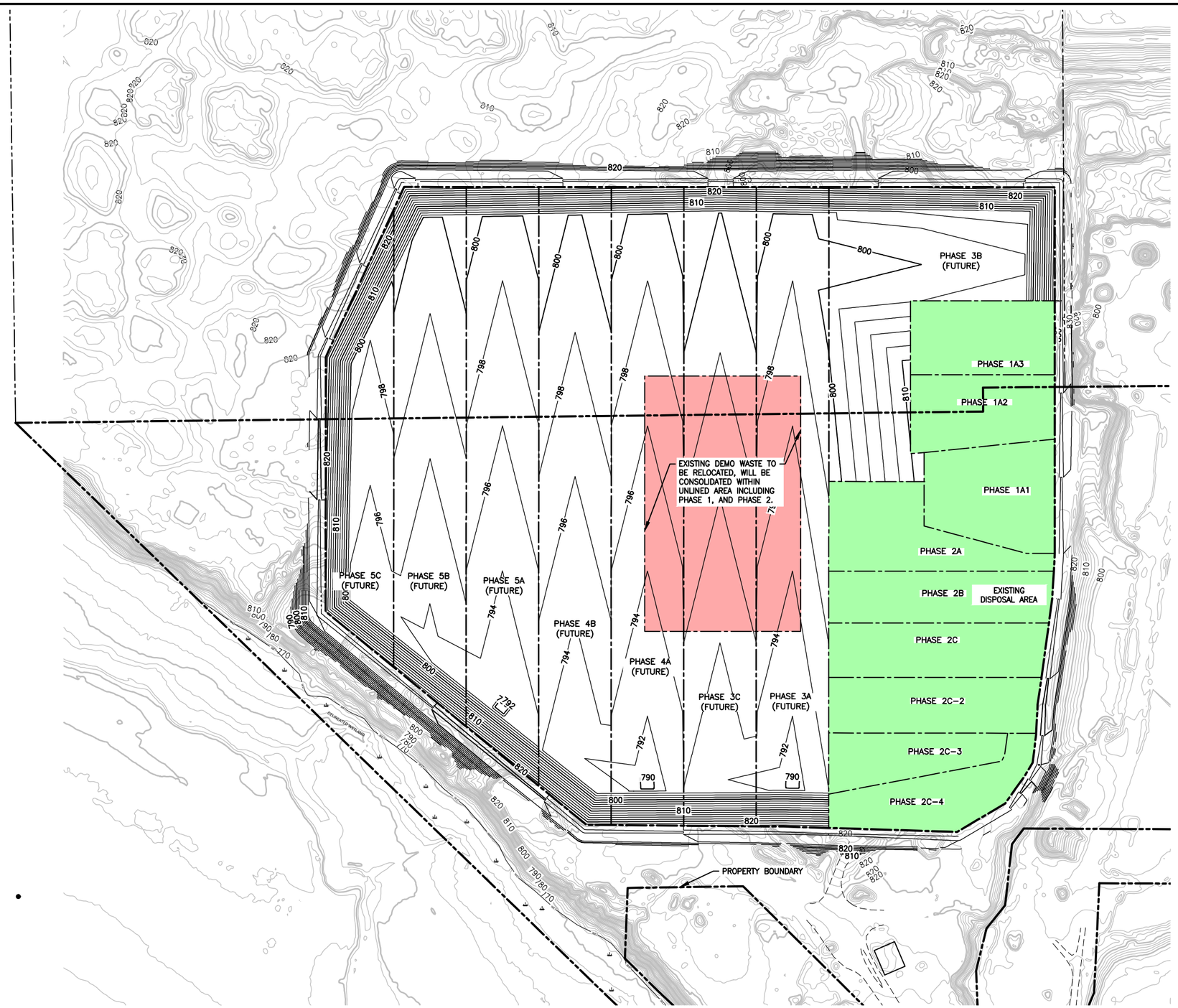

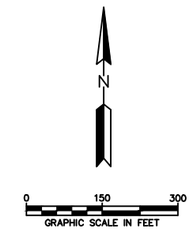

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING DEMOLITION PILE (TO BE RELOCATED)
- EXISTING DISPOSAL AREA (ACTIVE AREA)

SURVEY NOTES:

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3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

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2. BASE GRADES ARE DESIGNED A MINIMUM 5-FEET ABOVE HISTORICAL HIGH GROUNDWATER ELEVATIONS.
3. SEE FIGURE 6A FOR WASTE RELOCATION CROSS SECTIONS.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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PRINT NAME ETHAN KETELSEN

SIGNATURE

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

WASTE RELOCATION AND CAPPING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 2A	1

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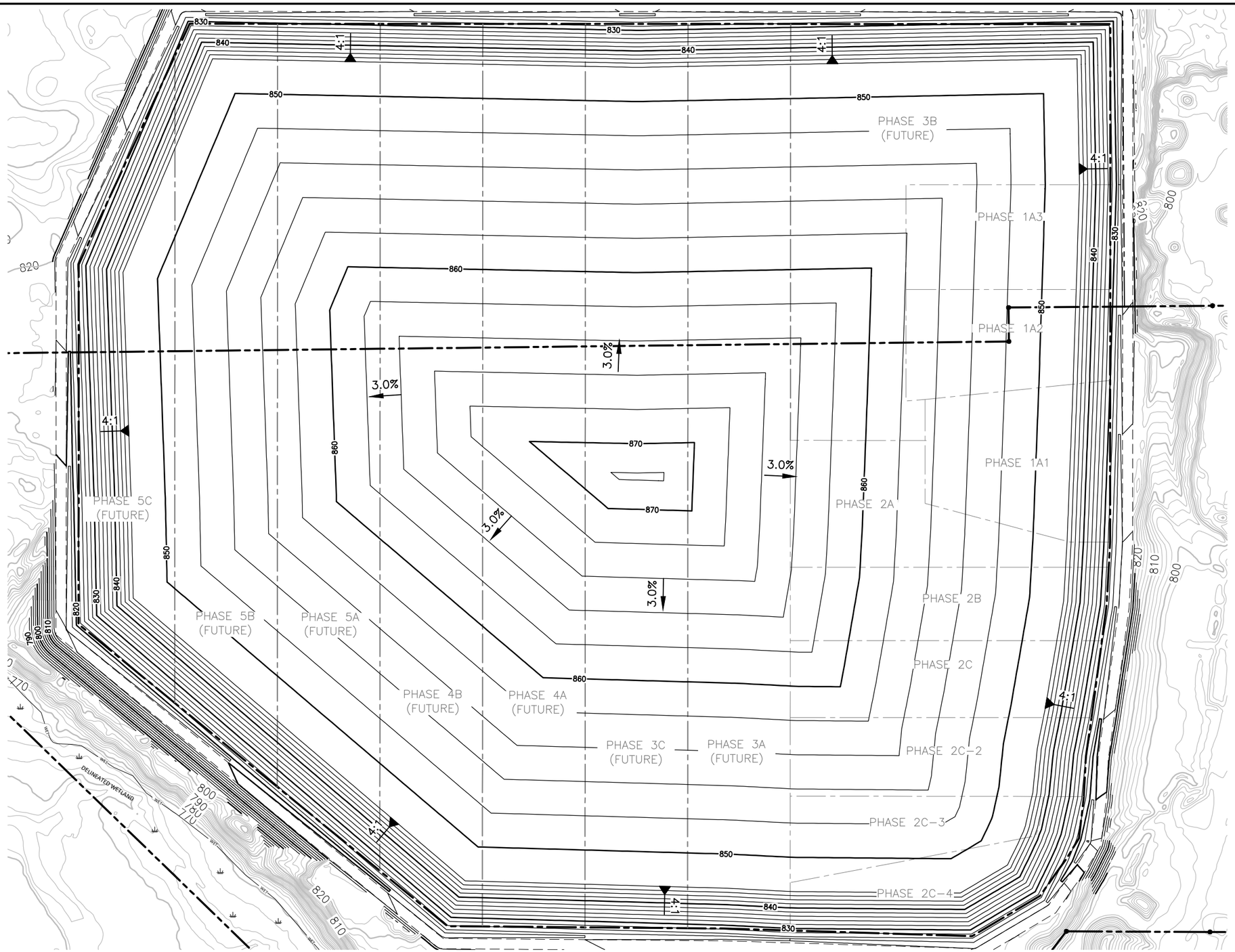

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0 100 200
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

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3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TOP OF FINAL COVER GRADES.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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PRINT NAME ETHAN KETELSEN

SIGNATURE Ethan Ketelsen

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

FINAL COVER GRADING PLAN

DWN BY	CHK'D	APP'D	DWG DATE
JJT	BWS	EDK	JULY 2026
			SCALE AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3	1

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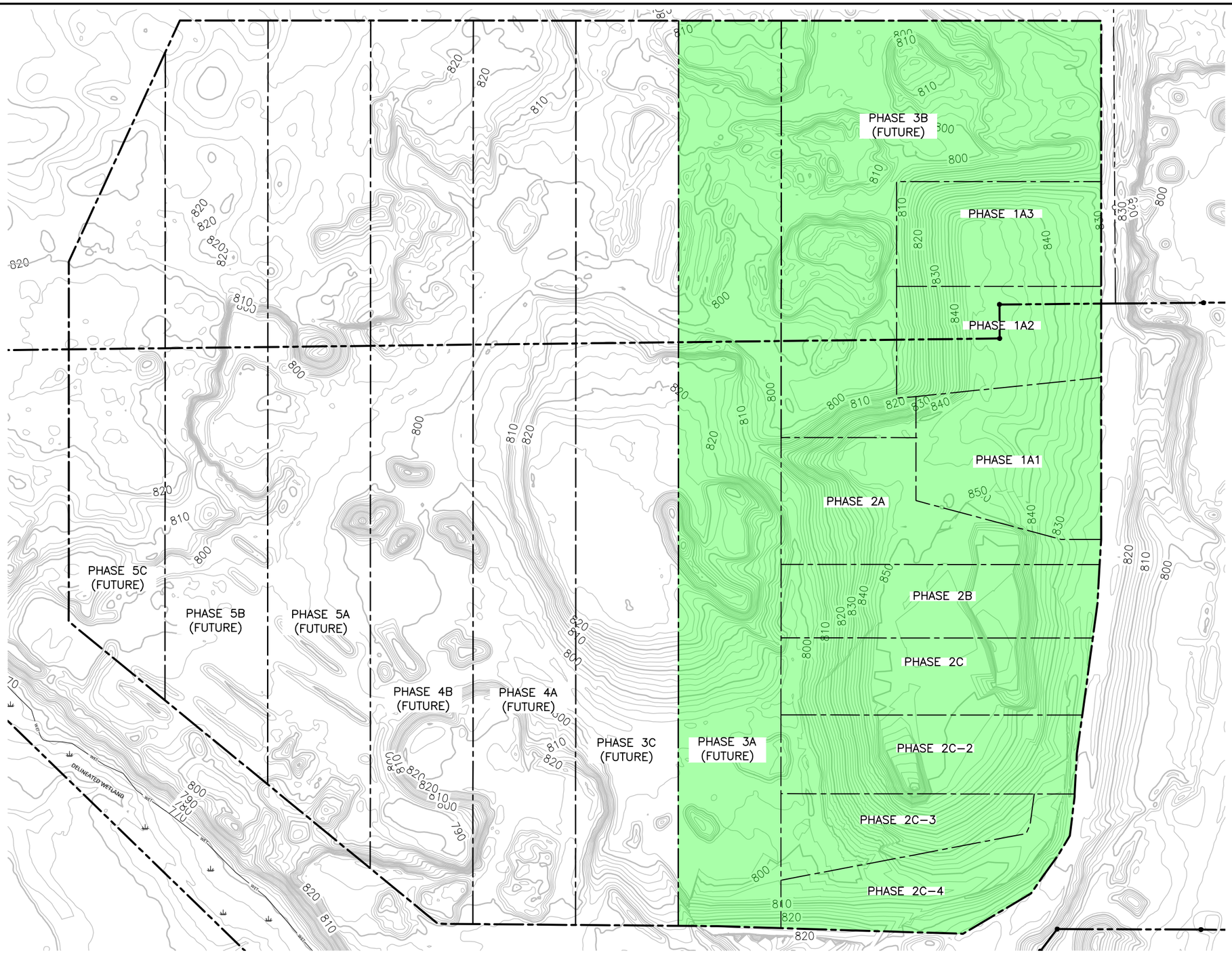

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GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

SURVEY NOTES:

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DATE 07–17–2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3A	1

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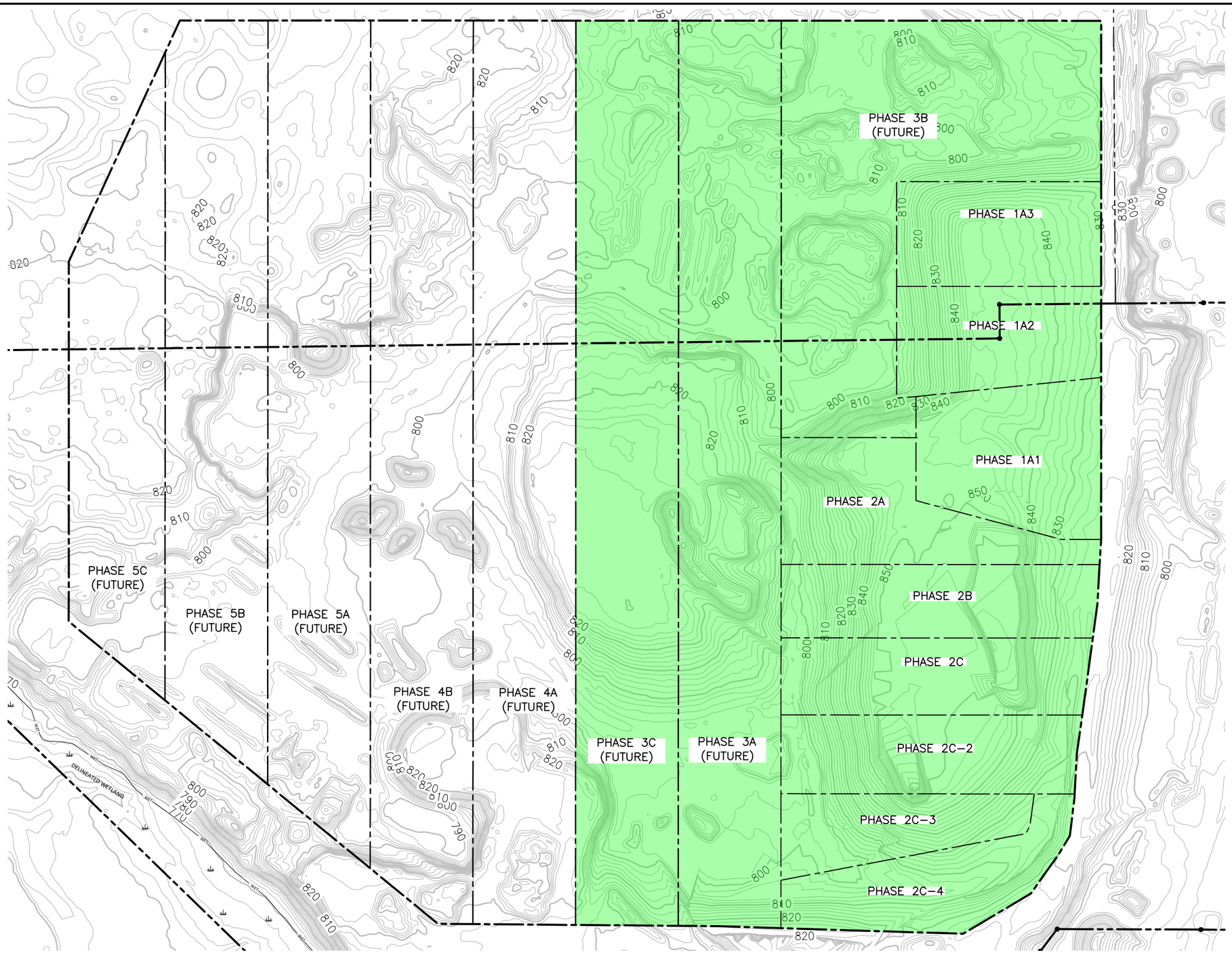
Plot Date & Time: 28 July 2026 11:35 AM



PROPERTY BOUNDARY (SURVEYED)
PROPERTY BOUNDARY (BEACON/GIS)
PERMITTED WASTE LIMITS
EXISTING PHASE BOUNDARY
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING WETLAND AREA
PROPOSED PHASE BOUNDARY
PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR

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NOTES:

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PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

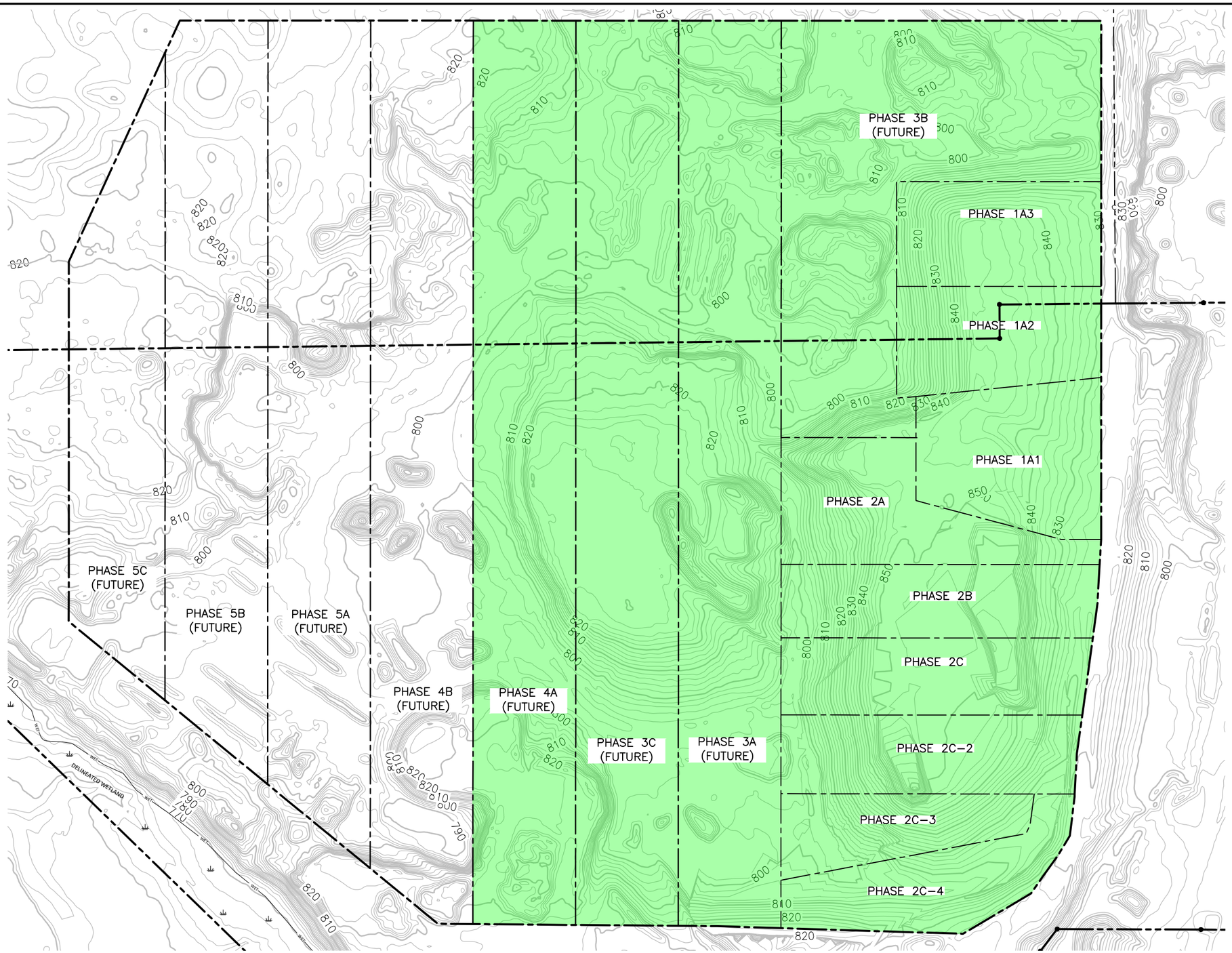
FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3B	1

U:\227708930\drafting\civil\Figures\Figure 3B_Interim Fill Plan to 3C.dwg

Plot Date & Time: 28 July 2026 11:35 AM



N

0 100 200
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TO BE TOP OF WASTE GRADES.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME ETHAN KETELSEN

SIGNATURE Ethan Ketelsen

DATE 07–17–2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3C	1

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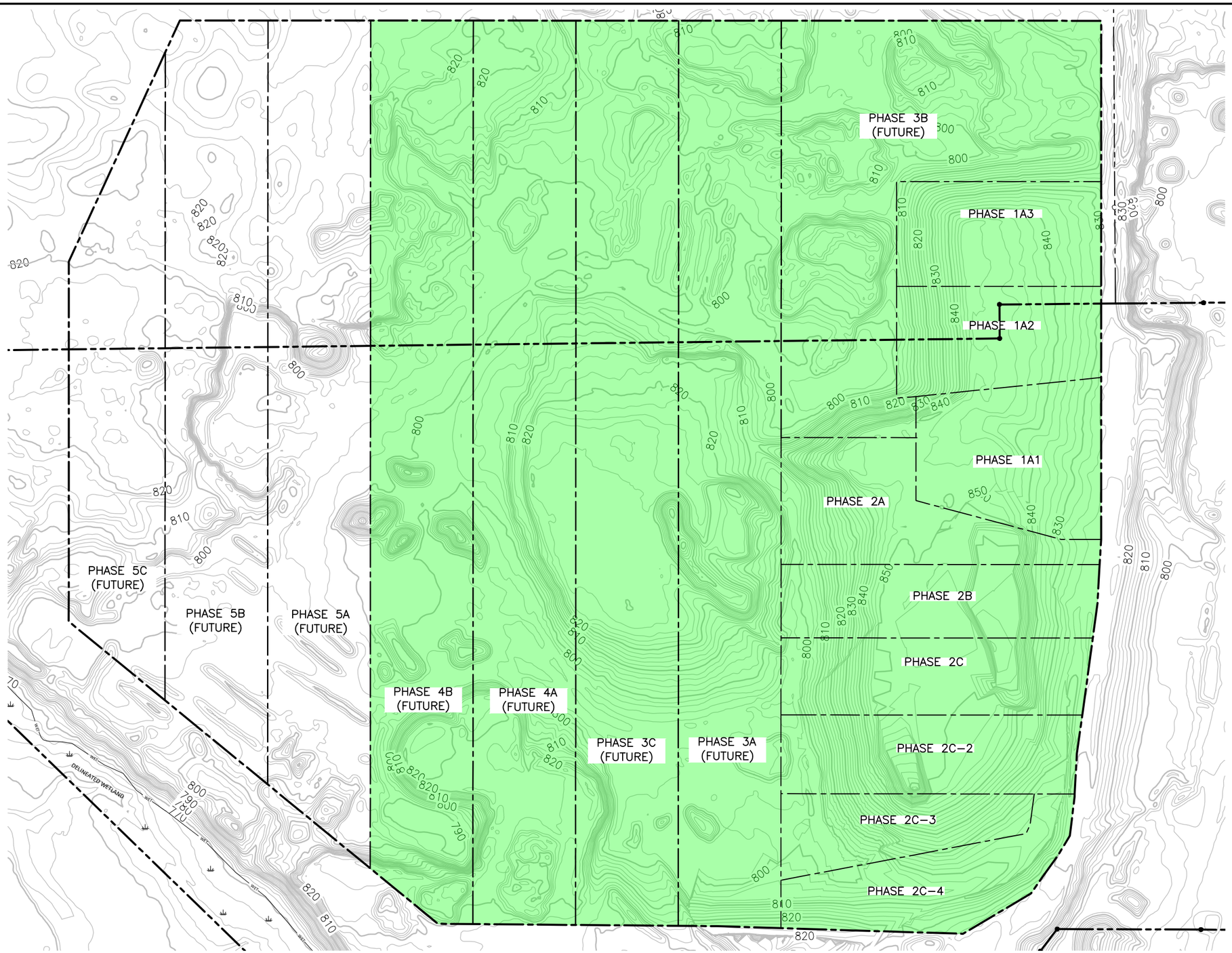
Plot Date & Time: 28 July 2026 11:37 AM



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0 100 200
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

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REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE Ethan Ketelsen

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PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3D	1

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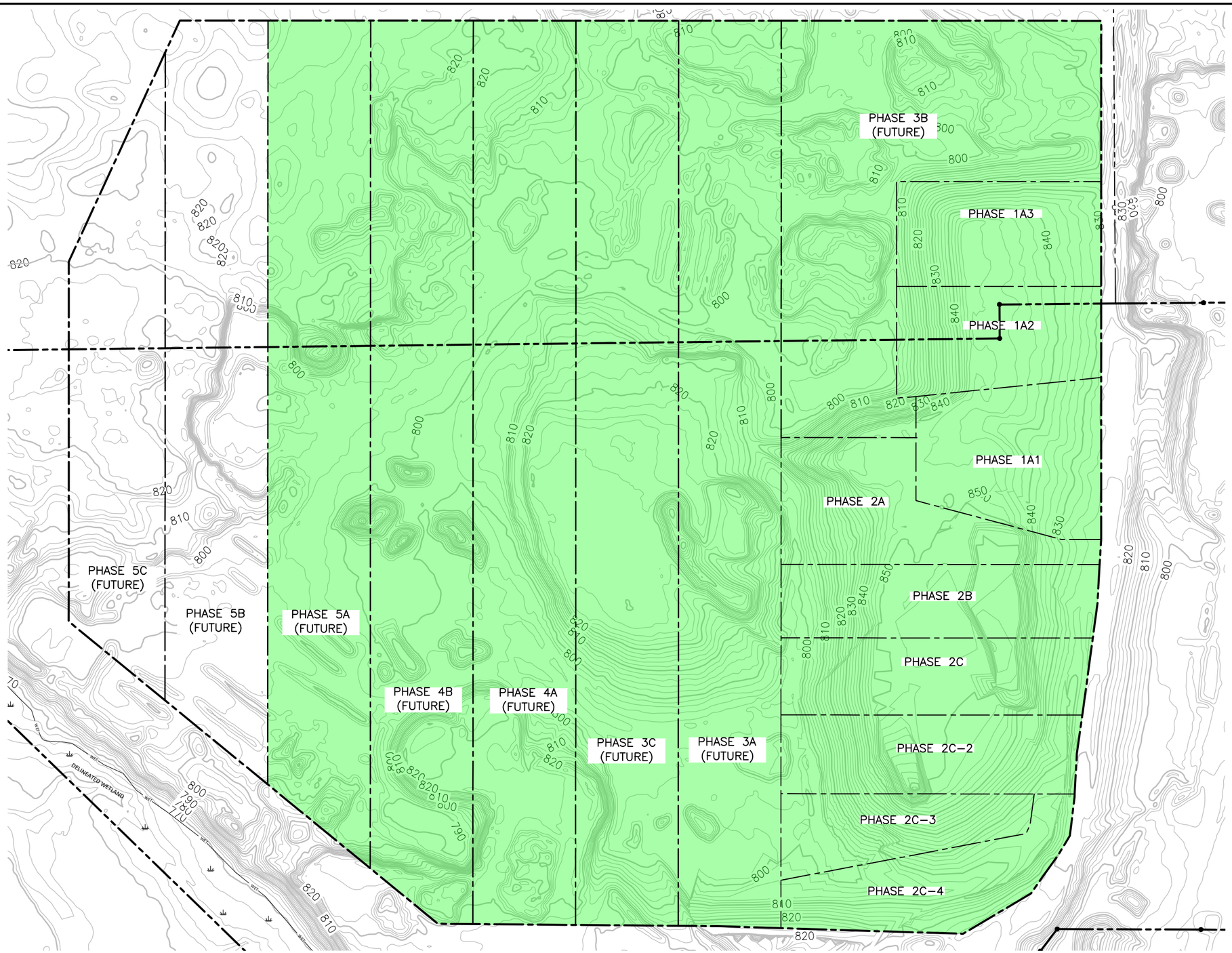
Plot Date & Time: 28 July 2026 11:38 AM



N

0 100 200
GRAPHIC SCALE IN FEET

PROPERTY BOUNDARY (SURVEYED)
PROPERTY BOUNDARY (BEACON/GIS)
PERMITTED WASTE LIMITS
EXISTING PHASE BOUNDARY
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING WETLAND AREA
PROPOSED PHASE BOUNDARY
PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

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REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE Ethan Ketelsen

DATE 07–17–2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

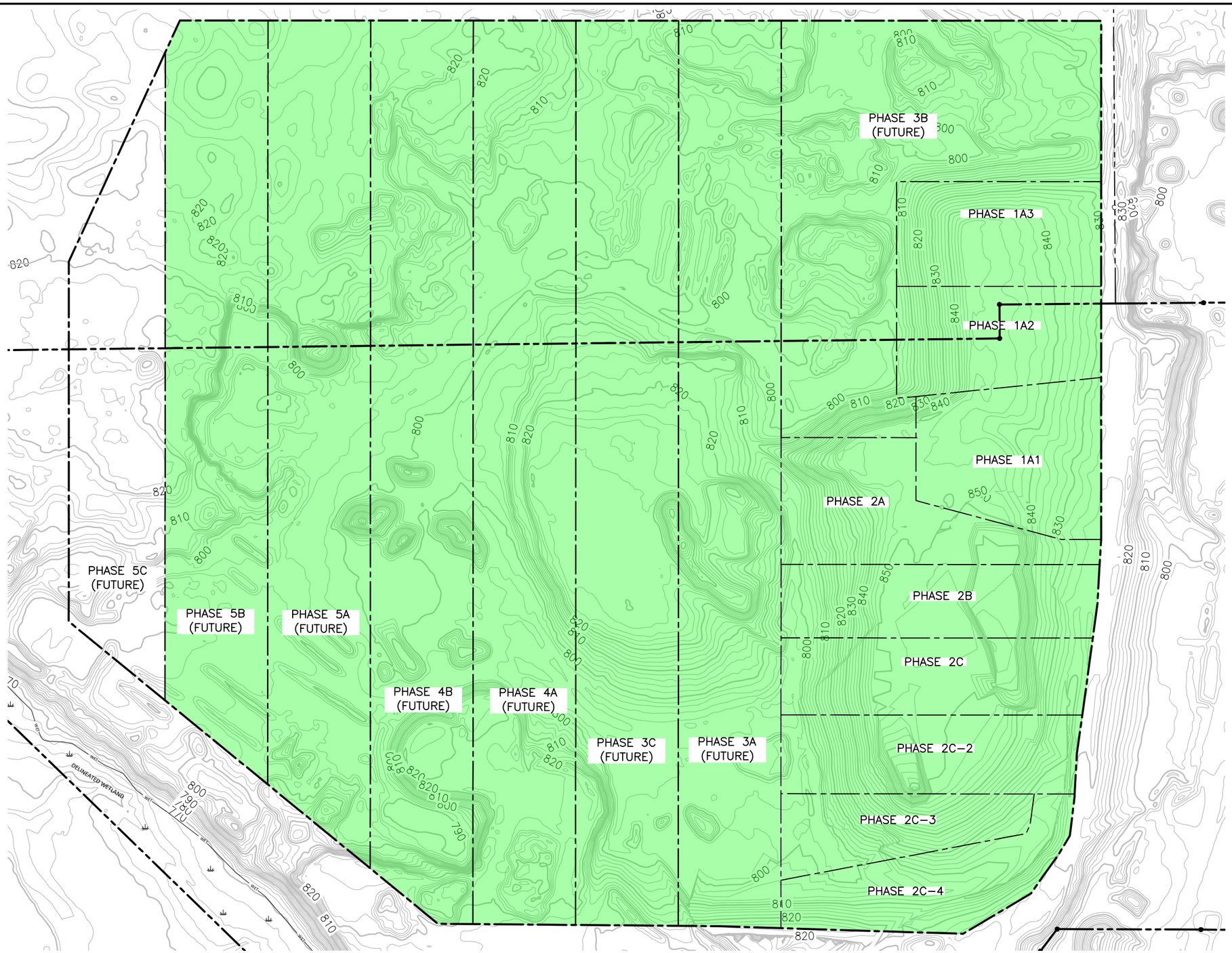
FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3E	1

I:\227708930\drafting\cad\Figures\Figure 3E_Interim Fill Plan to 5A.dwg

Plot Date & Time: 28 July 2026 11:39 AM



N

0 100 200
GRAPHIC SCALE IN FEET

PROPERTY BOUNDARY (SURVEYED)
PROPERTY BOUNDARY (BEACON/GIS)
PERMITTED WASTE LIMITS
EXISTING PHASE BOUNDARY
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING WETLAND AREA
PROPOSED PHASE BOUNDARY
PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TO BE TOP OF WASTE GRADES.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
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0	ISSUED FOR CUP	JJT	EDK	07/17/26

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PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

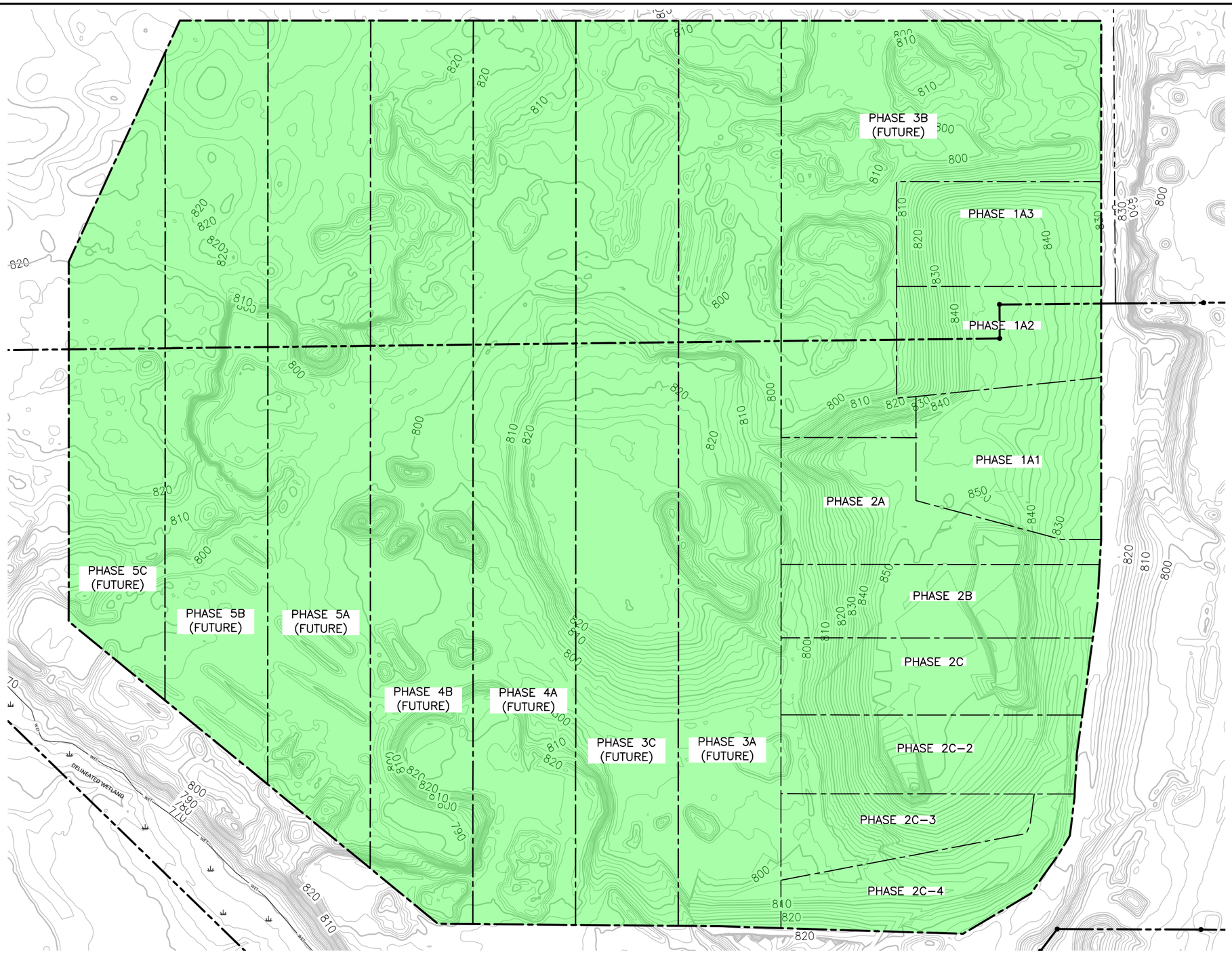
FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3F	1

I:\227708930\drafting\cad\Figures\Figure 3F_Interim Fill Plan to 58.dwg

Plot Date & Time: 28 July 2026 11:39 AM



N

0 100 200
GRAPHIC SCALE IN FEET

PROPERTY BOUNDARY (SURVEYED)
PROPERTY BOUNDARY (BEACON/GIS)
PERMITTED WASTE LIMITS
EXISTING PHASE BOUNDARY
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING WETLAND AREA
PROPOSED PHASE BOUNDARY
PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TO BE TOP OF WASTE GRADES.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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Stantec

PROJECT TITLE

CUP FIGURES

DEM–CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

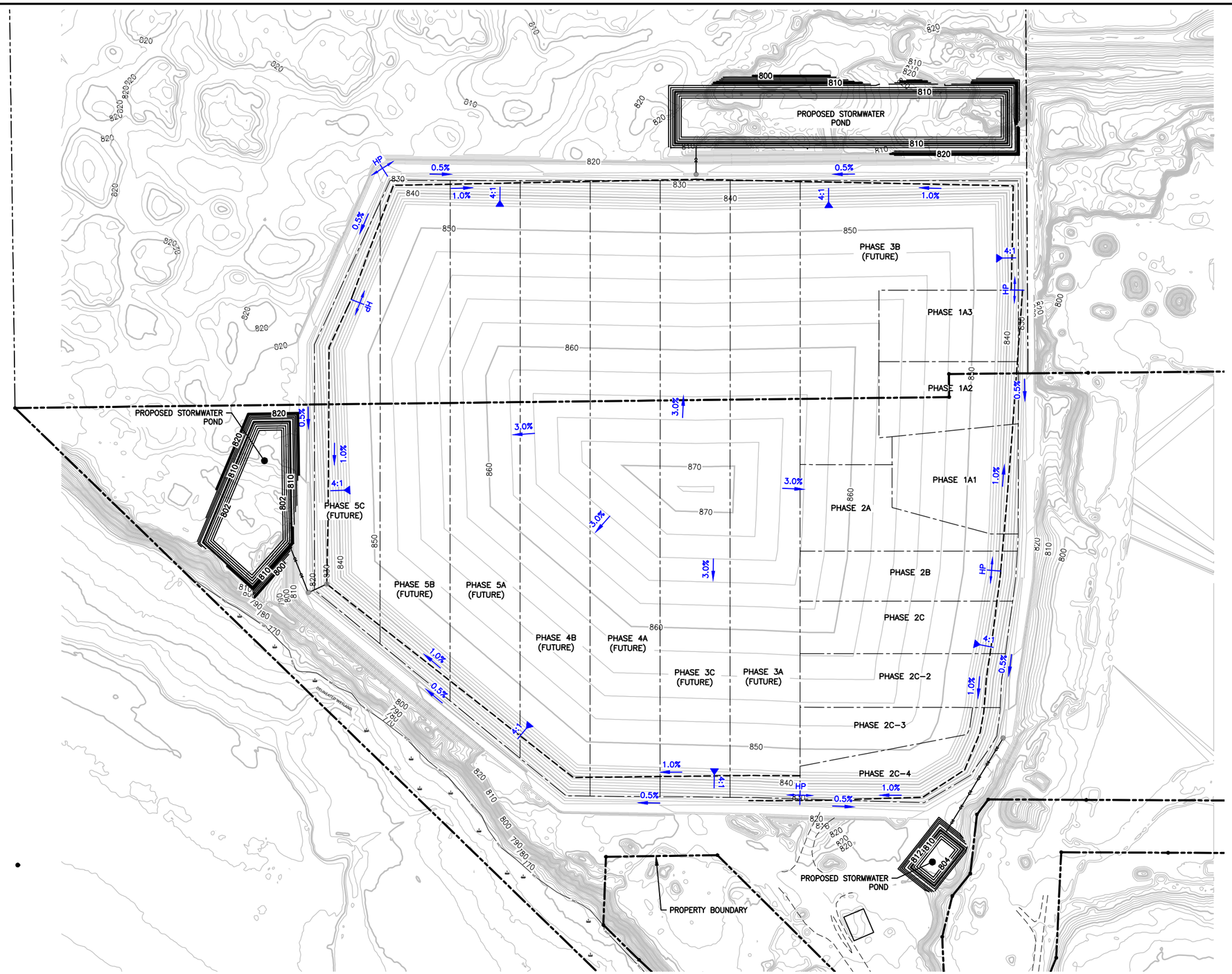
FUTURE FILL PHASING PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 3G	1

I:\227708930\drafting\cad\Figures\Figure 3G_Interim Fill Plan to 5C.dwg

Plot Date & Time: 29 July 2026 1:06 PM



0 150 300
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING PHASE BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING WETLAND AREA
- PROPOSED PHASE BOUNDARY
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED STORMWATER SWALE
- PROPOSED STORMWATER PIPE
- PROPOSED STORMWATER INLET

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
3. TOPOGRAPHY SURVEY FROM 2023 LIDAR DATA, UPDATED VIA GROUND SURVEY BY BOLTON AND MENK IN DECEMBER 2025.

NOTES:

1. PROPOSED GRADES SHOWN ARE TOP OF FINAL COVER GRADES.
2. PROPOSED STORMWATER POND GRADING IS INTENDED TO SHOW STORAGE, FINAL POND GRADING MAY VARY AT TIME OF CONSTRUCTION.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

SURFACE WATER MANAGEMENT PLAN

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 4	1

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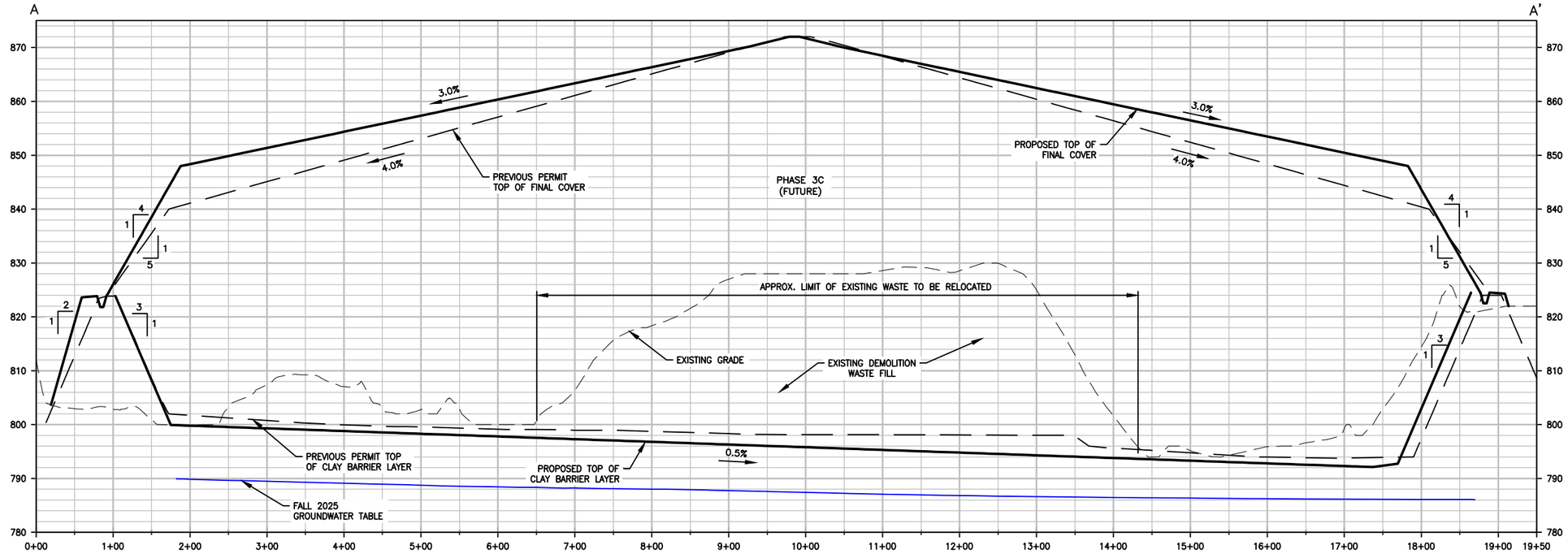

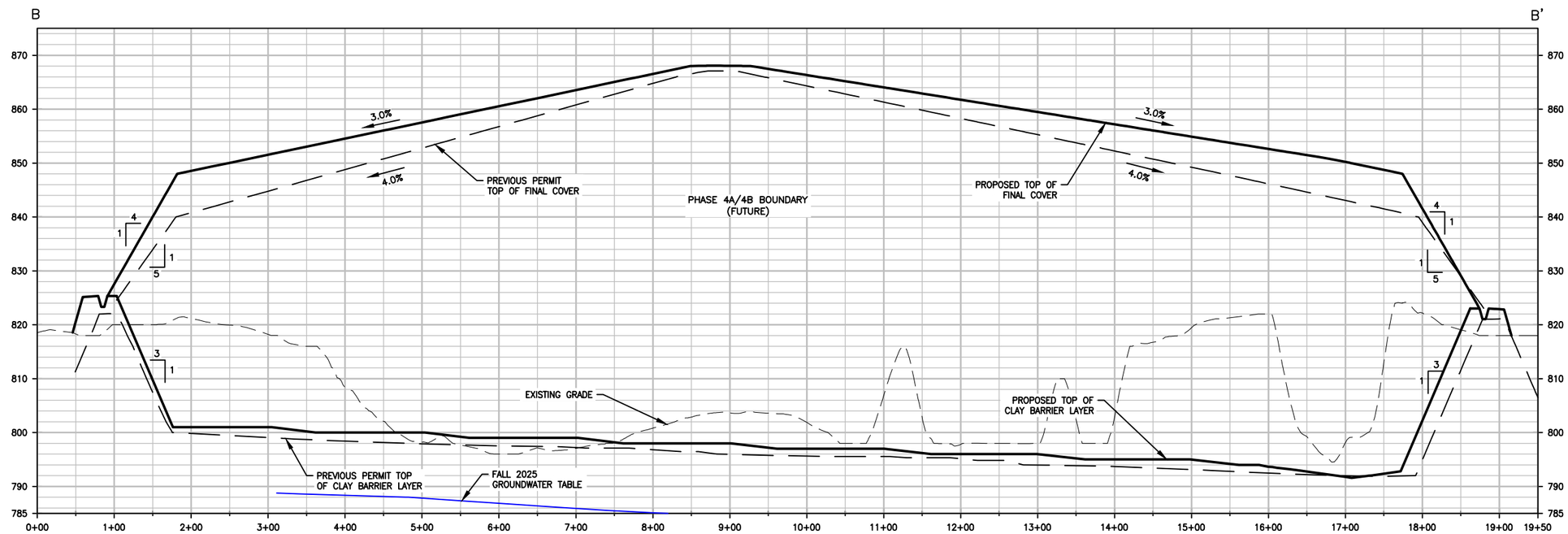

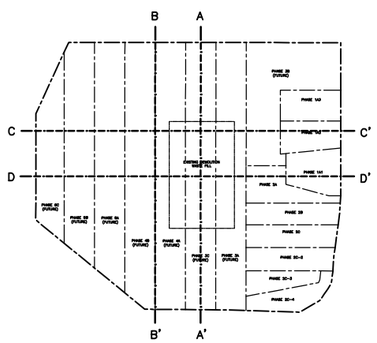

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0 500 1000
GRAPHIC SCALE IN FEET

NOTES:

SEE FIGURE 11 FOR FALL 2025 GROUNDWATER CONTOUR MAP.

0 80 160
GRAPHIC SCALE IN FEET

VERTICAL EXAGGERATION: 7.0X

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

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PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

CROSS SECTIONS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 5	1

Plot Date & Time: 29 July 2026 1:23 PM

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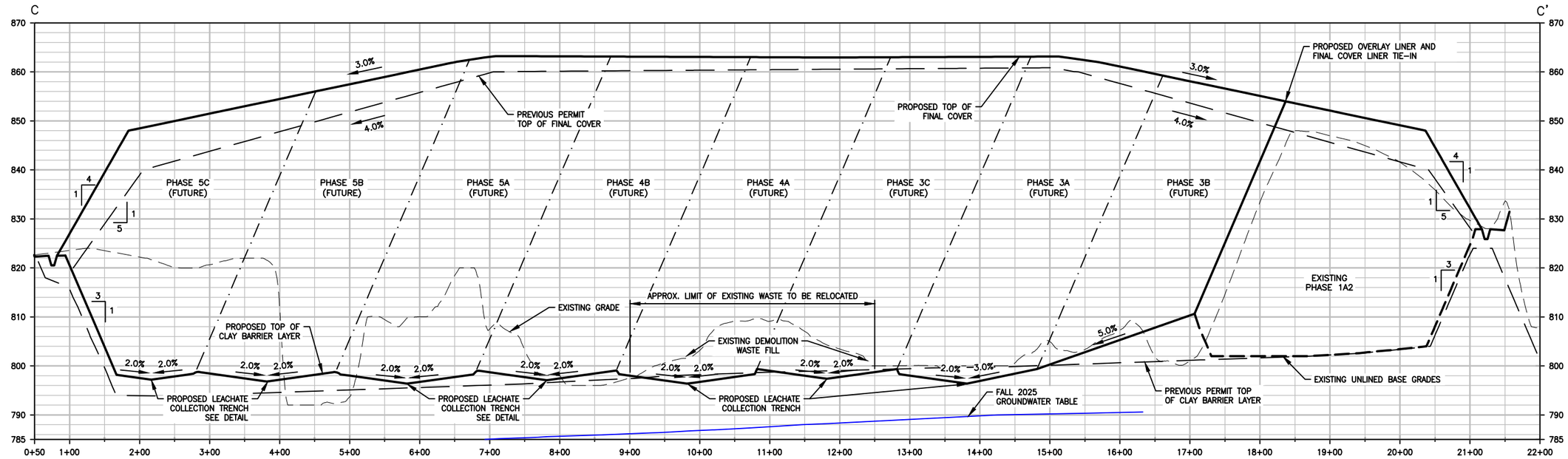

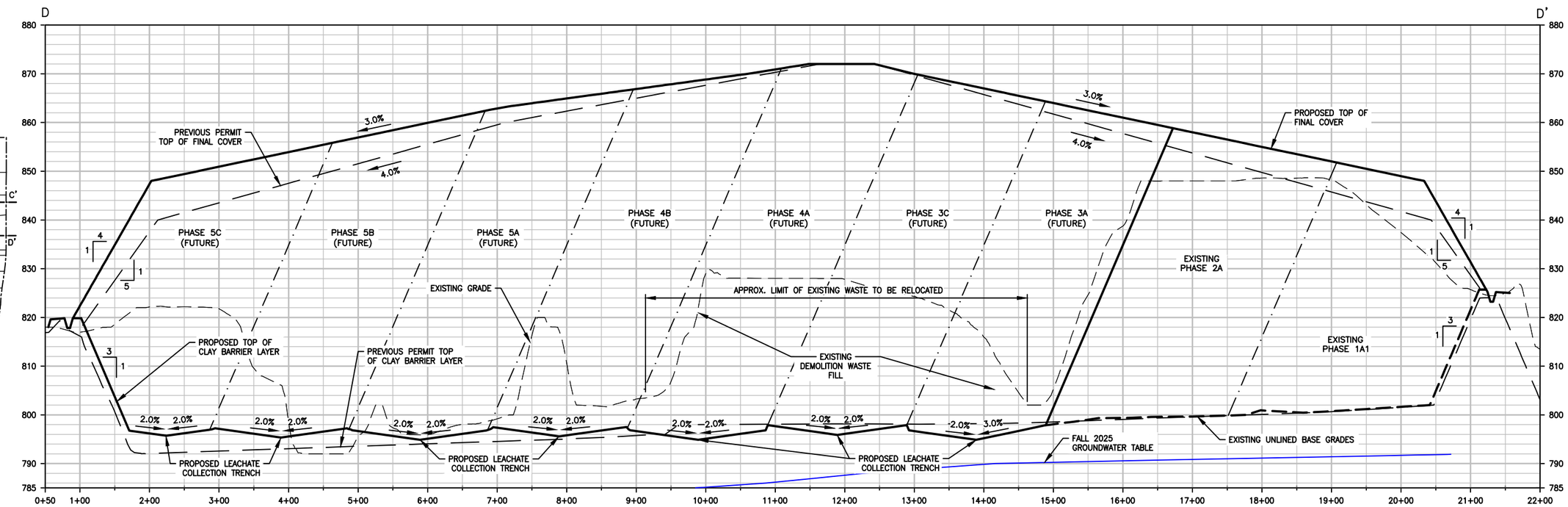

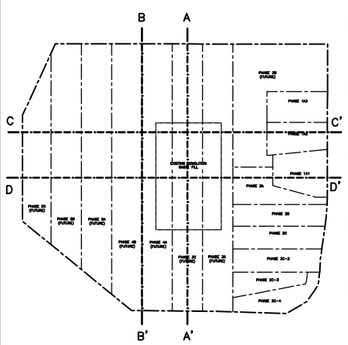

0 500 1000
GRAPHIC SCALE IN FEET

N

NOTES:

SEE FIGURE 11 FOR FALL 2025 GROUNDWATER CONTOUR MAP.

0 80 160
GRAPHIC SCALE IN FEET

VERTICAL EXAGGERATION: 7.0X

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE Ethan Ketelsen

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

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PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

CROSS SECTIONS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 6	1

Plot Date & Time: 29 July 2026 1:23 PM

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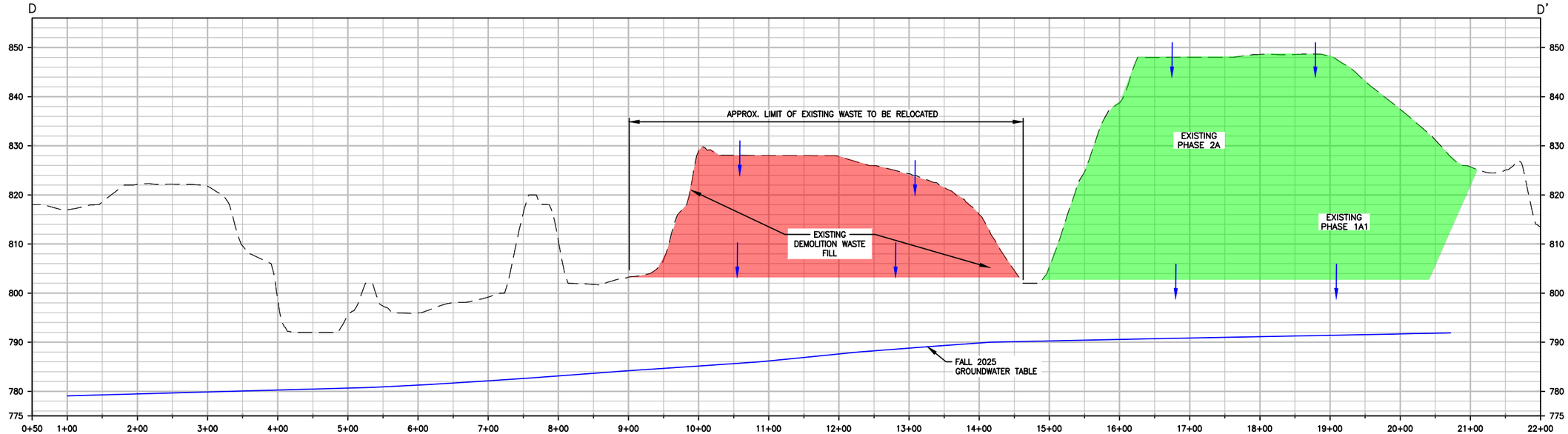

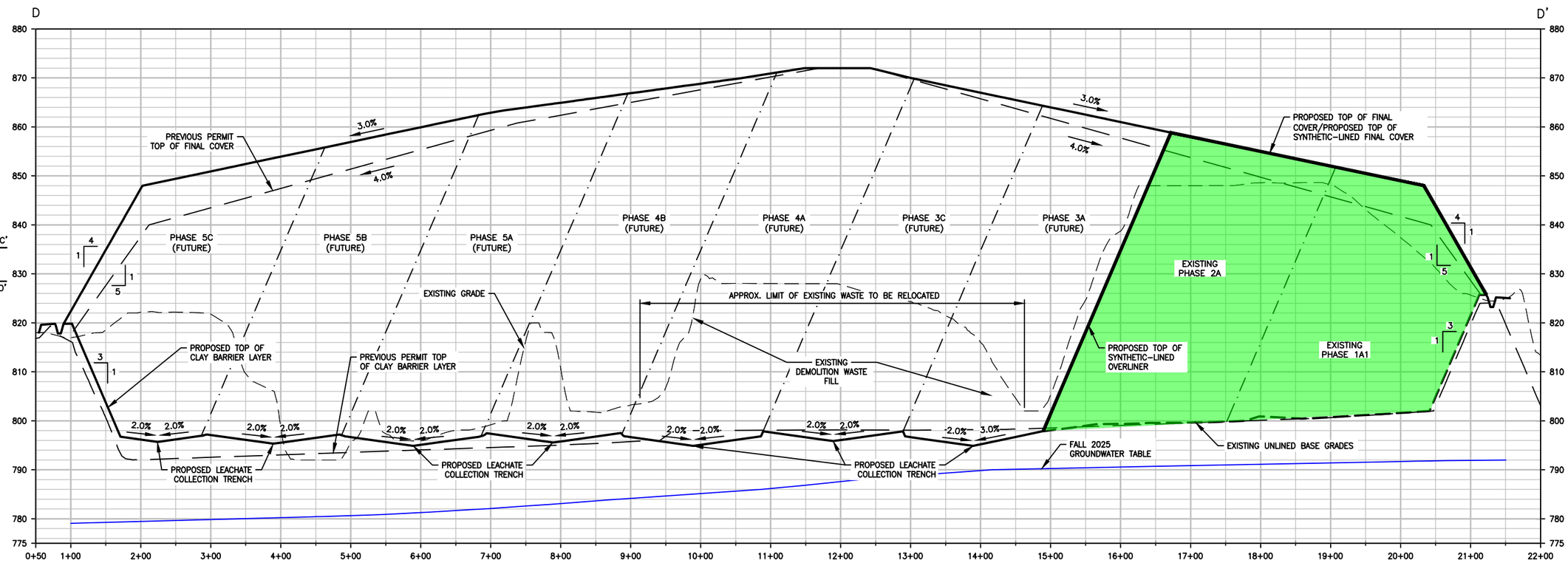

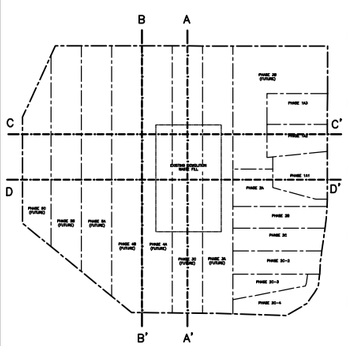

0 500 1000
GRAPHIC SCALE IN FEET

N

NOTES:

SEE FIGURE 11 FOR FALL 2025 GROUNDWATER CONTOUR MAP.

0 80 160
GRAPHIC SCALE IN FEET

VERTICAL EXAGGERATION: 7.0X

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

SEAL

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SIGNATURE

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

WASTE RELOCATION CROSS SECTIONS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 6A	1

Plot Date & Time: 29 July 2026 1:23 PM

U:\227708930\drafting\cad\Figures\Figure 5_Cross Sections.dwg

N

0 200 400
GRAPHIC SCALE IN FEET

- PROPERTY BOUNDARY (SURVEYED)
- PROPERTY BOUNDARY (BEACON/GIS)
- PERMITTED WASTE LIMITS
- EXISTING WETLAND AREA
- EXISTING ROAD EDGE
- MW-1 EXISTING MONITORING WELL
- COMPLIANCE BOUNDARY

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET,
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
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REV	REVISION DESCRIPTION	DWN	APP	REV DATE
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0	ISSUED FOR CUP	JJT	EDK	07/17/26

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SIGNATURE

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

PROPOSED RECYCLING AREAS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 7	1

Plot Date & Time: 28 July 2026 1:37 PM

I:\227708930\drafting\cad\Figures\Figure 7_Proposed Recycling Areas.dwg

Plot Date & Time: 28 July 2026 2:07 PM

N

0 40 80
GRAPHIC SCALE IN FEET

PROPERTY BOUNDARY (SURVEYED)
PERMITTED WASTE LIMITS
EXISTING ROAD EDGE
MW-1 EXISTING MONITORING WELL

SURVEY NOTES:

1. HORIZONTAL DATUM IS BLUE EARTH COUNTY NORTH AMERICAN DATUM NAD83(2011), US SURVEY FEET.
2. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 88 (NAVD88). CONTOUR INTERVAL IS TWO FEET.
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0	ISSUED FOR CUP	JJT	EDK	07/17/26

SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME ETHAN KETELSEN
SIGNATURE
DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE
CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
ELECTRONICS, APPLIANCES, BATTERIES, AND TIRE RECYCLING AREA

DWN BY	CHK'D	APP'D	DWG DATE
JJT	BWS	EDK	JULY 2026
			SCALE AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 8	1

U:\227708930\drafting\cad\Figures\Figure 8_Proposed Electronic Area.dwg

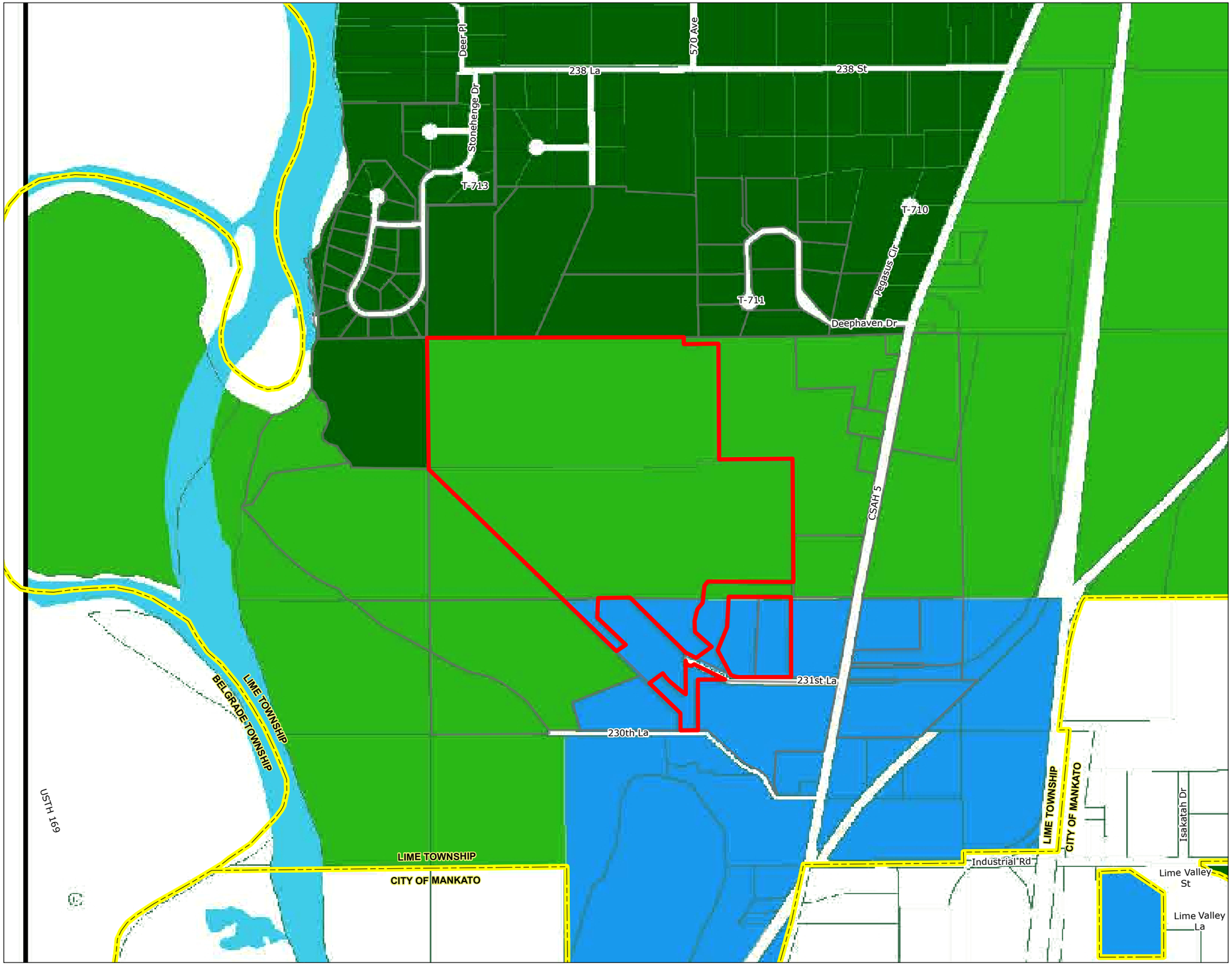


Figure No.
9

Title
Zoning

Client/Project 227708930
Dem-Con Pilgrim Landfill, LLC

Project Location
T109N, R26W, S30 & S31
Mankato, Blue Earth Co., MN

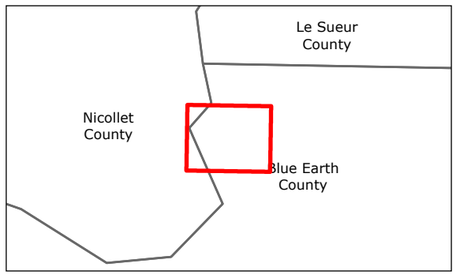
Prepared by BS on 2026-07-13

N

0 350 700 Feet
(At original document size of 11x17)
1:12,000

Legend
- Property Boundary
- Township Boundary
- Parcel Boundary

Lime Township 2026 Zoning
- Rural Conservation
- Rural Conservation Residential
- Industry
- Waterbody



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Blue Earth Feet
2. Data Sources: MnGEO, Blue Earth County, Lime Township
3. Background: Minnesota 2025 Imagery

Stantec

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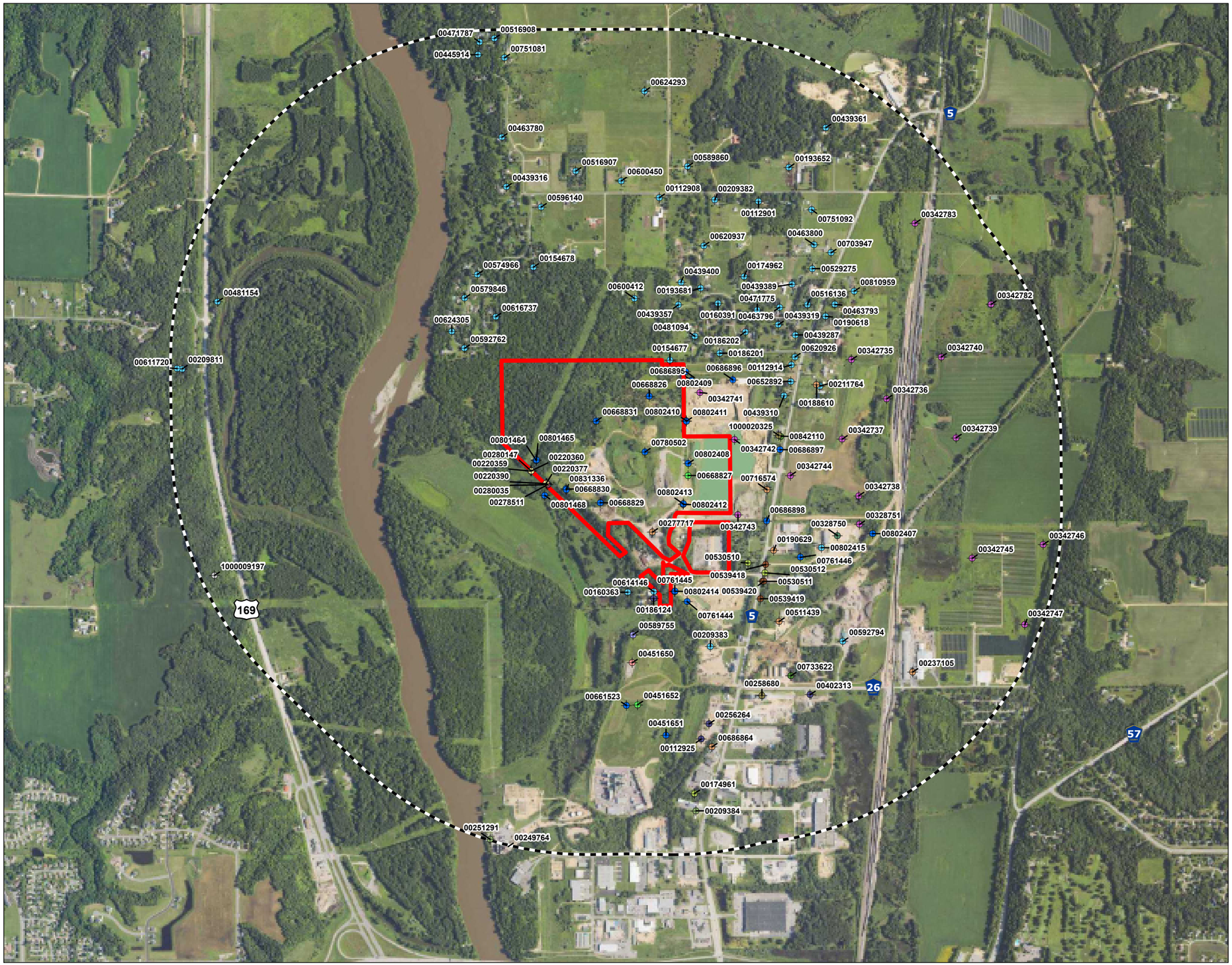


Figure No.

10

Title

Wells Within 1 Mile

Client/Project 227708930

Dem-Con Pilgrim Landfill, LLC

Project Location

T109N, R26W, S30 & S31
Mankato, Blue Earth Co., MN

Prepared by BS on 2026-07-13

N

0 1,000 2,000 Feet

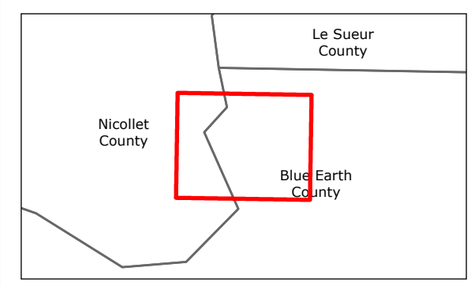
(At original document size of 11x17)
1:19,200

Legend

- Property Boundary
- 1 Mile Radius

Wells Within 1 Mile

- Unknown
- Abandoned, Sealed
- Commercial, Active
- Domestic, Active
- Domestic, Sealed
- Environmental Bore Hole, Sealed
- Exploration, Sealed
- Industrial, Active
- Monitoring Well, Active
- Monitoring Well, Sealed
- Monitoring Well, Unknown
- Observation Well, Actve
- Other, Sealed
- Public Supply/Community, Active
- Public Supply/Non-Community/Non-Transient, Active
- Public Supply/Non-Community/Non-Transient, Sealed
- Piezometer, Active
- Piezometer, Sealed
- Test Well, Active



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Blue Earth Feet
2. Data Sources: MnGEO, CWI
3. Background: Minnesota 2025 Imagery

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Figure No.
11

Title
Fall Groundwater Contours
October 30, 2025

Client/Project 227708564
Minnesota Paving & Materials
Annual Report

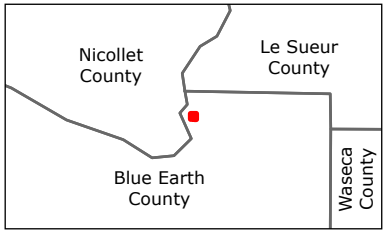
Project Location Prepared by BS on 2026-02-12
T109N, R26W, S30
Mankato, Blue Earth Co., MN

N

0 200 400 Feet
(At original document size of 8.5x11)
1:4,200

Legend

- Permitted Demolition Waste Fill Limit
- Monitoring Well Location
- Groundwater Elevation Contour (Dashed Where Inferred)



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Blue Earth Feet
2. Data Sources: MnGEO, MnDNR
3. Background: Minnesota 2023 Imagery

Stantec

U:\227\227708564\03_data\gis_cad\gis\ArcPro\annualreport_2026\annualreport_2026.aprx Revised: 2026-02-12 By: bschafermeyer

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Lime Township Conditional Use Permit (CUP) Narrative

Dem-Con Pilgrim Landfill, LLC (Dem-Con) is requesting to amend the CUP for the existing demolition landfill facility (Facility) located in Lime Township. The Facility is currently owned by OMG Midwest who has entered into agreements with Dem-Con to purchase the Facility. The CUP amendment to be described in more detail throughout this document includes an increase in capacity of the Facility to accommodate a modern landfill design consisting of a synthetic liner, leachate collection system, and synthetic cap which will enhance the protection of the groundwater and the environment at the Facility. In addition, the Facility will have an expanded list of materials accepted for recycling and disposal. The facility currently does not accept and Dem-Con is not proposing to accept Municipal Solid Waste(MSW).The CUP amendment does not propose any increase of the landfill area or landfill maximum height from historically approved plans. Finally, the proposed changes to acceptable materials will provide more disposal and recycling options for local residents and businesses.

Intro to Dem-Con:

Dem-Con is a third-generation Minnesota family-owned business that has been providing waste disposal, recycling, education, and processing solutions for Minnesota since 1965. Mark Pahl and Jason Haus are the third generation actively engaged owners of Dem-Con. Dem-Con's main operations started in the Shakopee area and has grown throughout Minnesota. The center of Dem-Con operations, also known as the Dem-Con Environmental Campus, consists of disposal, processing and recycling operations located in Shakopee, Minnesota. The Shakopee operations consist of a Construction and Demolition (C&D) recycling facility, aMunicipal Solid Waste (MSW) transfer facility, shingle recycling facility, wood recycling facility, metals scrap and recycling yard, the Dem-Con Materials Recovery Facility (DCMRF) which processes curb side commercial and residential recyclables. In addition, Dem-Con recently started construction of an anaerobic digestion facility for the processing of food waste and other organics into renewable natural gas and biochar. Dem-Con also operates disposal and recycling facilities in northern and western Minnesota as well as transfer stations and metal recycling facilities in the Twin-Cities metro area. Dem-Con's leading core value of "Do the Right Thing" guides all decisions and business strategies. Dem-Con is proud of its 100% family-owned Minnesota history and is looking forward to the opportunity to utilize this operational experience to enhance the environmental protections at the existing Pilgrims Landfill site while expanding on waste processing and recycling for the local community.

Facility Background and Existing Conditions:

The Facility is an existing demolition debris landfill. The historic land use of the Facility consists of mining and solid waste activities. Blue Earth County approved a CUP for a rubber tire secondary materials reclamation facility to Mankato Aglime and Rock Company in 1981. In 1982, a CUP was issued for a demolition debris landfill on the property. In addition to the CUP, the Facility was permitted by the Minnesota Pollution Control Agency (MPCA), permit #SW-254, for use as a demolition landfill by the Brielmaier Corporation. The Brielmaier Corporation operated the Facility for 10 years and voluntarily discontinued filling operations in 1993.

In 2004, Lime Township reissued the CUP to Southern Minnesota Construction for the operation of the demolition landfill. In addition to the CUP, the MPCA reissued permit SW-254 for the landfill with a waste capacity of 5,561,700 cubic yards.

The Facility has continuously operated since 2004. The operations on the site consist of the demolition landfill, yard and tree waste composting, wood recycling, concrete and asphalt recycling and sales of landscape supplies. The customer base utilizing the Facility includes both residential and commercial customers. The Facility has a contract with the City of Mankato for composting yard and tree waste.

A site plan showing existing operations on Figure 1. The site is accessed off 3rd Avenue via a private drive to the site. Figure 1 shows existing traffic patterns to enter and exit the site. Other notable features at the site include the scale, employee parking, office and maintenance buildings serviced by well and septic system. Dem-Con is not proposing any changes to existing structures. Access to the site is controlled by a locked entrance gate.

General Operations Description:

The facility currently serves residents and businesses in Blue Earth and surrounding counties and Dem-Con plans to continue to service the same customer base with the facility being open to the general public. The population of the service area of the facility is approximately 350,000 residents.

The wastes proposed to be accepted at the Facility include general construction and demolition debris as well as industrial waste. Examples of industrial wastes include but are not limited to manufacturing scrap, recycling residue, off-spec products, contaminated soils, foundry sands, and others. Dem-Con has submitted an Industrial Waste Management Plan (ISWMP) as part of the MPCA permit application. The ISWMP lists and limits potential wastes to be accepted at the Facility as well as the criteria for acceptance. The ISWMP is attached to this application. The facility will not accept or generate toxic or hazardous wastes.

The waste needs to be covered as required by the MPCA permit. The cover soils consist of on-site materials as well as clean fill imported into the site. There are adequate cover soils currently on site. During winter months, frost will be ripped to access cover soils.

A variety of equipment will be utilized at the site. At a minimum, the equipment onsite will include a landfill compactor, dozer, water truck, skid and front end loader. Additional equipment will be brought onto the site during construction activities.

The primary contacts for initial operation and maintenance at the site will be Mark Pahl and Bill Keegan for at least the first year of Dem-Con's ownership of the site. A scalehouse attendant and operator(s) will also be available at the site. It is anticipated that a facility manager will be assigned to the site for daily questions or concerns. The MPCA requires that a certified operator be present when waste is accepted. Dem-Con employees at the site will receive the MPCA training for landfill operator certification. In addition Dem-Con has monthly safety training for each employee.

Operational Schedule and Facility Charges:

The Facility daily operations for waste acceptance will occur between 6am and 7pm Monday thru Friday and 7am-5pm on Saturday. Extended hours may be needed for special projects or emergency purposes. The Facility will charge fees by the cubic yard or by the ton. Tip fees will vary depending on waste type and volume and will range from $6.00-$50.00 per cubic yard and $10-$100 per ton.

Noise and Dust:

Noise sources from the Facility operations will be associated with vehicle traffic arriving and exiting the Facility, emptying loads, and heavy equipment associated with placing, compacting, and covering of waste. Nuisance noise from Facility operations is expected to be minimal and there are no new sources of noise associated with changes from this application.

Dust can be generated at the site from vehicle entering, unloading and exiting the Facility as well as from heavy equipment operation at the site. Dem-Con will use best management practices including watering roads and routine sweeping of paved surfaces to control fugitive dust emissions.

Odor:

The Facility only accepts C&D and Industrial Waste and odors from landfill activities are expected to be negligible. The composting operations at the site can cause odors if not managed properly. Dem-Con plans to continue implementing best management practices for odor control of the composting operations through timing pile rotation on calm days and managing moisture content of the composting activities. Dem-Con is not aware of any historic odor issues at the site related to composting or other Facility activities.

Litter Control:

Dem-Con will utilize best management practices such as berms, waste placement strategy, and litter fences to control litter blowing off of the landfill footprint. Since the

facility will not be accepting MSW, Dem-Con does not anticipate nuisance litter. In the unlikely event of litter blowing off of the site or out of vehicles entering and exiting the site, Dem-Con will inspect 231st street and County 5 at least weekly and cleanup any litter caused from operations at the site at least monthly.

Filling Progression:

The landfill will be developed in phases as shown in Figures 2. The general phasing of the site will progress from the east to west over time and is depicted on Figures 3-3G.

Ultimate Land Use Plan:

The final elevations of the site are shown on Figure 3. The ultimate land use for any areas where waste has been placed is open space due to the installation of the final cover system. The facility will be mowed and maintained on an annual basis and provide habitat for local wildlife.

Groundwater Monitoring and Protection: The site is currently unlined with upgradient and downgradient monitoring wells. The wells are tested routinely for groundwater quality. Dem-Con is proposing to install a liner with the collection of "leachate"– the precipitation that is collected from the liner under the waste, as well as a synthetic final cap of the landfill significantly enhancing protection of the groundwater and the environment. See Figure 2 shows the proposed liner grades that facilitate the leachate collection, and Figure 3 shows the proposed final grades. Details of the relocation and capping of existing waste as well as synthetic cap are described in more detail in this document. Routine groundwater monitoring will continue at the site. A Hydrogeologic investigation was completed in 2002 with the current CUP was issued. A copy of this report is attached to this application.

Proposed Modifications:

In addition to this CUP application, Dem-Con has applied to the MPCA for the renewal of the existing solid waste permit. At the time of this application, the MPCA is reviewing the permit application and drafting a renewed permit for public review and comment. There are two changes to the existing CUP and operations causing the request for this CUP amendment. The first is related to an increase in capacity resulting from enhanced environmental controls and the second is related to additional materials accepted for recycling and disposal. Each of these are explained in detail in the following text and related plans.

Facility Design and Environmental Protection:

Dem-Con is proposing to enhance the design of the landfill to include a liner and leachate collection system as well as a synthetic final cap over the entire waste disposal area. The base liner system (see Figure 2 for liner grades) includes a Geosynthetic Clay Liner (GCL) overlain by a 60-mil high density polyethylene (HDPE) geomembrane. Collection pipes and drainage sand are placed on top of the liner to collect the landfill leachate. Once construction is completed and before waste is accepted, leak location detection is performed to ensure the liner system was not damaged during construction.

In addition to the enhanced landfill design, Dem-Con is proposing to relocate the existing waste deposited from 1982-1993 and consolidate it with the existing waste placed at the site from 2004 to current and install a synthetic cap over the top of the relocated waste. The top cross-section in Figure 6A shows existing conditions with unlined and uncapped waste highlighted in red and green. The bottom cross section in Figure 6A shows the reclaimed condition where the existing waste is consolidated into the area in green and the bold line represented the geomembrane barrier preventing future rainwater from percolating thru the waste. The relocation of this waste will eliminate the migration of precipitation through this waste into the groundwater in this location and the synthetic cap over the relocated waste will prevent future infiltration of rainwater through this waste into the groundwater table. Rainwater will be directed down the slope of the landfill to diversion berms and perimeter ditches, where it will be routed to one of three proposed ponds as shown on Figure 4.

Capacity Increase:

The design of the liner and leachate collection system required different base liner grades compared to the previous design. In addition, Dem-Con revised the final grades to accommodate the relocated waste and synthetic cap. These two changes in the design of the Facility resulted in an increase of landfill capacity from 5,561,670 cubic yards to 6,397,436 cubic yards. It is important to note that the increased capacity of the landfill did not increase the maximum height or waste footprint from what was previously proposed. Figures 5 and 6 show cross sections of the proposed Facility design. In addition to the complete plans and specifications included in the MPCA permit application, the following table summarized the changes to landfill design.

Landfill Feature	Current (2004 MPCA permit)	Proposed Application
Area	75-acre waste footprint	75-acre waste footprint
Height	872' max height	872’ max height
Capacity	5,561,670 cubic yard capacity	6,397,436 cubic yard capacity
Base layer	4-foot soil base layer	synthetic liner system
Leak Detection	no liner or leak detection	construction leak detection
Leachate Management	no leachate collection	leachate collection
Final Cover	2' soil cover	synthetic cap in addition to 2' soil cover

Dem-Con anticipates the relocation of the existing waste and associated enhanced cover installation to be completed within the first three years of final approval of the new Facility permits. This capping and covering of the unlined waste at the Facility will provide long-term protection of the local groundwater and serve as a screening berm for the ongoing landfill operations. Figure 2 highlights the currently unlined area that will be capped and covered with this enhanced system.

Acceptable materials:

The MPCA permit application requires the permittee to list all materials proposed to be accepted at the Facility for disposal or recycling. The enhanced design of the Facility allows additional wastes to be accepted at the Facility. The wastes proposed to be accepted at the Facility include general construction and demolition debris as well as industrial waste. Examples of industrial wastes include but are not limited to manufacturing scrap, recycling residue, off-spec products, contaminated soils, foundry sands, and others. Dem-Con has submitted an Industrial Waste Management Plan (ISWMP) as part of the MPCA permit application. The ISWMP lists and limits potential wastes to be accepted at the Facility as well as the criteria for acceptance. The ISWMP is attached to this application.

In addition to wastes accepted at the Facility, Dem-Con is proposing to store, process and transfer recyclable materials. Existing recycling activities at the site include wood recycling, concrete and asphalt recycling and yard waste composting. Dem-Con will continue the existing recycling activities and add additional recyclable materials that will be accepted such as appliances, tires, clean cardboard, electronics and batteries, which will be stored at the site for transport to a licensed recycler off-site. Dem-Con is not proposing to process any of these additional materials at the Facility. In addition, Dem-Con is proposing to accept shingles for recycling which would be stockpiled on-site and ground to size for reincorporation into hot mix asphalt or mixed with gravel for dust suppression on gravel roads. See Figures 7 and 8 for proposed recycling activity locations. The table below summarizes the changes to the materials accepted at the Facility:

Material Description	**Current (2004 CUP)**	**Proposed**
C&D Debris	Limited list in CUP	Additional list in ISWMP to include construction packaging, treated lumber, empty containers, etc.
Industrial Waste	Limited	Additional list in ISWMP to include packaging, treated lumber, empty containers, manufacturing scraps, contaminated soils, etc.
Composting activities	20,000 cubic yards	80,000 cubic yards annually, 5-acre capacity
Concrete Recycling	100,000 tons	100,000 tons annually, 10-acre capacity
Wood Recycling	20,000 cubic yards	20,000 cubic yards annually, 2000 tons storage capacity
Appliance Recycling	NA	1000 units annually, 100 units storage capacity
Ferrous Metal Recycling	NA	10,000 tons annually, 2,000 tons storage capacity
Asphalt shingle recycling	NA	100,000 tons annually, 50,000 storage capacity
Battery Recycling	NA	500 units annually, 50 units storage capacity
Electronic Recycling	NA	5000 units annually, 200 units storage capacity
Cardboard Recycling	NA	5000 tons annually, 5,000 ton storage capacity
Tire Recycling	NA	6000 tires annually, 500 tire storage capacity

Dem-Con is looking forward to working with Lime Township on this CUP amendment. The proposed changes to the Facility will enhance protection of the groundwater and offer increased disposal and recycling options for local businesses and residents. For any questions regarding the Facilty or the the CUP amendment application, please feel free to contact Mark Pahl at 612-282-0864 or markpahl@dem-con.com

From: Sheila LeRoss <sheila3cc@yahoo.com>
Sent: Tuesday, July 28, 2026 9:52 AM
To: Phillips, Chad (Minnesota Paving & Materials) <chad.phillips@minnpm.com>
Subject: Kasota Fire Protection

Minnesota Paving and Materials at 57032 231st Lane, Mankato, MN is within the City of Kasota Fire Department service area.

Thank you, Sheila, City of Kasota, City Clerk

Reply | Reply all | Forward

Permit Reissuance and Modification Application

Dem-Con Pilgrim Landfill
SW-254

Prepared for:
Dem-Con Companies

Date:
April 2026 (Revised 9/11/2026)

Stantec Consulting Services Inc.

Prepared by:
Stantec Consulting Services, Inc.

Project/File:
227708930

Disclaimer

The conclusions in the Report titled Permit Reissuance and Modification are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from Dem-Con Pilgrim Landfill, LLC (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided by the Client to applicable authorities having jurisdiction and to other third parties in connection with the project, Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any third party, and will not be liable to such third party for any damages or losses of any kind that may result.

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1 Written Application – MN Rule 7001.0050

1.1 General Information

1.1.1 Current Owner of the Facility

Name	OMG Midwest
Address	2401 SE Tones Dr #13
	Ankeny, IA 50021
Telephone	507-625-4848
Status	private entity

1.1.2 Proposed Owner of the Facility

Name	Dem-Con Pilgrim Landfill, LLC
Address	13020 Dem-Con Drive
	Shakopee, MN, 55379
Telephone	952-445-5755
Status	private entity

1.1.3 Operator of the Facility

Name	Dem-Con Pilgrim Landfill, LLC
Address	13020 Dem-Con Drive
	Shakopee, MN, 55379
Telephone	952-445-5755
Status	private entity

1.1.4 Application Prepared by

Name	Stantec Consulting Services, Inc., on behalf of Dem-Con Companies LLC
Address	1 Carlson Parkway Suite 100
	Plymouth, MN 55447
Telephone	763-479-4200

1.1.5 Description of the Facility

Pilgrim Demolition Landfill (the Landfill or the Facility) is an existing Class I construction and demolition debris (C&D) landfill. The Landfill is located in Township 109 North, Range 26 West, Sections 30 and 31 in Lime Township of Blue Earth, Minnesota. The Landfill was initially permitted by the MPCA (permit #SW-254) for use as a demolition landfill by the Brielmaier Corporation in 1983. The total capacity of the Landfill at the time was approximately 232,000 cubic yards. Brielmaier Corporation voluntarily discontinued filling operations in 1993. Three fill areas were authorized for disposal. “Site 1”, located in the south portion of the property, was closed in 1992. “Site 2”, located in the central portion of the property, was closed in 1996. “Site 3” was never utilized for disposal. Prior to placement of demolition waste materials, Brielmaier Corporation placed four feet of “compacted sandy clay and crushed limestone” throughout the base areas for both Site 1 and Site 2. The construction for Site 2 was certified by a professional engineer in correspondence to the MPCA on February 6, 1991. These historical unlined disposal areas are designated in the current permit as Disposal Designation (DD) DD 001, representing the existing unlined Class I C&D disposal area.

The Facility was later permitted on May 4, 2004, for an ultimate waste capacity of 5,561,700 cubic yards, incorporating fill area DD 002 in the current permit. The existing demolition waste in Sites 1 and 2 was designated as DD 001. DD 002 was to be constructed with a 4-foot compacted soil attenuation layer and would ultimately fill over DD 001 as waste filling activities advanced from east to west.

The existing permit expired in 2009, and multiple renewal submittals have been completed since then, including a minor permit modification to adjust the waste limit boundary on the southeast side of the site, approved on November 5, 2024. This submittal is intended to apply for a permit reissuance and major modification, including ownership transfer, an increase in ultimate capacity (without increasing waste footprint or maximum elevation), and change in facility design and operation.

1.1.6 Proposed Modifications and Variance Requests

As part of this permit action, the Landfill is proposing to excavate and relocate all waste from DD 001 and place in the existing DD 002 area. ~~The Landfill is then proposing to re-classify the existing unlined area from DD 002 to DD 001 (incorporating re-located waste from the current DD 001 area and existing waste in DD 002).~~ The facility is proposing to construct lined cells west of the ~~re-classified~~ DD ~~001~~ 002 area creating~~for~~ a Class III lined C&D and industrial waste disposal area, to be referred to as ~~DD 002~~DD 003. DD 001 and DD

002 would still be considered ~~a~~ Class I C&D disposal areas. DD 002~~which~~ would ultimately be closed via a proposed liner overlay from DD003 which essentially becomes a cap for DD 002. ~~ties into the base liner system of DD 002~~DD 003. Prior to construction of the overlay liner the unlined area will continue to be filled with Class 1 C&D waste, including the waste relocated from the existing DD 001 area as mentioned above. Upon completion of the closure of the unlined portion of the facility, the Landfill will operate ~~DD 002~~DD 003 as a lined disposal area, accepting Class III demo and industrial waste (see Appendix A for more details).

Waste excavation and relocation plan:

1. Material from area DD 001 will be visually inspected and classified upon excavation
2. If materials that do not meet the Class I demolition debris per the ISWMP are encountered, they will be segregated by waste type and placed in 30-40 yard roll-off boxes (or similar).
3. Materials meeting Class I demolition debris criteria will be relocated to area DD 002
4. **Materials not meeting** Class I demolition debris criteria will be disposed of at an appropriate permitted facility.

The current Landfill operates as an unlined Class I unlined C&D Landfill. As a Class III lined C&D Landfill (~~DD 002~~DD 003), the Landfill will accept all non-hazardous C&D debris. In addition, the facility is proposing to accept industrial waste which is co-disposed with C&D materials in the lined ~~DD 002~~DD 003 disposal area in accordance with the facility's ISWMP.

Leachate collected on the proposed lined ~~DD 002~~DD 003 disposal area will drain into a series of sumps and be pumped into a leachate storage tank or tanks. Leachate will then be loaded out into tanker trucks and hauled for disposal at a wastewater treatment plant.

Two requests for variances to Minnesota Rules are included as part of this application:

1. Exceed a 100-foot leachate flowpath through the cell floor in the northeast corner of the site.
    - MN Rules 7035.2815 Subp. 9.E. requires maximum 100-foot leachate drainage length.
    - Request to prevent the need for a leachate cleanout extending through the final cover system and to facilitate construction of the overlay system for DD 001. All other phases of the proposed DD 002 disposal area will meet the maximum 100-foot drainage length.
    - Cell floor slopes in the new base grade design are increased to 5% in the areas with a drainage length greater than 100 feet
2. 4:1 slopes on the final cover system
    - MN Rules 7035.~~2815~~ 2825 Subp. ~~5.G~~8(E) requires maximum 5:1
    - Request to maximize the ultimate waste capacity of the site without changing the currently permitted footprint or maximum height of the Landfill. This change would increase the proposed capacity by 856,048 cubic yards to a total ultimate design capacity of 6,397,436 cubic yards.
    - It should be noted that future MN C&D Rules are anticipated to allow for 4:1 final cover slopes without variance

These proposed variances will not create any change in effect on air, water or land resources of the state compared to the current site and current use. The change in ultimate capacity will be due to the increased

final cover slopes and revised base grades, facilitating a base liner system with geosynthetic liner and leachate collection. The base grades were designed to be a minimum of five (5) feet above the historical high groundwater elevations based on the data for the existing monitoring wells. Technical evaluations which support these proposed variances are included in the application are a Hydrologic Evaluation of Landfill Performance (HELP) Model and a Geotechnical Evaluation, provided in Appendices C and D, respectively. The HELP model presents that the requirement to maintain less than 1-foot of leachate head on the base liner will be met with the extended leachate flow path. The Geotechnical Evaluation presents that steeper side slopes will be stable against global and veneer failure based on exceeding minimum factors of safety for various conditions.

This application contains an updated Industrial Solid Waste Management Plan (ISWMP) and updated Permit Drawings which are included in Appendix A and Appendix B, respectively.

1.1.7 Topographic Map

Figure 1, *USGS Quadrangle Excerpt*, illustrates the general topography of the site and surrounding area. Sheet C-101 illustrates two-foot contours of the existing landfill and surrounding area.

2 Items Handled, Stored, and Disposed of at the Facility

2.1 Types of Materials

The facility currently accepts demolition and construction debris as defined below:

"Demolition debris" means solid waste resulting from the demolition of buildings, roads, and other structures including concrete, brick, bituminous concrete, untreated wood, masonry, glass, trees, rock, and plastic building parts. Demolition debris does not include asbestos wastes (Minn. Rule 7035.0300 Subp. 30).

“Construction debris” means waste building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition of buildings and roads (Minn. Stat. § 115A.03, Subd. 7).

Examples of C&D debris include materials generated from construction of new buildings, renovations of existing buildings, buildings torn down for redevelopment, and rubble from streets, sidewalks, and parking lot replacement.

In addition, the facility is proposing to accept industrial wastes in accordance with the ISWMP included in Appendix A. A few examples of industrial wastes proposed to be accepted include, but are not limited to, manufacturing scraps, recycling residue, off-spec products, contaminated soils, and water treatment and filtering sludges.

Some waste types are bulky, difficult to compact, and require excessive management at the working face. The shredding may be completed at a transfer facility or at the landfill. The following items may be shredded prior to final disposal:

- Bulky plastic material
  - Plastic tubing (plumbing, pipe, conduit)
  - Plastic duct work (spiral wire core)
  - Empty plastic containers (buckers, bins)
  - Plastic hardware (electrical boxes)
  - Plastic sheeting (roof, wall, untreated)
  - Plastic playground equipment
- Housing materials
  - Carpet and carpet padding (not rolls)
  - Siding and doors (vinyl, untreated wood)
  - Shingles (wood, asphalt)
  - Wood material (flooring, plywood, particle board, fencing, stumps)
  - Fiberglass material (tubs, tub surrounds)
  - Porcelain (sinks, toilets)

- Incidental packaging or wood (associated with the above items)

If shredding occurs at the landfill, shredding operations will occur on the liner with the exact location moving as the facility fills and expands; as a result, mobile shredding equipment would need to be utilized. The ultimate goal of the shredding operations is to produce a small, uniformly sized waste material that has a greater density.

Prior to placement in the landfill, the following procedures will be followed:

1. Note the quantity (volume) of material following shredding operations.
2. Incorporate into active working face with heavy equipment.
3. Complete Shredding Operations Form including the dates of shredding and quantities (Appendix E).

In accordance with Minnesota Statutes 115A.936, construction material containing gypsum such as sheetrock will not be shredded (or mechanically pulverized or size reduced) at any time.

It is proposed that recyclable materials handling and storage be incorporated into the permit. These materials will be stored on-site in the designated recyclables storage area within the western portion of the ultimate landfill footprint that has not yet been developed. Several dumpsters, roll-off containers, or similar containers will also be kept on the working face for separating recyclable materials such as metal from the incoming waste. The recycling storage area is depicted on Drawing C-101 in Appendix B. Recyclables handled on-site include but are not limited to appliances, metals, batteries, asphalt pavement, tires, electronics, cardboard, concrete, brick, clean wood debris, and shingles. Storage methods and the maximum quantities stored at a given time are included in Table 3.

The Landfill will also manage a composting area for yard waste ~~and grain waste~~. Concrete, asphalt, and brick materials will be stockpiled at the site and periodically crushed for recycling. Wood waste will also be collected in a stockpile and periodically mulched for reuse. Storage locations are depicted on Drawing C-101.

2.2 Quantity of Material

Table 1 is a waste capacity table that includes the ten-year permitted waste capacity and the ultimate design capacity sought after in this permit modification and reissuance application. There is no proposed increase to the peak vertical elevation or ultimate horizontal footprint of the landfill due to the change in outer slope angles. The maximum elevation will be maintained at approximately 872 ft-amsl.

The estimated quantity of C&D debris, industrial waste, compost, and recycled materials handled at the facility on an annual basis is listed on Table 2. The quantity of recycled materials stored on the site and the storage method is listed in form w-sw3-33.

Table 1. Waste Capacity Table

Type of Waste		ID	Ultimate Design Area (acres)	Permitted Capacity (CY)	Ultimate Design Capacity (CY)[1]	~~2026-2036~~ Remaining Ultimate Capacity as of December 2025 (CY)
Current Permit	C&D Debris Unlined Landfill	DD 001 & DD 002	74.4	2,264,588	5,514,388	~~4,374,666~~4,347,666
Proposed	C&D Debris Unlined Landfill	~~DD 001~~DD 002	17.2	1,344,918	1,344,918	~~201,390~~178,196
	Class III C&D Debris and Industrial Waste Lined Landfill	~~DD 002~~DD 003	63.9[2]	1,955,082	5,052,518	~~5,352,518~~5,052,518

[1] Includes final cover.
[2] Includes overlay liner above existing unlined area, the total waste footprint remains the same.
[3] Relocated waste from existing DD 001 would be placed in the unlined area, ~~proposed DD 001~~DD 002.

Table 2. Estimated Annual Quantities

Type of Waste	Estimated Annual Volume (CY)
C&D Debris	~~60,000 –~~ 100,000
Industrial Waste	~~20,000 –~~ 50,000
Composting Yard Waste	100,000
Recyclables	Varies by material- see form w-sw3-33

2.3 Methods of Control

The methods of control for waste acceptance include checking in at the scale house at the site entrance where the type and the quantity of waste is recorded and inspected. The waste hauling vehicle will be directed to the appropriate disposal location based on the material being accepted. Personnel are on-site at the active tipping area to oversee the tipping procedure and visually inspect the waste to verify that no unacceptable wastes are tipped. If unacceptable waste is encountered at the working face, the hauler or facility staff will remove them from the working face and properly manages the materials in accordance with Minnesota Rules. Regular landfill customers may be assigned individual roll-off boxes located near the tipping area and unacceptable wastes may be placed in these boxes. When the box is full, the hauler must arrange to have the roll-off box hauled to an appropriate facility for disposal.

The landfill does not assume acceptance of waste until the load is inspected, spread and compacted, and additional material is placed vertically on existing grades.

Industrial waste is proposed to be accepted at the facility in accordance with the ISWMP. This process includes an analysis of the physical nature of the wastes, the process that generates the wastes, and a comparison of any analytical results to the acceptance limits established in the ISWMP.

Materials to be recycled or composted are directed to the appropriate locations where the material is unloaded and stockpiled until a sufficient quantity has accumulated to justify further processing or shipment to end-markets. Records are maintained of the volume of material recycled at the Facility in accordance with MPCA permit requirements.

3 General Information Requirements for Final Application MN Rule 7001.3300

3.1 General Description of Facility

The Pilgrim Demolition Landfill Facility (the Landfill) is located in Lime Township, Blue Earth County, Minnesota, within Township 109 North, Range 26 West, Sections 30 and 31. The Landfill property consists of multiple parcels totaling approximately 220 acres, with the active landfill fill area encompassing approximately 78 acres located near the center of the property. The fill area is separated from adjacent properties by established buffer areas. The location of the Landfill is illustrated on Figure 1, prepared using the USGS 7.5-minute quadrangle maps for Mankato East and Mankato West, Minnesota. Zoning information of adjacent parcels is provided on Figure 2. Land uses surrounding the site varies from mixed residential or rural vacant land to the north and west with industrial to the east and south. As shown on Figure 3, there are no parks, recreation areas, and refugees within 1-mile of the project area. Further information on adjacent properties, including a figure and a mailing list for these properties, is provided in Appendix F.

As illustrated on Figure 4, surface karst features may be present in the area, however, Section 5 further discusses site investigations which were previously completed and determined active karst is not present within the disposal area. Site-specific hydrogeologic investigations have been conducted for the Landfill, including groundwater receptor surveys completed within one mile of the facility and identification of high-capacity wells within three miles. These evaluations have been periodically updated and are documented in the Facility's hydrogeologic reports and annual operating documentation. Groundwater and surface-water protection considerations for the Landfill are addressed through site-specific analyses and ongoing operational controls. Water features surrounding the site are illustrated on Figure 5, while wells within 1-mile of the site are shown on Figure 6. The Minnesota River is located approximately 1-mile west of the facility while an unnamed creek is located south and west of the site. Further site information is provided in Section 5.

Floodplain mapping for the Landfill property was evaluated using Federal Emergency Management Agency Flood Insurance Rate Maps. This analysis confirms that the landfill fill area is located entirely outside the mapped 100-year floodplain of the Minnesota River. The Landfill is located in an area zoned for industrial use, and operation of the demolition landfill has been authorized through applicable county and township approvals. A floodplain map is provided as Figure 7.

3.2 Industrial Solid Waste Management Plan

An ISWMP has been developed for this facility along with this permit modification request to accept industrial waste at the facility. The ISWMP establishes waste acceptance criteria, screening procedures, handling practices, and operational controls for materials received at the landfill. A copy of the proposed ISWMP plan is included as Appendix A.

3.3 Description of Security Procedures and Equipment

There is a locking gate at the entrance to the facility. Berms, wooded areas, and gravel pits separate the landfill from adjacent properties and roads, prohibiting trucks from entering the fill area after hours.

3.4 Inspection Schedule

The landfill operator inspects the landfill at least weekly. Inspections include safety and emergency equipment, security devices, operating and monitoring equipment, as well as general site conditions. Inspection reports will be kept on record for a minimum of five years. ~~A copy of the Inspection Report is available upon request.~~A copy of the weekly inspection form is provided in Appendix J.

Fire extinguishers are inspected and certified on an annual basis by a fire protection company. All appropriate testing is performed by this company to verify that the firefighting equipment is maintained in operating condition.

Equipment necessary for the facility operations will be maintained to ensure compliance with all permits and regulations. Any deterioration or malfunction of equipment is typically repaired within two weeks of the inspection if required supplies are available and weather permits.

3.5 Contingency Action Plan

The purpose of this Contingency Action Plan is to identify potential occurrences at Dem-Con, which may endanger human health and the environment. In the event of an occurrence, specific actions to be taken to minimize hazards are outlined in the following plan. The MPCA will be notified within 48 hours of a significant fire, explosion or reportable release at the facility.

3.5.1 Identification of Potential Events or Releases Which May Require Corrective Action and Implementation of the Contingency Action Plan

1. Fires and/or Explosions
2. Vandalism
3. Settlement of Completed Fill Areas
4. Violation of Groundwater Quality Standards
5. Violation of Surface Water Quality Standards
6. Surface Drainage Problems
7. Large Scale Erosion
8. Pump Failure
9. Leachate Storage Tank Failure
10. Liner Damage
11. Damage From Severe Rainfall

12. Leachate Spills in Reportable Quantities
13. Landfill Gas Vent Installation/Replacement
14. Equipment failure

3.5.2 Response Actions to be Taken in the Event of the Occurrence of Items 1-~~13~~14

This section lists the order of actions to be taken. Depending upon the extent or severity of the event, all actions listed below may not be required.

3.5.2.1 Fires and/or Explosions

3.5.2.1.1 Surface Fires

~~**Contact Fire Department, emergency personnel and ambulance** by dialing 911 if required.~~

- Contact Fire Department, emergency personnel, and ambulance by dialing 911 if required.
- Control access to the area. Personnel not trained in firefighting methods will not be allowed at the site.
- All equipment which can be safely removed from the area will be removed from the vicinity of the fire and/or explosion.
- Trained personnel will attempt to extinguish or control fires with extinguishers, water from the water truck or by smoldering with nearby soils until the local fire department arrives.
- Notify MPCA within 48 hours of a significant fire or an explosion.
- Affected areas will be repaired. Repairs will consist of regrading as required, replacement of cover system and revegetation, and replacement or repair of equipment as necessary.

3.5.2.1.2 Sub-surface Fires

- **Contact Fire Department, emergency personnel, and ambulance by dialing 911 if required.**
- Control access to the area. Personnel not trained in firefighting methods will not be allowed at the site.
- All equipment which can be safely removed from the area will be removed from the vicinity of the fire and/or explosion.
- Trained personnel will attempt to extinguish or control fires with extinguishers, water from the water truck or by smoldering with nearby soils until the local fire department arrives.
- Notify MPCA within 48 hours of a significant fire or an explosion.
- If ~~the~~ Dem-Con has not extinguished the fire within two weeks of notice, Dem-Con shall again notify the MPCA and shall provide the name of the professional engineer hired to develop a revised plan for further firefighting efforts. Dem-Con shall submit the revised plan to the MPCA for review and approval within 15 days of the notice to the MPCA that a revised plan is being prepared. To be approved, the revised plan shall identify the action that will be taken to extinguish that fire, including sources for materials and equipment and a timeline for implementation, and

shall be signed by a registered professional engineer. Dem-Con shall implement the revised plan upon approval by the MPCA.

- **Affected areas will be repaired. Repairs will consist of regrading as required, replacement of cover system and revegetation**, and replacement or repair of equipment as necessary.

3.5.2.1.3 Equipment Fires

- **Contact f**Fire Department, emergency personnel and ambulance by dialing 911 if required.
- Control access to the area. Personnel not trained in firefighting methods will not be allowed at the site.
- Deenergize the affected equipment if safe to do so.
- All unaffected equipment which can be safely removed from the area will be removed from the vicinity of the fire and/or explosion.
- Trained personnel will attempt to extinguish or control fires with extinguishers, water from the water truck or by smoldering with nearby soils until the local fire department arrives.
- Notify MPCA within 48 hours of a significant fire or an explosion.
- Affected areas will be repaired. Repairs will consist of regrading as required, replacement of cover system and revegetation, and replacement or repair of equipment as necessary.

3.5.2.2 Vandalism

- **Fencing: Damaged fencing will be repaired. Temporary access control measures will be installed as required.**
- Access gate: Damaged locks or gate will be repaired. Temporary access control measures will be installed as required.
- Other acts of vandalism which may endanger human health or the environment will be repaired accordingly.

3.5.2.3 Settlement of Completed Fill Areas

Completed fill areas which settle and cause the disruption of positive surface water flow will be corrected as follows:

- Repairs to capping system if required
- Addition of soil to eroded areas
- Reseeding of repair area
- Mulch and erosion control matting as necessary

3.5.2.4 Violation of Groundwater Quality Standard

If groundwater monitoring indicates a violation of groundwater quality Dem-Con will take the actions in MN Rule 7035.2815 subp. 4(G) as follows:

(1) immediately notify the commissioner in writing;

(2) immediately resample if previous samples at the facility did not exceed the intervention limits;

(3) evaluate the need to resample if previous samples exceeded the intervention limits;

Furthermore, the following actions may be taken:

- The well will be retested during the next routine monitoring round to verify the violation.
- Continue routine monitoring.
- Construct an additional well.
- Perform an alternatives analysis for remediation activities.
- Work with assigned MPCA hydrogeologist to develop a response plan to address violation of groundwater standard.
- Perform further investigation to determine if groundwater quality impacts can be attributed to specific phases (lined or unlined) by methods including but not limited to:
  Inspection
  Electronic leak detection
  Dye testing
  Comparative analysis

3.5.2.5 Violation of Surface Water Quality Standard

If a violation of surface water quality occurs the following actions may be taken:

- Resample to verify that a violation has occurred.
- Prepare and implement stormwater Best Management Practices (BMPs) to correct the violation and prevent future violations.

Revise Stormwater Pollution Prevention Plan (SWPPP) to address violation and design and implement additional BMPs as necessary.

3.5.2.6 Surface Drainage Problems

If surface drainage problems occur, including evidence of leachate seeps such as odor or stressed vegetation, the following actions may be taken:

- Repair or add additional stormwater diversion berms.
- Regrade slopes.
- Repair settlement or leachate seep areas.
- Clean out perimeter stormwater ponds.

Add temporary or permanent erosion control measures.

3.5.2.7 Large Scale Erosion

If large-scale erosion occurs the following actions may be taken:

- Eroded area will be corrected (regraded, vegetation established).
- Design and install additional erosion control, (riprap, energy dissipaters, erosion control matting, etc.).

3.5.2.8 Pump Failure

If a pump failure occurs the following actions may be taken:

- The failed pump will be repaired or replaced.

3.5.2.9 Tank Failure

If a leachate storage tank should fail, the following actions may be taken:

- If the leak detection riser on a double-walled tank indicates the presence of water within the secondary containment, the tank and containment will be pumped to remove leachate.
- A temporary leachate bypass system will be installed to direct leachate directly into a tanker truck or a temporary tank.
- The tank will be inspected and repaired or replaced if necessary.

If a leachate release has occurred, procedures in 2.12 will be followed.

3.5.2.10 Liner Damage

If liner is damaged after construction during active filling, the operator must have damaged portions repaired by a qualified individual. Repair may include the following:

- Repair liner and granular drainage materials on slopes or other areas of damage to original construction specifications.

3.5.2.11 Severe Rainfall Event

In the event of damage caused by a severe rainfall event, the following actions may be taken:

- Leachate will be hauled from the site as required to maintain volume in storage tank and keep collection system operational.
- Damage to slopes in unfilled portions of the liner where granular drainage layer washes down will be repaired.
- Stormwater management facilities, ponds, ditches, outlets, etc. will be inspected and repairs made as needed.

3.5.2.12 Leachate or Other Spills

If leachate or other spills occur, the following actions may be taken:

- Spills on soils will be cleaned up by excavation of impacted soils. Soils may be placed in an area of the facility on clay material and allowed to dry.
- Spills in the tanker loading area will collect in the sump which drains into the leachate storage tank.
- Report to EPA and MPCA as required by law, including completing notifications to the Minnesota Duty Officer or National Response Center (NRC) as applicable for the type and quantity of the spilled material.

If leachate seeps occur, Dem-Con will evaluate the best remediation strategy. Actions taken may include, but are not limited to:

- Plugging the seep area
- Diverting the seep back into the liner
- Leachate removal
- **Capping some or all of the fill** area

3.5.2.13 Landfill Gas Vent Installation/Replacement

If replacement or modification of a portion of the landfill gas venting system is required, the following actions may be taken:

- Install vertical or horizontal piping

3.5.2.14 Equipment Failure

If equipment necessary for the continued operation of the landfill occurs, the following actions may be taken:

- Dem-Con mechanics will repair the affected equipment on site
- Replacement equipment will be acquired from other Dem-Con sites or elsewhere.

3.5.3 Estimated Time Frame Required to Complete Response

3.5.3.1 Significant Fires and/or Explosions

Action	Time
Contact Fire Department, Emergency/Medical Personnel	Immediately
Control access to the area	Immediately

Remove mobile equipment	Immediately
Control fires with extinguishers, water, or nearby soils	Immediately
Hire a professional engineer to develop a revised firefighting plan and submit to the MPCA if sub-surface fire is not extinguished after two weeks	0-4 Weeks
Repair damaged area and/or equipment	0-6 Months

3.5.3.2 Vandalism

Action	Time
Repair Fencing	0-4 weeks
Repair Access Gate	0-4 weeks
Install temporary access control measures	0-48 hours
Other acts of vandalism which may endanger human health or the environment	Variable

3.5.3.3 Settlement of Completed Fill Areas

Action	Time
Repairs to capping system if required	Variable
Addition of soil to eroded areas	3 weeks
Reseeding of repair area	2 weeks
Mulch and erosion control matting	2 weeks

3.5.3.4 Violation of Groundwater Quality

Action	Time
Notify MPCA in writing	Immediately
Resample	Immediately or next sampling event
Continue Routine Monitoring	Next scheduled sampling event
Construct an additional well	1-6 months
Alternatives analysis	6-12 months

3.5.3.5 Violation of Surface Water Quality Action

Action	Time
Resample	0-1 month
Prepare and implement stormwater measures	0-6 months
Revise SWPPP	0-6 months

3.5.3.6 Surface Drainage Problems

Action	Time
Repair/add diversion berms	0-2 months
Repair/add energy dissipaters	0-2 months
Repair settlement areas	0-2 months
Clean out stormwater ponds	0-2 months

3.5.3.7 Large Scale Erosion

Action	Time
Correction or eroded area	0-1 month
Install erosion control practices	0-6 months

3.5.3.8 Pump Failure

Action	Time
Temporarily replace with on-site square pump	1 day
Repair/replace pump permanently	1 month

3.5.3.9 Leachate Storage Tank Failure

Action	Time
Pumping of secondary containment area	1 day
Diversion of leachate and repair of tank	1-2 months

3.5.3.10 Liner Damage

Action	Time
Repair leachate liner or cover liner	48 hours-4 weeks Depending upon severity and weather

3.5.3.11 Severe Rainfall Event Action

Action	Time
Leachate hauled from the site	0-5 days
Repair unfilled portions of the liner	1-2 weeks
Stormwater management facilities	1-3 weeks

3.5.3.12 Leachate or Other Spills

Action	Time
Spills on soils	Immediately

Spills within the containment area	Immediately
Spills in the tank loading area	Immediately

3.5.3.13 Landfill Gas Vent Installation/Replacement

Action	Time
Repair/replace damaged vent or lateral	1-2 months

3.5.3.14 Equipment Failure

Action	Time
Repair affected equipment on site	0-2 weeks
Acquire replacement from within fleet	0-2 weeks

3.5.4 Equipment Needed

- Telephone
- Fire extinguishers
- Water truck
- Bulldozer
- Square pumps
- Spill kits (absorbents, booms, floor dry brooms/shovels)
- Specialty equipment/contractors as needed

3.5.5[3.5.4] Prior Arrangements

Fire emergency responses are anticipated to be provided by the City of Mankato Fire Department. In the event of a medical emergency, Emmanuel–St. Joseph's Hospital, located in Mankato, will be contacted. In matters involving a police emergency, the Blue Earth County Sheriff's Office will respond. Emergency services may be contacted by calling 911. Heavy equipment operators and facility staff maintain communication via two-way radios, and fire control equipment is available on-site and inspected to ensure readiness.

3.5.6[3.5.5] Scheduled and Unscheduled Down Times for Maintenance at the Facility

Equipment is maintained on a regular basis. A variety of equipment is used during maintenance intervals which may include a spare compactor, track dozer, loader, excavator, off-road truck, and scraper which are kept on-site. These machines are regularly maintained and a working machine is always available. Equipment is readily shared between all Dem-Con sites adding layers of redundancy in the case of equipment failure. On-staff mechanics are able to perform most repairs on-site. Unscheduled down times are not anticipated in the future, however they may be required in the event of a catastrophe or natural disaster. If the facility needs to shut down for any reason the gate will be locked. The facility will only reopen when it is safe to do so and is able to operate in accordance with facility permits.

3.5.7[3.5.6] Estimated Contingency Action Costs

Costs associated with each event are listed under item 3. Costs for each type of contingency action are based on the following:

Significant Fires and/or Explosions:

Surface Fire fighting (8 hours @ $400/hour)		$3,200
Revegetation (2 acres @ $1,000/acre)		$2,000
Develop sub-surface firefighting plan (8 hours @ $~~200~~150/hour)		$1,~~600~~200
Sub-Surface Fire fighting (3 days @ $2,500/day)		$7,500
	Total:	$~~12,700~~~~14,300~~13,900

Vandalism:

Repair well tops, fence structure		$3,000
	Total:	$3,000

Settlement of Completed Fill Areas:

Repair Cost (0.2 acres @ $50,000/acre)		$10,000
	Total:	$10,000

Violations of Groundwater Quality Standards:

Capital		$150,000

Install Additional Wells (3 wells @ $10,000/well)		$ 30,000
O&M (10 years @ $15,000/year)		$150,000
Sample Collection (3 events @ $550/event)		$ 1,650
Sample Analysis (33 samples @ $125/sample)		$ 4,125
Evaluation and Report		$ 20,000
	Total:	$355,775

Violations of Surface Water Quality Standards:

Work Plan		**$5,000**
Corrective Action Monitoring (10 years @ $9,000/year)		$90,000
Reporting		$20,000
	Total:	$115,000

Surface Drainage Problems:

Repair or addition of a diversion berm		$2,000
Energy dissipater device (400 LF @ $12.00/LF)		$4,800
Cleaning out ponds (30 hours at $150/hr.)		$4,500
	Total:	$11,300

Large Scale Erosion:

Cover Fill (1,500 CY @ $5/CY)		$7,500
Revegetation (3 acres @$1,000/acre)		$3,000
Clean Surface Water Controls		$ 250
	Total:	$10,750

Pump Failure:

Pump Replacement		$15,000
	Total:	$15,000

Tank Failure:

Excavation and soil disposal		$ 5,000
Tank repair and installation		$50,000
	Total:	$55,000

Liner Damage:

Quantify/locate damage		$10,000
Waste excavation/relocation		$25,000
Liner repair (assuming 10,000 SF at $0.5/SF)		$ 5,000
	Total:	$40,000

Severe Rainfall:

Excess Leachate Hauling		$2,000
Cover Fill (1,500 CY @ $3/CY)		$4,500
Revegetation (3 acres @ $1,000/acre)		$3,000
	Total:	$9,500

Leachate or Other Spills:

Liquid recovery (4 hours $250/hour)		$1,000
Disposal (2 trucks @ $500/truck)		$1,000
Contaminated soil excavation (100 CY @ $5/CY)		$ 500
Clean soil fill (100 CY @ $4/CY)		$ 350
Mobilization		$1,000
	Total:	$3,850

Landfill Gas Vent:

Install wells and/or lateral piping		$50,000
	Total:	$50,000

TOTAL CONTINGNECY ACTION COSTS:	$~~691,875~~693,0475
FUNDED @ 60% OF CONTINGNECY ACTION COSTS:	$~~415,125~~~~416,085~~415,845

3.5.8[3.5.7] Review and Amendment

The Contingency Action Plan will be reviewed and amended whenever the permit is re-issued or modified, a failure or release occurs which is not accounted for within this plan, or when a failure or release occurs for which an appropriate response is not provided for within this plan.

3.6 Description of Procedures, Structures, or Equipment

3.6.1 Prevent Operational Hazards

There are a variety of potential operational hazards associated with activities at the site. The hazards include but are not limited to truck congestion, truck accidents, heavy equipment accidents, slips, trips, and falls, inclement weather issues, asbestos and sharps disposal, and hazardous atmosphere. All employees at the landfill have regular safety and operations meetings to discuss incidents, close calls, and mitigation measures. Dem-Con management reviews all incidents and mitigation measures to ensure hazards are addressed appropriately.

3.6.2 Prevent Run-on and Run-off at the Solid Waste Tipping Area

The active phase is sloped and/or temporary diversion berms are constructed to isolate stormwater run-off within the active fill area and to divert stormwater around and away from the active fill areas, preventing run-on into the active fill area.

3.6.3 Prevent Contamination of Groundwater and Surface Water Supplies

Existing landfill operations are conducted as an unlined Class I construction and demolition debris landfill. A 4-foot thick clay barrier layer without leachate collection is present below the disposal area. Protection of groundwater and surface water resources is provided through engineered soil attenuation layers beneath historical disposal areas, site-specific geologic and hydrogeologic conditions, and implementation of operational controls.

As part of this permit reissuance, future lined landfill cells are proposed to be constructed with a composite liner system and a leachate collection and removal system. The proposed lining system will consist of, from bottom to top, a six-inch soil ~~barrier~~ buffer layer, geosynthetic clay liner (GCL), 60-mil HDPE geomembrane, and 12’ inch granular drainage layer. The leachate collection system will involve a series of HDPE perforated pipes surrounded by coarse aggregate draining to leachate collection sumps. The leachate collection sumps will pump leachate into holding tanks where it will be loaded into tanker trucks and hauled to an offsite wastewater treatment facility for disposal. In addition, the unlined area is proposed to be

overlain with the base liner system for future disposal which limits exposure of waste in the unlined area to the elements and will further protect groundwater and surface water resources.

Following construction and certification, these lined cells will provide an enhanced level of protection for groundwater and surface water resources. Final cover systems incorporating low-permeability components will be installed in accordance with approved closure plans as landfill phases reach final grade.

Operational measures that further protect groundwater and surface water include waste acceptance controls in accordance with the approved ISWMP, inspection of incoming loads, controlled waste placement and compaction, application of cover materials, and management of run-on and run-off through stormwater diversion berms, grading, and drainage features. Groundwater conditions are evaluated through an established monitoring program, and response procedures are implemented if monitoring results indicate potential impacts.

3.6.4 Mitigate Effects of Equipment Failure and Power Outages

> Dem-Con has heavy equipment mechanics on staff. Maintenance of equipment is performed on a routine basis. Dem-Con's fleet has redundancy of all heavy equipment and replacements are available if a machine needs to be out of service for an extended period. If a power outage occurs and power is required, a portable generator will be used to supply power until service is restored.

3.6.5 Prevent Ignition or Explosions of Waste and Emergency Response Plan

1. The site is run in a manner to minimize the chance of ignition or explosion of waste. Waste loads are inspected as they are tipped. This prevents unpermitted materials which may be flammable or explosive from being buried at the facility.
2. There is communication maintained between the operators, scale attendant, and the office. All personnel are equipped with telephones for summoning emergency assistance as required.
3. Extinguishers for firefighting are available at the office and on the equipment.
4. All communication and fire equipment are checked at least annually to ensure working order.
5. Dem-Con Landfill is served by the Blue Earth County sheriff and City of Mankato fire department..
6. A written report will be submitted to the Commissioner within two weeks after a reportable emergency has occurred. The report will contain a description of events and procedures followed in responding to the emergency. Pertinent actions within the Contingency Action Plan will be referenced and performed. The Contingency Action Plan will be reviewed for adequacy and modified as required.

3.7 Traffic Patterns and Control

The site is accessed via Township Road 448, with the primary transportation route for trucks arriving at and leaving the facility being 3rd Avenue (County Road 5). Inbound and outbound trucks utilize a single scale located near the facility entrance. Traffic is anticipated to be composed of approximately 80% standard

dump trucks and roll-offs, 10% semi-end dumps and about 10% private vehicles, which use the site. Vehicles drive to the gatehouse, their volumes and/or weights are recorded and then they are directed to the appropriate tipping area.

3.8 Storage

Metals such as tin, ferrous, brass, copper and aluminum are removed from the demolition material, stockpiled, and then hauled to a scrap metal processor. Tires are stored until a sufficient quantity is obtained to make a truckload, approximately 300 tires. The tires are then loaded and hauled away for recycling. Appliances are stored on-site and hauled away for recycling once a sufficient number accumulate to fill a truck. Batteries are stored in a covered leak proof container prior to removal from the site. Cardboard is stockpiled until a large enough quantity accumulate to bale and ship. Wood is stockpiled until a large enough quantity accumulates to grind into a final product. Concrete and asphalt are stockpiled on-site until a large enough quantity accumulates to crush and recycle. Shingles are stockpiled on-site and processed as materials are needed. Processing of shingles, wood and concrete and asphalt may occur within the site. Compost material such as grain residuals and wood waste is managed in a stockpile until material is suitable for reuse as soil amendment material. Compost management is discussed further in Section 8.

4 Closure and Post Closure Plan

The purpose of this Closure and Post-Closure Plan is to provide a program that fulfills the requirements and responsibilities of minimizing and/or eliminating potential environmental and health hazards at the Dem-Con Pilgrim Landfill. In addition, the plan aims to ensure proper closure of the landfill, monitoring of its post-closure effects, and maintaining the site in a safe condition.

4.1 Closure Operational Plan

4.1.1 Notification of Closure

As per Minnesota Rules, the operator will notify the MPCA 90-days prior to closure. Regular customers of the landfill will be given written notification of the site's closure date no less than 60 days prior to completion of landfill activities. Notification of closure will be repeated not less than thirty days prior to the cessation of landfilling activity. All notifications will contain information on alternative disposal sites.

Notices will be published in major newspapers circulated in the landfill's service area. These notices will include date of site closure and locations of alternative disposal areas. The landfill operator will post a sign at the gate attendant’s window at least 60 days prior to and one hundred and twenty days after completion of landfilling activity. These signs will include notification of anticipated closure date and locations of alternative disposal locations.

4.1.2 Security

Only those persons authorized by the landfill operator and/or owner will be permitted on the site after closure of the facility. Unauthorized access to the site and further disposal of demolition debris at the site will be restricted by the use of locked gates and fences.

4.1.3 Responsible Party

At the time of closure, the landfill operator will provide the name, address, and telephone number of the party responsible for the facility during the post closure period.

4.1.4 Overlay and Closure of Unlined Disposal Area

As part of this permit modification request, it is proposed to consolidate construction and demolition waste and cease operations of the unlined Class I area on the east side of the site (existing DD 001, proposed DD 002). The facility is then proposing to construct lined disposal cells which overlay the unlined area and serve as a base liner system for the future lined disposal area. The proposed overlay system, from bottom to top, will consist of a six-inch soil ~~barrier~~ buffer layer, GCL, 60-mil HDPE geomembrane, and a 12-inch granular drainage layer.

4.1.5 Final Cover

Final cover placement will be an on-going process as portions of the fill are brought to final grade. The placement of final cover follows the completion of filling to final grade of each individual phase as final elevations are reached.

The final cover system for all landfill areas, including unlined disposal areas and future lined disposal cells will consist of a six-inch buffer layer (1 inch minus material), a 40-mil LLDPE liner (textured and smooth), a 12-inch granular drainage layer, a six-inch rooting zone layer, and six inches of topsoil. Finished ~~Y~~yard waste compost may be incorporated into the topsoil as a soil amendment. The final cover system for the unlined area will tie into the overlay system and future final cover of the lined disposal area.

4.1.6 Vegetation

Vegetation will be established on completed fill areas in a progressive manner. Within ninety days after termination of landfilling activity, the finished surface will be seeded with shallow-rooted, drought resistant seed mix, mulched, and fertilized. Areas where vegetation has been established prior to closure will be inspected at this time. If any of these areas do not have adequate vegetation, measures will be taken (reseeding, fertilizing, etc.) to reestablish vegetation.

4.1.7 Grading

Final grading of the landfill and placement of the final cover system will be to the grades shown on the Sheet C-105. The final grades for the top of the fill area are designed at 3% or greater and side slopes remaining to be constructed will not exceed 25% (4:1). Slopes will be interrupted with drainage swales placed no greater than every 200' lineal feet apart down the slope. The final grades are intended to promote surface water runoff and inhibit excessive erosion. The continuity of the final grades over the top portion of the fill area will render the area suitable for ultimate land uses such as open recreational space or green space.

4.1.8 Surface Water Drainage

Dem-Con proposes to manage stormwater under the MPCA General Industrial Stormwater Permit. A Stormwater Pollution Prevention Plan (SWPPP) will be developed for the site.

Surface water drainage from the landfill and surrounding setback areas is generally divided into drainage areas that route runoff toward on-site stormwater management features. The majority of runoff from the landfill is directed toward a stormwater management and sedimentation basin located on the west side of the site. A second stormwater sedimentation basin will be located on the northeast corner of the site to manage stormwater from the northern and eastern portions of the site. Finally, a third smaller sedimentation basin will be located in the southeastern portion of the site to collect runoff from perimeter ditches in the southern and eastern portions of the site, as well as any drainage from the existing yard area. Discharge from on-site stormwater management features ultimately flows through existing drainage channels toward

the Minnesota River. All proposed stormwater piping outlets will be installed with riprap for scour protection and energy dissipation.

Stormwater drainage patterns and control features described in the approved engineering plans will be maintained throughout landfill development. Pond grading is subject to change as needed at the time of construction. Any modifications to grading or sequencing associated with future landfill development will be performed in accordance with the site's Stormwater Pollution Prevention Plan, the active Multi-Sector General Permit for Industrial Stormwater and Construction Stormwater General Permit, as well as the individual NPDES/SDS stormwater permit for the site~~approved SWPPP and applicable permit requirements~~. Updated stormwater calculations for the proposed final cover system and sedimentation basins are provided in Appendix G.

4.1.8.1 Inspection

Prior to closure of the landfill, the regulatory agencies shall be notified to allow inspection of the site prior to personnel and equipment removal from the property. The final condition of the landfill shall be approved by the County and the MPCA before removal of personnel and equipment.

4.1.8.2 Description

The landfill owner and/or operator shall submit a detailed description and plat of the completed landfill to Blue Earth County Registrar of Deeds and to the Commissioner of the MPCA within one month of final closure of the landfill. The description and plat shall be produced by a Land Surveyor registered in the State of Minnesota and include the general type, quantity, and location of deposited solid waste, depth of waste fill, original and final terrain descriptions, and other pertinent characteristics of the completed demolition landfill site of interest to future property owners.

4.1.8.3 Certificate of Closure

Dem-Con Pilgrim Landfill shall submit to the regulatory agencies' certification from a registered Professional Engineer, licensed in the State of Minnesota, that the landfill has been closed in accordance with approved plans, ordinances, and license conditions. The certification shall be submitted no later than sixty days following completion of closure activities. The regulatory agencies shall review and approve the closure following receipt of said certification.

4.2 Post-Closure Operational Plan

Dem-Con Pilgrim Landfill, LLC or its successor-in-interest will be responsible for the post-closure care of the site for a period of twenty years or until such times as this responsibility has been assumed by another public or private entity acceptable to the regulatory agencies. The following activities shall be performed during the post-closure period.

4.2.1 Inspection

Routine inspections of the site will be conducted on a quarterly basis, excluding winter quarter in conjunction with the schedule for monitoring well sampling, for five years. Annual inspections will be made after the fifth year. A representative of the owner will inspect the site. During these inspections, the following items will be observed and commented on:

1. Effectiveness of access control and site security;
2. Condition of final cover
3. Condition of vegetation;
4. Evidence of vermin;
5. Evidence of illegal dumping;
6. Evidence of illegal use of property;
7. Inspect storm water drainage system;
8. Inspect groundwater monitoring system;
9. Inspect leachate collection, transfer, and storage system.

A summary report of the self-inspections will be submitted to the MPCA on an annual basis as part of the Annual Monitoring Report.

4.2.2 Maintenance

If inspections reveal problems with any of the above-mentioned items, appropriate action will be taken to rectify them. In the event that gullying or excessive erosion occurs, the liner will be repaired as needed and additional cover soil will be placed and compacted. Vegetation will be reestablished. Measures may be taken to prevent further occurrence of the problem. If there are areas of inadequate turf establishment, they will be reseeded.

4.2.3 Monitoring

Leachate and groundwater quality will be monitored in accordance with the MPCA Permit.

4.2.4 Leachate Management

Leachate will be removed as necessary in order to maintain one foot or less of hydraulic head on the liner. Leachate will be pumped to an on-site storage tank before disposal at an appropriate facility.

4.2.5 Potential Gas Management

If it becomes necessary to install a gas management system, inspection of the gas management system components will be added to the routine inspection requirements in Section 4.2.1. Any Permit required monitoring would also be performed and discussed in the annual report.

4.2.6[4.2.3] Reporting

An annual report will be submitted to the MPCA describing inspection conditions, corrective actions, maintenance activities, monitoring activities, performed at the landfill by March 1st annually.

4.3 Closure Cost Estimates

The following section presents an itemized cost estimates used to determine the financial holdings necessary to provide for the closure and post closure of the Dem-Con Pilgrim Landfill. Material quantities are based on the current size of open landfill that has not yet received final cover. At this time, it is based on the total open area of the current unlined demolition area footprint (approximately ~~17.2~~27.4-acres). Once the closure and overlay of the unlined disposal area is complete, the cost estimate will be revised to reflect the total open area of the active lined disposal area. Costs in this permit application are presented in 2026 dollars. Cost estimates will be reviewed annually and revised as necessary in Dem-Con Pilgrim Landfill's Annual Report.

Mobilization:

Lump sum			$	25,000

Placement of cover soil on areas DD 002 and DD003:

Based on 17.2 acres.

6" Buffer soil	13,888 cy @ $5.00/cy	(Owner Supplied)	$	69,440
40 Mil textured LLDPE	750,000 sf @ $0.28/sf		$	210,000
12" Drainage sand	27,777 cy @ $10.00/cy		$	277,770
6" Rooting Zone	13,888 cy @ $3.00/cy	(Owner Supplied)	$	41,664
6" Topsoil	13,888 cy @ $3.15/cy	(Owner Supplied)	$	43,747

Placement of cover soil on area DD 001:

Based on 10.2 acres.

24" General fill cover	32,912 cy @ $3.00/cy	(Owner Supplied)	$	98,736

Seeding and mulching:

Based on 27.4 acres.

~~17.2~~27.4 acres @ $630/acre	$	~~10,836~~17,262

Surveying/CQA/testing/inspection/certification:

Lump sum	$	100,000

Construction of diversion berms:

Based on 27.4 acres.

Berm material (100 LF/acre) ~~1,720~~2,740 LF @ $5/LF	$	~~8,600~~13,700
HDPE pipe (50 LF/acre) ~~860~~ 1,370 LF @ $22.50/LF	$	~~19,350~~30,825
TOTAL CLOSURE COSTS	**$**	**~~806,407~~903,144**

4.4 Annual Post-Closure Costs

The following information summarizes costs associated with annual post- closure care of the facility.

Inspections:

Facility Inspection Costs (80 hours @ $35/hour)	$	2,800
Landfill Supervisor (26 hours @ $50/hour)	$	1,300

Routine Maintenance and Repair Costs:

Mowing (assume 1x/year) and 75-acres	$	5,000
Cover Maintenance (assume 1x/year)	$	1,000
Security	$	500
Surface Water Management and Maintenance	$	1,000
Access Road Maintenance	$	500
Rodent Control	$	250

Leachate Management Costs:

Leachate Disposal (10,000 gal/ac/year @ $0.04/gal, ~~75~~17.2-ac)	$	~~30,000~~6,880
Leachate Monitoring	$	5,000
Reporting	$	1,000
Pump Replacement (assume 1 pump/5 years @ $15,000/pump)	$	~~5,000~~3,000

Landfill Gas Management Costs:

LFG Monitoring	$	500
Reporting	$	250

Groundwater Monitoring Costs (2 sampling events/year):

GW Monitoring Well Sample Collection (6 wells @ $425/well)	$	2,550
Semi-annual Lab Analysis (6 wells @ $700/well)	$	4,200
System Maintenance (6 hours @ $25/hour)	$	150
Monitoring Well Replacement (assume 1 well/5 years @ $10,000/well)	$	2,000
Reporting	$	4,500

Reporting Services Costs:

Third Party Project Management	$	5,000
TOTAL ANNUAL POST-CLOSURE COSTS	**$**	**~~72,500~~47,380**

4.5 Financial Assurance

The facility will maintain a financial assurance mechanism in accordance with MN Rules ~~7001.3300~~7035.2665 through 7035.2805.

5 Site Location Information

5.1 Topographic and Development Map

The Pilgrim Demolition Landfill is located in Blue Earth County, Minnesota, within Lime Township. The site lies within the Minnesota River basin and is situated in an area generally characterized by gently sloping terrain that has been locally modified by historical aggregate mining operations and subsequent landfill development activities. Topographic conditions across the landfill property vary due to excavation associated with past mining and landfill construction. Existing site contours and elevations are shown on the Existing Conditions Plan included in the engineering drawings. The landform within the landfill footprint differs from surrounding properties as a result of mining and grading, while adjacent areas generally reflect natural and agricultural topography typical of the region.

5.2 Geologic and Location Information

A hydrogeologic study has previously been prepared for the site by Environmental Resource Group (ERG), dated August 2002. This document was submitted to MPCA as part of the 2004 re-permitting efforts and may be referenced for further regional and site hydrogeologic conditions. A summary of findings discussed in this document are provided within this section.

5.2.1 Regional Geology

~~There are three~~Three ~~primary~~ geologic ~~groups~~ formations are found near or at the surface in Blue Earth County. The Prairie du Chien Group (OPDC) is described in Blue Earth County as predominantly composed of dolomite and sandy dolomite with quartzose sandstone. The OPDC, where present, is in turn underlain by up to an approximate 75 foot thickness of the Jordan Formation (Jordan). The Jordan is described as a soft to poorly cemented quartzose sandstone. The Jordan ~~crops out~~outcrops in the north-central part of Blue Earth County along the Minnesota River valley. In some areas, absence of OPDC has exposed the ~~sandstone~~ Jordan to further erosion. In these areas, only a portion of the Jordan is present or, ~~and~~ in some areas, the Jordan is completely eroded and the St. Lawrence Formation (St. Lawrence) forms the upper-most bedrock unit. The St. Lawrence is described as predominantly ~~interbedded~~ dolomite interbedded with~~,~~ siltstone and shale. Regional geologic cross-sections can be found in the Pilgrim Demolition Landfill Hydrogeologic Evaluation (~~Environmental Resource Group~~ERG, 2002).

Generally, a typical geologic column for the area consists of unconsolidated material at the surface (0 to 50 feet) underlain in places by either the OPDC (0 to 40 feet thick), and/or Jordan (0 to 80 feet thick) and/or the St. Lawrence (60 to 100 feet thick). The St. Lawrence is underlain by the Franconia Formation (80 to 120 feet thick), Ironton and Galesville Formations (60 to 80 feet thick), Eau Claire Formation (80 to 120 feet thick), the Mt. Simon Formation (100 to several hundred feet thick) and Precambrian Rock (unknown thickness).

5.2.2 Site Geology

~~Generally, A~~a ~~typical geologic column for the site~~ area ~~consists of unconsolidated material at the surface (0 to 50 feet) underlain in places by either the OPDC (0 to 40 feet thick), and/or Jordan (0 to 80 feet thick) and/or the St. Lawrence (60 to 100 feet thick). The St. Lawrence is underlain by the Franconia Formation (80 to 120 feet thick), Ironton and Galesville Formations (60 to 80 feet thick), Eau Claire Formation (80 to 120 feet thick), the Mt. Simon Formation (100 to several hundred feet thick) and Precambrian Rock (unknown thickness).~~ In the immediate vicinity of the site, as described below, the primary units observed include approximately 0-15 feet of unconsolidated material that is underlain by ~~at the surface,~~ 0-8 feet of OPDC, which is in-turn ~~either at the surface or underlaying the unconsolidated material,~~ underlain by the Jordan formation (observed at approximately 4-18 feet below ground surface at the time of drilling). In some locations, OPDC was found to be present at the ground surface (e.g., MW-2, MW-5), and in others the OPDC was found to be eroded/mined away (e.g., B-7). The boring logs are generally consistent with test pits completed around the site in 2002, which observed sandstone at approximately 1.5-8 feet below ground surface.~~Well log based geologic cross-sections can be found in the Pilgrim Demolition Landfill Hydrogeologic Evaluation (Environmental Resource Group, 2002).~~

New site-specific geologic cross-sections based on borings completed by Aqua-Plus Inc. in 2002 are included as Figure 9 and 10. The cross sections include wells, water table, topography and geologic units. Primarily the cross sections show silt/unconsolidated material, OPDC (limestone/shale), and the Jordan formation (sandstone). Groundwater elevations shown on the cross sections are based on the levels observed during the fall 2025 monitoring event, the groundwater flow map for which is included as Figure 11. Boring logs for the monitoring wells and borings used in the cross sections are included in Appendix K.

5.2.3 Regional Hydrogeology

Regional hydrogeologic conditions at the ~~Dem-Con Pilgrim~~ Landfill are controlled by sedimentary bedrock typical of south-central Minnesota and groundwater discharge to the Minnesota River. Site-specific hydrogeologic investigations indicate that groundwater beneath the landfill occurs primarily within the Jordan Sandstone, which represents the first significant water-bearing unit in the area. The OPDC group, which overlies the Jordan Sandstone regionally, is thin~~-~~ to~~-~~ ~~locally~~ absent in the vicinity of the site due to erosional features and historic quarrying activities. The St. Lawrence Formation underlies the Jordan Sandstone and functions as a regional confining unit that hydraulically separates the Jordan aquifer from deeper bedrock aquifer systems.

Groundwater flow in the regional and site vicinity is generally from east to west toward the Minnesota River, which represents the regional groundwater discharge area. Hydrogeologic data collected at the site indicate that groundwater flow occurs predominantly through porous media within the sandstone rather than through fracture-dominated pathways. The presence of eroded bedrock valleys in the region does not materially alter groundwater flow direction or hydraulic gradients beneath the site.

Reconnaissance of the surrounding area identified no surficial karst features. Solution features observed within quarry walls are limited in extent, are not laterally continuous, and do not exhibit collapse characteristics. Static groundwater conditions occur within the sandstone, indicating that localized solution

features in overlying dolomite do not influence regional groundwater behavior at the site. The regional hydrogeologic setting, combined with site-specific monitoring and design controls, provides a basis for groundwater protection and monitoring at the facility in accordance with MPCA requirements.

5.2.4 Site Hydrogeology

Site-specific hydrogeologic conditions at the ~~Pilgrim Demolition~~ Landfill have been evaluated through field investigations and groundwater monitoring conducted as part of a hydrogeologic evaluation. Monitoring wells installed at the site are screened within or across the Jordan Sandstone, which represents the primary water-bearing unit beneath the landfill.

Slug test data from the original installation of monitoring wells MW-1, MW-2, MW-4, MW-5 and MW-6 (ERG, 2002) was analyzed using the Bouwer-Rice solution method in AQTESOLV software. Hydraulic conductivity (K) rates for the wells ranged from 0.57 to 2.06 meters per day. AQTESOLV outputs and a summary of the results are included in Appendix L.

Groundwater elevations measured ~~during site investigations~~at the Landfill indicate that groundwater beneath the site occurs at elevations on the order of approximately 780 feet (NGVD), but varies based on dewatering activities in the adjacent gravel pit. ~~.~~Dewatering at the neighboring property commenced in 2017, with groundwater levels dropping anywhere from 2 to 9 feet during the fall 2017 monitoring event compared to the fall 2016 monitoring event. After discontinuing the dewatering activities around 2024, groundwater elevations rose to elevations similar to those observed before the dewatering activities were started. At this time there are no known plans to resume dewatering in the adjacent property. ~~-~~Groundwater flow across the site is generally from east to west or northeast to southwest toward the Minnesota River, consistent with regional groundwater discharge patterns. It should be noted that groundwater flow direction has not substantially changed as a result of dewatering operations.

~~-~~There are a total of 13 known wells downgradient of the site between the landfill and the Minnesota River, 4 of which have been sealed. The remaining 9 all have use codes designating them as monitoring wells, observations wells, environmental bore holes, or piezometers, indicating that there are no domestic or drinking water wells downgradient of the site~~ but upgradient of the Minnesota River~~. Water level measurements collected during multiple monitoring events indicate that groundwater flow direction and hydraulic gradients remain relatively consistent, with only minor seasonal variation, ranging from approximately 0.012 ft/ft to 0.016 ft/ft based on groundwater flow maps from recent years. ~~.~~Hydrogeologic data indicate that groundwater movement at the site occurs primarily through porous media flow within the sandstone rather than through fracture-dominated pathways. Overlying Prairie du Chien Group dolomite is thin to absent within much of the site due to erosional features and historic quarrying activities. As a result, static groundwater conditions occur within the underlying sandstone, and localized solution features in remaining dolomite ~~do not~~are not believed to exert a controlling influence on groundwater behavior at the site.

The existing groundwater monitoring system provides ongoing evaluation of groundwater elevations and quality beneath the landfill. Monitoring data is used to confirm groundwater flow direction and to provide

early detection of any potential changes in groundwater conditions in accordance with permit requirements. Historical groundwater elevations in the current monitoring wells can be found in the SW-254 Pilgrims Demolition Landfill 2025 Annual Report (Stantec, 2026).

Surface water on the site currently flows generally from northeast to southwest, similar to the flow directions of groundwater. For the proposed final cover design stormwater will be directed to one of three different onsite stormwater ponds, one to the north, one to the southeast, and one to the southwest. A known calcareous fen, designated as Lime 30 fen, is present in the southwest portion of the site and extends to the southwest of the property. The fen is shown as a wetland on the drawings in Appendix B. The stormwater pond in the southwest corner of the site has an outfall that drains toward the fen, and the outlet structure is equipped with a skimmer to avoid excess sediment from leaving the site. The stormwater pond will be maintained and sediment removed as needed to further reduce the chance of sediment reaching the fen. It should be noted that at this time the stormwater pond is dry through the majority of the year, with most of the site's stormwater removed by evaporation or infiltration.

6 Operations and Maintenance

6.1 Facility Description

The site currently accepts C&D debris and is proposing to accept industrial wastes in accordance with the ISWMP. The site operates Monday through Sunday with season fluctuations in volumes.

The following methods and procedures are incorporated into the landfilling operation. Open burning is prohibited at the site. Windblown materials will be minimized by restricting the working area to reasonable, workable limits. Generally, the working face is approximately one acre, with an average lift thickness of 8 to 12 feet. The slope of a typical working face may vary but will not exceed 3:1 (H:V). Waste is compacted and other construction tasks performed by on-site equipment owned by Dem-Con. Available equipment changes periodically at the site. New equipment is purchased and old equipment is sold as needed for proper operation of the site. All the machinery is equipped with standard safety devices and noise control systems. The equipment is typically stored and maintained on-site but may also be serviced at the shop located at Dem-Con's Environmental Campus in Shakopee, Minnesota. Equipment available on-site changes periodically and typically consist of:

1- Compactor

1- Front End Loader

1- Off-Road Truck

1- Skidsteer

Additional equipment such as dozers and excavators are readily available on as as-needed basis from Dem-Con's Shakopee facility.

On-site personnel typically consists of two to three landfill operators. A minimum of one MPCA certified Type III landfill operator is on-site at all times during operational hours.

Windblown materials are routinely picked up as deemed necessary by the operator to maintain permit compliance. Cover material is obtained from on-site soil excavation or from clean soil hauled onto the site. Intermittent cover is placed on the active areas of the landfill on an as needed basis to control nuisance issues. However, at a minimum, the cover is placed on any wastes that are exposed for 30 days. Stockpiling measures are taken as necessary to ensure adequate cover material throughout the entire year, including winter months.

Site security is maintained by a gate that is securely locked during non-operational hours.

Inspection records, the Closure Plan, Post-closure Plan and Contingency Action Plan are all kept ~~at the Dem-Con offices~~on-site. Copies of all permits, permit applications, plans, licenses, etc. are also kept at the Dem-Con offices. A copy of the Contingency Action Plan is kept at the landfill gatehouse.

Termination procedures at the site include constructing a final cover system over completed portions of the landfill as they reach final grade. The final cover system will consist of a six-inch buffer layer, a 40–mil LLDPE cap, 12-inches of drainage sand, six inches of rooting zone soil and six inches of topsoil native to the area capable of supporting vegetative growth. The topsoil may be amended by incorporating yard waste compost into the topsoil.

Covered areas will then be seeded and shallow-rooted vegetation established to decrease erosion and infiltration rates. Before final closure of the site, the MPCA and the County will be notified to allow their staff to conduct site inspections. Specific activities regarding closure and post-closure care for the site are addressed in Section 4 of this document.

A description, including a plat, will be filed with the County Registrar of Deeds upon closure of the landfill. The description will include information concerning the nature of the site with respect to the type of waste deposited, the location of fill areas, depth of fill and other information of interest to future landowners.

6.2 Emergency Procedures

Emergency services for the proposed project are provided by the City of Mankato.

Emergency Preparedness and Prevention:

Dem-Con is operated in a manner that reduces the possibility of fire, explosion or threatening pollutant release. Dem-Con has prepared for emergencies in the following manner:

Certain equipment contains CB radios and operators are equipped with mobile telephones. The use of CB radios allows landfill operators to maintain contact with truck drivers while the trucks are on-site. The office maintains radio contact with the equipment operators. The office has a telephone for immediate contact of emergency personnel in the event of an emergency.

All operating equipment and buildings are equipped with fire extinguishers that are rated for types of fires anticipated. A spare extinguisher for the heavy equipment is stored in the shop. Dem-Con Landfill is served by the City of Mankato Fire Department , which will be called in for assistance in the event of a significant fire.

6.3 Operation Variables

Basic operating methods do not vary seasonally. In periods of rain, operation of the facility continues uninterrupted. Water falling on the active fill area is generally quickly absorbed. The main access road leading to the facility as well as the internal roads used to access the disposal areas are constructed of all-weather materials and maintained to ensure access throughout the year. During periods of snow, haul roads are cleared by trucks with snowplows or other equipment as needed. The loader and a compactor continue to operate in the active fill area. Blowing litter is typically not a problem even during periods of high winds due to the nature of the demolition material. However, litter fences and temporary litter screens are

available and used on-site to control blowing litter should winds create a problem with occasional lighter fractions of demolition-constructions debris (such as Styrofoam or insulation).

6.4 Trouble Shooting Procedures

Employee meetings are held as needed but at a minimum on a monthly basis. Employees bring any items of concern up during these meetings or, if the situation warrants, immediately upon discovery.

6.5 Preventative Maintenance

Equipment is routinely maintained. Finished landfill slopes are not less than 3% or greater than 4:1 (H:V). Stormwater diversion berms and controls are to be constructed across the landfill slopes to intercept stormwater and decrease erosion and sedimentation potential. Final grades have been designed to promote surface water runoff and inhibit surface water infiltration and slope erosion. Surface water runoff from the demolition fill area is directed to on-site stormwater management ponds.

In the event that rodent control problems occur, control measures will be adapted to mitigate the issue in conformance with practices approved by the various agencies.

6.6 Safety Requirements and Procedures

Personnel are trained in the safe operation of the equipment. Equipment is equipped with standard safety features including fire extinguishers.

6.7 Equipment Maintenance Records

Maintenance records for facility equipment and general landfill maintenance are maintained digitally and accessible at the office.

6.8 Site Inspection Records

Site inspection records are completed by Dem-Con personnel and are accessible at the landfill office. The site is inspected by Dem-Con personnel on a monthly basis. The MPCA also inspects the landfill on a periodic basis.

7 Construction Inspection, Quality Control, and Quality Assurance Plan

A Construction Quality Assurance Plan for both base liner and final cover construction is provided in Appendix H. Construction documentation for each phase of construction or closure will be submitted to the MPCA in the form of a documentation report signed by an Engineer registered in the State of Minnesota.

8 Composting Operations

8.1 Composting Plan

The facility will continue to compost yard waste received from the general public and commercial landscaping companies. The facility has the capacity to accept and compost up to 10,000 cubic yards of yard waste on an annual basis. ~~In order to facilitate the composting process, agricultural grain waste may be received and composted with the yard wastes. Agricultural grain wastes are subject to the conditions of the provisions of the ISWMP presented in Appendix A.~~

Overall, the Site has been prepared for management of surface water to prevent ponding within the compost piles and windrows. Precipitation falling on the compost piles is readily absorbed into the compost material and there is typically no run-off from the compost windrows, even with heavy rain events. Similarly, there is no leachate which is typically generated by the yard waste composting windrows.

The grading for existing conditions prevents the run-on of surface water into composting operations areas. The composting area grading provides sheet flow drainage to a low area to the west where water collects and infiltrates. The localized surface water flow directions are indicated on the existing conditions plan sheet.

Upon arrival at the facility, all incoming vehicles are asked about the quantity and nature of their load. Unacceptable materials are removed from the load near the scale and office area before proceeding to the main yard waste composting area. The access road within the facility are not paved. The interior traffic routes are watered, as needed, to control dust.

Prior to processing, yard waste may be stockpiled at the facility. The yard waste is generally moist enough not to create dusty conditions. If handling the yard waste creates dusty conditions, sufficient water would be applied to control the dust. The distance between the facility and any residential or other development is expected to further ensure that facility noise is not a nuisance.

The active composting area has the potentials to generate odors. Windrow or static pile composting is intended to be used for curing, and maturing the yard waste. Aeration of the windrows/static piles, attention to moisture content, and turning of material as needed would all assist maintenance of aerobic conditions and would minimize odors.

When active composting is completed, the compost is removed from the main operations area. The compost would be moved by a front-end loader and hauled to a screening unit. Material would be screened and stored in the finished compost product storage area near the scale and office. Compost is available to commercial landscape companies and the general public.

9 Other Site Information

9.1 Site Operating Life

The Pilgrim Demolition Landfill operated by Dem-Con includes disposal area DD 001, which is classified as a Class I Construction and Demolition (C&D) disposal area and proposed to be consolidated and closed as part of this permit action. Proposed disposal area DD002 is classified as a Class III lined C&D disposal area and includes engineered liner and leachate management systems. DD 001, the unlined area, has an anticipated remaining life of 1-2 years. DD 002, the proposed lined area, has an anticipated remaining life of over 50 years.

9.2 Wind Dispersion of Particulate Matter and Fugitive Dust

The primary sources of fugitive dust emissions is associated with internal haul roads throughout the landfill and legacy mining and processing operations that preceded the construction of landfill phases. Standard Best Management Practices (BMPs) such as watering, using selective materials for road construction, or paving roads are implemented to control fugitive dust. A water truck is available to water haul roads during dry periods.

9.3 Phase Development Plan

The site will be worked in phases as shown on the drawings in Appendix B. The first phase action will be the waste relocation of the existing DD 001 material to the existing DD 002 disposal area as described above. Proposed future lined cell phasing, as shown on the Drawings in Appendix B, is named in the likely sequence of construction of cells. Note that partial cells may be constructed rather than full phases as is shown. Final cover will be placed over each cell as final grades are reached and the area will be seeded in the spring or fall following completion of final cover placement. The following table lists the approximate timeline of phase development.

Phase	Approximate footprint (acres)	Approximate Volume (CY)	Approximate Start (year)	Approximate Finish (year)
Unlined Phases 1 & 2	17.2	1,044,918	ongoing	2035
3A	11.5*	723,503	2027	2040
3B	10.4*	511,086	2031	2045
3C	8.1	784,555	2035	2050
4A	8.1	782,222	2040	2055
4B	7.9	767,481	2045	2059
5A	7.2	690,761	2050	2063
5B	6.5	589,305	2055	2067
5C	4.2	503,605	2059	2071

-*Note: 2.4 acres of 3A and 3.3 acres of 3B will overlay the unlined phases

9.4 Cross Sections

Cross Sections are included as Sheets C-107 and C-108 of the plan set. These plans show the existing grade, final grade, and approximate excavation grade with north south and east west sections through each phase. All finished grades will not exceed slopes of 25%. Base grades and the overlay liner will be constructed at a maximum 3:1 (H:V) slope.

9.5 Noise and Access Control Methods

The site operates within the State of Minnesota's Noise Standards, Minn. Rule 7030.0040. The site and existing landfill and expansion area are located in an area surrounded by industrial and agricultural land uses (Noise Area Classification 3). Equipment is fitted with standard noise control devices (mufflers, etc.) Access is controlled by a locking gate. Berms adjacent to the access road prohibit illegal access to the facility after hours.

9.6 Leachate Management System Description

Leachate accumulated in the collection trenches of lined Phases 3A, 3B, and 3C will be routed to a sump located at the southern end of Phase 3A via 6-inch perforated leachate collection pipes. A submersible pump will transfer leachate from the sump to a 3"/6" double contained HDPE force main and to an above ground storage tank. Initially, a single 50,000-100,000 gallon steel tank will be constructed within a containment capable of containing the entire volume of the tank. As the landfill expands, Dem-Con will assess if adding a second tank is appropriate. A concrete leachate load-out -pad will be constructed adjacent to the tank for filling tanker trucks which will transport leachate to a wastewater treatment plant for disposal.

9.7[9.6] Monitoring System Description

The environmental monitoring system (EMS) at the Dem-Con Pilgrim Landfill consists of seven groundwater monitoring wells completed in the water table aquifer and surface water sampling at the west sedimentation basin. Monitoring well construction details and sampling procedures are documented in the facility's approved Sampling and Analysis Plan.

Monitoring well MW-7 was constructed at the site in August 2010 in response to MPCA comments regarding the monitoring system. The casing for MW-7 was extended approximately five feet in 2015 to accommodate site development, and the well was resurveyed following the modification. One on-site water supply well, designated as the shop well, is sampled in conjunction with the monitoring wells.

Monitoring well MW-2 was abandoned due to progression of landfill development and was replaced by MW-14-JS, located in the vicinity of the former MW-2 location. Piezometer MW-17-JS was installed in 2019 as a nested well near MW-5 to provide additional groundwater elevation data.

The monitoring wells serve the following functions within the EMS:

MW-1: Provides upgradient groundwater quality information.

MW-14-JS: Provides ~~upgradient~~ sidegradient groundwater quality information (replacement for MW-2, not for groundwater elevations).

MW-17-JS: Provides groundwater elevation information (nested with MW-5).

MW-4: Provides groundwater elevation information.

MW-5: Provides downgradient groundwater quality information.

MW-6: Provides downgradient groundwater quality information.

MW-7: Provides downgradient groundwater quality information closest to active disposal areas.

Monitoring wells range in depth from approximately 15 to 95 feet and are screened near the water table and, for the nested well, at greater depth. The wells were constructed using stainless steel screens and were developed and stabilized in accordance with applicable requirements. Well construction complies with the Minnesota Department of Health Water Well Construction Code, and the wells are suitable for monitoring volatile organic compounds, inorganic parameters, dissolved metals, general chemistry, and field parameters.

The Sampling and Analysis Plan will be updated as necessary to document changes to the EMS, and groundwater monitoring continues to be conducted in accordance with the approved plan.

9.8[9.7] Listing of Required Permits

The site is an established demolition landfill. All required permits have been obtained. The following is a list of the required permits.

MPCA Solid Waste Permit

MPCA Industrial Stormwater Permit

Wastewater Hauling Permit, as applicable, to be issued by the WWTP for leachate disposal.

9.9[9.8] Environmental Review

An MPCA Environmental Review Pre-screening Form (p-ear1-08) was completed for the site and is included in Appendix I. The form indicates further Environmental Review is not required for the proposed changes at the site.

10 General Solid Waste Management Facility Requirements – MN Rule 7035.2535

10.1 Subp. 1 Unacceptable Wastes

The unacceptable wastes listed in this section of the Minnesota Rules will not be accepted at the facility. Additional unacceptable wastes are discussed in Section 2.2 of the facility's ISWMP included as Appendix A of this application.

10.2 Subp. 2 Security

Only those persons authorized by the landfill operator and/or owner will be permitted on the site. Unauthorized access is controlled by the use of locking gates, fencing, and physical barriers.

10.3 Subp. 3 General Inspection Requirements

The operator of Dem-Con Landfill conducts weekly inspections of the facility. The operational life of the facility is reviewed annually as part of the Annual Monitoring Report. The post-closure inspections for the facility are described in Section 4 of this application.

10.4 Subp. 4 Industrial Solid Waste Management Plan (ISWMP)

The ISWMP is included as Appendix A of this application.

10.5 Subp. 5 Household Hazardous Management Plan

Household Hazardous Waste is not accepted at the Facility as described in the facility ISWMP. Additionally, the facility staff is familiar with the Blue Earth County Household Hazardous Waste management programs and designated collection facilities. If any household hazardous waste arrives at the facility it will be redirected to that facility.

10.6 Subp. 6A Active Karst Features, Disappearing Streams, or Caves

The geologic features of the site are discussed in detail in Section 5 of this application.

10.7 Subp. 6B Groundwater and Surface Water Protection

Groundwater and Surface water protection is discussed in detail in Section 3 of this application.

10.8 Subp. 7A Site Preparation

Initial site preparation activities have already taken place in existing Phases 1A, 1B, and 2 of the landfill footprint. As filling of each phase nears completion, a subsequent phase is prepared for construction. Construction preparation activities may include relocating the haul road, excavating to establish base grades, and backfilling with specified subgrade materials. Note that as part of the construction of Phase 3 the existing waste in existing disposal area DD 001 will be relocated in order to achieve the proposed base grades.

10.9 Subp. 7B Phase Development Plans

Each phase shall provide for filling in a manner to achieve final waste elevations as rapidly as possible. The phases shall be designed and constructed to minimize moisture infiltration into the fill areas while maintaining stable slopes and appropriate operating conditions. Dem-Con will bring each phase to the final waste contours as shown on the approved phase development plans and close the phase according to the approved facility closure plan. A phase development plan is shown on sheet C-104 of the drawings.

10.10 Subp. 7C Surface Water Drainage System

Surface water is diverted around and away from the active fill area. Perimeter berms are developed around the landfill which direct stormwater to one of several stormwater ponds designed to treat stormwater and control rates of runoff from the final landfill grades.

10.11 Subp. 7D Slopes and Drainageways

Slopes are designed at a maximum slope of 25% and a minimum slope of 3%. Perimeter slopes are interrupted with drainage ways and diversion berms every 200 lineal feet down the slope.

10.12 Subp. 7E Final Contours

Sheet C-105 illustrates the final contours of the landfill. The maximum proposed final elevation is approximately 872 ft-msl, consistent with existing maximum proposed final elevation.

10.13 Subp. 8 Operations and Maintenance Plan

See Section 6.

10.14 Subp. 9 Hydrogeologic Evaluation

See Section 3.

10.15 Subp. 10 Final Cover

The final cover system of the entire landfill consists of a 6 inch buffer layer overlain by a 40-mil LLDPE liner, a 12 inch granular drainage layer, 6 inches of rooting-zone, and 6 inches of topsoil. The topsoil layer will be capable of supporting vegetation and may include yard waste compost as a soil amendment and for nutrient value.

10.16 Subp. 11 Water Quality Monitoring

See Section 9.~~6~~ 7

10.17 Subp. 12 Financial Assurance

See Section 4.

10.18 Subp. 13 Planned Ultimate Use

A planned ultimate use of the site has not been determined. The final grades are compatible with development of a final use consistent with the current industrial zoning of the site such as outdoor storage, environmental recycling campus, open space, etc.

11 Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment.

Ethan Ketelsen , P.E. _____

Name Signature of Engineer

Stantec Consulting Services, Inc. _____

1 Carlson Parkway, Suite 100 Date

Plymouth, MN 55447

Address

763-657-9598 _____ _____56630_____

Telephone Registration Number

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment.

Mark A. Pahl _____

Name Signature of Applicant

3230 Dem-Con Drive _____ _____

Shakopee, MN 55379 Date

Address

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Telephone

Figures

Appendix AIndustrial Solid Waste Management Plan

Appendix B Permit Drawings

Appendix C HELP Model

Appendix D Geotechnical Evaluation

Appendix E Shredding Operations Form

Appendix F Adjacent Properties

Appendix GStormwater Calculations

Appendix H Construction Quality Assurance Plan

Appendix I Environmental Review Pre-Screening Form

Appendix J Weekly Site Inspection Report Form

Appendix K Boring Logs

Appendix L AQTESOLV Output

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

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INDUSTRIAL SOLID WASTE MANAGEMENT PLAN

Dem-Con Pilgrim Landfill (SW-254)
Mankato, Minnesota

Dem-Con Companies
13020 Dem-Con Drive
Shakopee, Minnesota 55379

April 22, 2026

Version 1

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1.0 INTRODUCTION

The "Industrial Solid Waste Management Plan" (ISWMP) for the Dem-Con Pilgrim Landfill (SW-254) was prepared to provide the specific details and procedures for the management of industrial wastes at the facility. The ISWMP was developed according to Minnesota Solid Waste Rules Part 7035.2535, subpart 5. The ISWMP discusses specific industrial waste types that will or will not be accepted at the facility, and procedures to evaluate new waste types for acceptance. It is therefore expected that the plan be revised from time to time in accordance with changes in waste stream characteristics and the evolution of the industrial waste market.

Background

Dem-Con Pilgrim Landfill, LLC (Dem-Con) operates a demolition landfill located in Township 109 North, Range 26 West, Sections 30 and 31 in Lime Township of Blue Earth, Minnesota. The initial portion of the landfill is unlined. The permit was modified in 2026 to include a lined Class III demolition landfill area, as defined in the "Demolition Landfill Guidance (MPCA, 2005), and, as stated on page 3 of that document, can accept construction, demolition (C&D) and non-hazardous industrial wastes.

Amendments to the Industrial Solid Waste Management Plan

The ISWMP may be amended at any time during the life of the facility. An amended ISWMP will be submitted whenever changes in operation or design affect the ISWMP procedures. The MPCA must review and approve the amended ISWMP prior to implementation.

2.0 ACCEPTABLE AND UNACCEPTABLE WASTES

Acceptable Wastes

Dem-Con is permitted for landfilling in two areas. The eastern, unlined area (DD 001) is permitted as a Class I demolition landfill, and the western, lined area (DD 002) is permitted as a Class III demolition landfill by the MPCA. The following sections list types of wastes that are acceptable in each area.

2.1.1 Unlined Areas

Waste types accepted in the unlined area are limited to the following demolition debris types:

- Bituminous concrete (includes asphalt pavement and blacktop)
- Concrete (including rerod)
- Stone
- Uncontaminated soil
- Masonry (bricks, stucco and plaster)
- Untreated wood (including painted, stained and/or varnished dimensional lumber, pallets, tree stumps, grubbing, root balls, particle board, plywood, fencing and dock materials)
- Siding (Includes vinyl, masonite, untreated wood, aluminum and steel.)
- Wall coverings
- Electrical wiring and components
- Roofing materials
- Duct work
- Wall board, sheet rock
- Built-in cabinetry
- Plumbing fixtures
- Affixed carpet and padding
- Ceramic items
- Conduit and pipes
- Glass (limited to window and door glass from buildings and structures)
- Insulation (Includes fiberglass, mineral wool, cellulose, polystyrene and newspaper.)
- Plastic building parts
- Sheathing
- Molded fiberglass

- Rubber
- Drain tile
- Recognizable portions of burned structures
- Metal
- Ceiling tile
- Wood and vinyl flooring
- Asbestos-containing materials (pursuant to Appendix A of this ISWMP)

2.1.2 Lined Areas

In the lined areas, Dem-Con can accept:

- All wastes accepted in the unlined areas (no further evaluation needed);
- Packaging from construction materials and activities (no further evaluation needed);
- Empty containers from construction and demolition activities (no further evaluation needed);
- Empty containers managed in accordance with MPCA "Managing Empty Containers" document (no further evaluation needed);
- Emergency Disaster Debris
- Depackaging waste
- Treated lumber (no further evaluation needed);
- Railroad ties (no further evaluation needed);
- Contaminated soils (evaluate as per Table 1);
- Dredged Materials (evaluate as per Appendix B);
- Foundry sands (evaluate as per Table 1);
- Sandblasting sands (evaluate as per Table 1);
- Grinding sludges (evaluate as per Table 1);
- Car wash sand sediment (no further evaluation needed);
- Non-hazardous mercury contaminated soils and construction/demolition debris free of elemental mercury (evaluate as per Appendix B and Table 1, respectively);
- Wastes containing PCB's less than 50 ppm
- Demolition debris with PCB containing caulking wastes in excess of 50 ppm that are adhered to structure;
- Demolition debris with lead paint that is adhered to the structure;
- Ash from burnt structures (evaluate as per Table 1);

- Non-PCB ballasts (no further evaluation needed);
- Naturally Occurring Radioactive Material (NORM) with radium-226 not exceeding 30 Pico curries;
- Carpet – abated (no further evaluation needed);
- Street sweepings (no further evaluation needed);
- Absorbents (evaluate as per Table 1);
- Waste traps from garages (evaluate as per Table 1);
- Sanitary & Storm Sewer Grit (evaluate as per Table 1);
- Wastewater treatment residues (evaluate as per Table 1 and MPCA Guidance Document "Guidelines-Disposal Methods for Water Filter Backwash Solids");
- Autoclaved medical waste;
- Residue from single sort recycling, tire recycling, auto recycling, and other recycling operations;
- Other wastes from manufacturing and industrial processes that do not exceed the maximum concentrations of the toxicity characteristics for a given waste using the regulatory levels included in 40 CFR part 261 (see Section 2.3 and Table 1);
- Shredded demolition debris that can be identified and or verified from generator as acceptable materials;
- Fiberglass structures (boat hulls, hot tubs, etc.)
- Treated seeds, managed in accordance with Appendix K
- "Demo-like" materials from manufacturers of building materials and structural components of buildings (including cabinets, doors, prefabricated walls, countertops, carpet, shingles, etc.), including, but not limited to, wood, wood products, tree stumps, asbestos, glass, concrete, metal, brick, clay, porcelain fixtures, block, tile, rock, insulation, shingles, sheet rock, styrofoam, plastic pipe, conduit, fiberboard, plaster and dirt;
- Residuals from yardwaste compost screening operations; and
- Other waste types specifically listed in this ISWMP.

2.2 Unacceptable Wastes

MPCA rules prohibit certain wastes from disposal in C&D landfills, including:

- Municipal Solid Waste (MSW)
- Hazardous wastes;
- Sewage that does not meet Class B pathogen reduction listed in part 7041.1300 subpart 3 such as, sewage sludge, septic tank pumping, sewage sludge compost;
- Wastes containing free liquids;

- Raw animal manure;
- Infectious wastes;
- Used oil;
- Radioactive wastes;
- Animal carcasses, parts, renderings and slaughterhouse wastes;
- Appliances (for disposal);
- Hot ashes or wastes that could spontaneously combust or ignite other wastes due to high temperatures;
- Batteries;
- Recyclable cardboard;
- Explosives;
- Fluorescent tubes and ballasts containing PCB's;
- Food waste;
- Mattresses;
- High-intensity discharge lamps;
- Live coal tar (including applicators, containers, and tubes);
- Household hazardous waste;
- Machinery or engine parts;
- Medical waste (non-autoclaved);
- Wastes containing elemental or free mercury (thermostats, switches);
- MSW incinerator ash;
- PCB containing wastes greater than the regulatory limit of 50 ppm;
- Tires (for disposal);
- Unrecognizable waste, unless processed at an MPCA permitted solid waste facility prior to delivery;
- Vehicles; and
- Yard waste (for disposal).

2.3 Mandatory Waste Types

Minnesota Rules part 7035.2535, subpart 5, item B requires that the following 12 specific waste types be addressed in an ISWMP:

Waste Type	Accepted/Not Accepted		Disposal Method
	Unlined Area	Lined Area	
Empty pesticide containers	Not accepted	Accepted	Codisposal
Asbestos	Category 1 & 2 non-friable only	Accepted (all forms)	See Appendix A
Waste containing (PCBs) at a concentration less than 50 ppm	Not accepted	Accepted	See Table 1
Spilled non-hazardous materials	Not accepted	Accepted	See Table 1
Rendering and slaughterhouse wastes	Not accepted	Not Accepted	
Wastes that could spontaneously combust or that could ignite other wastes because of high temperatures	Not accepted	Not accepted	
Foundry wastes	Not accepted	Accepted	See Table 1
Ash from incinerators, resource recovery facilities and power plants	Not accepted	Accepted	See Table 1 (coal ash only accepted in cells with a Subtitle D -equivalent liner)
Paint residues, paint filters and paint dust	Not accepted	Accepted	See Table 1
Sludges, including ink sludges, lime sludge, wood sludge and paper sludge	Not accepted	Accepted	See Table 1
Fiberglass, urethane, polyurethane, and epoxy resin waste	Accepted	Accepted	See Table 1
Spend activated carbon filters	Not accepted	Accepted	See Table 1

2.4 Exempted Waste Types

Minnesota Rules part 7035.2535, subpart 5, item D exempts the following from evaluation in the ISWMP (although whether or not the waste type is accepted must be noted):

Waste Type	Accepted/Not Accepted		Notes
	Unlined Area	Lined Area	
Paper and cardboard wastes from manufacturing processes or packaging	Not accepted	Accepted	
Food and beverage packaging and handling materials	Not accepted	Accepted	Includes packaging, wrapping and food handling (i.e. tissue wrap, etc.) materials not containing organic food waste

Food not containing free liquids	Not accepted	Not accepted	
Aluminum, iron, steel, glass, wood, and hardened, cured plastic waste	Accepted	Accepted	
Dewatered sewage sludge that has been treated by a process to significantly reduce pathogens pursuant to Minnesota Rules	Not accepted	Accepted	Needs to meet the class B pathogen reduction listed in part 7041.1300 subpart 3
Compost including sewage sludge compost produced in accordance with Minnesota Rules, part 7035.2836	Not accepted	Accepted*	*Only Class II compost. Limited, if any, markets exist for Class II compost
Grit and bar screenings from a wastewater treatment plant	Not accepted	Accepted	
Ash from boilers and incinerators using wood or biomass as a fuel source	Not accepted	Accepted	See Table 1

2.5 Waste That Requires a Subtitle D Liner

- Coal Ash and Auto Shredder Residue both require a Subtitle D liner for management in Minnesota. Dem-Con's liner and cap design meet the requirements of subtitle D. A copy of the liner equivalency calculations by Carlson McCain that demonstrate that the liner and cap design exceeds the Subtitle D standard are included in Appendix F.

2.6 Hazardous Wastes

The following discussion is provided to assist facility managers in understanding what is and is not a hazardous waste. The definitions were originally specified in the Resource Conservation and Recovery Act (RCRA), as administered by the United States Environmental Protection Agency (USEPA). These definitions are incorporated into Minnesota state statutes and discussed in detail in rules promulgated by the Minnesota Pollution Control Agency (MPCA), as cited below.

A substance is a hazardous waste if:

- The waste exhibits any of the characteristics of hazardous waste in Minnesota Rules, part 7045.0131 (ignitability, it is an oxidizer, corrosivity, reactivity, lethality or toxicity);
- The waste is nonspecific source (F), specific source (K), commercial chemical product (P,U), listed in Minnesota Rules, part 7045.0135; or
- The waste is a polychlorinated biphenyl waste (PCB waste) at a concentration of 50 ppm or greater as described in Minnesota Rules, part 7045.0135 subpart 5.

The characteristics of a hazardous waste are:

- Ignitability: According to MN Rule 7045.0131 Subp 2, a liquid exhibits the characteristic of ignitability if it is an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60 degrees Celsius (140 degrees Fahrenheit). The flash point test determines the lowest temperature at which a chemical ignites when exposed to flame. A non-liquid waste exhibits the characteristic of ignitability if it is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard. Test method 1030 from SW-846 is the most appropriate test for a non-liquid waste for which the ignitability characteristic is suspected.
- Corrosivity: A waste exhibits the characteristic of corrosivity if a representative sample of the waste is aqueous and has a pH less than or equal to 2.0 or greater than or equal to 12.5. The pH is a measurement that determines the acidity or alkalinity of a sample.
- Oxidizers: Any waste defined in the Code of Federal Regulations (CFR), Title 49, Section 173.115 as an oxidizer or any waste that readily supplies oxygen to a reaction in the absence of air.
- Reactivity: A waste is reactive if it is normally unstable; reacts violently with water; forms an explosive or toxic mixture with water; can easily be detonated or exploded; or contains quantities of cyanide gas or sulfide that could be released into the air at toxic levels when exposed to a pH range of 2.0 to 12.5;.
- Lethality: Lethality is a hazardous waste characteristic specific to Minnesota, and considers the toxicological, or poisonous, effects of the waste. In accordance with MN Rule 7045.0131, Subp 6, Lethality shall be determined by applying knowledge of materials and processes used, including reasonably available information on the lethality of the components of the waste. A waste is hazardous for the lethality characteristic when a representative sample exhibits any of the following:

  -an oral LD50 (rat) less than 500 mg/kg

  -a dermal LD50 (rabbit) less than 1000 mg/kg

  -an inhalation LC50 (rat) less than 2000 mg/m^3

  -an inhalation LC50 (rat) less than 1000 ppm for gasses and vapors

- Toxicity: The Toxicity Characteristic Leaching Procedure (TCLP) is a laboratory test where the concentrations of various constituents such as heavy metals, pesticides, and organic solvents are measured in an acid solution that has passed through a sample of the waste material. If the concentration of any constituents exceeds the maximum concentrations listed in MN Rule 7045.0131, Subp 8, the waste is hazardous.

There are exemptions to the hazardous waste classification for specific wastes, as listed in Minnesota Rules, part 7045.0120. Regulated hazardous waste must be disposed of at a permitted hazardous waste

disposal facility. Any material contaminated by a hazardous waste and is deemed to be a hazardous waste by the MPCA will not be managed by Dem-Con.

Dem-Con does not accept hazardous wastes, including household hazardous wastes and hazardous wastes from conditionally exempt generators. Anyone bringing in hazardous wastes for disposal will be directed to the Blue Earth County Household Hazardous Waste Facility, 651 Summit Ave, Mankato, Minnesota, or to contact their county solid waste officer.

3.0 WASTE EVALUATION PROCEDURES

3.1 Notification

Regular customers of the landfill receive notification of the types of materials that are and are not acceptable and any changes in policy. They are also informed of the policies for ensuring that only acceptable waste are hauled to and disposed of at the site.

New customers are notified of Dem-Con's policies and procedures as the new account is opened and/or via postings in the gatehouse or on the company website. Any changes to the original policy will be presented to the generator in the form of a notification letter as appropriate.

3.2 Evaluation of New Industrial Wastes

Dem-Con will evaluate each new waste type considered for disposal on a case-by-case basis. Procedures for evaluating certain specific waste types are included in Table 1 and the appendices. When a request for acceptance for a new waste type is received, Dem-Con will determine the acceptability using the following procedures, as necessary:

- Determine if the waste is construction, demolition or "demo-like" waste that can be accepted without further chemical evaluation. Acceptance of these wastes will be based on physical characteristics such as moisture, odor, dust and other potential nuisance conditions to ensure we are in compliance with our approved MPCA permit for the Facility.

- Request that a waste profile sheet be completed if applicable (See example in Appendix D)
- Determine if the waste is listed as an accepted exempt waste (Section 2.4) that can be accepted without further evaluation. Acceptance of these wastes will be based on physical characteristics such as moisture, odor, dust and other potential nuisance conditions to ensure we are in compliance with our approved MPCA permit for the Facility.
- Determine if the waste is addressed in the Table 1 as an acceptable type. Follow the evaluation procedures listed as appropriate.
- If the waste is a new waste type not covered in the above three categories, request information on the chemical makeup of the waste from the generator. Material Safety Data Sheets (MSDS's) and other product data should be obtained from the generator whenever possible. If waste contains any of the chemical parameters listed in Table 2, chemical analysis should be requested, which can be limited to the specific parameters in the waste. The TCLP test is the most definitive test and should be conducted if there is no data available or if the available data is from a different method and cannot be interpreted as being below the acceptance limits in Table 2. If the results of the chemical analysis are below the acceptance limits, the waste can be accepted for disposal pending a review of the physical characteristics.
- Concurrently with the request for chemical information, request information on the physical characteristics of the waste. Information on quantity, delivery method and frequency, physical state (dry, powder, solid, etc.), odor, flammability of the waste, and on the process that

produces it, should be considered. Determine if the waste can be safely managed and if special management procedures are needed.

- The final determination on acceptability of the waste will be based on comparisons with the acceptance limits (Table 2) and any potential concerns with the physical characteristics.

The need for laboratory testing will be determined on a case-by-case basis. Only the tests needed to accurately characterize the waste will be requested. Unknown waste or waste generated from an unknown process will be required to have complete TCLP analysis.

After it is determined that the waste is acceptable, the following additional steps must be completed:

- Develop procedures for managing the waste including inspection, handling, disposal, and any other conditions of acceptance.
- If the ISWMP needs to be modified, a revision will be prepared and submitted to the MPCA.
- Maintain generator file and waste acceptance records at the facility.

3.3 Review of Laboratory Data

The parameters listed Table 2 are ones for which there is a hazardous waste limit set by the USEPA. The TCLP test is the laboratory method used to determine if a material is hazardous or not, as it uses a leaching procedure to simulate landfill conditions. However, in most cases, the laboratory data provided by generators for solid materials will be for the total concentrations of parameters in the materials (reported in milligrams per kilogram, or mg/kg, or micrograms per kilogram, or ug/kg). The total concentrations will always be higher than the TCLP concentrations (reported as milligrams per liter, or mg/l).

As an initial comparison of total concentrations versus TCLP concentrations, divide the total concentration by 20. This "Rule of 20" is based on the fact that the weight of the fluid used for the leaching process in the TCLP test is 20 times the weight of the sample. Therefore, the theoretical maximum concentration in the fluid at the completion of the leaching process is 1/20 of the total concentration in the sample, assuming 100 percent of the parameters being tested leaches during the test. If the result of dividing the total concentrations by 20 is less than the acceptance limits, the waste is acceptable.

In practice, the ratio of the total concentration to the TCLP concentration is more than 20, since less than 100 percent leaches from the sample. If the result of dividing the total concentration by 20 is greater than the acceptance limit, the waste may still be acceptable. Request a TCLP test for the parameters in question, which will give a definitive result.

3.4 Evaluation of Wastes as Alternative Daily Cover

Some waste types, including contaminated soil, some foundry sands, C&D fines etc., are suitable for use as Alternative Daily Cover (ADC). ADC replaces native soil as daily/intermittent/intermediate cover. The waste must first be determined to be acceptable at the landfill. Then, the waste can be

evaluated for use as ADC if it can fulfill the function of native soil as a cover material, in that it must have the following characteristics:

- Be "soil-like"
- Able to control vectors, odors, and fire
- Is not subject to undue erosion or dust creation
- Does not pose a physical hazard to vehicles or workers.
- Must not be odorous
- Must not contain chemical parameters that exceed the ADC limits in Table 2

ADC will be placed in a 6-inch layer over active working areas, and cannot be used on external side slopes. See Table 1 and Appendix B for information on evaluation and management of materials as ADC. The action limits for ADC are different than the action limits for disposal. See Table 2 for the ADC action limits

3.5 Emergency Disaster Response Material Acceptance

In the event of a natural disaster such as but not limited to; tornado, high winds, flooding, fire, earthquake or act of terrorism Dem-Con Pilgrim Landfill may accept material per Dem-Con's ISWMP.

4.0 MANAGEMENT OF INDUSTRIAL WASTES

Information on general procedures to manage industrial wastes is provided below. Additional information for certain specific wastes is included in Table 1. As new waste types are approved for acceptance, corresponding entries will be added.

4.1 General Inspection Procedure

Waste management is an important aspect of the operating procedures at Dem-Con Pilgrim Landfill. When a new account is established, customers are required to accept Dem-Con's policy of inspecting their loads for unacceptable wastes and to work with generators to eliminate those wastes from the loads. Various measures, such as providing generators with lists of acceptable and unacceptable wastes, providing two boxes at a site, one for acceptable and one for unacceptable wastes, are suggested for use by the haulers in complying with the Dem-Con acceptance policy. Haulers must walk around their loads and inspect them for unacceptable items after they have tipped. Dem-Con requires that haulers remove the entire load from the fill area if too many unacceptable items are found. This encourages haulers to work with generators to produce clean, acceptable waste streams. The site operators then inspect the load as they work the material into the current tipping area. Unacceptable items are removed when identified by the operator. Operators are trained and certified by the MPCA in waste identification and management procedures.

When unacceptable items are found in the waste after the hauler has left, they will be removed and stored in roll-off boxes prior to removal. The items will typically be removed to a recycler or appropriate disposal facility.

4.2 Disposal Procedure

All loads are checked in at the landfill gatehouse. In some cases, loads of industrial waste will be tracked using a Waste Manifest Form (see example Appendix C), which must be presented at check-in. The date, time, customer name and type and quantity of waste are documented. Dem-Con does not assume acceptance of materials until the load is inspected, spread and compacted, and additional material is placed over the top.

In general, industrial waste loads are disposed of in the same area and manner as demolition debris accepted at the landfill. This minimizes the size of the working face and allows for efficient inspection and compaction.

Tables

TABLE 1
INDUSTRIAL WASTE TESTING AND MANAGEMENT PROCEDURES
Dem-Con Pilgrim Landfill (SW-254)

Waste Type	General Parameters	TCLP Parameters				Notes	Disposal Method
		Metals	VOCs	SVOCs	Herbicides/ Pesticides		
Absorbents	Paint filter, flash point		X			Determine specific parameters on case by case basis	Codisposal
Asbestos						See Appendix A	See Appendix A
Ash - coal (power plants, boilers)		X				(In future cells w/MSW-equivalent liner only)	
- Wood/biomass		See notes				Ash from wood/biomass fueled power plants/boilers accepted with no testing. If mixed with coal or other fuels, review on a case-by-case basis.	Codisposal
Ash from fires		X				Add other parameters based on building contents. Ash from intentional fires (fire department training, etc.), new building construction sites, tree and pallet burning require no testing.	Codisposal
Contaminated Soils						See Appendix B (see Section 3.4 regarding use as ADC)	Codisposal/Alternative Cover
Mercury Contaminated C&D Debris		X				Evaluate as per the MPCA Program Management Decision Memo dated May 8, 2007 (Appendix E)	Codisposal
Dredged Materials	Copper, Arsenic, PAHs (carcinogenic and non-carcinogenic)					See Dredged Materials Section in Appendix B (see Section 3.4 regarding use as ADC)	Codisposal/Alternative Cover
Epoxy, Fiberglass and Urethane Resins		X	X			Review MSDS's for additional parameters to test	Codisposal
Foundry Wastes		X				Review process for additional parameters to test. Review for use as ADC (see Section 3.4).	Codisposal/Alternative Cover
Refractory Materials		X					Codisposal
Glass - Windshield and Specialty		Pb				Add Cr analysis for mirrored glass	Codisposal
Old Dumps	Molybdenum, iron, boron	X					Codisposal
Off-Spec Products							
- Adhesives		X	X	X			
- Wood treatment		X	X	X	X		
Paint Residue, Filters, Dust	Flashpoint	X	X			Review MSDS's for additional parameters to test	Codisposal
Wastewater Treatment Residues	PCBs, RCRA Metals, E-Coli/Fecal Coliform	X				Must be treated by process to reduce pathogens or not contain pathogens as listed in Mn Rule	Codisposal
Sandblasting Waste		X				If from inner wall of tank, add parameters based on contents	Codisposal
Shredder Fluff	PCBs	X				Evaluate per MPCA P.M.D.	Codisposal
Sludges - Paper Mill	Paint filter	X					Codisposal
- Ink	Paint filter, flash point	X	X				Codisposal
- Metal finishing	Reactive cyanide, Reactive sulfur, pH, flash point	X	X				Codisposal
Spent Carbon Filters		X	X			Determine specific parameters based on use of filters	Codisposal
Spilled Non-Hazardous Materials / Other Wastes	*	*	*	*	*	* Review MSDS and other information to determine sampling requirements	Codisposal
Storm Sewer Grit	PCBs, RCRA Metals	X				PCB's based on site specific conditions	Codisposal
Waste Traps from Garages	Metals, TPH, VOC, PCBs	X	X	X		Determine specific parameters on case by case basis	Codisposal

UPDATED APRIL 2026

TABLE 2 - ACCEPTANCE LIMITS

Dem-Con Pilgrim Landfill (SW-254)

Parameter	CAS No.	RCRA No.	Acceptance Limits for Disposal		Acceptance Limits for ADC
			TCLP (mg/l)	Total (mg/kg)(1)	Total (mg/kg)(3)
TCLP Metals					
Arsenic	7440-38-2	D004	5	100	9
Barium	7440-39-3	D005	100	2000	41000
Cadmium	7440-43-9	D006	1	20	23
Chromium	7440-47-3	D007	5*	100*	200
Lead	7439-92-1	D008	5	100	460
Mercury	7439-97-6	D009	0.2**	4**	3.1
Selenium	7782-49-2	D010	1	20	1200
Silver	7440-22-4	D011	5	100	1200
TCLP VOCs					
Benzene	71-43-2	D018	0.5	10	42
Carbon tetrachloride	56-23-5	D019	0.5	10	230
Chlorobenzene	108-90-7	D021	100	2000	700
Chloroform	67-66-3	D022	6	120	31
1,4-Dichlorobenzene	106-46-7	D027	7.5	150	200
1,2-Dichloroethane	107-06-2	D028	0.5	10	72
1,1-Dichloroethylene	75-35-4	D029	0.7	14	1200
Methyl ethyl ketone	78-93-3	D035	200	4000	28000
Tetrachloroethylene	127-18-4	D039	0.7	14	170
Trichloroethylene	79-01-6	D040	0.5	10	20
Vinyl chloride	75-01-4	D043	0.2	4	56
TCLP SVOCs					
o-Cresol *(2-methylphenol)*	95-48-7	D023	200	4000	8700
m-Cresol *(3-methylphenol)*	108-39-4	D024	200	4000	8700
p-Cresol *(4-methylphenol)*	106-44-5	D025	200	4000	3500
Cresol(2)		D026	200	4000	3500
2,4-Dinitrotoluene	121-14-2	D030	0.13	2.6	78
Hexachlorobenzene	118-74-1	D032	0.13	2.6	3.2
Hexachlorobutadiene	87-68-3	D033	0.5	10	17
Hexachloroethane	67-72-1	D034	3	60	150
Nitrobenzene	98-95-3	D036	2	40	380
Pentachlorophenol	87-86-5	D037	100	2000	46
Pyridine	110-86-1	D038	5	100	n/a
2,4,5-Trichlorophenol	95-95-4	D041	400	8000	18000
2,4,6-Trichlorophenol	88-06-2	D042	2	40	180
TCLP Pesticides/Herbicides					
Chlordane	57-74-9	D020	0.03	0.6	100
2,4-D	94-75-7	D016	10	200	n/a
Endrin	72-20-8	D012	0.02	0.4	54
Heptachlor (and its epoxide)	76-44-8	D031	0.008	0.16	4.2
Lindane	58-89-9	D013	0.4	8	0.17
Methoxychlor	72-43-5	D014	10	200	n/a
Toxaphene	8001-35-2	D015	0.5	10	16
2,4,5-TP (Silvex)	93-72-1	D017	1	20	n/a
Other Parameters					
PCBs			50 ppm		0 ppm
TPH (DRO, GRO, Oily Wastes)			no limit***		5,000 ppm
Flammability of a Solid (SW -846 & Test Method 1030)					

Notes: 1. Total concentration (mg/kg) is 20 times the mg/l value and is a guidance value. **UPDATED APRIL 2026**

If the guidance value is exceeded, run the TCLP test. The TCLP result takes precedent.

2. If o, m, and p-cresol cannot be separated, total cresol is used.

3. With the exception of arsenic, ADC acceptance is based on the Industrial SRVs as provided by the MPCA. Because natural arsenic concentrations are above the SRV, the background threshold value (BTV) is used.

**4. Wastes containing chromium which is exclusively or nearly exclusively trivalent chromium and do not generate hexavalent chromium are not D007 hazardous wastes if managed in non-oxidizing environments.*

*** 5. The acceptance limit for mercury contaminated soils and C&D debris is 10 ppm (or >10 ppm with written pre-approval from the MPCA) as per the MPCA Program Management Decision Memo dated May 8, 2007.*

**** 6. There is no limit on TPH, DRO, or GRO as long as materials meet all other criteria of the ISWMP such as free liquids, odor, etc.*

Appendix A

Asbestos-Containing Materials Guidance

ASBESTOS-CONTAINING MATERIALS GUIDANCE FOR LANDFILL DISPOSAL

Background

Asbestos is a mineral mined out of the ground for use in various products. The use in products has dropped significantly since the early 1970's when it was banned from further use in certain products. The bans were issued because long term exposure to airborne asbestos can result in respiratory diseases. Many of these products are now being removed as they wear out, or age.

From a landfill operator's standpoint, the primary hazard related to asbestos is possible inhalation, since asbestos is linked to lung diseases. Management of ACM is regulated by the United States Environmental Protection Agency (USEPA) under the code of federal regulations (CFR). Specifically, Title 40, section 61 (cited as 40 CFR 61), is a portion of the National Emission Standards for Hazardous Air Pollutants (NESHAP) that deals specifically with asbestos. There are requirements for all manner of asbestos related uses and management, including demolition and renovation (40 CFR 61.145), disposal procedures by generators (40 CFR 61.150), and requirements for landfill (40 CFR 61.154).

ACM is any material that contains at least 1% asbestos and any filters or packaging used during asbestos abatement. ACM comes in two forms; friable and non-friable. Friable ACM is any material that, when dry, can be crumbled or pulverized by hand pressure. Non-friable ACM cannot be crumbled or pulverized by hand pressure.

The NESHAP regulation divides non-friable ACM into two categories. Category 1 includes packings, gaskets, resilient floor covering and asphalt roofing products with at least 1% asbestos. Category 2 includes any non-friable ACM excluded from Category 1. Category 1 and 2 non-friable ACM is not subject to the NESHAP requirements, unless it has become friable. Dem-Con will accept only Category 1 and 2 non-friable ACM in the unlined areas. The lined areas of the landfill can accept Category 1 and 2 non-friable ACM as well as friable ACM..

For the remainder of this section, the requirements discussed refer to regulated ACM, which includes all friable materials and non-friable materials that may become friable. Information specific to category 1 and 2 non-friable materials is included in parentheses as necessary.

Manifesting and Documentation

EPA regulations require that, if a facility which is being demolished or renovated that has a minimum of 260 linear feet of ACM on pipes, 160 square feet of ACM on facility components, or 35 cubic feet of ACM from facility components which could not previously be measured, notification must be made to the regional program administrator of the demolition or renovation activity. If this notification is required, all shipments of ACM to the landfill must have a waste shipment record, or manifest. Dem-Con requires that all shipments have a manifest regardless of the quantity involved. See Appendix C for an example of a manifest form available for use by haulers.

Dem-Con will maintain shipping records for a period of 2 years in accordance with NESHAP regulations. Dem-Con will maintain until closure a record of fill locations and elevations, as well as volume of ACM

disposed. Documenting ACM disposal locations is important to ensure that the ACM is not disturbed during any future excavations. If separate cells are used, the horizontal and vertical location of ACM will be defined by the most recent airspace survey preceding ACM placement and the first airspace survey after ACM placement.

Documentation of the locations of ACM disposal will be submitted with the closure report for the facility. The documentation will also be submitted to the Blue Earth County Recorder as required as part of the final closure process.

Disposal Requirements

The following procedures must be followed for proper delivery and inspection of regulated ACM loads:

- Advance notification of the delivery of ACM loads is required.
- The regulated ACM must be sealed in leak-tight containers, or wrapping (≥ 6 mil) plastic bags or wrapping).
- A manifest must accompany every load, and the volume reported must be accurate to within 10% of the volume of the load. The generator (or authorized agent) and hauler must sign the manifest. (For Category 1 & 2 non-friable ACM, provide 1 manifest per day per job.)
- The manifest must be signed after verification of the load. The appropriate copy must be mailed to the Generator within 30 days. The manifest must be retained by the landfill for a minimum of two (2) years.
- The material must be shipped in such a manner (e.g., open top box, compactor box with inspection ports, drums) that will allow verification of proper packaging, labeling, and volume.
- A loading sign must be used during loading and unloading, worded as follows:

Danger
Asbestos Dust Hazard
Cancer and Lung Disease Hazard
Authorized Personnel Only

- If any unacceptable waste is observed, it will be the sole responsibility of the hauler to remove said waste. If the rejected waste is regulated asbestos, the rejection will be noted on the manifest and a copy sent to the MPCA. The hauler will immediately contact a certified asbestos abatement contractor to properly contain and remove ACM if necessary. Dem-Con must notify the MPCA within 48 hours of a hauler tipping unacceptable regulated ACM at the landfill. All rejected loads will be recorded by Dem-Con on a load rejection report, including the date, volume, hauler, ticket number and reason for rejection.
- The hauler is responsible for handling and unloading of all non-friable ACM. The ACM must be handled in a manner that will prevent visible emissions from the waste material. The hauler is responsible for training their personnel so they are properly informed of the health and safety issues associated with ACM.
- The location, depth, area and volume of ACM disposed of in the landfill must be recorded.
- Asbestos must be covered with six (6) inches of compacted, non-asbestos containing material or soil as soon as practical, but no later than the end of the working day. The ACM will be covered prior to compaction to prevent the release of asbestos fibers as well as to protect the waste so that

non-friable ACM does not become subject forces that will crumble or pulverize it, converting it to a friable state.
- No ACM will be placed within 5 feet of the base, side slope or final grade to ensure long-term protection.

A separate cell may be established at a location apart from the active working face. ACM will be dumped as described above. A minimum of six (6) inches of non-asbestos containing material or soil will be placed over the ACM as soon as practical, but no later than the end of the working day. The location designated for ACM disposal will move as landfilling progresses over the site.

Emergency Procedures

Emergency situations include, but are not limited to, the disturbance of previously buried ACM and discovery of unacceptable or undocumented ACM at the landfill. In the event of an emergency situation, a certified asbestos abatement contractor will be immediately notified. At a minimum, the area will be secured to keep landfill personnel and haulers away until the abatement contractor arrives. Under no circumstances will Dem-Con personnel handle or package any ACM.

Dem-Con personnel are trained in the facility's ACM management procedures. The procedures will be reviewed on a routine basis during regular site safety meetings.

In the event it becomes necessary to disturb buried ACM, the following procedures will be followed:

- Written notification, including a project description and schedule of proposed activity, will be submitted in writing to the MPCA a minimum of 45 days in advance. The advance notice period may be waived if the MPCA agrees that an emergency condition exists at the landfill.
- A certified asbestos abatement contractor will be on-site throughout the project to observe work and ensure that all proper regulations are followed.

Appendix B

Contaminated Soils

CONTAMINATED SOILS

Background

Soils contaminated with a variety of chemicals are acceptable in the lined area of the landfill. For the purposes of evaluation for acceptance, contaminated soils can be divided into two categories; petroleum contaminated soils and soils contaminated with other chemicals.

Evaluation of Laboratory Data

The analysis conducted on soils is typically for total concentrations, reporting in mg/kg or ug/kg. To evaluate if soil is acceptable, convert the results to mg/kg (if necessary), and see if the results are less than 20 times higher than the acceptance limits. If so, the soil is acceptable. If some parameters are more than 20 times the acceptance limits, request a TCLP test. Typically, the ratio of the total concentration to TCLP concentration is greater than 20, so the soil still may be acceptable pending the TCLP results. When applicable, if multiple samples of the totals analysis exceed the rule of 20, TCLP should be done for the highest 30% of the total samples that exceed this rule of 20 for any contaminant. There should be a minimum of 3 TCLP samples done for each project that has multiple exceedances of the rule of 20.

Analytical Requirements - Petroleum Contaminated Soils

These are soils from sites with contamination from various petroleum products at levels that are too high to be used as fill or to remain on-site. The testing required is based on the type of product present in the soil. It is important to determine the source of the contamination and the history of operations at the location as part of the evaluation process. The testing requirements for each source of contaminated soil should be evaluated on a case-by-case basis, as follows:

Analytical Requirements – Petroleum Contaminated Soil

PRODUCT	TEST REQUIRED
Regular Gasoline or Aviation Gasoline	VOCs, GRO, lead
Unleaded Gasoline	VOCs, GRO
Unused Product (Fuel Oil, Motor Oil, Diesel Fuel, Kerosene, Jet Fuels, Mineral Oil/Spirits, Crude Oil, Stoddard Solvents)	VOCs, DRO, PAH*
Used Oil	VOCs, DRO, RCRA metals, PCBs, PAHs
Hydraulic Fluids	VOCs, DRO, PAH*, PCB**
Unknown	Case by case
All Products	Flashpoint*, paint filter liquids test*

Notes:
** Optional based on-site conditions or soil moisture condition*
***For hydraulic fluid used in elevators, subject to high heat prior to the 1980s*

Analytical Requirements – Other Contaminated Soils

These are soils from sites with contamination from products or substances other than petroleum. The testing required is typically based on the past use of the site. It is important to determine the source of the contamination and the history of operations at the location as part of the evaluation process. The testing requirements for each source of contaminated soil should be evaluated on a case-by-case basis, as follows:

Analytical Requirements – Other Contaminated Soil

SOURCE	TESTS REQUIRED
Plating shops	RCRA metals, pH
PCB sources (transformers, etc.)	RCRA metals, total PCBs
Pesticides	TCLP pesticides
Used batteries	Lead
Unknown	Case-by-case

Testing Frequency

The number of tests recommended based on the estimated volume of soil is shown below.

Frequency of Testing

VOLUME (CY)	NUMBER OF TESTS
0 – 500	1
500 – 1,000	2
1,000 - 2,000	3
2,000 – 4,000	4
Each additional 2,000	1 additional

Use of Contaminated Soils as Alternative Daily Cover

Soil can often be used as alternative daily cover (ADC), depending on the physical characteristics and contaminant concentrations. A specific set of action limits is used to determine if soils or other suitable materials can be used as ADC, as shown on Table 2. Soil must meet the ADC actions limits and have the appropriate characteristics discussed in Section 3.4.

Soil accepted as ADC will be placed in a 6-inch layer over exposed waste and cannot be placed on external sideslopes.

Analytical and Sampling Requirements for Dredged Materials

Dredged materials include material that is excavated at or below the Ordinary High-Water Level of water basins, watercourses, public waters, or public waters wetlands, as defined by Minn. Stat. 103G.005. The testing and sampling of these soils will be performed in accordance with the Minnesota Pollution Control Agency Managing of Dredged Materials (MPCA Dredged Materials) document dated June 2009 and as amended from time to time.

Dredged materials removed from municipal or urban stormwater systems will follow the sampling requirements detailed in the Modified Characterization and Permit Approach for Urban Stormwater Ponds section of the MPCA Dredged Materials document. This section requires a minimum baseline sampling for Copper, Arsenic, and Polycyclic Aromatic Hydrocarbons (PAHs), both carcinogenic and non-carcinogenic. However, because the land use within the drainage area of a stormwater pond can be unique, additional sampling may be required based on the risk assessment approach provided in Chapter 3 of the MPCA Dredged Materials document.

The dredged materials may be used as ADC if they meet the ADC action limits listed in Table 2 and have the appropriate characteristics discussed in Section 3.4 of the ISWMP. Soil accepted as ADC will be placed in a 6-inch layer over exposed waste and cannot be placed on external side slopes. All dredged material, whether accepted as ADC or not, must pass the paint filter free liquids test.

Disposal and Sampling Requirements for Non-hazardous Mercury Contaminated Soils

Mercury contaminated soils will be acceptable in the lined area of the Dem-Con Pilgrim landfill in accordance with the May 8, 2007 MPCA Program Management Decision Memo regarding the disposal of mercury-contaminated soils and renovation/demolition debris in Minnesota landfills (Appendix E). These soils will be tested for mercury as well as other constituents as determined by a case specific evaluation of the project. The analytical results for the soils will be compared with the waste acceptance limits listed in Table 2. The waste acceptance limits and disposal practices for mercury contaminated soil in the lined landfill shall be in accordance with the following parameters:

- Waste with total levels of 0-4 ppm. No special handling requirements.
- Waste with total levels of 4-10 ppm, if immediately covered with six (6) inches of soil upon acceptance.
- Waste at total levels >10 ppm may be acceptable with written pre-approval from the MPCA, on a case-by-base basis, depending on volume and concentration. Additional requirements include:
    - Transporting vehicles must be lined and the waste covered with polyethylene sheeting;
    - The waste must be immediately covered with six (6) inches of soil upon acceptance.

Only non-hazardous mercury-contaminated soils and construction/demolition debris that meet the above parameters and are free of elemental or free mercury will be accepted at the Dem-Con Pilgrim landfill.

Appendix C

Special Waste Manifest Form

DEM-CON	**WASTE MANIFEST FORM** **MPCA PERMIT SW-254**	Manifest #:

GENERATION

Work Site Name: Work Site Address: City, State, Zip: Contact Name: Contact Phone #:		Waste Disposal Site **Dem-Con Landfill - Pilgrim** **57032 231st Lane** **Mankato, MN 56001** **952-445-5755**
Contractor Name: Street Address: City, State, Zip: Contact Name: Contact Phone #:		Responsible Agency **MPCA** **520 Lafayette Road North** **St. Paul, MN 55155** **(651) 296-6300**
BILL TO #: **PROFILE #:**		Additional Generator Information:
Description of Materials:	Total Quantity: ☐ CY ☐ TON	Special Handling/Additional Info:

Generator/Contractor Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. I further certify that the contents of this consignment do not contain hazardous waste as defined in 40 CFR Part 261 or MN Rule Chapter 7045.

Signature:	Date:
Printed Name:	Title:

TRANSPORTATION

TRANSPORTER INFORMATION

NAME ON TRUCK:	**TRUCK NUMBER:**

TRANSPORTER 1 (Acknowledgement of receipt of materials)

Company Name:	Company Address:	Company Phone #:
Driver's Name (Printed):	Signature:	Date:

TRANSPORTER 2 (Acknowledgement of receipt of materials)

Company Name:	Company Address:	Company Phone #:
Driver's Name (Printed):	Signature:	Date:

FACILITY

FOR DEM-CON ONLY

Discrepancy Indication Space:

Waste Disposal Site Owner or Operator: Certification of materials covered by this manifest except as noted in "Discrepancy Indication Space"

Print Name:	Signature:	Date:

COMPLETE TWO COPIES FOR EACH LOAD

DEM-CON: ONE COPY | TRANSPORTER: ONE COPY

Appendix D

Waste Profile Sheet

DEM-CON COMPANIES

DEM-CON PILGRIM LANDFILL
WASTE PROFILE SHEET

CUSTOMER JOB #:

DEM-CON PROFILE #:

Generator Information		Customer/Hauler Information ☐ Same as Generator	
1. Generator Name		8. Customer Name	
2. Site Address		9. Customer Address	
3. City, State, Zip		10. City, State, Zip	
4. Contact Name		11. Contact Name	
5. Telephone		12. Telephone	
6. Fax		13. Fax	
7. Email		14. Email	

Waste Stream Information

1. Waste Name:
2. Description of facility/site history:
3. Describe the process and source of the generated waste:
4. Typical Color(s):
5. Strong Odor: ☐ Yes ☐ No If yes, describe:
6. Physical State at 70°F: ☐ Solid ☐ Liquid ☐ Powder ☐ Semi-Solid or Sludge ☐ Other:
7. Waste Composition: ☐ Homogeneous/Uniform ☐ Non-Homogeneous or Layered
8. Water Reactive? ☐ Yes ☐ No If yes, describe:
9. pH Range: ☐ ≤ 2 ☐ 2.1 - 12.4 ☐ ≥ 12.5 ☐ N/A (solid) ☐ Actual:
10. Liquid Flash Point: ☐ < 140°F ☐ ≥ 140°F ☐ N/A (solid) ☐ Actual:
11. Flammable Solid: ☐ Yes ☐ No
12. Waste Composition and Constituents (List all known or attach document):

	%	ppm

Waste Stream Properties (Answer ALL questions)

13. Is this waste a stream that contains any D, F, K, U or P listed as hazardous waste; either in pure form, as a mixture or treatment residue? ☐Yes ☐ No
14. Is this waste explosive? ☐Yes ☐ No
15. Is this waste sewer sludge? ☐Yes ☐ No
16. Is this waste demolition & /or construction debris? ☐Yes ☐ No
17. Is this putrescible waste? ☐Yes ☐ No
18. Is this waste lethal (by Minn. Rules 7045.0131 Subp. 6)? ☐Yes ☐ No
19. Does this waste contain untreated, regulated, medical or infectious waste? ☐Yes ☐ No
20. Does this waste stream contain PCB material? ☐Yes ☐ No
    If yes, concentration: ppm
21. Does this waste contain radioactive material? ☐Yes ☐ No
22. Does this waste contain absorbents? ☐Yes ☐ No
23. Does this waste stream contain fuming acids? ☐Yes ☐ No
24. Does this waste contain oxidizers? ☐Yes ☐ No
25. Does this waste contain asbestos? ☐Yes ☐ No
26. Sample Information (check ALL that apply):
☐ Sample submitted with profile ☐ Laboratory analysis submitted ☐ Material Safety Data Sheet Submitted ☐ Other:

Waste Volume and Shipping Information

Check One: ☐ One Time Event ☐ Ongoing Waste Generation
Estimate Annual Quantity _____ ☐ Tons ☐ Cubic Yards ☐ Other:
Shipping Frequency _____ Units Per ☐ Month ☐ Quarter ☐ Year ☐ One Time ☐ Other:
Method of Shipment ☐ Roll-off ☐ End Dump ☐ Other:
DOT Hazardous Material? ☐ Yes ☐ No

Certification of Non-Hazardous Waste & Approval Conditions

I hereby certify that the information submitted in this profile and all attached documents contain true and accurate description of the waste material and that the waste is nonhazardous as defined in Title 42, United States Code Section 6903 and Minnesota Statute Section 116.06, Subdivision 11. Furthermore, I certify the following: that analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20 (c) or equivalent rules; that I am an agent signing on behalf of the Generator and have been delegated this authority by the generator; that any changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by myself or the Generator and disclosed to Dem-Con Companies prior to shipment of the waste to Dem-Con Companies. I understand that any changes in the character of the waste that are not reported to Dem-Con Companies in writing prior to shipment of the waste will invalidate this approval. I, on behalf of the generator, hereby agree to fully indemnify Dem-Con Companies for any damages and/or costs incurred as a result of any misrepresentations or falsifications made herein.

Signature	Printed Name	Title	Date

FOR DEM-CON USE ONLY

Approval Decision: ☐ Approved ☐ Not Approved
Management Method: ☐ Landfill ☐ Recycling Processing ☐ Off-Site Transfer ☐ Other:
Management Facility Precautions, Special Handling Procedures or Limitations:
☐ Shall not contain free liquid ☐ Approval Number must accompany each shipment
☐ Shipment must be scheduled into disposal facility ☐ Waste Manifest must accompany each load

Dem-Con Authorization Name/Title	Signature	Date

Appendix E

MPCA Program Management Decision Memo

Disposal of Mercury-Contaminated Soils and Renovation/Demolition Debris in Minnesota Landfills

Minnesota Pollution Control Agency

PROGRAM MANAGEMENT DECISION MEMO

ISSUE: Disposal of mercury-contaminated soils and renovation/demolition debris in Minnesota landfills

EFFECTIVE DATE: 5/8/2007

REPLACES: Program Management Decision Memo "Disposal of Mercury-contaminated Soils in Minnesota Landfills," effective March 1, 2004

DECISION

Non-hazardous mercury-contaminated soils and construction/demolition debris free of elemental mercury from products subject to regulation under Minn. Stat. 115A. 932 can be accepted in lined Minnesota landfills as part of an approved industrial solid waste management plan (ISWMP) within the following parameters:

- Waste with total levels of 0-4 ppm. No special handling requirements.

- Waste with total levels of 4-10 ppm, if immediately covered with six (6) inches of soil upon acceptance.

- Waste at total levels >10 ppm may be acceptable with written pre-approval from the MPCA, on a case-by-case basis, depending on volume and concentration. Transporting vehicles must be lined, and the waste covered, with polyethylene sheeting. The waste must be immediately covered with six (6) inches of soil upon acceptance. This approval will be considered on a case-by-case basis. In order to determine mercury emission levels during waste acceptance, the MPCA may monitor emissions before, during, and after waste acceptance at a landfill. In addition, the MPCA will examine landfill-gas monitoring data to ascertain whether increased amounts of mercury are being vented. Based on the results, it is possible that waste at total levels >10 ppm may not be allowed at landfills with active gas extraction.

This decision provides for disposal in appropriate Minnesota landfills of soils and construction/demolition debris contaminated by mercury at concentrations which are non-hazardous. This decision does not apply to wastes other than soils and construction/demolition debris. For example industrial wastes such as ash are not subject to this policy. This policy does not apply to materials which have Standing Beneficial Use Determinations, or those that have received a Case Specific Beneficial Use Determination. This allowance does **not** include elemental mercury or materials contaminated with free mercury, which must be managed as hazardous waste.

BACKGROUND

The recent history of changing policies governing mercury disposal has led to confusion among regulators, local units of government, waste generators, consultants, and landfill operators. As a result, the MPCA is adopting one policy for mercury-contaminated soils and construction/demolition debris. In addition, past policies were extremely conservative, which often led to the transportation of waste out of state, for disposal in similarly, or even less-protective, disposal environments. This policy includes special waste handling procedures to reduce potential emissions, based upon the mercury levels in the waste.

Disposal of wastes contaminated by mercury must be approved of within a landfill's ISWMP. In evaluating requests for approval, solid waste staff should consider a range of potential risk factors, including, but not limited to, releases due to methylation of mercury, vaporization during disposal and through gas vents, and leaching into ground water. Written request by the landfill, and approval by the MPCA, must be received prior to acceptance of waste covered by this policy.

In some circumstances, it may be possible to segregate wastes contaminated at high levels from those that are not, reducing the amount of material which must be disposed of out of state. All such determinations should be made in consultation with MPCA staff.

A formal letter outlining this final policy, including the website link, will be immediately sent to landfills and County Solid Waste Administrators. MPCA remediation, solid waste, and hazardous waste program staff will implement this policy change when advising outside parties of appropriate disposal options for mercury-contaminated waste.

RELEVANT STATUTES AND RULES

- Minn. Stat. § 115A.932: Prohibition of disposal of mercury or mercury-containing devices in Minnesota landfills;
- Minn. Rules, chapter 7045.0120, subpart 1, article F: Exempts disposal of coal ash from governance by hazardous waste rules; and
- Minn. Rules, chapter 7001.3300: industrial solid waste management plans.

RATIONALE

The following is a summary of historical policies governing mercury-contaminated waste:

Minnesota Statutes, section 115A.932 restricts disposal of mercury, in some forms and from certain sources, in Minnesota landfills. At the same time, some of the sites being redeveloped around the state contain mercury contaminated soils or materials within

structures may be contaminated from past improper disposal practices. In some cases, these soils or materials may need to be removed from the site, depending upon the levels of contamination and the planned land and site uses. In addition, routinely generated industrial wastes such as foundry sand, wastewater sludge, and slag can contain residual mercury.

How should such materials be disposed of, and under what circumstances should the MPCA require that such material be shipped out of state for disposal? There are also ethical and environmental issues regarding whether it makes sense to ship Minnesota's mercury contaminated waste to another state, if it might be managed safely here.

MPCA staff often had interpreted Minnesota Statutes, section 115A.932 to mean that essentially no mercury could be disposed of in Minnesota landfills, regardless of its nature or source, and that the mercury contaminated material must be disposed of in accordance with Minnesota Rules, chapter 7045.

It appears, however, that Minnesota Statutes, section 115A.932 had been interpreted too broadly, to prohibit disposal of materials it was not intended to prohibit. At the time the statute was developed, the Legislature was concerned about potential mercury contamination from mercury-containing devices, mercury-containing compounds, or bulk mercury, being intentionally placed in solid waste for disposal. It can be argued that the legislature did not intend for the statute to apply, for example, to soils contaminated by historical use of coal ash as fill material.

This broad reading of the law has led to confusing and conflicting requirements for disposal practices. On the one hand, the MPCA sent a memo to landfill operators (June 1, 2000) stating that materials which "passed" a TCLP test may be disposed of in a landfill, and that this level for mercury (0.2 ppm in the TCLP leachate) is used in industrial solid waste management plans as a cut-off for acceptance of mercury-containing materials. Again, the concern was mainly over acceptance of bulk mercury or mercury-containing devices and debris.

A leaching test is simply a method for determining whether a concentration of a contaminant in soils or other materials are high enough that the contaminant can leach out of the material at concentrations that exceed thresholds established by the United States Environmental Protection Agency (EPA). Therefore, the test helps determine whether the material should be evaluated and handled as a hazardous waste.

On the other hand, an MPCA remediation program had begun using a concentration of 0.7 ppm in soil (rather than in leachate) as the criterion for determining whether to ship the soil out of state for disposal in a hazardous waste landfill. At that time, this level corresponded to the MPCA's risk-based "soil reference value" (SRV) for residential land use. It may be argued, however, that using the 0.7 ppm concentration as the cut-off level for sending such soil out of state for disposal did not necessarily make sense. SRVs represent conservative screening levels up to which contamination might safely remain in place under certain exposure conditions. Establishment of final cleanup levels may

involve reducing on-site concentrations, altering exposure conditions, or some combination of the two. The 0.7 ppm level had been developed solely to be used as a risk screening level for mercury contamination in soils in a setting to be redeveloped for residential use. So, it was possible to build a house or a child's play area on soils containing mercury at concentrations up to 0.7 ppm.

The MPCA's "Risk-based Guidance" documents from which this level was drawn also suggested that soils with mercury contamination of up to 2 ppm might remain in place under commercial or industrial land-use scenarios. Therefore, using 0.7 ppm as the criterion for determining whether to ship soils from some sites out of state (not allowing them to be placed in landfills) could result in the paradox of allowing soils at other sites contaminated at concentrations of up to at least 2 ppm to remain in place beneath new developments. It stands to reason, then, from a risk standpoint, that soils contaminated at concentrations at least somewhat higher than 0.7 ppm might safely be placed in lined landfills, where even long-term exposures would be quite limited.

In order to recommend a disposal cut-off level for concentrations of mercury in soils, in March of 2004, a Program Management Decision Memo was issued which allowed soils contaminated with mercury at concentrations of up to 4 ppm to be disposed of in municipal solid waste landfills (and possibly some other types), because 4 ppm was a pragmatic benchmark that should protect human health from an air emission pathway, and yet did not unduly restrict management of soils contaminated by ash and other waste often encountered at cleanup sites.

This approach represented a reasonable compromise among the current range of disposal practices involving mercury contaminated soils. For example, the MPCA currently allows coal ash (commonly a source of mercury in soils from redevelopment sites) to be spread as a portion of the daily cover on municipal solid waste (MSW) landfills. In addition, there are landfills in Minnesota operated by utility companies specifically for disposal of coal ash. Indeed, Minnesota already approves application of soils with mercury concentrations significantly higher than those recommended in this policy (17 ppm) to agricultural lands as a soil amendment. Moreover, disposing of contaminated soil in an appropriate landfill is essentially moving an old, unmanaged release to be managed in safer, more controlled conditions, rather than creating a new release of mercury. This decision applied to mercury-contaminated soils only.

In late 2005, a request for a reevaluation of MPCA policy was received. The request was made after two large projects involving renovations of buildings that were contaminated from past, improper disposal of mercury and/or mercury-containing devices were undertaken. The request stated that using the Residential SRV as a disposal standard was too stringent, and caused an economic hardship due to increased costs from transporting debris out of Minnesota. The MPCA's reevaluation of the policy suggested that using the Residential SRV for mercury disposal was indeed too stringent a standard when applied to controlled disposal of waste in a lined landfill. The MPCA examined the totals data from one of the above projects and the vast majority of the waste fell below 1.5 ppm, which is the current Industrial SRV. That appeared to be a reasonable threshold. As a result, the MPCA decided that it would allow disposal of mercury-contaminated

renovation/demolition debris in a lined landfill at levels up to 1.5 ppm. This was communicated to landfills and County Solid Waste Administrators in a letter dated July 14, 2006.

In September of 2006, the MPCA was approached regarding disposal of large amounts of mercury-contaminated soil that were being generated as a result of remediation of a salvage yard. A large amount of the soil exceeded the 4 ppm threshold allowance, so was therefore being disposed of out of state. The MPCA learned it was being disposed of in a biopile in Wisconsin, which is a less protective environment than a lined landfill. Additional data provided showed completed and pending soil remediation projects totaling over 85,000 cubic yards of contaminated soil that exceeded 4 ppm, that would be disposed of outside of Minnesota.

The MPCA concludes that with special handling at landfills, based on totals levels, mercury-contaminated wastes can be safely accepted within Minnesota. The Minnesota Department of Health was consulted regarding this policy, and found it to be reasonable.

APPROVAL

I have reviewed this management decision and I concur.

Signed: Tim Scherkenbach
Date: 5/8/07
Tim Scherkenbach
Assistant Commissioner

Signed: James L. Warner
Date: 5/8/07
James L. Warner, P.E.
Director, Industrial Division

Signed: Lisa J. Thorvig
Date: 5/8/07
Lisa Thorvig
Director, Municipal Division

Signed: Gary Pulford
Date: 5/8/07
Gary Pulford
Manager
Policy, Local Government Assistance and Solid Waste Section

Signed: _____

Date: Dave Richfield

Dave Richfield
Supervisor, Land Policy Unit
Policy, Local Government Assistance and Solid Waste Section

Mercury-catalyzed Polyurethane Flooring and Mercury-contaminated Demolition Debris and Soil

Disposal in Minnesota

Mercury is an element that can cause harmful environmental and health effects when disposed of improperly. Because of previous practices, mercury contamination can be found in some soils and demolition debris in Minnesota. In one particular application, mercury was used as a catalyst in some types of synthetic flexible flooring between the 1960s and early 2000s. This flooring, called mercury-catalyzed polyurethane flooring (MCPF), is most commonly found in athletic facilities.

Normally, mercury and mercury-contaminated wastes are prohibited from land disposal in Minnesota under regulations of the Minnesota Pollution Control Agency (MPCA). However, the MPCA will allow some such wastes to be disposed in Minnesota landfills under the conditions discussed in this fact sheet.

Do I have MCPF in my building?

MCPF was most commonly used as a poured-in-place, rubber-like flooring and could be tinted to any color. It was made by many manufacturers under multiple brand names. The only way to determine whether a particular flooring contains mercury is to test a representative (full-thickness) sample using a reputable testing laboratory. The Minnesota Department of Health (MDH) administers a voluntary laboratory certification program. Although you are not required to use a certified laboratory, the MDH or MPCA can help you locate one if you choose.

Must I remove MCPF if I find it?

While Minnesota laws do not require you to remove MCPF, it may continue to release harmful gaseous mercury into a building's air for decades after installation. MDH has published indoor air quality guidance for mercury at http://www.health.state.mn.us/.

Mercury vapor from MCPF can penetrate and contaminate other materials, such as plastic and wood. Attempting to cover or seal MCPF instead of removing it may create more contamination and cost.

Ensure that anyone who may be exposed to the flooring or debris during removal (including employees, contractors, and students) is properly protected from exposure to mercury.

How must I dispose of suspected MCPF and related debris?

Before disposing of suspected MCPF and related debris, test representative samples of the flooring and any other debris for both total and leachable mercury content. The type of disposal allowed for the waste will depend on both of these values and is shown in Table 1 on the following page. Total mercury should be determined in parts per million (ppm) and leachable mercury in milligrams per Liter (mg/L).

Regardless of whether the waste is disposed of in a solid or hazardous waste landfill, ensure that the landfill is permitted to accept the waste and that you have performed any pre-treatment required by the receiving landfill. Additionally, transport the waste in a totally enclosed manner, such as in a truck bed lined and covered with plastic sheeting.

In addition to MCPF and related debris, soils contaminated by naturally-occurring mercury or historical practices, such as the use of coal combustion residuals as fill, may also be disposed according to Table 1.

Table 1: Allowed management of MCPF, related debris, and soils in Minnesota

Total mercury content	Non-hazardous waste (< 0.2 mg/L leachable mercury)	Hazardous waste (≥ 0.2 mg/L leachable mercury)
≤ 4 ppm total mercury	Minnesota solid waste landfill or out-of-state solid waste landfill ▪ No special handling required	Out-of-state hazardous waste landfill or treatment facility
4 < 10 ppm total mercury	Minnesota solid waste landfill or out-of-state solid waste landfill ▪ If in Minnesota, immediate coverage with 6 inches of soil	
10 - 1000 ppm total mercury*	Minnesota solid waste landfill or out-of-state solid waste landfill ▪ If in Minnesota, immediate coverage with 6 inches of soil and landfill maintains location & quantity records ***MCPF only:*** No MPCA preapproval needed ***All other related debris & soil:*** Must be preapproved by MPCA	Out-of-state hazardous waste landfill or treatment facility ▪ Land Disposal Restriction (LDR) may apply
> 1000 ppm total mercury	Out-of-state solid waste landfill	

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Statutes, Chapters 115A and 116, and Minnesota Rules, Chapters 7035 and 7045, and incorporate regulatory interpretation decisions made by the MPCA on September 3, 2013. To review Minnesota Statutes and Rules, visit the Office of the Revisor of Statutes at https://www.revisor.mn.gov/pubs.

The MPCA's Small Business Environmental Assistance Program (SBEAP) can provide free, confidential compliance assistance. The Minnesota Technical Assistance Program (MnTAP) can help reduce your waste generation. Report all hazardous waste incidents to the Minnesota Duty Officer.

Metro County Hazardous Waste Offices

Anoka 763-422-7093
Carver..... 952-361-1800
Dakota..... 952-891-7557
Hennepin..... 612-348-3777
Ramsey..... 651-266-1199
Scott 952-496-8475
Washington..... 651-430-6655
Websites ..... http://www.co.[county].mn.us

Minnesota Technical Assistance Program

Toll free 1-800-247-0015
Metro 612-624-1300
Website ..... http://www.mntap.umn.edu

Small Business Environmental Assistance

Toll free 1-800-657-3938
Metro 651-282-6143
Website.....http://www.pca.state.mn.us/sbeap/

Minnesota Pollution Control Agency

Toll free (all offices) 1-800-657-3864
Brainerd 218-828-2492
Detroit Lakes 218-847-1519
Duluth 218-723-4660
Mankato..... 507-389-5977
Marshall 507-537-7146
Rochester 507-285-7343
St. Paul 651-296-6300
Willmar..... 320-214-3786
Website .....http://www.pca.state.mn.us

Minnesota Duty Officer

Toll free 1-800-422-0798
Metro 651-649-5451
Website ..... https://dps.mn.gov/divisions/bca/

Minnesota Department of Health

Toll free 1-888-345-0823
Metro 651-201-5000
Website .....http://www.health.state.mn.us/

Appendix F

Liner Equivalency Calculations

Date: 5/23/12
By: Dan Riggs
Client: Dem-Con

LINER EQUIVALENCY CALCULATIONS – Confining Pressure

Objective:
Determine the amount of waste needed to achieve a hydraulic conductivity of 3 x 10^{-9} cm/sec on the geosynthetic clay liner, which occurs at 10 psi confining pressure.

Basis:
Vertical pressure on the liner can be expressed as:

$$(\gamma_{\text{sand,sat}} * d_{\text{sand,sat}}) + (\gamma_{\text{sand}} * d_{\text{sand}}) + (\gamma_{\text{waste}} * d_{\text{waste}}) = \sigma_{\text{GCL}}$$

or

$$d_{\text{waste}} = \frac{\sigma_{\text{GCL}} - (\gamma_{\text{sand,sat}} * d_{\text{sand,sat}}) + (\gamma_{\text{sand}} * d_{\text{sand}})}{\gamma_{\text{waste}}}$$

Where: γ = unit weight of material
d = depth of material
σ = pressure on material

<u>Assumptions</u>

1.) Leachate = 1 ft (depth permitted on liner)
2.) Thickness of sand = 2 ft
3.) Unit weight of sand above leachate, γ_{sand} = 1.5 tons/cu. yd = 111.11 pcf
4.) Unit weight of leachate = unit weight of water = 62.4 pcf
5.) Unit weight of sand below leachate, $\gamma_{\text{sand,sat}}$ = 111.11 pcf – 62.4 pcf = 48.71 pcf
6.) Unit weight of waste = 1.3 tons/cu. yd = 96.3 pcf

Depth of waste needed:

$$d_{\text{waste}} = \frac{10\ \text{psi} * 144\frac{\text{psf}}{\text{psi}} - (48.71\ \text{pcf} * 1\ ft) - (111.11\ pcf * 1\ ft)}{96.3\ pcf}$$

$$\boldsymbol{d_{\text{waste}} = 13.3\ ft}$$

Results: 13.3 ft of waste will be needed above the 2 ft of sand to confine the GCL at 10 psi

Signature: _____

Daniel J. Riggs, PE

License No. 49559

Date: 5/23/12
By: Dan Riggs
Client: Dem-Con

LINER EQUIVALENCY CALCULATIONS – Leachate Flux

Objective:
Demonstrate that a single-layer geosynthetic clay liner (GCL) performs equally well or better than a 2-foot compacted clay liner at restricting exfiltration from the landfill.

Basis:
Estimate leachate flux through each liner material based on the following equations

$$Q = Ki$$

and

$$i = \frac{h + d}{d}$$

Where: Q = leachate flux through liner ($L^3/L^2/T$)
K = vertical hydraulic conductivity ($L^3/L^2/T$)
i = hydraulic gradient (L/L)
h = leachate head on liner (L)
d = saturated liner depth (L)

Assumptions

1) K for compacted clay = 1 x 10^{-7} cm/sec (maximum allowed by MN Rules)
2) K for GCL = 3 x 10^{-9} cm/sec (maximum value from manufacturer's specification, see attached Confining Pressure calculations and attached GCL specifications)
3) h = 1 ft (leachate permitted on liner)
4) d for compacted clay liner = 2 ft (fully saturated)
5) d for GCL = 0.25 in, or 0.0208 ft (fully saturated)

Leachate flux through GCL

$$Q_{GCL} = \left(3 \times 10^{-9} \frac{cm}{sec}\right)\left(\frac{1ft + 0.0208ft}{0.0208ft}\right)$$

$$Q_{GCL} = 1.47 \times 10^{-7} \frac{cm}{sec}$$

Leachate flux through compacted clay liner

$$Q_{Clay} = \left(1 \times 10^{-7}\,\frac{cm}{sec}\right)\left(\frac{1ft + 2ft}{2ft}\right)$$

$$Q_{Clay} = 1.50 \times\ 10^{-7}\,\frac{cm}{sec}$$

$\boldsymbol{Q_{GCL} < Q_{Clay}}$ $\therefore$ **GCL results in less leachate flux through the liner than compacted clay.**

Signature: _____

Daniel J. Riggs, PE

License No. 49559

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Appendix G

Method 1030

METHOD 1030

IGNITABILITY OF SOLIDS

SW-846 is not intended to be an analytical training manual. Therefore, method procedures are written based on the assumption that they will be performed by analysts who are formally trained in at least the basic principles of chemical analysis and in the use of the subject technology.

In addition, SW-846 methods, with the exception of required method use for the analysis of method-defined parameters, are intended to be guidance methods which contain general information on how to perform an analytical procedure or technique, which a laboratory can use as a basic starting point for generating its own detailed standard operating procedure (SOP), either for its own general use or for a specific project application. Performance data included in this method are for guidance purposes only and must not be used as absolute quality control (QC) acceptance criteria for purposes of laboratory QC or accreditation.

1.0 SCOPE AND APPLICATION

1.1 This method is suitable for the determination of the ignitability of solids and is appropriate for pastes, granular materials, solids that can be cut into strips, and powdery substances. Also, if it is impractical to perform this test because of the physical form of the sample, generator knowledge should be used to determine the ignitability hazard posed by the material. The test method described here is based on the test procedure adopted by the Department of Transportation (DOT) from the United Nations regulations for the international transportation of dangerous goods (see Appendix E to Part 173 of 49 CFR).

1.2 This method is not required by the Federal regulations to determine if a waste passes or fails the characteristic of ignitability according to the RCRA regulatory definition at 40 CFR 261.21. To clarify, the test results of this method cannot be used to directly classify a waste as a D001 hazardous waste, nor can the results be used by themselves to definitively classify a waste as non-hazardous. No specific test for ignitable solids is required by the RCRA regulations, and only a waste meeting the narrative regulatory definition at 40 CFR 261.21(a)(2) is an ignitable hazardous waste because it is an ignitable solid. In addition, the test in this method for a liquid may be helpful in determining whether a liquid waste has hazardous properties; however, a liquid waste is only a D001 hazardous waste if it is an oxidizer, as defined at 40 CFR 261.21(a)(4), or based on its flash point, as defined at 40 CFR 261.21(a)(1). This test method was developed to specifically illustrate the ignitability properties of materials, including wastes, and its results provide relevant and useful information that may be applied to knowledge of a waste in determining whether a waste meets the 40 CFR 261.21 criteria.

1.3 Prior to employing this method, analysts should consult the disclaimer statement at the front of the manual and the information in Chapter Two for 1) guidance on the intended flexibility in the choice of methods, apparatus, materials, reagents, and supplies; and 2) the responsibilities of the analyst for demonstrating that the techniques employed are appropriate for the analytes of interest, in the matrix of interest, and at the levels of concern.

In addition, analysts and data users are advised that, except where explicitly specified in a regulation, the use of SW-846 methods is *not* mandatory in response to Federal testing requirements. The information contained in this method is provided by the Environmental Protection Agency (EPA) as guidance to be used by the analyst and the regulated community in

making judgments necessary to generate results that meet the data quality objectives (DQOs) for the intended application.

1.4 This method is restricted to use by, or under supervision of, appropriately experienced and trained personnel. Each analyst must demonstrate the ability to generate acceptable results with this method.

2.0 SUMMARY OF METHOD

In a preliminary test, the test material is formed into an unbroken strip or powder train, 250 mm in length. An ignition source is applied to one end of the test material to determine whether combustion will propagate along 200 mm of the strip within a specified time period. Materials that propagate burning along a 200-mm strip within the specified time period are then subjected to a burning rate test. Materials that do not ignite or propagate combustion as described above do not require further testing. In the burning rate test, the burning time is measured over a distance of 100 mm and the rate of burning is determined. The test method described here is based on the test procedure adopted by the Department of Transportation from the United Nations regulations for the international transportation of dangerous goods and is contained in Appendix E to Part 173 of 49 CFR.

3.0 DEFINITIONS

Refer to Chapter One and the manufacturer's instructions for definitions that may be relevant to this procedure.

4.0 INTERFERENCES

4.1 In laboratory tests, the burning rate of duplicate runs is usually repeatable to within 10%. However, large differences in burning rates may occur if experimental conditions are not held constant. Variation in airflow rates, particle size, and moisture content of the test material will affect test results. Therefore, at least triplicate determinations of the burning rate should be conducted.

4.2 Particle size of test material can affect not only the burning rate, but also the ignition of the material. Therefore, the particle size of the test material should be the same for each test run. The particle size of the test material should be reported in a simple descriptive format (e.g., fine powder, sand, coarse granular).

4.3 Temperature of some test material (such as sulfur powder) affects the burning rate. For reproducible results, all tests should be performed at approximately the same initial temperature (ambient room or laboratory temperature).

4.4 All tests must be carried out inside a fume hood with the test apparatus situated perpendicular (90°) to the direction of airflow. Airflow parallel (0°) to the test apparatus results in non-reproducible burning rates.

4.5 The rate of airflow through the fume hood affects the burning rate. An airflow rate that is too high distorts the flame and retards its horizontal propagation. The optimum airflow rate appears to be in the range of 0.7-1 meters per second.

4.6 Materials that are moisture sensitive (i.e., readily absorb moisture from air) should be tested as quickly as possible after removal from the sample container. All materials should be tested as received by the laboratory.

5.0 SAFETY

5.1 This method does not address all safety issues associated with its use. The laboratory is responsible for maintaining a safe work environment and a current awareness file of OSHA regulations regarding the safe handling of the chemicals specified in this method. A reference file of material safety data sheets (MSDSs) should be available to all personnel involved in these analyses.

5.2 Prior to starting the preliminary screening test, all sample materials must be tested to determine if that material is explosive or extremely flammable (see WARNING below). Use a very small portion of material (1 g or less) for this test.

WARNING: If the sample material is explosive or extremely flammable, do not conduct this test.

5.3 This method could involve the combustion of highly flammable materials and the generation of toxic fumes. All tests must be conducted in a suitable fume hood fitted with a pull-down sash to prevent the escape of toxic fumes into working areas. The analyst should wear appropriate protective clothing, including a laboratory jacket or apron, safety glasses, and protective gloves. The laboratory should have appropriate firefighting equipment (such as a Class A fire extinguisher) readily available to extinguish small fires.

6.0 EQUIPMENT AND SUPPLIES

The mention of trade names or commercial products in this manual is for illustrative purposes only, and does not constitute an EPA endorsement or exclusive recommendation for use. The products and instrument settings cited in SW-846 methods represent those products and settings used during method development or subsequently evaluated by the Agency. Glassware, reagents, supplies, equipment, and settings other than those listed in this manual may be employed provided that method performance appropriate for the intended application has been demonstrated and documented.

This section does not list common laboratory glassware (e.g., beakers and flasks) that might be used.

6.1 Low-heat conducting, non-combustible, impervious ceramic tile or equivalent material, an approximate dimension of 25 cm x 25 cm x 2.5 cm (the tile must be at least 25 cm in length to support a 250-mm test sample).

6.2 High temperature marker or equivalent marking device for marking ceramic plates.

6.3 Powder train mold (see Figure 1) for molding powdered and granular materials for the burn rate test. The material of construction can be aluminum, brass, stainless steel, or plastic. The mold is 250 mm in length and has a triangular cross-section, with a width of 20 mm, and a depth of 10 mm as measured from the bottom of the triangular opening to where the sides meet. On both sides of the mold, in the longitudinal direction, two sheets are mounted as lateral limitations which extend 2 mm beyond the upper edge of the triangular cross-section.

This device can be fabricated by most machine shops. The complete burn rate apparatus is available from: Associated Design and Manufacturing Co., Lorton, Virginia, 22079.

6.4 A Bunsen (propane gas and air) burner with a minimum diameter of 5 mm capable of attaining a temperature of at least 1,000 °C.

6.5 Stop watch.

6.6 Thermocouple to measure the temperature of the gas flame.

6.7 Thermometer to measure initial temperature of material (i.e., room temperature).

6.8 Anemometer to measure airflow in the fume hood.

7.0 REAGENTS AND STANDARDS

No special reagents or standards are required to conduct this test.

8.0 SAMPLE COLLECTION, PRESERVATION, AND STORAGE

8.1 Samples should be tested on an as-received basis unless requested otherwise. No sample preservation is required, but sample containers should be completely filled and tightly sealed to preserve sample integrity.

8.2 Samples should be tested as soon as possible after removal from the sample container (i.e., samples should not be allowed to dry or absorb moisture for excessive periods or to lose volatiles). Samples that are chilled or cooled upon receipt to the laboratory should be allowed to equilibrate to the ambient laboratory temperature in the sample container.

9.0 QUALITY CONTROL

9.1 Refer to Chapter One for additional guidance on quality assurance (QA) and quality control (QC) protocols. When inconsistencies exist between QC guidelines, method specific QC criteria take precedence over both technique specific criteria and Chapter One criteria; technique specific QC criteria take precedence over Chapter One criteria. Any effort involving the collection of analytical data should include development of a structured and systematic planning document, such as a Quality Assurance Project Plan (QAPP) or a Sampling and Analysis Plan (SAP), which translates project objectives and specifications into directions for those implementing the project and assessing the results.

Each laboratory should maintain a formal quality assurance program. The laboratory should also maintain records to document the quality of the data generated. Development of in-house QC limits for each method is encouraged. Use of instrument specific QC limits is encouraged, provided such limits will generate data appropriate for use in the intended application. All data sheets and quality control data should be maintained for reference or inspection.

9.2 All tests must be performed on a clean ceramic plate at room temperature.

9.3 All replicate runs must be at the same initial temperature (ambient laboratory temperature).

9.4 All replicate tests must be run at approximately the same airflow through the fume hood.

9.5 Only materials of the same particle size distribution should be used for all replicate tests.

9.6 The burn rate test must be conducted in triplicate if the preliminary screening test is positive. Any burn rate for non-metallic samples that exceeds 2.2 mm/sec (or a burn time of less than 45 seconds for 100 mm) is considered to have a positive result. For metals, a burn rate of more than 0.17 mm/sec (or burn time of less than 10 minutes for 100 mm) is considered to have a positive result.

10.0 CALIBRATION AND STANDARDIZATION

There are no calibration or standardization steps directly associated with this procedure. See the equipment manufacturer's instructions for the calibration of certain equipment used in this method (e.g., the thermocouple).

11.0 PROCEDURE

WARNING: Prior to starting the preliminary screening test, all sample materials must be tested to determine if that material is explosive or extremely flammable. Use a very small portion of material (1 g or less). If the sample material is explosive or extremely flammable, do not conduct this test.

11.1 Preliminary screening test

11.1.1 The preliminary screening test for ignitability is conducted on all waste materials. On a clean, impervious ceramic tile (Sec. 6.1), clearly mark a 250 mm long test path. Make another mark at exactly 200 mm from the start of the sample path.

11.1.2 Prepare the test material in its "as received" form by forming an unbroken strip or powder train of sample 250 mm long by 20 mm wide by 10 mm high on the ceramic tile. Use the mold to form the material as described in Sec. 11.2.3.1, if appropriate.

11.1.3 Place the ceramic tile with the loaded sample in a fume hood about 20 cm (~8 inches) from the front of the hood and in an area of laminar airflow. Position the sample perpendicular to the airflow (See Figure 2). The airflow across the perpendicular axis of the sample should be sufficient to prevent fumes from escaping into the laboratory and should not be varied during the test. The air velocity should be approximately 0.7 meters/second. Measure the air velocity with an anemometer.

11.1.4 Light the Bunsen burner and adjust the height of the flame (6.5 to 7.5 cm) by adjusting the propane gas and air flows. Measure the temperature of the flame (tip of the flame) by a thermocouple. The temperature of the flame must be at least 1000 °C.

11.1.5 Apply the tip of the flame to one end of the sample strip. The test period will depend on the sample matrix (whether non-metallic or metallic) as described below in Sec. 11.1.5.1 and 11.1.5.2.

11.1.5.1 If the waste is non-metallic, hold the flame tip on the sample strip until the sample ignites or for a maximum of 2 minutes. If combustion occurs, begin timing with a stop watch and note whether the combustion propagates up to the 200 mm mark within the 2 minute test period.

11.1.5.2 If the waste is a metal or metal alloy powder, hold the flame tip on the sample strip until the sample ignites or for a maximum of 5 minutes. If combustion occurs, begin timing with a stop watch and note whether the combustion propagates up to the 200-mm mark within the 20 minute test period.

11.1.6 If the waste does not ignite and propagate combustion either by burning with open flame or by smoldering along the 200-mm sample strip within the 2 minute test period (or 20 minute test period for metal powders), the waste is not considered flammable and no further testing is required. If the waste propagates burning of 200 mm of the test strip within the 2 minute test period (20 minute test period for metals), the material must be evaluated by the burning rate test (proceed to Sec. 11.2).

11.2 Burning rate test

11.2.1 The preparation of the test sample for the burning rate test will depend on the physical characteristics of the waste. Wastes that exist in a powdered or granular state are molded in a powder train mold as shown in Figure 1. Pasty materials are formed into a rope that is 250 mm in length with a cross-section of 1 cm^2. All tests for the burn rate test are performed on clean, ambient temperature, ceramic plates.

11.2.2 On a clean, impervious ceramic tile (Sec. 6.2), clearly mark a 250-mm long test path. Make two additional timing marks at 80 mm and 180 mm from the start of the sample path. The distance between the two marks (100 mm) will be used to calculate the rate of burn in Sec. 12.0.

11.2.3 Sample preparation based on physical characteristics

11.2.3.1 Powder or granular material -- Tighten the side plates on the mold. Place the mold on the base plate. Pour the material to fill the triangular cross section of the mold loosely. Drop the unit from a height of 2 cm onto a solid surface three times to settle the powder. Remove the side supports. Lift the mold off the base plate. Place a clean ceramic test plate with the appropriate timing marks (Sec. 11.2.2) face down on top of the mold. Invert the setup and remove the mold.

11.2.3.2 Pasty wastes - Spread the waste on a marked ceramic tile (Sec. 11.2.2) in the form of a rope 250 mm in length with a cross-section of 1 cm^2.

11.2.4 Place the ceramic tile with the loaded sample prepared in Sec. 11.2.3 in a fume hood about 20 cm (~8 in) from the front of the hood and in an area of laminar airflow. Position the sample perpendicular to the airflow (See Figure 2). The airflow across the perpendicular axis of the sample should be sufficient to prevent fumes from escaping into the laboratory and should not be varied during the test. The air velocity should be

approximately in the range of 0.7-1 meters/second. Measure the air velocity with an anemometer.

11.2.5 Light the Bunsen burner and adjust the height of the flame (6.5 to 7.5 cm) by adjusting the propane gas and air flows. Measure the temperature of the flame (tip of the flame) by a thermocouple. The temperature of the flame must be at least 1000 °C.

11.2.6 Apply the tip of the flame to one end of the sample strip to ignite the test strip as described in Sec. 11.1.5.1 or 11.1.5.2 (based on whether the sample is non-metallic or metallic).

11.2.7 When the test strip or powder train has burned up to the 80-mm time marker, begin timing the rate of combustion with a stop watch. Stop the timer when the burned strip reaches the 180-mm time marker. Record the amount of time (in sec) required to burn the 100-mm test strip.

12.0 DATA ANALYSIS AND CALCULATIONS

Calculate the rate of burning by dividing the length of the burn test strip (100 mm) by the total time (sec). Results of the burn rate test should be reported in mm/sec. Wastes that have a rate of burning of more than 2.2 mm/sec (or burn time of less than 45 sec for 100 mm) are considered to have a positive result for ignitability according to DOT regulations. For metals, this time is 10 minutes or less for 100 mm (or a burn rate of more than 0.17 mm/sec). The following format may be used to document the data.

Test Material Information

Source of material (e.g., company, operation or process):
Description of material (e.g., powder or paste, metallic or non-metallic):
Particle size (e.g., fine powder, granular, sand, etc.):
Preliminary burning time (sec):

Test Conditions

Date of Test:
Temperature of test material (°C):
Air velocity through fume hood (m/s):

Ignitability Test Data				
Test Number	Time (sec) Elapsed Between Application of Flame and Start of Ignition	Burning Time over 100 mm (sec)	Burning Rate (mm/sec)	Comments
1				
2				
3				

13.0 METHOD PERFORMANCE

13.1 Performance data and related information are provided in SW-846 methods only as examples and guidance. The data does not represent required performance criteria for users of the methods. Instead, performance criteria should be developed on a project-specific basis, and the laboratory should establish in-house QC performance criteria for the application of this method. Performance data must not be used as absolute QC acceptance criteria for laboratory QC or accreditation.

13.2 An independent laboratory validation was conducted on the robustness of the burn rate test procedure. The materials selected for this evaluation included:

1. A 50/50 mixture of metallic silicon and lead dioxide (PbO_2)
2. Excelsior
3. Dextrin (yellow powder)
4. Sulfur (fine yellow powder)
5. Aluminum metal (coarse)
6. Magnesium metal (coarse)
7. Polyethylene high density (granular)
8. Polyethylene low density (fluffy white powder)
9. Scott fertilizer (32-3-10:N-P-K)
10. JP-4 contaminated soil (approximately 5000 ppm)

Of these materials, the 50/50 mixture of metallic silicon and lead dioxide (PbO_2), elemental sulfur, and excelsior gave a positive ignitability result under the conditions of the test. The remaining materials gave negative (nonflammable) results under the conditions of the test. Several test variables including: ignition source, ambient temperature, and apparatus orientation, were studied using these materials. Partial results of this study are summarized in Table 1. These data are provided for guidance purposes only.

13.3 In another evaluation of the DOT burn rate test, potentially ignitable finishing wastes from the furniture industry were collected and tested for burning rates. Each waste was tested in triplicate to establish a mean value for the burning rate. The results for the flammable wastes are summarized in Table 2. These data are provided for guidance purposes only.

13.4 In order to evaluate the ruggedness of the DOT burn rate test, select ignitable finishing wastes were split and tested by a state laboratory and an independent contract laboratory. The results of this comparison are summarized in Table 3. These data are provided for guidance purposes only.

14.0 POLLUTION PREVENTION

14.1 Pollution prevention encompasses any technique that reduces or eliminates the quantity and/or toxicity of waste at the point of generation. Numerous opportunities for pollution prevention exist in laboratory operations. The EPA has established a preferred hierarchy of environmental management techniques that places pollution prevention as the management option of first choice. Whenever feasible, laboratory personnel should use pollution prevention techniques to address their waste generation. When wastes cannot be feasibly reduced at the source, the Agency recommends recycling as the next best option.

14.2 For information about pollution prevention that may be applicable to laboratories and research institutions consult *Less is Better: Laboratory Chemical Management for Waste Reduction*, a free publication available from the American Chemical Society (ACS), Committee on Chemical Safety, http://portal.acs.org/portal/fileFetch/C/WPCP_012290/pdf/WPCP_012290.pdf.

15.0 WASTE MANAGEMENT

The Environmental Protection Agency requires that laboratory waste management practices be conducted consistent with all applicable rules and regulations. Laboratories are urged to protect air, water, and land by minimizing and controlling all releases from hoods and bench operations, complying with the letter and spirit of any sewer discharge permits and regulations, and by complying with all solid and hazardous waste regulations, particularly the hazardous waste identification rules and land disposal restrictions. For further information on laboratory waste management, consult *The Waste Management Manual for Laboratory Personnel* available from the American Chemical Society at the address listed in Sec. 14.2.

16.0 REFERENCES

1. "Test Methods for Readily Combustible Solids. Burning Rate Test." (14.2.2.5). Recommendations on the Transport of Dangerous Goods, Fifth Revised Edition, United Nations, New York, 1988.

2. 49 CFR, Appendix E to Part 173 (12-31-91 Edition), pp. 597-598.

3. "Flammability (solids). Method A.10," Official Journal of the European Communities, No. L251/63, September 19, 1984.

4. Foster Wheeler Enviresponse, Inc., Edison NJ., "Validation of Ignitability Method For Solids," submitted to the Office of Solid Waste, US EPA, February 1994.

5. Internal Report (AMFA Report), North Carolina Department of Environmental Health and Natural Resources (Bill Hamner).

17.0 TABLES, DIAGRAMS, FLOW CHARTS, AND VALIDATION DATA

The following pages contain the tables and figures referenced by this method. A flow diagram of the procedure is included after the figures.

TABLE 1

TEST VARIABLES FOR IGNITABILITY

Material Tested	Test Number	Variable combination[1]	Burn Time over 100 mm (sec)	Burn Rate (mm/sec)
50% Metallic Silicon and 50% Lead IV Oxide	1	ABC	0.84	119
	2	Abc	0.50	200
	3	aBc	0.69	145
	4	abC	0.65	154
Excelsior (wood shavings)	1	ABC	13.45	7.43
	2	Abc	9.14	10.9
	3	aBc	13.37	7.47
	4	abC	13.59	7.36

[1]Key:

A - Flame ignition
a - Hot wire ignition source
B - Ambient temperature of 20 ° C
b - Ambient temperature of 100 ° C
C - Orientation of test apparatus of 90 ° to air flow
c - Orientation of test apparatus of 0 ° to air flow

These data are provided for guidance purposes only.

TABLE 2

EXAMPLE BURNING RATES FOR IGNITABLE WASTES

Sample No.	Description of Waste	Burn Time over 100 mm (sec)	Burn Rate (mm/sec)
A2	Segregated Lacquer Dust	4.7	21.3
J2	Segregated Lacquer Dust	4.6	21.7
U	Segregated Lacquer Dust	8.6	11.6
K	Consolidated Lacquer Dust	6.0	16.7
H	Catalyzed Lacquer Dust	6.7	14.9
F	Water Based Lacquer Dust	19.4	5.15
P	Booth Coat-Stain Overspray	12.5	8.0
O	Pallet Covered Cardboard	11.1	9.0
Q	Pallet Covered Cardboard	12.3	8.13

These data are provided for guidance purposes only.

TABLE 3

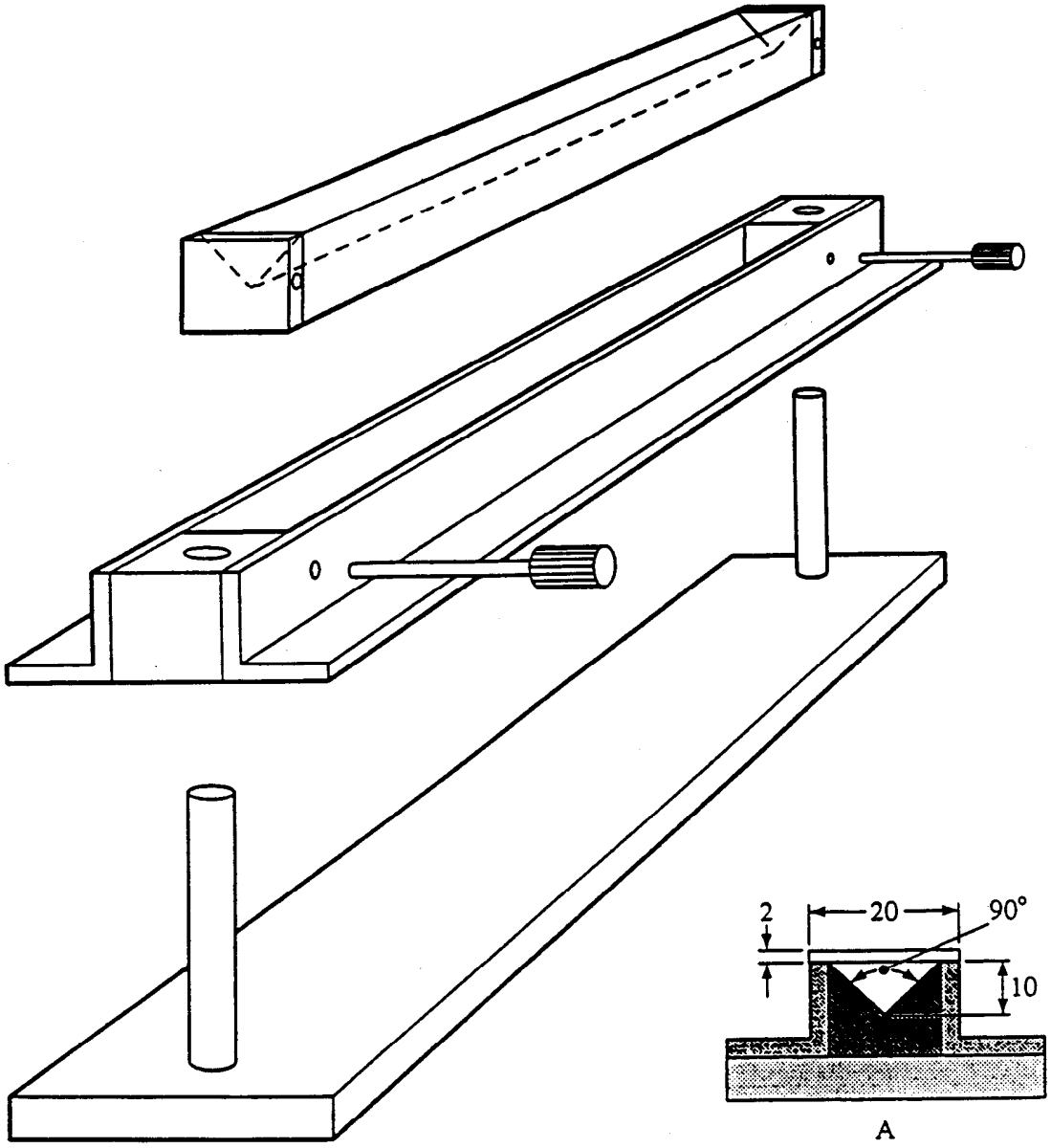
EXAMPLE COMPARISON OF BURN RATES

Sample No.	Description of Waste	Mean Burn Time Over 100 mm (Seconds)	
		State Laboratory	Contract Laboratory
A1	Segregated Lacquer Dust	4.7	5
J1	Segregated Lacquer Dust	4.6	4.3
12	Booth Coat-Glaze Overspray	0[1]	0[1]

[1] Waste was found to be nonflammable under conditions of the test.
These data are provided for guidance purposes only.

FIGURE 1

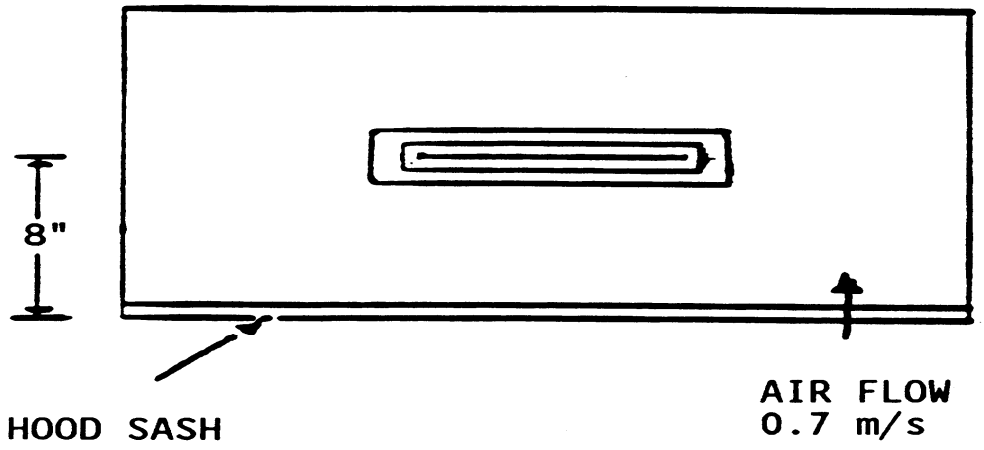
POWDER TRAIN MOLD



(A) Cross-section of 250 mm long mould

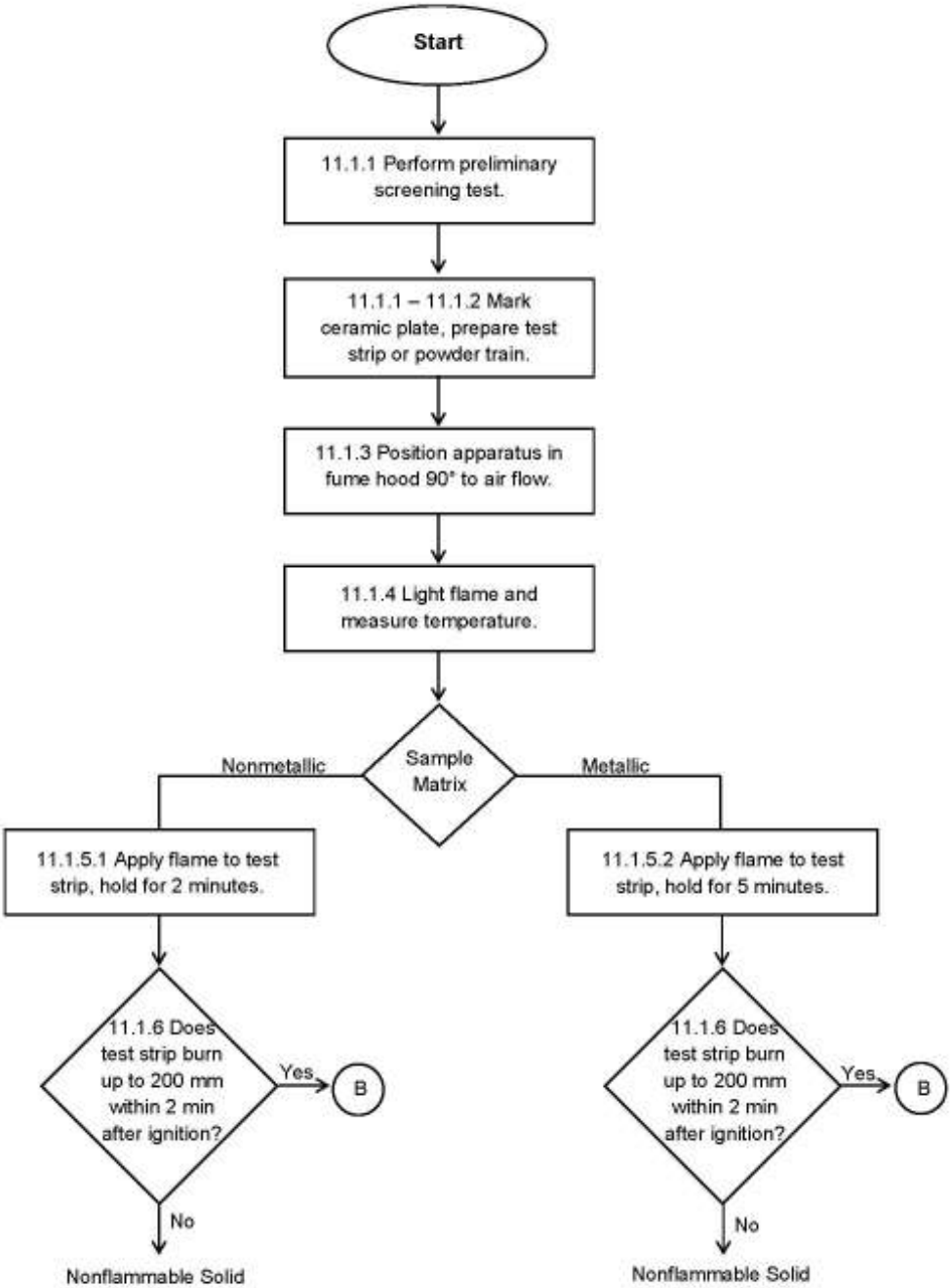
FIGURE 2

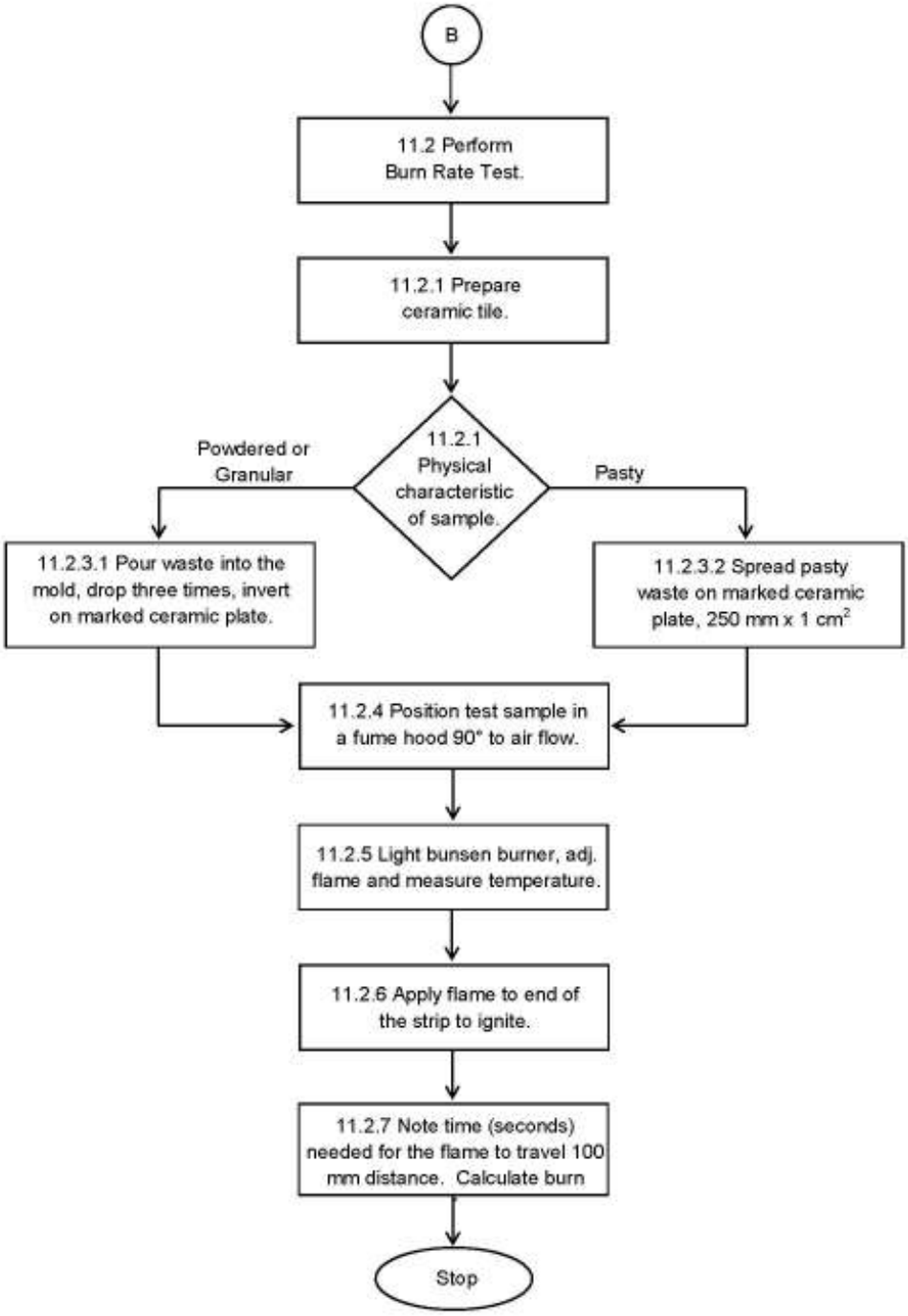
TEST APPARATUS POSITION IN FUME HOOD



SAMPLE 90° TO AIR FLOW

IGNITABILITY OF SOLIDS




B
11.2 Perform Burn Rate Test.
11.2.1 Prepare ceramic tile.
11.2.1 Physical characteristic of sample.
Powdered or Granular
Pasty
11.2.3.1 Pour waste into the mold, drop three times, invert on marked ceramic plate.
11.2.3.2 Spread pasty waste on marked ceramic plate, 250 mm x 1 cm²
11.2.4 Position test sample in a fume hood 90° to air flow.
11.2.5 Light bunsen burner, adj. flame and measure temperature.
11.2.6 Apply flame to end of the strip to ignite.
11.2.7 Note time (seconds) needed for the flame to travel 100 mm distance. Calculate burn
Stop

Appendix A:

Summary of Revisions to Method 1030 (From Revision 0 December 1996)

1. Improved overall method formatting for consistency with new SW-846 methods style guidance. The format was updated to Microsoft Word .docx.

2. Minor editorial and technical revisions were made throughout to improve method clarity.

3. The flowcharts on pages 14 and 15 were updated to improve visual clarity and edited for content.

4. The revision number was changed to 1 and the date published was changed to July 2014.

5. This appendix was added showing changes from the previous revision.

6. Items regarding regulatory use of this method in Sec. 1.1 and 1.2 were updated to reflect current guidance.

Appendix H

MPCA Guidance Document – The Lethality Characteristic

The Lethality Characteristic

A Minnesota-specific hazardous-waste characteristic

Minnesota Pollution Control Agency

Waste/Hazardous Waste #2.05 • May 2009

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Sufficient knowledge unavailable 3
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Lethality, a hazardous waste characteristic specific to Minnesota, considers the toxicological, or poisonous, effect of a waste. Minnesota waste generators must ensure that wastes are evaluated for the Lethality characteristic as well as for the federal characteristics of Ignitability, Oxidizers, Corrosivity, Reactivity, and Toxicity. While the more familiar characteristic of Toxicity also contains the root 'toxic,' that characteristic refers to the presence and concentration of specific toxic contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). The Lethality characteristic is concerned with the overall toxicological effect of the waste as determined by biological testing. In this document, wastes displaying the Lethality characteristic are termed 'Lethal.'

Seek ways to reduce the total amount of waste you generate and the toxicity of the products you use to reduce the amount of potentially lethal hazardous wastes you generate. For free assistance, contact the Minnesota Technical Assistance Program (MnTAP). Contact information on page 4.

For more information on the federal characteristics, see MPCA hazardous waste fact sheet #2.04, *Characteristic Wastes*, available at www.pca.state.mn.us/publications/w-hw2-04.pdf

Lethality thresholds

The toxicological effect of a material is often measured in terms of the median lethal dose (LD_{50}), which is the amount of a material which will kill half of a test population of a specific animal, presented as a ratio with the body weight of the animal. Median lethal dose information is determined for a specific exposure method and test animal. The Lethality characteristic considers the oral, dermal, and inhalation exposure methods. The median lethal dose for the inhalation exposure is commonly referred to as the median lethal concentration (LC50).

Under Minnesota Rules, a waste is hazardous for the Lethality characteristic when a representative sample of the waste exhibits any of the following:

- an oral LD_{50} (rat) less than 500 milligrams per kilogram (mg/kg)
- a dermal LD_{50} (rabbit) less than 1000mg/kg
- an inhalation LC50 (rat) less than 2000 milligrams per cubic meter (mg/m3) for dusts and mists
- an inhalation LC50 (rat) less than 1000 parts per million (ppm) for gases and vapors

Evaluating for lethality

To help you evaluate waste for the Lethality characteristic, the Minnesota Pollution Control Agency (MPCA) has compiled a list of attributes that indicate a waste may be Lethal. See Table 1.

You may consider a waste does *not* meet the Lethality characteristic when you can document that the product from which the waste is generated does not display any of the Table 1 attributes. Maintain documentation at the generation site.

If a product *does* display any of the attributes, the waste *may* be Lethal; you must evaluate it further. Manage waste that

Minnesota Pollution Control Agency • 520 Lafayette Rd. N., St. Paul, MN 55155-4194 • www.pca.state.mn.us
651-296-6300 • 800-657-3864 • TTY 651-282-5332 or 800-657-3864 • Available in alternative formats

displays any of the attributes as a Lethality characteristic hazardous waste unless and until you evaluate further under Minn. R. 7045.0131, Subp. 6 and demonstrate that the waste does not display the Lethality characteristic.

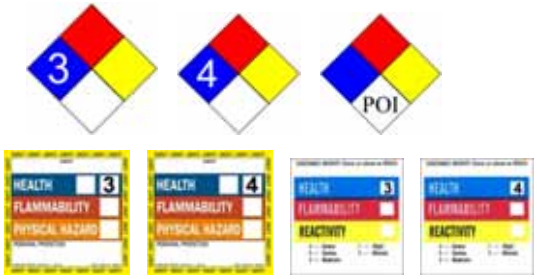
Instead of performing a full evaluation, you may choose to assume a waste is lethal and manage it as fully regulated hazardous waste

Table 1: Attributes of potential lethality

- A **drug*** regulated by the Minnesota Board of Pharmacy
- A **pesticide** regulated by the Minnesota Department of Agriculture
- A **poisonous material** regulated for transport by the U.S. Department of Transportation
- A material bearing any of the descriptive or signal terms "**Poison**", "**Poisonous**", "**Toxic**", "**Lethal**", **"Fatal"** or **"Deadly"** on the product shipping container, product label, or in product documentation
- A material bearing the '**skull and crossbones**' graphic on the product shipping container, product label, or in product documentation

- A material bearing a U.S. Department of Transportation "**Hazard Class 6.1**" label or placard on the product shipping container, product label, or in product documentation

- A material bearing a National Fire Rating (NFR), Hazardous Materials Identification System (HMIS), or Hazardous Material Identification/Information Guide (HMIG) rating **Health Division ≥3** or **Special Hazard Division "POI"** (NFR only) label on the product shipping container, product label, or in product documentation



- A material bearing **LD_{50} data** on a Material Safety Data Sheet (MSDS) which you have, or which you are required by OSHA regulations to have, which states that the LD_{50} of any of the ingredients is less than the lethality thresholds on page 1 of this fact sheet
- A material having **specific information known to you** that the waste may reasonably be Lethal, including but not limited to information that your processes may alter a product or other material which does not exhibit any of the above attributes in such a way that the waste generated may reasonably be Lethal
- A material having **specific information published by the MPCA** in Table 2 of this fact sheet that the waste may reasonably be Lethal

Wastes which display no attributes may be considered non-Lethal.
Wastes which display one or more attributes may be Lethal and must be evaluated further.

*A 'drug' as specified in Table 1 above is considered by the MPCA to be a 'pharmaceutical' eligible for further evaluation for lethality under an approved Petition for the "*Alternate Method to Evaluate Pharmaceutical Waste for the Lethality Characteristic*" if you have such an approved Petition. For more information on the Alternate Method, see MPCA hazardous waste fact sheet #4.45b, *Alternate Method to Evaluate Pharmaceutical Waste for the Lethality Characteristic*, available at www.pca.state.mn.us/publications/w-hw4-45b.pdf

Further evaluation for lethality

Further evaluation of a waste for the Lethality characteristic may include calculating the estimated LD_{50} of the waste or applying specific and documented knowledge of materials and processes used in the generation of the waste. If you evaluate the waste further and can demonstrate that it does not meet the Lethality characteristic as identified in Minn. R. 7045.0131, Subp. 6, you may manage the waste as non-Lethality characteristic without further action on your part.

Note: A waste that is not hazardous due to the Lethality characteristic may be hazardous for other reasons. Always perform a complete evaluation.

Calculating the estimated LD_{50} of a waste

To calculate the estimated LD_{50} of a waste, you must have the appropriate LD_{50} data for all of the waste components that reasonably may produce a toxic effect. The LD_{50} data you use must be for the correct exposure method and test animal. You may exclude ingredients that reasonably will not produce a harmful toxicological effect. If your reference material gives a range for the % concentration of an ingredient, you must use the maximum range value in your calculation.

Note: Ingredients identified as 'inert' on product labels, such as propellants, solvents, and carriers, may *not* be assumed to produce no harmful toxicological effect. Many product labels identify these ingredients as 'inert' only because they do not perform the main function of the product. However, many of these 'inert' ingredients, such as petroleum-based solvents, may have significant harmful toxicological effects and must be included in your LD_{50} calculation.

To calculate the estimated LD_{50} of the waste, use the following formula:

$$\frac{1}{T_W} = \frac{1}{100} \times \left(\frac{C_A}{T_A} + \frac{C_B}{T_B} + \frac{C_C}{T_C} \right)$$

$T_W = LD_{50}$ of the waste

$T_{A,B,...Z} = LD_{50}$ of ingredient A, B, ...Z in the waste

$C_{A,B,...Z}$ = % concentration of ingredient A, B, ...Z in the waste

Note: The total % concentrations of ingredients A, B, ...Z you use in your calculation may be less than 100% if the remainder of the waste will not produce a harmful toxicological effect.

Applying specific knowledge to determine the lethality of a waste

As an alternative to calculating the estimated LD_{50} of a waste, you may apply specific and documented knowledge of the materials and processes used in generating the waste. If the waste is an unaltered discarded product, you must determine whether the product would reasonably meet the Lethality characteristic when disposed of. Certifications or informed statements by a product manufacturer that a waste is "non-toxic" or "practically non-toxic" to humans or mammals may constitute knowledge that the waste is reasonably non-Lethal.

If you are able to locate some toxicological information but are unable to calculate the estimated LD_{50} of the waste, you may still be able to use the available data to evaluate the waste for the Lethality characteristic. As an example, if the only LD_{50} data you are able to locate is for an exposure method other than the one you are considering, or if the test animal is different than the required animal for the exposure method you are considering, you may apply accepted principles of biochemistry, toxicology, and physiology to the LD_{50} data you do have to determine whether the waste would reasonably be Lethal.

Note: You may not use information that a product is certified for a specific use by a governmental agency, such as the U.S. Food and Drug Administration (FDA), U.S. Environmental Protection Agency (EPA) or other similar Federal or state agency, as evidence that the product is non-Lethal when disposed of unless the certified use by its nature and lack of limitation shows that the product would reasonably be non-Lethal. As an example, you may not use approval for limited medical use of a pharmaceutical by the FDA as evidence that the waste pharmaceutical is non-Lethal; however, the approval for unlimited food use of an additive would reasonably indicate the additive waste is non-Lethal.

When sufficient information and knowledge are not available to determine lethality

When, after exercising due diligence, you are unable to locate sufficient information and knowledge to determine whether a waste displays the Lethality characteristic, you may either simply manage the waste as a Lethal hazardous waste or notify the MPCA in writing. The MPCA may require specific additional evaluation to reasonably determine whether the waste may be managed as non-Lethal.

Specific published lethality information

Table 2 lists specific lethality information currently known to the MPCA for wastes which may not exhibit any of the other attributes from Table 1, with the approximate lethality threshold concentrations for the oral exposure method for each waste. This table does not list all known or potentially Lethal wastes, only those which the MPCA believes may otherwise not be identified and of which it has specific knowledge.

Table 2: Specific known lethality information

Waste name	CAS registry number	Approximate lethality threshold concentration
Beryllium	7440-41-7	2%
Formaldehyde	50-00-0	20%
Glutaraldehyde	111-30-8	27%
Perfluorobutanesulfonate (PFBS)	29420-49-3	86%
Perfluorodecanoic acid (PFDA)	335-76-2	11%
Perfluorooctanesulfonate (PFOS)	1763-23-1	50%
Perfluorooctanesulfonylamide (FOSA or PFOSA)	754-91-6	34%
Perfluorooctanoic acid (PFOA)	3825-26-1	50%

More information

The MPCA, in cooperation with metropolitan county hazardous waste staff, Minnesota Technical Assistance Program (MnTAP) staff and other partners have developed guidance materials about the hazardous waste regulations available on MPCA's Web site at www.pca.state.mn.us/waste/pubs/business.html

The MPCA and your metropolitan county hazardous waste offices have staff that can help you. Contact your metropolitan county or the MPCA office nearest your facility at the numbers below. MnTAP staff can provide information and resources to help you reduce waste.

Metro County Hazardous Waste Offices

Anoka County..... 763-422-7093
Carver County 952-361-1800
Dakota County..... 952-891-7557
Hennepin County..... 612-348-3777
Ramsey County..... 651-266-1199
Scott County 952-496-8475
Washington County 651-430-6655
Web sites.....…..... www.co.[county].mn.us

Minnesota Pollution Control Agency

Toll free (all offices) 1-800-657-3864
Brainerd.....218-828-2492
Detroit Lakes.....218-847-1519
Duluth..... 218-723-4660
Mankato..... 507-389-5977
Marshall..... 507-537-7146
Rochester.....507-285-7343
St. Paul 651-296-6300
Willmar 320-214-3786
Web site..... www.pca.state.mn.us

Minnesota Technical Assistance Program

Toll-free..... 1-800-247-0015
Minneapolis.....612-624-1300
Web site ..... www.mntap.umn.edu

Appendix I

MPCA Guidance Document – Managing Sealants and Coatings Containing PCBs

Managing Sealants and Coatings Containing PCBs

Guidance for building owners and contractors

What are PCBs?

Polychlorinated biphenyls (PCBs) are a class of 209 toxic man-made chemicals that persist in the environment and bioaccumulate in animals and humans. They were used extensively in many industrial products from the 1950's through 1978. During this period, PCBs were added to some sealants and coatings such as paint and caulking to make them more flexible and last longer. Exposure to PCBs can cause a range of human health effects and environmental impacts. For more information on other potentially PCB-containing materials and how to test for PCBs, visit the Minnesota Pollution Control Agency (MPCA) at http://www.pca.state.mn.us/publications/w-hw4-48a.pdf to view hazardous waste fact sheet #w-hw4-48a, Identifying, Using, and Managing PCBs.

Where are sealants and coatings that may contain PCBs located?

PCBs were used as plasticizers in many industrial paints and are most commonly found in areas that required waterproof or high-impact coatings. Caulking commonly surrounds doors and windows and often was used in masonry work; it also may have been used in repairs throughout a structure. You will not be able to determine whether building materials contain PCBs by their appearance, brand, or manufacturer. Deliberate use of PCBs ended in 1978; you may assume structures or portions of structures built after 1979 do not have sealants or coatings deliberately containing PCBs.

When are sealants and coatings that may contain PCBs regulated?

Sealants and coatings that may contain PCBs are not regulated by the MPCA when they are in good condition and will remain in place in part of a structure that will not be demolished or renovated. The U.S. Environmental Protection Agency (EPA), however, has raised concerns regarding indoor airborne exposure to building materials containing PCBs. For more information on PCB exposure and indoor air quality, see EPA Publication #EPA-747-F-09-005, *Preventing Exposure to PCBs in Caulking Material*, available from the EPA website at http://www.epa.gov.

Sealants and coatings that may contain PCBs become regulated by the MPCA as wastes when they are disposed of, either with a structure, such as during a full or partial building demolition, or after they are separated from the structure, such as during an abatement project. Different requirements apply to wastes in these two categories that potentially contain PCBs.

Demolition debris that may contain PCBs

The MPCA will allow, without testing, disposal of demolition debris that may contain PCBs in sealants and coatings, including mastics, sealers, waxes, and manufactured rubber and plastic components in any solid waste landfill permitted by the MPCA or another state, including a demolition, municipal solid waste, and industrial solid waste landfill. Demolition debris contaminated by these wastes may also be disposed in a permitted landfill. However, landfill operators may refuse any waste regardless of MPCA allowances.

If the structure you will demolish or renovate is located in one of the Metropolitan Counties – Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, or Washington – contact your county to determine the county requirements applicable to debris from the structure.

Note: Before demolishing all or part of a structure, in addition to removing other problem materials, you must also remove all separable components that may contain PCBs, including fluorescent and high-intensity discharge (HID) lighting ballasts, motor start capacitors, and electrical transmission or distribution equipment, such as transformers. Manage these wastes as PCB hazardous wastes unless you document they do not contain PCBs at or above 50 parts per million (ppm).

For more information on problem materials that must be removed before demolishing all or part of a structure, visit the MPCA at http://www.pca.state.mn.us/publications/w-sw4-20.pdf to view MPCA solid waste fact checklist #w-sw4-20, Pre-Renovation/Demolition Environmental Checklist.

For guidance on managing lighting ballasts and capacitors once you have removed them, see MPCA hazardous waste fact sheet #w-hw4-48f, Managing PCBs in Ballasts and Small Capacitors at http://www.pca.state.mn.us/publications/w-hw4-48f.pdf.

You may reuse uncontaminated recognizable concrete and masonry demolition debris as a substitute for conventional aggregate without MPCA review. Reuse of any debris potentially contaminated with PCBs, including painted or oil-stained debris, must be approved on a case-by-case basis by the MPCA.

Abatement waste and other separate wastes that may contain PCBs

Sealants or coating wastes from abatement work that may contain PCBs must be managed as a PCB hazardous waste in Minnesota unless you can document they contain less than 50 ppm PCBs. Abatement wastes include removed caulk materials, paint chips, and sandblasting debris. For information on storing and disposing of PCB hazardous waste generated in Minnesota, see MPCA hazardous waste fact sheets #w-hw4-48c, Storing PCBs, at http://www.pca.state.mn.us/publications/w-hw4-48c.pdf and #w-hw4-48d, Manifest and Dispose of PCBs, at http://www.pca.state.mn.us/publications/w-hw4-48d.pdf.

Report all PCB hazardous wastes you generate to the MPCA or your metropolitan county.

For more information on other requirements for performing sandblasting or other air-based blasting in Minnesota, see MPCA hazardous waste fact sheet #w-hw4-39a, Sandblasting and Other Air-based Blasting, at http://www.pca.state.mn.us/publications/w-hw4-39a.pdf. For more information on other requirements for performing hydroblasting or other water-based blasting in Minnesota, see MPCA hazardous waste fact sheet #w-hw4-39b, Powerwashing and Other Water-based Blasting, at http://www.pca.state.mn.us/publications/w-hw4-39b.pdf.

Structures to be burned for live burn firefighter training

In Minnesota no structure may be burned except for live burn firefighter training. Do not burn any structure for firefighter training until you have collected at least one composite representative sample from each building material in the structure that may contain PCBs and have documented that they do not contain PCBs at 50 ppm or more.

Note: Live burn firefighter training in Minnesota must be conducted according to the *Live Fire Burn Training Procedures* manual prepared by the Minnesota State Colleges and University System and under a burn permit properly obtained from the Minnesota Department of Natural Resources (DNR). You may obtain a copy of the current manual from the DNR at http://www.dnr.state.mn.us/.

More information

Guidance and requirements in this fact sheet were compiled from the Code of Federal Regulations, Chapter 40, Part 761, and Minnesota Rules, Chapters 7035 & 7045, and incorporates regulatory interpretation decisions made by the MPCA on February 28, 2013. Visit the U.S. Government Printing Office at http://www.gpo.gov/fdsys/ to review the Code of Federal Regulations directly. Visit the Office of the Revisor of Statutes at https://www.revisor.mn.gov/pubs to review the Minnesota Rules.

The MPCA and your Metropolitan County have staff available to answer waste management questions. For more information, contact your nearest MPCA regional staff.

Metro County Hazardous Waste Offices

Anoka 763-422-7093
Carver 952-361-1800
Dakota 952-891-7557
Hennepin 612-348-3777
Ramsey 651-266-1199
Scott.....952-496-8475
Washington.....651-430-6655
Websites ..... http://www.co.[county].mn.us

Minnesota Pollution Control Agency

Toll free (all offices).....1-800-657-3864
Brainerd.....218-828-2492
Detroit Lakes 218-847-1519
Duluth 218-723-4660
Mankato 507-389-5977
Marshall 507-537-7146
Rochester 507-285-7343
St. Paul 651-296-6300
Willmar 320-214-3786
Website ..... http://www.pca.state.mn.us

Appendix J

MPCA Guidance Document – Guidelines-Disposal Methods for Water Filter Backwash Soilids

Guidelines-Disposal Methods for Water Filter Backwash Solids

Minnesota Pollution Control Agency

Water Quality/Wastewater Permits #2.02 • May 2007

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WFB:
Water Filter Backwash consists of both a liquid supernatant that contains dissolved and suspended solids, and a more solid sludge that has precipitated out of solution.

WFBS:
Water Filter Backwash Solids. These are the solids present following the backwash of water treatment media. This is considered a solid waste.

This fact sheet is intended to provide guidance for the proper disposal of water treatment backwash by-product.

Background

Water filter backwash (WFB) is generated when potable water treatment plants treat their well water to reduce suspended and dissolved solids.

Sand filter systems pump well water into the top of a tank that is pressurized or gravity fed down through a porous (usually sand-rock) media. Periodically the filter media is backwashed to remove the entrained solids.

Water filter backwash is conveyed to wastewater treatment facilities (WWTF) or is slurried to smaller settling tanks or ponds. To reduce wastewater treatment costs some municipalities' route the supernatant to settling facilities and the sludge to a WWTF, or the other way around. WFB routed to a settling facility need to be periodically cleaned out. The frequency will depend on the size of the tank or pond; and the volume and concentration of solids in the effluent.

Options for managing WFB include slurrying the material to a WWTF, landfilling, using as non-residential construction fill, or land application. Before deciding to dispose of WFB at a WWTF, you should contact the WWTF to fully discuss this option including: (1) available capacity of the WWTF; and (2) potential need to submit a sanitary sewer extension (SSE) permit application.

As described in Minn. R. 7035.0300 subp. 100 water filter backwash solids (WFBS) are considered a solid waste. If the material is either landfilled or land applied, it must be tested and handled in accordance with this guidance document.

Options for WFB/WFBS disposal:

1. **Wastewater Treatment Facility**
2. **Landfill**
3. **Construction Fill**
4. **Land Application**

Steps for landfilling WFBS

1. The WFBS must pass the paint filter test (i.e. is a solid) to be accepted in a landfill.
2. Test and compare the material for the analytes and standards listed in the landfill's industrial solid waste management plan.
3. For unlined landfills radium 226 (Ra) concentrations cannot exceed 5 piC/g. For lined landfills Ra concentrations cannot exceed 30 piC/g. If radium in the WFBS exceeds 30 piC/g options for its disposal must be arranged with the Minnesota Department of Health's Radiation Section.
4. If the test results are in alignment with the landfill's industrial solid waste management plan, the WFBS may be taken to a MPCA permitted landfill.

Minnesota Pollution Control Agency • 520 Lafayette Rd. N., St. Paul, MN 55155-4194 • www.pca.state.mn.us
651-296-6300 • 800-657-3864 • TTY 651-282-5332 or 800-657-3864 • Available in alternative formats

Steps for using WFBS as construction fill

1. Test the material for the analytes listed in Table 1.
2. Using the analytical results, and formulas provided, determine whether the cumulative land applications limits listed in Table 1 are met.

If the results are below the limits in Table 1, the material may be used as fill for non-residential projects.

Steps for land applying WFB

1. Test the material for the analytes listed in Table 1.
2. Using the analytical results, and formulas provided, determine whether the cumulative land applications limits listed in Table 1 are met.
3. Determine the suitability of your site for land application using Tables 2-4.
4. Send in written notification to the county solid waste officer, and either the township clerk or city mayor, which ever is applicable, to provide local officials an opportunity to comment on the proposed application site.
5. Land apply the WFB in accordance with these guidelines.
6. Keep adequate records for future use.

Testing water filter backwash

Each time the WFB is to be land applied, a representative sample of the WFB must be collected in a way that provides a sample of the material which is actually land applied. For WFB this requires that an adequate number of subsamples be collected and composited into a single sample. The sample is then sent to a certified laboratory for testing. In addition to the parameters listed in Table 1, any chemical additives present in the WFB must also be analyzed. The results of these tests will be used to calculate the acceptable application rates for the by-product.

Table 1
Analytic parameters and cumulative limits for WFB

Parameter (Totals in mg/kg)	Cumulative Limits for land application
Radium 226	4.5 (milliCi/acre)
Arsenic	37 lb/acre
Barium	No Limit Established
Cadmium	No Limit Established
Copper	No Limit Established
Lead	No Limit Established
Manganese	No Limit Established
Mercury	No Limit Established
Molybdenum	No Limit Established
Nickel	No Limit Established
Selenium	No Limit Established
Zinc	No Limit Established
% percent solids	No Limit Established

If you have questions about what to test for, please contact the MPCA. If you have questions about sampling procedures, please contact your lab.

Formulas used to determine cumulative limits:

Maximum Application Rates Based on Radium and Arsenic:

Max. application = 37 lb/acre ÷ (arsenic conc. x 0.002)
Based on arsenic (mg/kg)

Max. application = 4.5 milliCi/ac ÷ (radium 226 conc. x 0.0009)
Based on radium 226 (pCi/g)

*** The maximum allowable WTB application is the lesser of the two results above minus any amount applied to the site from previous applications.**

Actual Arsenic Loading rate (lbs/acre) = Arsenic Concentration (mg/kg) x Actual application rate of solids (dry tons/acre) x 0.002

Actual Ra-226 Loading rate (milliCi/acre) = Ra-226 Concentration (pCi/g) x Actual application rate of solids (dry tons/acre) x 0.0009

Solids Applied (dry tons/acre) = gal/acre Applied x % total solids (as a decimal fraction) ÷ 240

Solids Applied (dry tons/acre) = Wet tons/acre Applied x % total solids (as a decimal fraction)

Site suitability criteria

All criteria in this section, including slope restrictions, site suitability criteria, and separation distances as provided in the following tables must be met for a site to be suitable for land application.

Table 2
Slope restrictions for application sites

Slope (percent)	Injection or Immediate Incorporation
0-12	Allowed
>12	Not Allowed

Table 3
Soil Suitability Criteria

Characteristic	Minimum Requirement [1]
Soil texture at the zone of by-product application	fine sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, sandy clay, silty clay loam, silty clay, or clay
Depth to bedrock	3 feet
Depth to seasonal high water table[2]	3 feet

[1] This information can be determined by obtaining information from soil surveys published by the Natural Resources Conservation Service or by characterization of the site by a state of Minnesota licensed soil scientist or other qualified individual.

Site Selection and Use

It is recommended that a Type IV certified operator determine the suitability of each site for application and be responsible for properly land spreading the WFB. The site selection process should also include the following steps:

1. Determine that the soils located on the site meet all site suitability criteria;
2. If the site has received WTB in the past, determine the amount of pollutant that can be applied to the site. This is done by subtracting the cumulative amount of pollutant applied to the site from previous application from the cumulative pollutant limit in Table 1.

Provide written notification to the county solid waste officer, and either the township clerk or city mayor (depending on the location of the site). Notifications must include a description of the WFB, and how the WFB will be land applied including any staging or storage that will occur prior to land application.

Miscellaneous management practices/restrictions

1. WFB must be incorporated or injected within 48 hours;
2. Application of WFB is not allowed on areas of a site ponded with water or liquid;
3. No runoff of the WFB from the application site is allowed;
4. No significant surface ponding of liquid WFB is allowed after 6 hours of the application;
5. All WFB which are land applied must be uniformly distributed over the area of the site used during application; and
6. Wind-blown WFB is not allowed.

Record keeping requirements

1. A map which identifies the exact site location and year of application;
2. Testing results and application rates;
3. The crop of vegetation grown on the site;
4. Daily hauling records which indicate quantities transferred to storage or land applied with the storage or site location identified;
5. The cumulative quantity of pollutant applied to the site from all applications of WTB;
6. A cumulative total of the quantity of material applied on each site for the cropping year;
7. A copy of written information provided to each end user of the WFB, this includes any test results;
8. A copy of notification letters submitted to each city, county, and township.

Table 4
Minimum separation distances from land application sites

Feature	Incorporated or Injected With 48 Hours	
Private drinking water supply wells	200 ft.	
Public drinking water supply Wells	1000 ft.	
Lakes, rivers, streams, ditches, wetlands, intermittent streams, or tile inlets connected to these surface water features[1]	slope 0%-6% slope 6%-12%	50 ft. 100 ft
Grassed Water Ways[2]	33 ft.	

[1] Intermittent stream means a drainage channel with definable banks that provides for runoff flow to any of the surface waters listed in the above table during snow melt or rainfall events.
[2] Grassed waterways are natural or constructed and seeded to grass as protection against erosion. Separation distances are from the centerline of grassed waterways. For a grassed waterway which is wider than the separation distances required, application is allowed to the edge of the grass strip.

Annual report

An annual report is only required for those facilities with a surface or subsurface discharge permitted by the MPCA.

A report of all water filter backwash solids disposal activities for the past cropping year must be submitted by December 31 of each year on the Annual Report Form. An electronic version of this form is available at the following address: http://www.pca.state.mn.us. The annual report must include the following information:

1. Method of disposal;
2. Total quantity disposed; and
3. Location of disposal; and
4. Analytical results.
5. Cumulative amount of arsenic and Radium-226 pollutant applied to the application site.

For assistance you may contact

For further assistance, contact the MPCA Customer Assistance Center at 651-297-2274, or 800-646-6247.

Terms/Definitions

Cropping Year means a year beginning on September 1 of the year prior to the growing season and ending August 31 the year the crop is harvested. For example, the 1994 cropping year began September 1, 1993 and ended August 31, 1994.

End User means the person that has accepted the IBP for their use as a soil amendment.

Immediately Incorporated means incorporated into the soil with tillage within 48 hours after surface application of an IBP.

Industrial By-product (IBP) has the same meaning as "solid waste" given in Minnesota Rules part 703 5.0300.

Type IV Certified Operator or Inspector means a person certified according to Minnesota Rules chapter 7048 for land application.

Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands must have the following attributes: (1) a predominance of hydric soils; (2) inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and (3) under normal circumstances support a prevalence of such vegetation.

Appendix K

Treated Seed Disposal

TREATED SEED DISPOSAL

Background

Treated seeds are seeds, including grain, forage, oil-plant, and vegetable seeds, that have been treated with pesticides or fungicides. Treated seeds can usually be identified by their distinctive color. Federal law requires that a distinctive color be applied to seeds that are treated and sold. Treated seeds that will not be used by planting are considered industrial solid wastes in Minnesota.

Disposal requirements

The MPCA considers waste treated seed and packaging to be an industrial solid waste with no need for further hazardous waste evaluation by the generator, landfill, or WTE incineration facility. In accordance with Minnesota Rules and MPCA Guidance Documents, operators will manage these wastes with the following considerations:

- Gas generation. Waste treated seed may present a fermentation and methane gas generation risk. Landfill operators must determine on a project-by-project basis what prospective volume of waste treated seed and potential resulting gas generation the landfill can safely accept on a per-load or per-day basis.
- Stability and settlement. Landfill operators must determine when thin-spreading of waste treated seed over the active disposal area or incorporation into other received waste may be needed to maintain slope stability and minimize localized settlement.
- Daily cover. To prevent wildlife foraging and exposure, waste treated seed of any volume must be immediately covered.

Treated seeds

Treated seeds are seeds, including grain, forage, oil-plant, and vegetable seeds, that have been treated with pesticides or fungicides. Treated seeds can usually be identified by their distinctive color. Federal law requires that a distinctive color be applied to seeds that are treated and sold.

Treated seeds that will be used by planting

Treated seed that will be used must be planted according to the label directions on the treated seed packaging. Depending on the label directions, planting may be allowed for crop production, wildlife habitat, or erosion or weather protection. There may also be restrictions on planting rate and depth.

Treated seeds that will not be used by planting

While the Minnesota Department of Agriculture (MDA) and the U.S. Environmental Protection Agency (EPA) regulate the pesticides and fungicides that are used to treat seeds, treated seeds themselves are exempt from these requirements. Instead, management of treated seeds that will not be used by planting is regulated by the Minnesota Pollution Control Agency (MPCA).

Treated seeds that will not be used by planting are considered industrial solid wastes in Minnesota. Because of the risk of concentrating the chemicals they are treated with, waste treated seeds in Minnesota may not be:

- Buried for disposal, except in a permitted solid waste landfill, even if burial is stated as a disposal option on the treated seed label, except that farmers in Minnesota may bury treated seeds from their own farm on the farm property. Spreading and incorporation into soil, except by a farmer of their own treated seeds on their own farm, is considered being buried for disposal and is not allowed.
- Composted.
- Burned, except in a permitted Waste-To-Energy (WTE) incineration facility. Waste treated seed may not be burned openly, in corn or wood stoves, or in residential or commercial boilers, including by farmers.
- Used for ethanol, biodiesel, or other fermentation or oil processing, unless specifically approved by the MPCA. Though some treated seed labels still list ethanol production as a management option if no measurable residues of pesticides remain in resulting by-products used in agronomic practice, the MPCA is not aware of any currently available use that does not raise this risk.

Packaging and equipment

Disposable packaging from treated seed, such as bags, is also considered a regulated solid waste in Minnesota, and may not be buried or burned except in permitted facilities. Farmers who do not need to dispose of any treated seeds may dispose of treated seed bags with their normal solid waste, but may not burn any plastic.

Reusable packaging, such as totes and cartons, may be reused with or without rinsing for the same product. When washing equipment, such as seed treatment equipment, planting equipment, or reusable packaging, the MPCA recommends using only the minimum amount of rinsewater necessary.

Rinsewater may be discharged to a publicly owned treatment works, commonly known as a sewage treatment plant, after notifying the works operator and following any conditions or restrictions they apply. Rinsewater may also be applied at label rates to a crop for which the active ingredients in the seed treatment are registered. Rinsewater may not be allowed to discharge to uncropped ground, surface water, or septic systems.

Arranging for proper disposal

Manufacturers, distributors, retailers, farmers, and any other person generating waste treated seed and packaging, called the waste *generators*, are responsible for arranging for proper disposal of their waste. The MPCA considers waste treated seed and packaging to be an industrial solid waste with no need for further hazardous waste evaluation by the generator, landfill, or WTE incineration facility.

You may find a list of Minnesota landfills in MPCA fact sheet #w-sw6-04, Minnesota landfills accepting mixed municipal solid waste, at: https://www.pca.state.mn.us/sites/default/files/w-sw6-04.pdf.

You may find a list of permitted Minnesota WTE incineration facilities on the website of the Minnesota Resource Recovery Association (MRRA), at: http://mnresourcerecovery.com/.

Many of these landfills and WTE facilities may accept industrial solid waste treated seed, however **generators must contact the landfill or WTE facility first to ensure that they will agree to accept waste treated seeds and can safely manage this waste stream**.

Management in landfills

If not already explicitly included, treated seeds must be addressed in a revision to a landfill's Industrial Solid Waste Management Plan. The revised plan must be reviewed and approved by the MPCA before a landfill may receive this waste stream. Revisions for treated seeds must include:

- Gas generation. Waste treated seed may present a fermentation and methane gas generation risk. Landfill operators must determine what prospective volume of waste treated seed and potential resulting gas generation the landfill can safely accept on a per-load or per-day basis.
- Stability and settlement. Landfill operators must determine when thin-spreading of waste treated seed over the active disposal area or incorporation into other received waste may be needed to maintain slope stability and minimize localized settlement.
- Daily cover. To prevent wildlife foraging and exposure, waste treated seed of any volume must be immediately covered.

Some landfills may also be required to additionally obtain county approval to receive waste treated seed, depending on location.

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Rules, Chapters 7035 and 7045, and incorporate regulatory interpretation decisions made by the MPCA on January 12, 2022. To review Minnesota Rules, visit the Office of the Revisor of Statutes at: https://www.revisor.mn.gov/pubs.

The MPCA's Small Business Environmental Assistance Program can offer free, confidential compliance assistance. For information about waste minimization, contact the Minnesota Technical Assistance Program.

Immediately report all spills that may damage the environment to the Minnesota Duty Officer.

Minnesota Pollution Control Agency

Toll free (all offices) 1-800-657-3864
All offices 651-296-6300
..... https://www.pca.state.mn.us/

Small Business Environmental Assistance Program

Toll free 1-800-657-3938
Metro 651-282-6143
..... https://www.pca.state.mn.us/sbeap/

Minnesota Technical Assistance Program

Toll free 1-800-247-0015
Metro 612-624-1300
..... http://www.mntap.umn.edu

Minnesota Duty Officer

Toll free 1-800-422-0798
Metro 651-649-5451

Plot Date & Time: 17 August 2026 3:04 PM

N

0 150 300
GRAPHIC SCALE IN FEET

PROPERTY BOUNDARY
PHASE BOUNDARY
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
MW-1 MONITORING WELL
B-1 BORING
P-5 TEST PIT

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
1	REVISED PER CLIENT COMMENTS	JJT	EDK	07/29/26
0	ISSUED FOR CUP	JJT	EDK	07/17/26

SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME ETHAN KETELSEN

SIGNATURE Ethan Ketelsen

DATE 07-17-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE
CUP FIGURES

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
SITE MAP FOR MONITORING WELLS AND BORINGS

DWN BY	CHK'D	APP'D	DWG DATE	JULY 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	FIGURE 12	1

U:\227708930\drafting\cad\Figures\Figure 12_Site Map.dwg

TECHNICAL MEMORANDUM

Date: September 11, 2026

To: Christine Skarpohl Gregory
Lime Township Supervisor

From: Jim de Lambert, PG, CPG
Nick Bonow, PE, PG

Re: CUP Reissuance and Modification Dem-Con Pilgrim Landfill SW-254
Lime Township, Blue Earth County, Minnesota

INTRODUCTION

Carlson McCain, LLC (Carlson McCain) has been retained to provide assistance to the Lime Township (Township) Board of Supervisors regarding a Conditional Use Permit (CUP) application for Reissuance and Modification of the CUP for the Dem-Con Pilgrim Landfill SW-254 (Facility or Site), located in Lime Township, Blue Earth County, Minnesota. Dem-Con is planning to acquire the Facility from OMG and has submitted an Application for CUP Permit Reissuance and Modification.

The Township has retained Carlson McCain to review the CUP request on their behalf to provide information on specific questions listed in an email dated August 21, 2026, in addition to more general concerns regarding the conceptual design, operation, hydrogeologic setting, and environmental monitoring at the Facility.

FACILITY OVERVIEW

The Facility is an existing Class I construction and demolition (C&D) debris landfill and operates under Minnesota Pollution Control Agency (MPCA) solid waste permit number SW-254 (Permit). Two distinct disposal areas are present on site; these are designated in the Permit as disposal areas DD 001 and DD 002. The disposal areas are unlined and are underlain by four feet of "compacted sandy clay and crushed limestone" installed as an initial working surface. Additional information on the permitting and development history of the Facility is included in the Permit.

Dem-Con has submitted an application to MPCA for modification of its Permit. Modifications include constructing lined cells for acceptance of Class III C&D debris and industrial waste. The lined area will include a composite liner system consisting of a barrier layer and synthetic membrane, a synthetic cover system and a leachate collection system. As part of development of the new lined area, waste from disposal area DD 001 will be relocated into DD 002, and this area will be covered with an overlay liner and synthetic cover.

Mining has occurred over portions of the Site, and active mining is occurring immediately east of the Facility.

HYDROGEOLOGIC SETTING

The Facility lies within the valley of the former glacial River Warren which was a much larger river than the modern day Minnesota River and formed the valley that extends across the Site from US Highway 169 on the west side to Lime Vally Road east of the Site. The River Warren carried meltwater from the former glacial Lake Agassiz on the border between Minnesota and North Dakota in the area that is now known as the Red River Valley. The former river cut through thick deposits of glacial drift down to the bedrock surface where it carved channels into the bedrock before the valley began to fill in with river terrace deposits eventually turning into the modern Minnesota River valley. The Minnesota River currently occupies only a small portion of the valley.

The Pilgrim Landfill sits on one of these river terraces where there are thin deposits of sandy or fine alluvium overlying bedrock at depths of less than approximately 10 feet. At the Site the first bedrock generally consists of a thin section of Prairie du Chein Group dolomite that in turn overlies the Jordan Sandstone. In places the Prairie de Chein Group may have been completely eroded with the Jordan Sandstone occurring as the first bedrock. At the Site the water table generally occurs within the bedrock at depths of less than 10 feet, depending on elevation and whether the site has been disturbed by mining and/or landfilling activities.

The water table occurs within the bedrock and generally flows towards the Minnesota River to the west southwest across the site according to information provided in the CUP application. Some of this groundwater appears to discharge to the surface as springs just off the Site to the southwest where the river terrace drops off to the abandoned Minnesota River channel that is now occupied by an unnamed stream. These springs are believed to support the Lime 30 Fen which is a type of wetland that relies on upwelling of cool groundwater that is low in oxygen and high in carbonate minerals to sustain particular wetland characteristics. Groundwater ultimately reaches the Minnesota River by direct discharge or via the springs and unnamed stream.

Area groundwater supplies are generally obtained from the bedrock aquifers below the Prairie du Chein Group.

SPECIFIC TOWNSHIP CONCERNS

1. **When does cover get applied over existing and relocated landfill area? Until that is done, chemicals such as pfas are leaching into the ground and thus the water table which is shown on figure 6 to be less than 5 feet below the fill area. (also see CUP Figures and 3b future grading plan)**

   The CUP application states that Dem-Con anticipates the relocation of the existing waste and associated enhanced cover installation to be completed within the first three years of final approval of the new Facility permits. The solid waste permit application states that the first phase

action will be the waste relocation from existing disposal area DD 001 to the existing disposal area dd 002. Additional information related to waste relocation is requested:

A. Provide a volume analysis showing that the estimated quantity of waste to be relocated will fit within the limits of the existing phases of disposal area DD 002 (i.e. Phases 1 and 2) up to the bottom of the proposed final cover.
B. The fill area for new landfill phases 3A and 3B includes the overlay liner that overlaps onto the existing waste fill in disposal area DD 002. Will all of the relocation be completed prior to constructing phases 3A and 3B?
C. Provide a written waste relocation plan addressing the following, at a minimum:
    1. Equipment to be used.
    2. Hours/days of operation.
    3. Estimated rate of waste relocated (e.g. cubic yards per week).
    4. Anticipated progression sequence of excavation, including amount of open area (i.e. cover removed) on DD 001 and DD 002.

2. Any concerns with slope variance request of 4:1 vs 5:1 slopes?

No concerns. We agree with the response to the comment provided by Dem-Con.

3. In response action plan:

A. 2007 program management decision memo;
B. 2014 Flooring w-hw4-25;
C. 2014 Sw-846 update;
D. treated seeds 2022;
E. 5/23/12 Liner equivalent calculations;
are these only for history or best be updated?

These are included to provide historical basis for the design. The information remains valid and therefore does not require updating for the current application.

4. Review hydrologic evaluation of performance.

The following comments present the results of our review of the Hydrologic Evaluation of Landfill Performance (HELP) model performed by Stantec for the Permit modification.

<u>HELP Comments:</u>

A. Profiles in the modeled Scenarios indicate a buffer layer below the GCL rather than a barrier layer as described in the Narrative and as shown in the Permit Modifications Drawings (Permit Drawings). A Barrier Soil Liner layer should be modeled as this layer in each profile using a hydraulic conductivity as of 1.0E-7 cm/sec, as specified in the Technical Specifications. It is recommended that the GCL between the Geomembrane and Barrier Layers be modeled as a Vertical Percolation layer with material properties matching those of GCL specified in the Technical Specifications.

B. GCL is not listed in Table 1 in Profile 1 in the *Hydraulic Efficiency Analysis for Dem-Con Pilgrim Base Liner System and Final Cover* memorandum but is included in Attachment 1 of the HELP Output. Please add GCL to Table 1 for Profile 1.

C. The layers modeled in HELP should match the properties of materials for base liner and final cover profiles shown in the Drawings and as specified, according to the Technical Specifications. Base Liner and Final Cover layers should be modeled at the specified hydraulic conductivities to show the design meets MN Rule 7035.2815.
    1. Layer 3 of Scenario 1 is modeled with a Hydraulic Conductivity of 5.80E-03 cm/sec, while the Technical Specifications require a minimum of 1.0E-3 cm/sec for final cover drainage material. Similarly, Layer 7 of Scenario 1, Layer 3 of Scenario 2, and Layer 3 of Scenario 3 are modeled with a hydraulic conductivity of 5.80E-3 cm/sec, but are specified to have a minimum hydraulic conductivity of 1.0E-3 cm/sec for base liner drainage layers.
    2. GCL is modeled with a hydraulic conductivity of 3.0E-9 cm/sec but specified with a maximum of 5.0E-9 cm/sec. Note, the specified and modeled hydraulic conductivity should also match the value indicated by the Liner Equivalency Calculations in Appendix F.
    3. Buffer soil layers modeled below the GCL show a hydraulic conductivity of 1.2E-6 cm/sec, these layers should be modeled as Barrier Soil Liners with a hydraulic conductivity of 1.0E-7, as discussed in Comment A.

D. GCL is listed in Table 1 as 0.5 inches thick and is modeled as 0.5 inches thick in the HELP Output. The typical thickness of bentonite layers of GCL is 0.25 inches. Update the thickness of GCL in the HELP profiles to 0.25 inches to match the thickness used in the Liner Equivalency Calculation in Appendix F..

E. The *Hydraulic Efficiency Analysis for Dem-Con Pilgrim Base Liner System and Final Cover* memorandum lists Scenario 1 as including 75-feet of waste but then lists 840-inches (70-feet) of waste in Profile 1. HELP Output included as Attachment 1 includes 840-inches of waste in the modeled profile. Please confirm which thickness should be used for Scenario 1 to best represent the in-place, capped waste and update the memorandum or HELP output as appropriate.

F. The Runoff Curve Number used for final cover soils for Scenario 1 should match the average Curve Number used for Stormwater Calculations in Appendix G.

G. A leaf area index of 0 is recommended for Scenarios 2 and 3 to model worst-case scenarios of open landfill conditions with no vegetation.

H. It is recommended Scenario 3 be modeled with a waste thickness of 24 inches to model the worst-case scenario of the minimum amount of waste placed over the drainage layer to achieve required frost protection thicknesses.

I. All scenarios should be analyzed to show head does not exceed 12 inches on applicable geomembrane liners for an average year of precipitation and a year when precipitation exceeds the average precipitation by at least 20% according to MN Rule 7035.2815 Subp 9. C. and D.
    1. A 5-year simulation as submitted (or other length of simulation) may be acceptable if a given year in the simulation is shown to exceed the average annual precipitation by

20%. Conversely, precipitation data may be directly entered for a 1-year simulation for all Scenarios for a year with precipitation exceeding the annual average by 20%.

2. Scenario 3 should show a maximum of 12 inches of head above the base liner geomembrane during a year with precipitation exceeding the annual average by 20% and with revised modeling parameters as discussed in these comments as justification for the variance request for increased base liner slope length.

J. A plan layout and details of drain tile or similar water collection piping should be shown in the Permit Drawings in Appendix B to match the 200 foot maximum length of slope modeled in Layer 3 of Scenario 1. The top 3% final cover slope of the landfill as shown on Sheets C-105 and C-106 in the Permit drawings appears to be approximately 800 feet in maximum length. Water collection piping should be shown at the modeled maximum 200 foot separation distance, or Layer 3 of Scenario 1 should be revised to show a longer distance may be acceptable to prevent 12 inches of head on the liner.

5. Is surface water management plan adequate?

The following comments present the results of our review of the stormwater management methods and calculations by Stantec for the Permit modification.

<u>Stormwater Comments</u>

Stormwater management methods generally meet MPCA requirements for controlling a regulatory 25-year; 24-hour storm event. Additional details are requested to show the Stormwater Management Plan provides environmental protection on the Site and to surrounding properties, as required by Lime Township Zoning Ordinances. Comments on the Stormwater Management Plan are documented below:

A. Construction details are not provided for ponds, with Section 4.1.8 of the Application Narrative stating that pond grading may vary as development of the landfill occurs and that development will be performed in accordance with an approved Stormwater Pollution Prevention Plan and applicable permit requirements. The Narrative should be revised to state that ponds shall be constructed according to the active Multi-Sector General Permit for Industrial Stormwater and Construction Stormwater General Permit, or any individual NPDES/SDS stormwater permits, if issued for the Site.

B. HydroCAD Stormwater Calculations should be extended to 72 hours in length to show ponds drawdown to the starting elevation of the pond following the regulatory storm event (i.e. show drawdown within 48 hours after the 24 hour storm, according to the Construction Stormwater General Permit).

C. Pond nodes should be added to the HydroCAD model for catch basin inlet and pipe inlet locations upstream of stormwater pipes to show surface water ponding locations do not overtop the stormwater berms (a scenario that would cause erosion of the final cover surface).

D. Starting elevations of the North Pond (Pond 5P) and West Pond (Pond 12P) should be updated to match the invert elevations of their respective outlet pipes.

E. Pond outlets should feature scour protection, such as rip rap energy dissipation. Please indicate what best management practice will be utilized for scour protection downstream of outlet pipes in the Narrative or Permit Drawings.

F. Reach 28R is modeled as an 8-foot wide by 3-foot deep open channel but is shown in the Permit Drawings as a downslope drop pipe. Please clarify which stormwater conveyance method will be utilized and revise Permit Drawings or HydroCAD stormwater calculations as appropriate to reflect the designed conveyance.

6. **Well monitoring figure 10: would it be prudent to have a water quality testing well located on the eastern side of the existing landfill between the water body and bottom of landfill slope or?**

   The water body appears to be a current or former quarry that is located on the upgradient, or upstream side of the landfill. The quarry appears to represent the water table such that groundwater migrating under the Site travels from the quarry to the Minnesota River. In general, a robust monitoring network needs to have at least one upgradient well to help characterize the water coming onto the Site. This water can then be compared to water from the downgradient wells to assess impacts from the Facility. Large or complicated sites may require multiple upgradient and downgradient wells. Yes, one upgradient well should be located between the quarry and the landfill. The existing monitoring network will need to be modified to accommodate the landfill, especially the existing monitoring wells that lie within the footprint of the fill area. The entire monitoring network should be reviewed and an overall groundwater monitoring plan developed for the Site.

   There are numerous wells shown: what is their use and will they be decommissioned or?

   The wells shown on Figure 10 likely represent all wells in the Minnesota Department of Health (MDH) database within a one-mile radius of the Site. Many of these wells are not directly associated with the Pilgrim Demo Landfill but were installed for investigation of bedrock and aggregate resources by Jordan Sands, LLC and Mankato Kasota Stone and for investigation of the Lime 30 calcareous fen. The Facility has seven active monitoring wells including six water table wells and one deeper well.

   Minnesota rules require that inactive or unused wells be sealed according to the rules, or that they be covered under a maintenance permit, until they are returned to service. Several of the wells shown on Figure 10 have been sealed according to the rules.

7. **Where the proposed recycling is shown on figure 8, does MPCA require protection or structures?**

   Storage and handling of these materials is regulated by MPCA under the solid waste permit and NPDES industrial stormwater permit. The operational methods described in the permit application and the comment response letter are consistent with industry standards.

8. **What capping and timing of the fill is prudent to require as the fill and relocation is completed in stages. A concern is the capping the unlined area as soon as possible, yet figures depict a final cap at end life of project.**

See response to item 1. above.

9. In general Township concerns are

A. Adequacy of the concept,

There is precedent for the concept of overlay liners, and installation of synthetic liners and covers is known to reduce the potential for transport of leachable contaminants in the waste to soil and groundwater.

B. Proposed execution,

The Permit Drawings and Technical Specifications adequately describe the methods and procedures for construction of the liner and final cover systems. Limited details have been provided for a plan of execution for relocation of the waste from DD 001 to DD 002. See Comment Response 1. above for information requested pertaining to waste relocation.

C. Protection of the Jordan aquafer below the project,

The Jordan Sandstone is the uppermost aquifer at the Site and is an important water source throughout the metro area and most of east central Minnesota. The groundwater monitoring network that is currently in place is primarily designed to monitor the Jordan Sandstone; however, the monitoring network needs to be updated based on current plans for the Facility. Any corrective actions that need to be implemented, based on water quality exceedances, will also be directed towards protecting the Jordan Sandstone drinking water source. Deeper aquifers, below the Jordan Sandstone, have some additional natural protection afforded by low permeability layers separating the aquifers and because groundwater within the Jordan Sandstone near the site is flowing towards and discharging to the Minnesota River, rather than recharging deeper aquifers.

D. Karst geology,

Karst prone areas can be defined as areas where 50 feet or less of unconsolidated sediment overlies Paleozoic carbonate rock, such as the Prairie de Chien Group. These areas have been defined and mapped in a Minnesota Department of Natural Resources (MDNR) publication titled "*Minnesota Regions Prone to Surface Karst Feature Development Series GW-01*". The portion of Blue Earth County, and Lime Township, just east of the Minnesota River meets these criteria. However, these areas do not demonstrate characteristic karst features such as sinkholes, caves, springs, and rapid conduit flow, most likely because of the limited thicknesses of the carbonate bedrock (Prairie du Chien Group) above the Jordan Sandstone. A review of the MDNR Karst Feature Inventory indicates that there are no recorded karst features in Blue Earth, Le Sueur, or Nicollet Counties. In summary, the Site is located in a karst prone area but does not exhibit karst geology.

E. Monitoring, testing, and how often is required beyond MPCA requirements?

Monitoring and testing is now routine for solid waste facilities including demolition landfills, with the general requirements outlined in Minnesota Rules and site specific requirements outlined in each facility's permit issued by the MPCA. For most facilities the MPCA requires a monitoring network to detect potential contaminants before they leave the facility property or just inside the groundwater compliance boundary. If contaminants are detected at these compliance wells, then additional offsite monitoring may be required. Generally, the MPCA requirements are adequate to protect human health and the environment.

In some cases, a local permitting authority, such as a county, city, or township may require additional monitoring for specific concerns, such as sampling vulnerable drinking water supply wells, nearby surface waters, or stormwater management facilities. The Township may wish to consider requiring a groundwater receptor survey to identify whether any groundwater users are in the path of potential contamination should a release to groundwater occur at the Facility. A receptor survey is often required by MPCA when a compliance boundary monitoring well exceeds an intervention limit.

In some cases, landfill operators may opt for additional monitoring beyond what MPCA requires for a variety of reasons. An example would be installation of an additional upgradient monitoring well to demonstrate that specific contaminants are moving on to the site and do not originate at the site (as might be indicated by their occurrence in a downgradient monitoring well). An operator might offer to sample nearby drinking water wells rather than install additional monitoring wells.

F. What are effective BMP's.

MPCA solid waste permits and industrial stormwater permits include prescriptive language on operational practices and BMP's. Available information in the permit application indicates that proposed BMP's are in conformance with industry standards.

G. Are there any previous tests noted that should be updated?

Routine monitoring and testing at the groundwater monitoring network should continue in accordance with the permit as filling continues and the Site transitions from a Class I C&D landfill to one that accepts Class III C&D debris and industrial waste. After permit reissuance when the Facility is authorized to accept new waste types, the groundwater monitoring parameters should be updated to reflect the different waste types, if needed. In addition, the proposed modifications to the landfill design will also require an updated Sampling and Analysis Plan for specific items including analysis of leachate from the proposed leachate collection system and landfill gas analysis if the landfill develops a landfill gas management system. These items will typically be required in the reissued permit for the facility.

H. What conditions shall be included to solidify environmental concerns?

Comments provided in this memo are intended to help the Township determine what additional conditions may be warranted.

ADDITIONAL COMMENTS

1. Closure Cost Estimates – the unit price of $0.28 per square foot for 40-mil LLDPE geomembrane seems unrealistically low. We assume that the unit price is to furnish and install the material. Based on our experience on similar projects, we feel a more appropriate unit price would be double the current estimate, or $0.56 per square foot. The applicant should review all cost estimates to ensure they are reasonable and are based on the cost of paying a third party to perform the work.

2. Groundwater Monitoring Plan – currently there are seven groundwater monitoring wells in use at the site, with six designed to monitor the water table. Three of the six water table wells are located within the footprint of the waste fill area and will need to be sealed at some point.

   A plan should be developed to upgrade the monitoring network with wells located between the landfill footprint and the compliance boundary. It is beneficial to establish the new monitoring points at the earliest opportunity to begin to collect background analytical data and to establish a water level history for the new wells. Note that any significant pumping in the area, at the adjacent quarry, for gravel washing, or any other purpose has the potential to alter groundwater flow patterns and may necessitate changes to the groundwater monitoring network.

3. Landfill Gas Potential – C&D debris typically generates much lower amounts of landfill gas than municipal solid waste, and the absence of low permeability covers on most C&D landfills allows the small quantities of landfill gas generated to passively vent to the atmosphere through the cover soils, which are often sandy to loamy. With the addition of industrial waste and the incorporation of a synthetic liner and cover system, the Facility will have a higher potential for generation and accumulation of landfill gas. The Contingency Action Plan and Post Closure Plan in the permit application include costs for gas vent replacement and gas monitoring, but gas management is not included in the design narrative or Permit Drawings. Information on gas generation potential and gas management infrastructure (e.g. passive vents, active gas collection) should be provided.

September 17, 2026

Lime Township
PO Box 4444
Mankato, Minnesota 56002-4444

RE: RESPONSES TO CARLSON MCCAIN TECHNICAL MEMORANDOM DATED SEPTEMBER 11, 2026
CUP REISSUANCE AND MODIFICATION DEM-CON PILGRIM LANDFILL SW-254

To Whom It May Concern,

This memorandum provides Dem-Con's written response to items where additional information was requested in the technical memorandum provided to Lime Township on September 11, 2026 by Carlson McCain regarding Dem-Con Pilgrim Landfill's pending reissuance of a Lime Township Conditional Use Permit (CUP).

SPECIFIC TOWNSHIP CONCERN 1:

A. **Provide a volume analysis showing that the estimated quantity of waste to be relocated will fit within the limits of the existing phases of disposal area DD 002 (i.e. Phases 1 and 2) up to the bottom of the proposed final cover.**

Dem-Con Response: The existing in-place volume as of December 2025 is 1,166,722 cubic yards according to the site's 2025 Annual Report. The proposed volume of DD002 in the most recent version of the application to the MPCA is 1,344,918 cubic yards, leaving a remaining airspace of 178,196 cubic yards. According to the existing MPCA SW-254 permit (issued May 2004) the DD001 disposal area was closed with approximately 111,000 cubic yards of waste in-place, therefore it would be feasible to relocate the entirety of the DD001 disposal area into the proposed DD002 area with room for cover soils. Note that with the construction of a portion of Phase 3A some of the waste may be relocated to a new, lined cell as well as the existing DD002 disposal area.

B. **The fill area for new landfill phases 3A and 3B includes the overlay liner that overlaps onto the existing waste fill in disposal area DD 002. Will all of the relocation be completed prior to constructing phases 3A and 3B?**

Dem-Con Response: A portion of Phase 3A will be constructed prior to completion of the full relocation of the existing waste fill. This will allow for additional airspace for operations, as well as flexibility for the site to dispose onsite any waste materials not suitable for a Class 1 unlined C&D landfill, if encountered.

C. **Provide a written waste relocation plan addressing the following, at a minimum:**
   a. **Equipment to be used.**
   b. **Hours/days of operation.**
   c. **Estimated rate of waste relocated (e.g. cubic yards per week).**

DEM-CON
COMPANIES
13020 Dem-Con Drive Shakopee, Minnesota 55379 Phone: 952.445.5755 Fax: 952.445.8288

d. Anticipated progression sequence of excavation, including amount of open area (i.e. cover removed) on DD 001 and DD 002.

Dem-Con Response:

Equipment and Excavation Description

Multiple pieces of equipment will be used for the waste relocation. A dozer or excavator will strip cover from the existing waste. A hydraulic excavator will then load the waste into articulated haul trucks, which will haul the waste to the working face of the landfill for placement. There, a dozer and landfill compactor will compact the relocated waste into place.

Dem-Con estimates it will move 2,000–3,000 cubic yards per day. The same equipment will be used to haul any cover material needed throughout the project. Excavation will take place primarily Monday through Friday, and always within the hours allowed under the Lime Township Conditional Use Permit.

Excavation Sequence

Dem-Con expects to begin excavation on the south side of the existing pile and work north. Dem-Con will minimize the area of cover removed from the existing waste, limiting exposed excavation to no more than two weeks' worth of work at a time. Dem-Con will maintain cover on both the existing pile and the relocated waste in accordance with MPCA permit requirements.

MPCA Review — Unacceptable Materials

In its review of the permit application, the Minnesota Pollution Control Agency raised questions about unacceptable materials encountered in the waste to be relocated. Dem-Con provided the following response:

1. *Material from area DD 001 will be visually inspected and classified upon excavation*
2. *If materials that do not meet the Class I demolition debris per the ISWMP are encountered, they will be segregated by waste type and placed in 30-40 yard roll-off boxes (or similar).*
3. *Materials meeting Class I demolition debris criteria will be relocated to area DD 002.*
4. *Materials not meeting Class I demolition debris criteria will be disposed of at an appropriate permitted facility.*

SPECIFIC TOWNSHIP CONCERN 4:

A. Profiles in the modeled Scenarios indicate a buffer layer below the GCL rather than a barrier layer as described in the Narrative and as shown in the Permit Modifications Drawings (Permit Drawings). A Barrier Soil Liner layer should be modeled as this layer in each profile using a hydraulic conductivity as of 1.0E-7 cm/sec, as specified in the Technical Specifications. It is recommended that the GCL between the Geomembrane and Barrier Layers be modeled as a Vertical Percolation layer with material properties matching those of GCL specified in the Technical Specifications.

Dem-Con Response: The details in the permit drawings and the HELP model memo have been revised to remove references to a barrier layer. The buffer layer, as intended for the purpose of this design, is to provide protection of the GCL rather than create an additional low-permeability layer. As such the hydraulic conductivity used for the buffer layer in the revised HELP model has not been changed.

B. **GCL is not listed in Table 1 in Profile 1 in the *Hydraulic Efficiency Analysis for Dem-Con Pilgrim Base Liner System and Final Cover* memorandum but is included in Attachment 1 of the HELP Output. Please add GCL to Table 1 for Profile 1.**

Dem-Con Response: Agreed, this has been updated.

C. **The layers modeled in HELP should match the properties of materials for base liner and final cover profiles shown in the Drawings and as specified, according to the Technical Specifications. Base Liner and Final Cover layers should be modeled at the specified hydraulic conductivities to show the design meets MN Rule 7035.2815.**
   1. **Layer 3 of Scenario 1 is modeled with a Hydraulic Conductivity of 5.80E-03 cm/sec, while the Technical Specifications require a minimum of 1.0E-3 cm/sec for final cover drainage material. Similarly, Layer 7 of Scenario 1, Layer 3 of Scenario 2, and Layer 3 of Scenario 3 are modeled with a hydraulic conductivity of 5.80E-3 cm/sec, but are specified to have a minimum hydraulic conductivity of 1.0E-3 cm/sec for base liner drainage layers.**

Dem-Con Response: Agreed, this has been updated.

   2. **GCL is modeled with a hydraulic conductivity of 3.0E-9 cm/sec but specified with a maximum of 5.0E-9 cm/sec. Note, the specified and modeled hydraulic conductivity should also match the value indicated by the Liner Equivalency Calculations in Appendix F.**

Dem-Con Response: In the revised permit application the specifications were updated to a maximum of 3x10^-9 cm/sec. The revised HELP model still reflects the 3x10^-9 cm/sec as the worst case scenario.

   3. **Buffer soil layers modeled below the GCL show a hydraulic conductivity of 1.2E-6 cm/sec, these layers should be modeled as Barrier Soil Liners with a hydraulic conductivity of 1.0E-7, as discussed in Comment A.**

Dem-Con Response: The buffer layer is not intended to be a barrier soil liner, but a protective layer for the GCL. Therefore the hydraulic conductivity for the buffer layer has not been updated in the revised HELP model.

D. **GCL is listed in Table 1 as 0.5 inches thick and is modeled as 0.5 inches thick in the HELP Output. The typical thickness of bentonite layers of GCL is 0.25 inches. Update the thickness of GCL in the HELP profiles to 0.25 inches to match the thickness used in the Liner Equivalency Calculation in Appendix F..**

Dem-Con Response: Agreed, this has been updated.

E. **The *Hydraulic Efficiency Analysis for Dem-Con Pilgrim Base Liner System and Final Cover* memorandum lists Scenario 1 as including 75-feet of waste but then lists 840-inches (70-feet) of waste in Profile 1. HELP Output included as Attachment 1 includes 840-inches of waste in the modeled profile. Please confirm which thickness should be used for Scenario 1 to best represent the in-place, capped waste and update the memorandum or HELP output as appropriate.**

Dem-Con Response: The deepest proposed waste column is approximately 70 feet. The revised HELP model still reflects 70 feet of waste, and the memo has been updated to reflect that as well.

F. **The Runoff Curve Number used for final cover soils for Scenario 1 should match the average Curve Number used for Stormwater Calculations in Appendix G.**

Dem-Con Response: Agreed, this has been updated.

G. **A leaf area index of 0 is recommended for Scenarios 2 and 3 to model worst-case scenarios of open landfill conditions with no vegetation.**

Dem-Con Response: Agreed, this has been updated.

H. **It is recommended Scenario 3 be modeled with a waste thickness of 24 inches to model the worst-case scenario of the minimum amount of waste placed over the drainage layer to achieve required frost protection thicknesses.**

Dem-Con Response: The model has been updated to include an additional scenario (Scenario 3A) with a 24-inch frost protection layer of waste above the drainage layer as a worst-case scenario. On an average annual basis with 24-inches of waste it meets the 12-inch maximum head on the liner requirement for both Scenarios 2A and 3A. It should be noted that this facility does not have a clay barrier layer (requiring frost protection), however if it did require frost protection the layer would be a minimum of 6 feet thick. It should also be noted that in the event that the head on the liner approaches the 12-inch regulatory limit that Dem-Con has the ability to increase pumping capacity as needed to maintain compliance.

I. **All scenarios should be analyzed to show head does not exceed 12 inches on applicable geomembrane liners for an average year of precipitation and a year when precipitation exceeds the average precipitation by at least 20% according to MN Rule 7035.2815 Subp 9. C. and D.**
    1. **A 5-year simulation as submitted (or other length of simulation) may be acceptable if a given year in the simulation is shown to exceed the average annual precipitation by 20%. Conversely, precipitation data may be directly entered for a 1-year simulation for all Scenarios for a year with precipitation exceeding the annual average by 20%.**

Dem-Con Response: The average amount of rainfall in the 5-year period is 31.43 inches. Year 4 in the model has a total rainfall amount of 37.76 inches, which is greater than 20% of the annual average precipitation as required by MN Rule 7035.2815 Subp 9. C. and D. The average annual head on the liner for the average of the 5 years and any given year is maintained at less than 12 inches for all operational scenarios.

    2. **Scenario 3 should show a maximum of 12 inches of head above the base liner geomembrane during a year with precipitation exceeding the annual average by 20% and with revised modeling parameters as discussed in these comments as justification for the variance request for increased base liner slope length.**

Dem-Con Response: The average amount of rainfall in the 5-year period is 31.76 inches. Year 3 in the model has a total rainfall amount of 38.8 inches, which is greater than 20% of the annual average precipitation as required by MN Rule 7035.2815 Subp 9. C. and D. Additionally, a 25-year, 24-hr storm event of 5.34-inches was manually entered to the dataset to simulate worst-case conditions for a more conservative review.

J. **A plan layout and details of drain tile or similar water collection piping should be shown in the Permit Drawings in Appendix B to match the 200 foot maximum length of slope modeled in Layer 3 of Scenario 1. The top 3% final cover slope of the landfill as shown on Sheets C-105 and C-106 in the Permit drawings appears to be approximately 800 feet in maximum length. Water collection piping should be shown at the modeled maximum 200 foot separation distance, or Layer 3 of Scenario 1 should be revised to show a longer distance may be acceptable to prevent 12 inches of head on the liner.**

Dem-Con Response: Agreed, the model has been updated to reflect an 800-foot maximum flow path for Scenario 1.

SPECIFIC TOWNSHIP CONCERN 5:

A. **Construction details are not provided for ponds, with Section 4.1.8 of the Application Narrative stating that pond grading may vary as development of the landfill occurs and that development will be performed in accordance with an approved Stormwater Pollution Prevention Plan and applicable permit requirements. The Narrative should be revised to state that ponds shall be constructed according to the active Multi-Sector General Permit for Industrial Stormwater and Construction Stormwater General Permit, or any individual NPDES/SDS stormwater permits, if issued for the Site.**

Dem-Con Response: Agreed, this has been added to the narrative.

B. **HydroCAD Stormwater Calculations should be extended to 72 hours in length to show ponds drawdown to the starting elevation of the pond following the regulatory storm event (i.e. show drawdown within 48 hours after the 24 hour storm, according to the Construction Stormwater General Permit).**

Dem-Con Response: Agreed, this is updated in the revised HydroCAD model.

C. **Pond nodes should be added to the HydroCAD model for catch basin inlet and pipe inlet locations upstream of stormwater pipes to show surface water ponding locations do not overtop the stormwater berms (a scenario that would cause erosion of the final cover surface).**

Dem-Con Response: Additional pond nodes were added prior to the catch basins to show anticipated ponding capacity of the adjacent area, ensuring stormwater berms are not overtopped.

D. **Starting elevations of the North Pond (Pond 5P) and West Pond (Pond 12P) should be updated to match the invert elevations of their respective outlet pipes.**

Dem-Con Response: Agreed, this is updated in the revised HydroCAD model.

E. **Pond outlets should feature scour protection, such as rip rap energy dissipation. Please indicate what best management practice will be utilized for scour protection downstream of outlet pipes in the Narrative or Permit Drawings.**

Dem-Con Response: Dem-Con intends to use riprap for scour protection at all pipe outlets for energy dissipation. The narrative has been updated to include this information.

F. **Reach 28R is modeled as an 8-foot wide by 3-foot deep open channel but is shown in the Permit Drawings as a downslope drop pipe. Please clarify which stormwater conveyance method will be utilized and revise Permit Drawings or HydroCAD stormwater calculations as appropriate to reflect the designed conveyance.**

Dem-Con Response: A downslope drop pipe will be used in accordance with the permit drawings, the revised HydroCAD model has been updated to reflect this.

SPECIFIC TOWNSHIP CONCERN 6

Well monitoring figure 10: would it be prudent to have a water quality testing well located on the eastern side of the existing landfill between the water body and bottom of landfill slope or?

The water body appears to be a current or former quarry that is located on the upgradient, or upstream side of the landfill. The quarry appears to represent the water table such that groundwater migrating under the Site travels from the quarry to the Minnesota River. In general, a robust monitoring network needs to have at least one upgradient well to help characterize the water coming onto the Site. This water can then be compared to water from the downgradient wells to assess impacts from the Facility. Large or complicated sites may require multiple upgradient and downgradient wells. Yes, one upgradient well should be located between the quarry and the landfill. The existing monitoring network will need to be modified to accommodate the landfill, especially the existing monitoring wells that lie within the footprint of the fill area. The entire monitoring network should be reviewed and an overall groundwater monitoring plan developed for the Site.

Dem-Con Response: Historically the site has used monitoring well MW-1, located in the northeast corner of the property, as the upgradient well. Dem-Con agrees that the addition of a second upgradient well in the area between the quarry and the landfill would be beneficial. Dem-Con will propose to the MPCA to construct a second upgradient well in that vicinity with the actual location to be determined through consultation with the MPCA Hydrologist assigned to the Site. Three monitoring wells currently exist within the future fill area. Of those, only well MW-7 will need to be abandoned through this permit term. Dem-Con has proposed to the MPCA to construct a new well along the southern edge of the property (outside of the fill area) when it becomes necessary to abandon MW-7. These changes to the monitoring network will be outlined in a revised Sampling and Analysis Plan to be submitted to the MPCA.

SPECIFIC TOWNSHIP CONCERN 9

E. **In some cases, a local permitting authority, such as a county, city, or township may require additional monitoring for specific concerns, such as sampling vulnerable drinking water supply wells, nearby surface waters, or stormwater management facilities. The Township may wish to consider requiring a groundwater receptor survey to identify whether any groundwater users are in the path of potential**

contamination should a release to groundwater occur at the Facility. A receptor survey is often required by MPCA when a compliance boundary monitoring well exceeds an intervention limit.

Dem-Con Response: The groundwater monitoring network and sampling frequency for the Facility are reviewed and approved by the MPCA to be compliant with Minnesota Rules and protective of human health and the environment. Dem-Con is proposing to add a liner and leachate collection system to the facility, greatly enhancing the environmental and groundwater protection at the facility. In addition to the existing groundwater monitoring network, which has been found to be sufficient for environmental monitoring at the unlined facility, Dem-Con agrees with the Carlson McCain recommendation to add an additional up-gradient well and will be adding this to our proposed groundwater monitoring network.

ADDITIONAL COMMENTS

1. **Closure Cost Estimates – the unit price of $0.28 per square foot for 40-mil LLDPE geomembrane seems unrealistically low. We assume that the unit price is to furnish and install the material. Based on our experience on similar projects, we feel a more appropriate unit price would be double the current estimate, or $0.56 per square foot. The applicant should review all cost estimates to ensure they are reasonable and are based on the cost of paying a third party to perform the work.**

Dem-Con Response: Dem-Con agrees with the assumption that the cost estimate should include the supply and install of the 40-mil LLDPE membrane. Dem-Con also agrees that $0.28/sf cost is low as it was based on 2024/2025 costs and there has been significant increase in costs to landfill liner due to oil prices increasing in 2026. Dem-Con received updated quotes in September of 2026 for supply and install of 40-mil geomembrane and will adjust the unit cost to $0.42 per square foot. It should also be noted that these costs are updated in January of each year as required in the MPCA annual report.

2. **Groundwater Monitoring Plan – currently there are seven groundwater monitoring wells in use at the site, with six designed to monitor the water table. Three of the six water table wells are located within the footprint of the waste fill area and will need to be sealed at some point.**

   A plan should be developed to upgrade the monitoring network with wells located between the landfill footprint and the compliance boundary. It is beneficial to establish the new monitoring points at the earliest opportunity to begin to collect background analytical data and to establish a water level history for the new wells. Note that any significant pumping in the area, at the adjacent quarry, for gravel washing, or any other purpose has the potential to alter groundwater flow patterns and may necessitate changes to the groundwater monitoring network.

Dem-Con Response: See response to SPECIFIC TOWNSHIP CONCERN 6 above regarding proposed monitoring modifications.

3. **Landfill Gas Potential – C&D debris typically generates much lower amounts of landfill gas than municipal solid waste, and the absence of low permeability covers on most C&D landfills allows the small quantities of landfill gas generated to passively vent to the atmosphere through the cover soils, which are often sandy to loamy. With the addition of industrial waste and the incorporation of a synthetic liner and cover system, the Facility**

will have a higher potential for generation and accumulation of landfill gas. The Contingency Action Plan and Post Closure Plan in the permit application include costs for gas vent replacement and gas monitoring, but gas management is not included in the design narrative or Permit Drawings. Information on gas generation potential and gas management infrastructure (e.g. passive vents, active gas collection) should be provided.

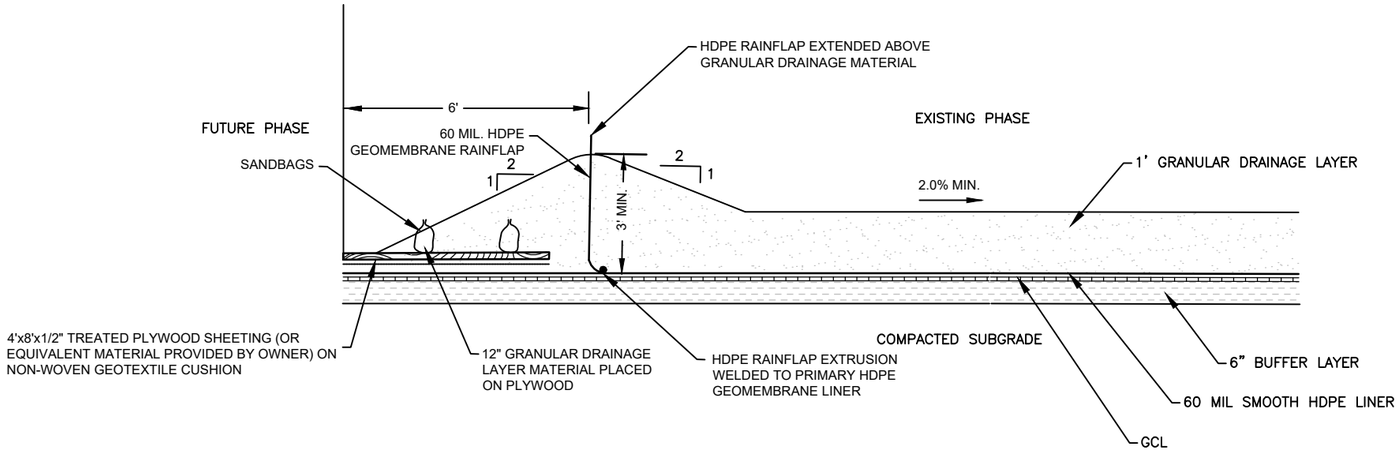
Dem-Con Response: Dem-Con has prepared a Landfill Gas Control Plan (see attached) that will be part of the revised permit application package submitted to the MPCA. Sheet D-103 of the permit drawing set was also updated to include a depiction of the proposed passive gas vent detail.

The responses in this document were supported by Dem-Con personnel as well as engineers at Stantec. If you have any further questions, please contact Mark Pahl at 612-282-0864 or markpahl@dem-con.com.

Thanks you,

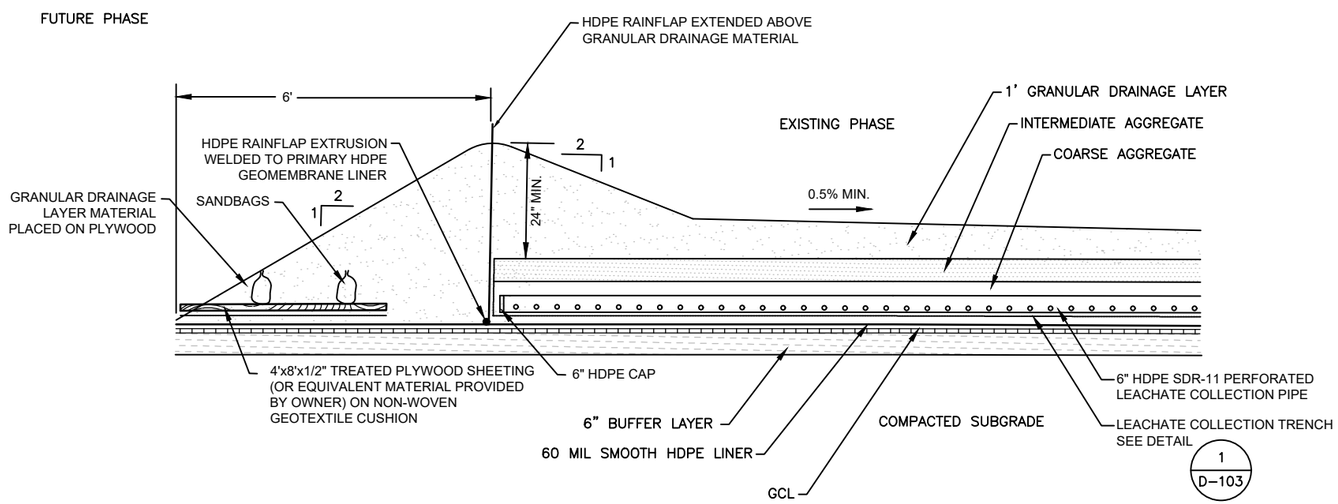
Mark Pahl
Dem-Con

Attachments:
Revised HELP model
Revised HydroCAD model
Landfill Gas Control Plan
Revised D-101_D-106_Civil Details.pdf Drawing set
Red-lined Draft of revisions to the MPCA application narrative



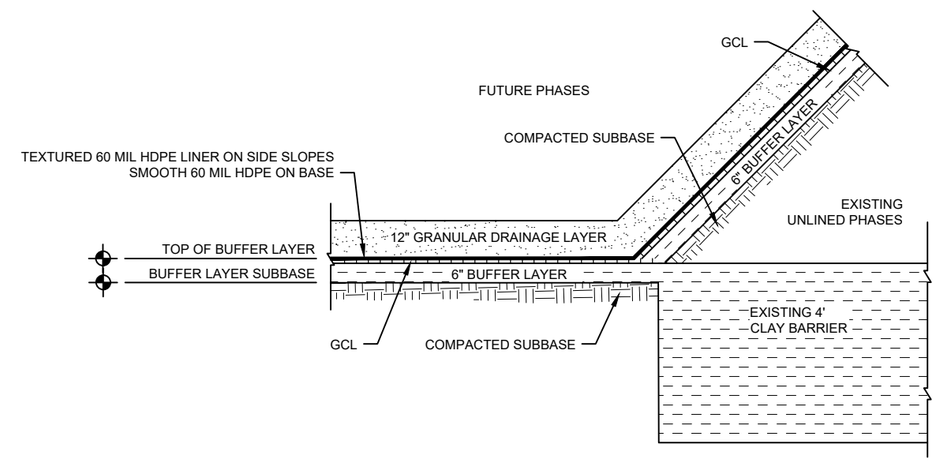
TEMPORARY PHASE DELINEATION BERM (TYPICAL) — 1 / D-101

NOT TO SCALE



TEMPORARY PHASE DELINEATION BERM AT LEACHATE HEADER TRENCH (TYPICAL) — 2 / D-101

NOT TO SCALE



PROPOSED UNLINED PHASES, LINED PHASES, AND OVERLAY LINER TIE-IN SECTION DETAIL (TYPICAL) — 3 / D-101

NOT TO SCALE

NOTE:

SIZE, TYPE, AND MATERIAL OF TYPICAL DETAILS MAY VARY AS NEEDED.

REV	REVISION DESCRIPTION	DWN	APP	REV DATE
0	ISSUED FOR PERMIT APPLICATION	JJT	EDK	04/24/26

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PRINT NAME ETHAN KETELSEN

SIGNATURE

DATE 04-24-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE

2026 PERMIT REISSUANCE & MODIFICATION APPLICATION

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE

BASE LINER DETAILS

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JJT	BWS	EDK	APR. 2026	AS SHOWN

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227708930	D-101	0

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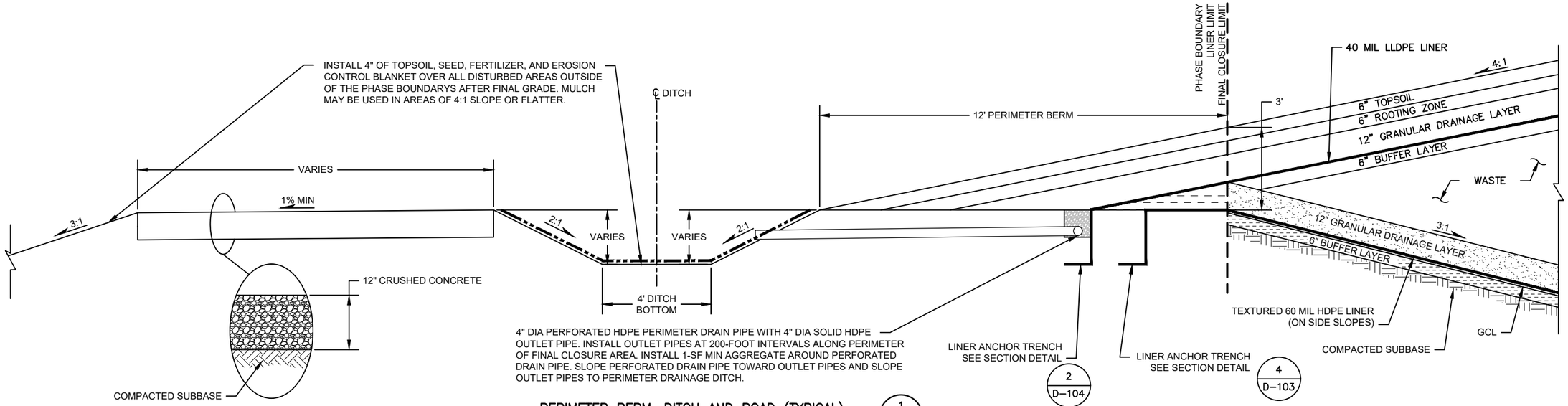
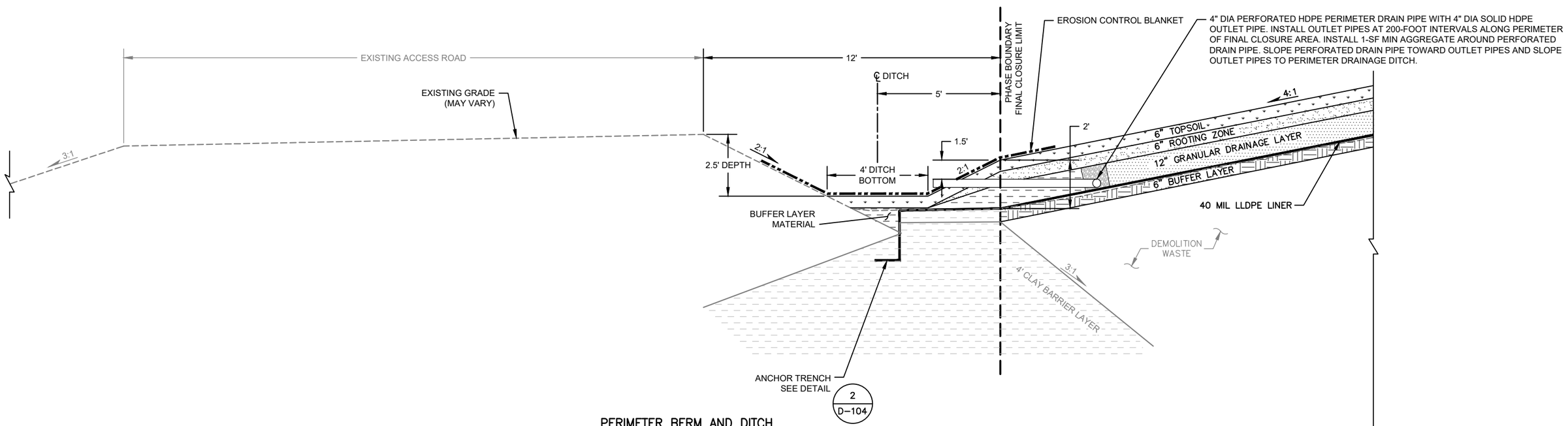


ACCESS ROAD SECTION

PERIMETER BERM, DITCH AND ROAD (TYPICAL) — 1 / D-102

NOT TO SCALE



PERIMETER BERM AND DITCH (IN EXISTING PHASES) (TYPICAL) — 2 / D-102

NOT TO SCALE

NOTE:

SIZE, TYPE, AND MATERIAL OF TYPICAL DETAILS MAY VARY AS NEEDED.

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Stantec

PROJECT TITLE
2026 PERMIT REISSUANCE & MODIFICATION APPLICATION

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
PERIMETER DETAILS

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PROJECT NO.	SHEET NO.	REV NO.
227708930	D-102	0

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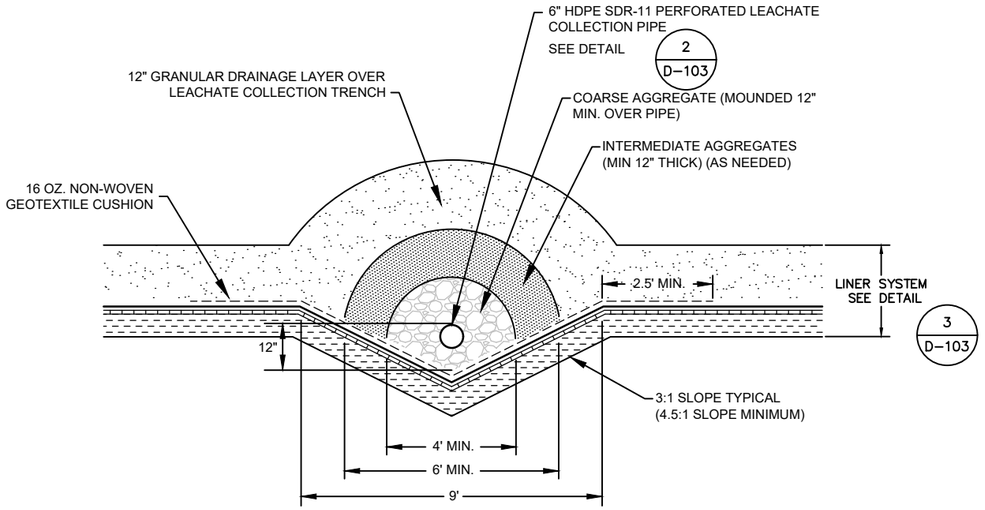

LEACHATE COLLECTION TRENCH (TYPICAL) 1 D-103
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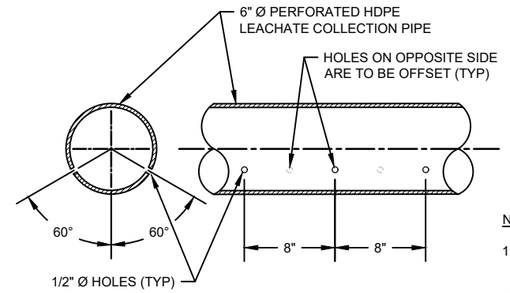
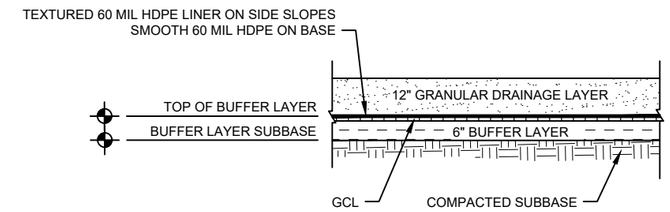


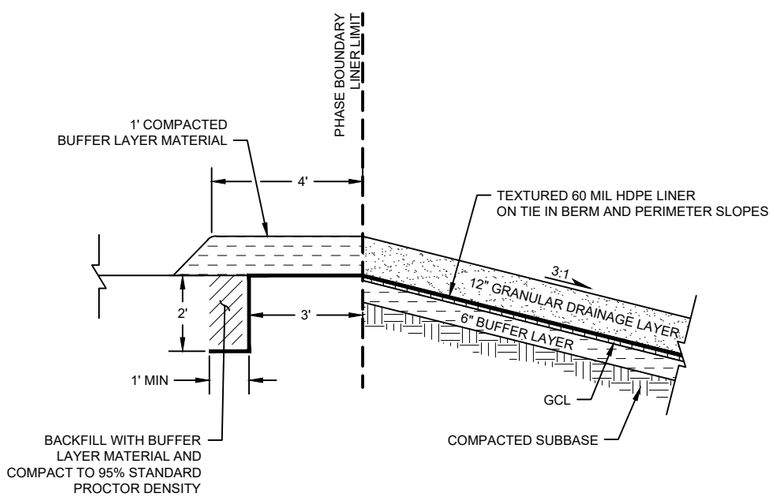
NOTES:

1. HOLES ON OPPOSITE SIDE ARE TO BE OFFSET.
2. SPACING BETWEEN HOLES TO BE 8".

LEACHATE COLLECTION PIPE PERFORATION (TYPICAL) 2 D-103
NOT TO SCALE



BASE LINER SYSTEM DETAIL (TYPICAL) 3 D-103
NOT TO SCALE



BASE LINER ANCHOR TRENCH (TYPICAL) 4 D-103
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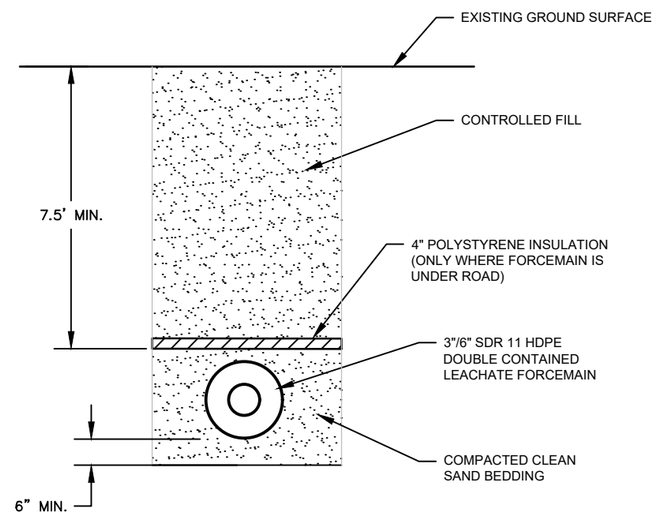
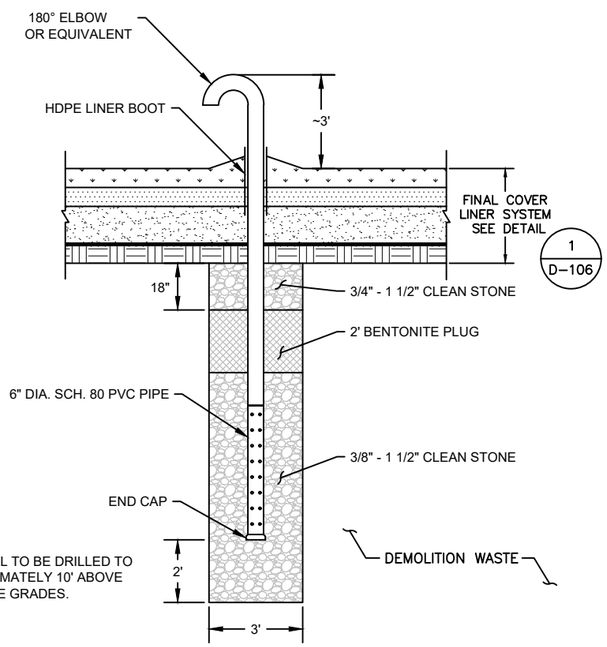


LEACHATE FORCEMAIN PIPE BEDDING (TYPICAL) 5 D-103
NOT TO SCALE



NOTE:

1. GAS WELL TO BE DRILLED TO APPROXIMATELY 10' ABOVE THE BASE GRADES.

PASSIVE GAS VENT DETAIL 6 D-103
NOT TO SCALE

NOTE:

SIZE, TYPE, AND MATERIAL OF TYPICAL DETAILS MAY VARY AS NEEDED.

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SIGNATURE
DATE 04-24-2026 LICENSE # 56630

PRIME CONSULTANT

Stantec

PROJECT TITLE
2026 PERMIT REISSUANCE & MODIFICATION APPLICATION

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
MISCELLANEOUS DETAILS

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227708930	D-103	0

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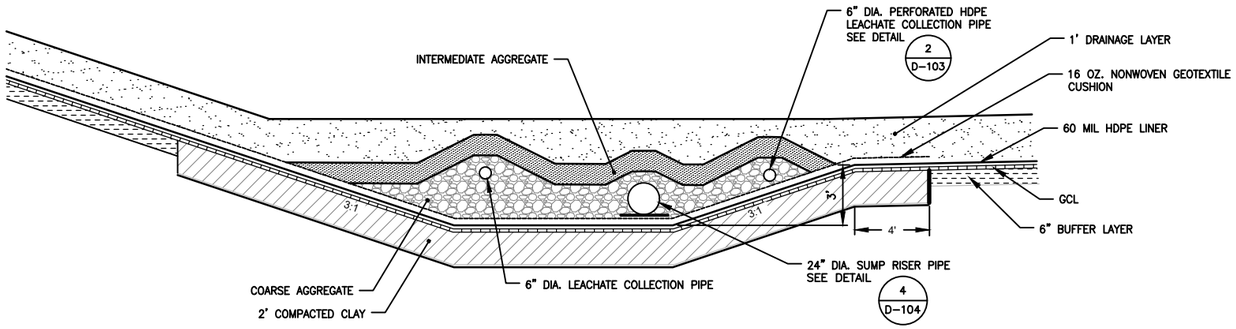

SECTION B – B'
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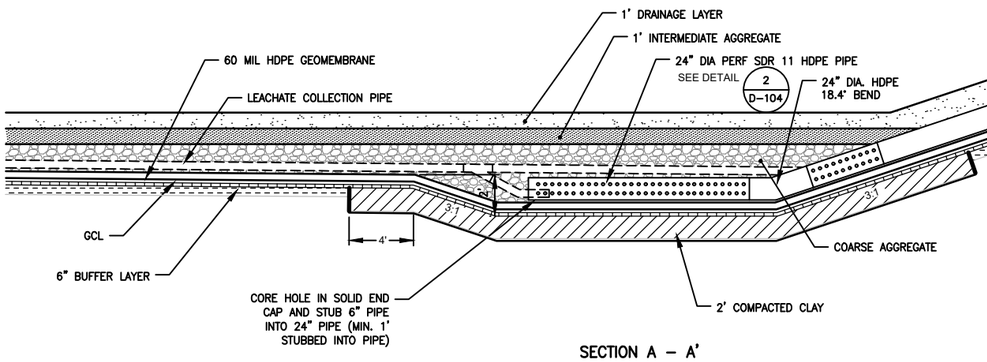

SECTION A – A'
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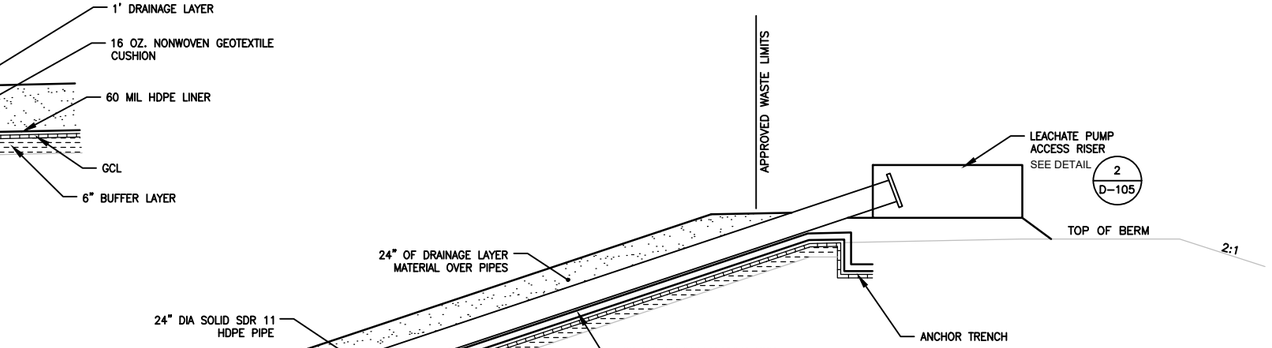
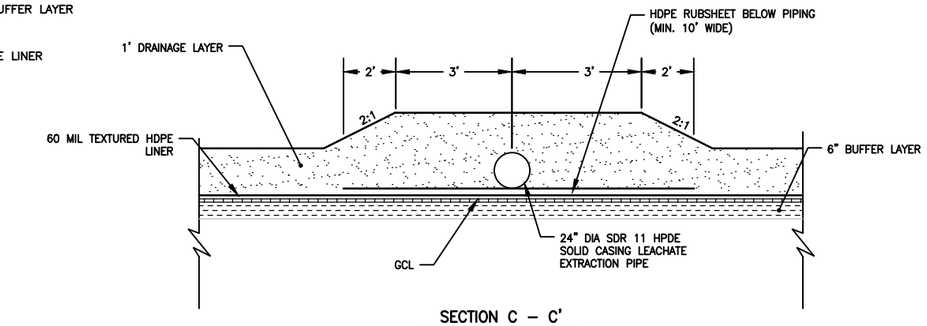
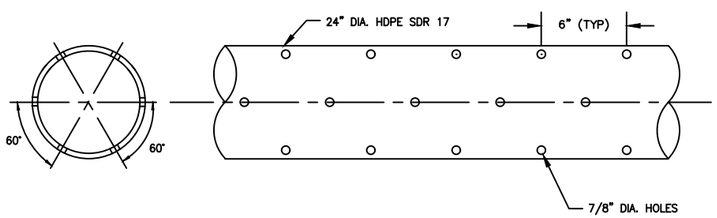


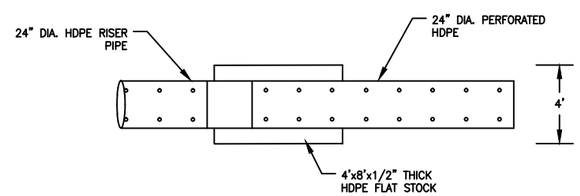


SECTION C – C'
NOT TO SCALE

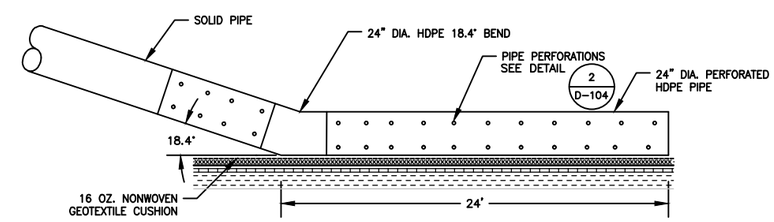
LEACHATE COLLECTION SUMP SECTION (TYPICAL) 1 D-104
NOT TO SCALE



SUMP RISER PIPE PERFORATION DETAIL (TYPICAL) 2 D-104
NOT TO SCALE



NOTE: HDPE FLAT STOCK CORNERS TO BE ROUNDED. BOTTOM EDGES TO BE BEVELED TO CREATE A SMOOTH EDGE.



RISER PIPE BASE PLATE (TYPICAL) 3 D-104
NOT TO SCALE

NOTE:

SIZE, TYPE, AND MATERIAL OF TYPICAL DETAILS MAY VARY AS NEEDED.

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PRINT NAME ETHAN KETELSEN
SIGNATURE
DATE 04-24-2026 LICENSE # 56630

PRIME CONSULTANT
Stantec

PROJECT TITLE
2026 PERMIT REISSUANCE & MODIFICATION APPLICATION

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
LEACHATE COLLECTION DETAILS

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JJT	BWS	EDK	APR. 2026	AS SHOWN

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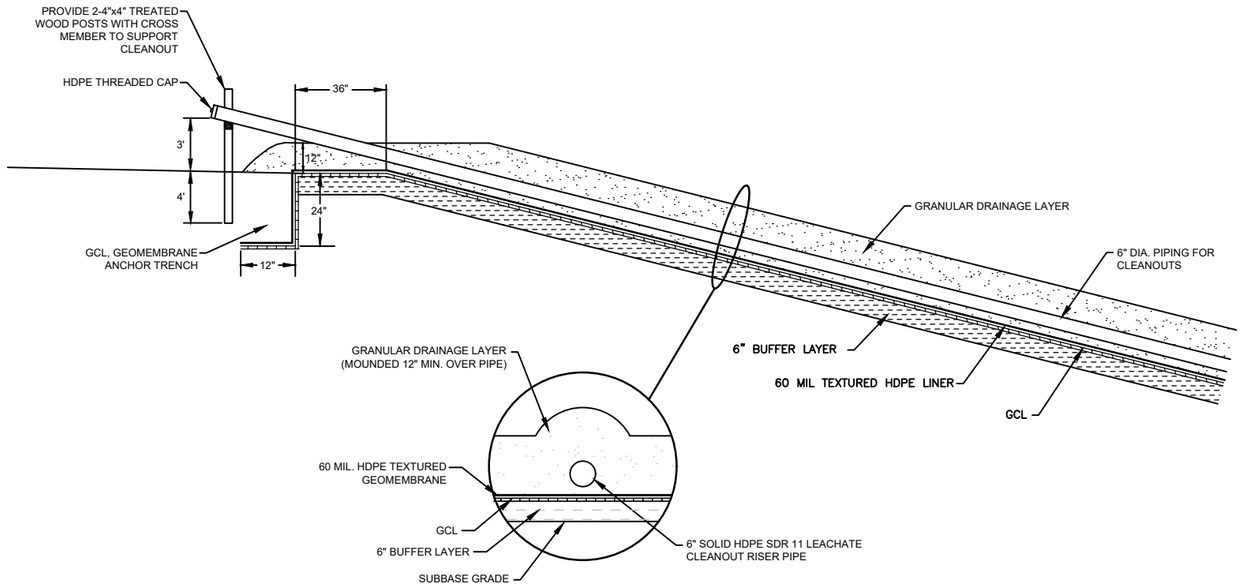
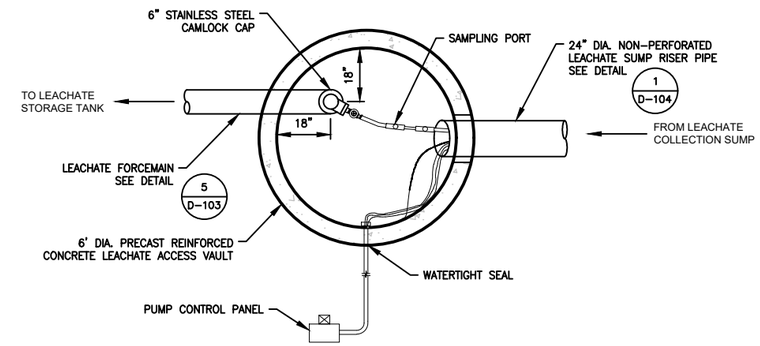


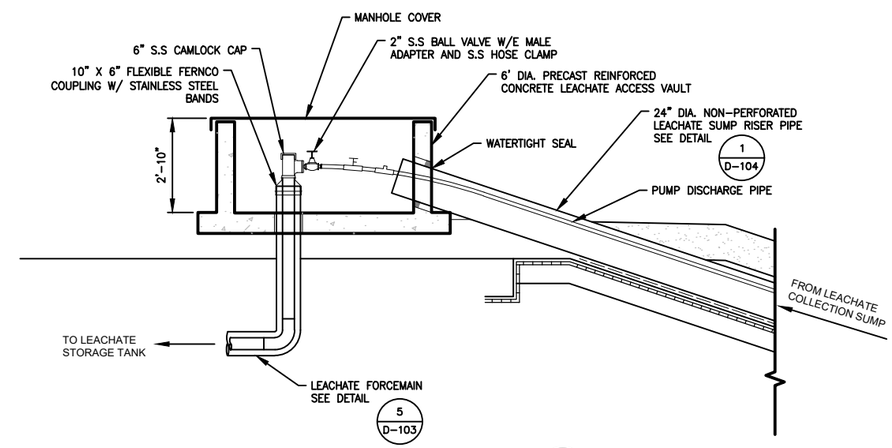
LEACHATE COLLECTION CLEANOUT (TYPICAL) (1 / D-105)

NOT TO SCALE



PLAN VIEW

NOT TO SCALE



LEACHATE FORCEMAIN MANHOLE (TYPICAL) (2 / D-105)

NOT TO SCALE

NOTE:

SIZE, TYPE, AND MATERIAL OF TYPICAL DETAILS MAY VARY AS NEEDED.

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SHEET TITLE

LEACHATE COLLECTION DETAILS

DWN BY	CHK'D	APP'D	DWG DATE	APR. 2026
JJT	BWS	EDK	SCALE	AS SHOWN

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227708930	D-105	0

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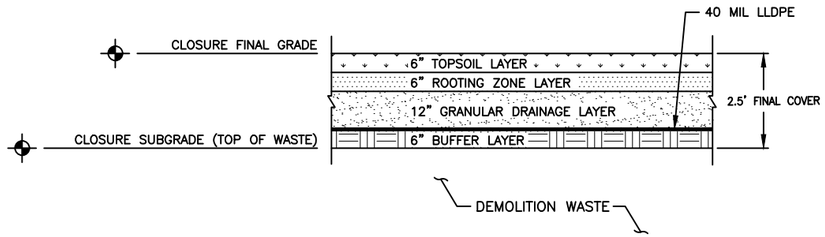

FINAL COVER LINER SYSTEM (TYPICAL) — 1 / D-106
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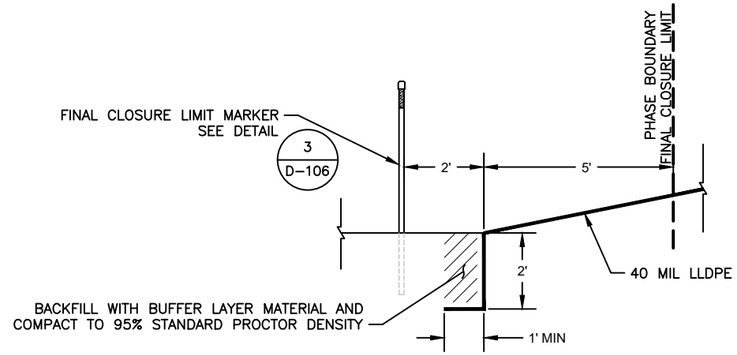
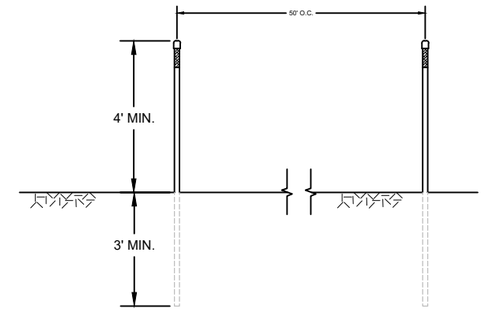


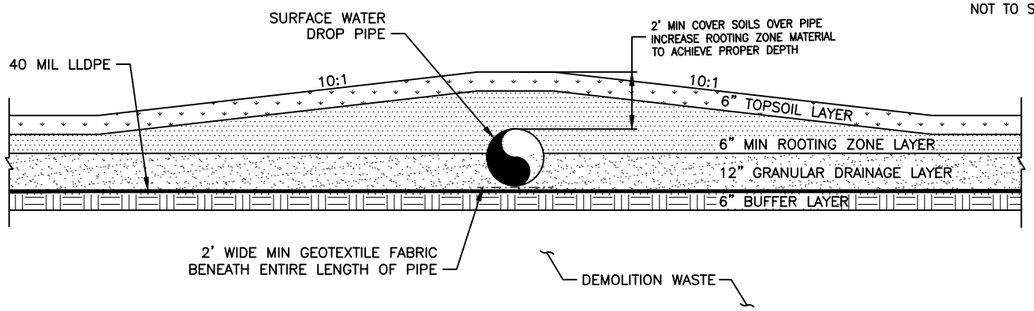
FINAL COVER LINER ANCHOR TRENCH (TYPICAL) — 2 / D-106
NOT TO SCALE



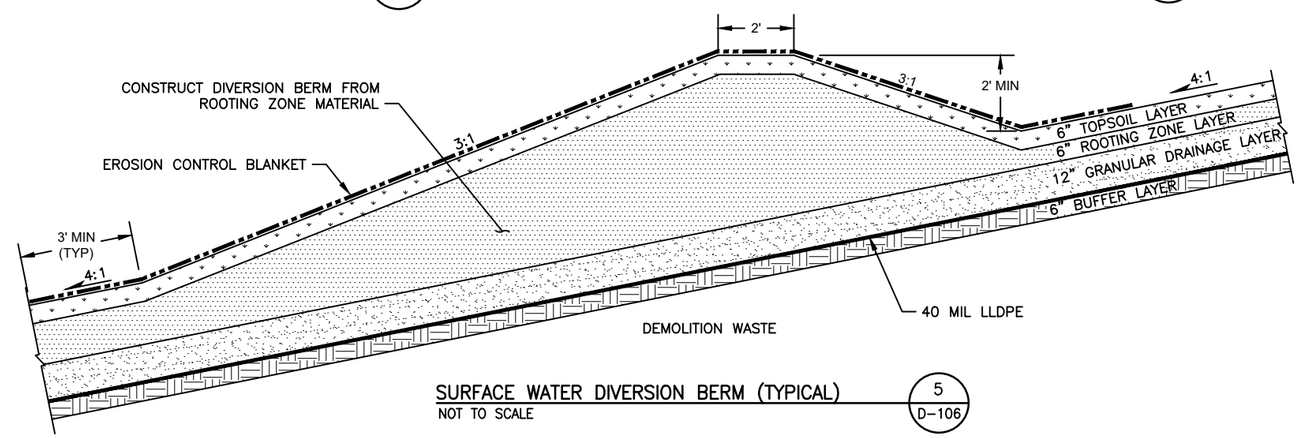
NOTES:

1. LIMITS OF LINER MARKERS PLACED AT INTERVALS OF 50-FEET ON-CENTER AND AT ALL CORNERS AROUND PERIMETER OF FINAL CLOSURE AREA.
2. MARKERS CONSTRUCTED OF 2" DIA GALVANIZED STEEL PIPE WITH CAP.
3. PLACE 6-INCH MIN HEIGHT BAND OF RED REFLECTOR TAPE NEAR THE TOP OF PIPE.
4. INSTALL LANDFILL MARKERS 2-FEET OUTSIDE LIMITS OF LINER BOUNDARY. DO NOT PENETRATE LINER. ANY DAMAGE TO THE LINER DURING INSTALLATION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

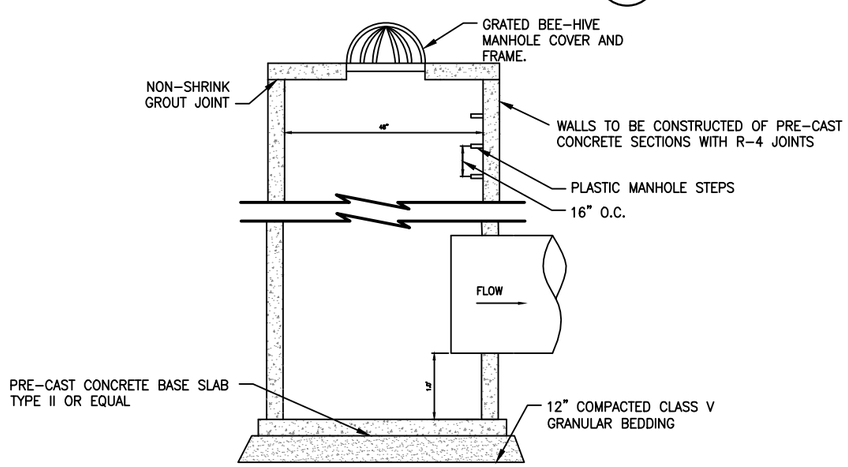
FINAL CLOSURE LIMIT MARKERS (TYPICAL) — 3 / D-106
NOT TO SCALE



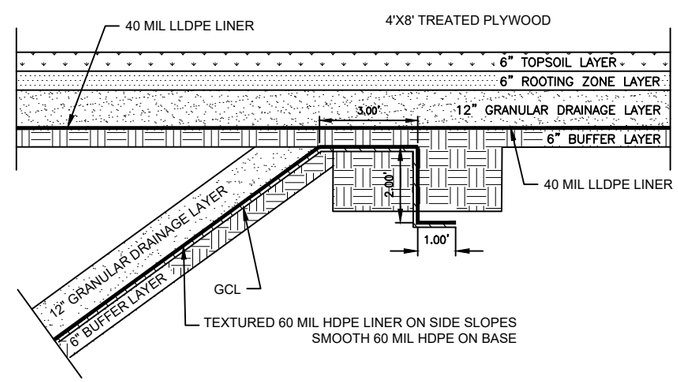
DOWN SLOPE DRAINAGE PIPE SECTION (TYPICAL) — 4 / D-106
NOT TO SCALE



SURFACE WATER DIVERSION BERM (TYPICAL) — 5 / D-106
NOT TO SCALE



STORMWATER INLET DETAIL (TYPICAL) — 6 / D-106
NOT TO SCALE



OVERLAY LINER & FINAL COVER LINER TIE-IN (TYPICAL) — 7 / D-106
NOT TO SCALE

NOTE:

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PRIME CONSULTANT

Stantec

PROJECT TITLE
2026 PERMIT REISSUANCE & MODIFICATION APPLICATION

DEM-CON PILGRIM LANDFILL, LLC.

MANKATO, MINNESOTA

SHEET TITLE
FINAL COVER DETAILS

DWN BY	CHK'D	APP'D	DWG DATE	APR. 2026
JJT	BWS	EDK	SCALE	AS SHOWN

PROJECT NO.	SHEET NO.	REV NO.
227708930	D-106	1

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LANDFILL GAS CONTROL PLAN

DEM-CON PILGRIM LANDFILL
MPCA Permit SW-254
Lime Township, Minnesota

September 17, 2026

1.0 INTRODUCTION

This landfill gas control plan (the Plan) addresses site specific controls at Dem-Con Pilgrim Landfill (Dem-Con or the Facility) which may be implemented to control landfill gases if needed. (LFG). This Plan was prepared as part of the 2026 Major Modification to MPCA Solid Waste Permit SW-254 and renewal of the Lime Township Conditional Use Permit.

It is recognized that construction & demolition (C&D) landfills are generally not associated with the generation of significant amounts of methane or LFG and there have been no historic issues with LFG at the Facility. This permit modification reclassifies a portion of the Class I C&D landfill to a Class III C&D landfill as well as the addition of a synthetic cap as part of the final cover. The reclassification is not expected to significantly affect LFG generation; however, Dem-Con recognizes the importance of having a contingency plan in the event that it may become necessary to mitigate the accumulation of LFG due to the addition of the synthetic cap. Furthermore, this Plan discusses additional contingency actions Dem-Con may take in the unlikely event that LFG is generated or accumulates to levels that require action to protect human health or the environment.

2.0 EXISTING CONDITIONS

Dem-Con is located in Lime Township in Blue Earth County. The Facility is bounded by industrial and commercial properties to the south and east, and undeveloped to the north and west. A single building is in the southern part of the property which houses a scale house and shop. The Class I C&D landfill is unlined and no areas have yet received final cover. No passive venting or other LFG management devices are installed.

3.0 CONTROL SYSTEM

Passive gas controls will be implemented at the site if there is evidence of LFG accumulating beneath the synthetic cap. The controls will consist of passive methane vents at the top of the landfill to allow gas that may form to vent through the synthetic cover without creating bubbles or disrupting the integrity of the cover system. If necessary, passive cap vents will be installed as part of the final construction of the cover system at high points in the landfill. The enhanced final cover system with a synthetic liner may act to trap any gases that may collect and rise to the surface of the landfill. The number of vents may be adjusted as filling and capping progresses and field conditions dictate. A typical passive gas vent is depicted as Detail 6 on Sheet D-103 of the plan set.

4.0 CONTINGENCY ACTIONS

4.1 Reasons to Implement

Contingency actions may be required if an emergency situation, potentially threatening the health and safety of the environment, public, or workers occurs.

Contingency actions may be required as a result of a nuisance condition. This situation may arise with the expansion of the passive venting system and the odors associated with venting landfill gas.

Contingency Actions may be required if the gas control system is not adequately controlling landfill gasses and the integrity of the final cover system is compromised. Indications of potential LFG accumulation include, but are not limited to:

- LFG odors
- Measured LFG concentrations exceeding the lower explosive limit
- Gas accumulation under the synthetic cap
- Distressed vegetation

4.2 Actions to be Taken

Contingency actions will be developed according to the nature of the problem that arises. These actions can encompass a variety of activities. Potential actions may include:

- Increase monitoring frequency
- Installation of perimeter monitoring probes
- Add additional cap control vents
- Installation of an active LFG collection system

5.0 SUMMARY

The landfill has no history of LFG generation. In addition, the conversion of a portion of the Class I C&D landfill to a Class III C&D landfill is not expected to materially increase the potential for LFG generation. The addition of a synthetic cap does introduce the potential for LFG to accumulate under the cap. If there is evidence that LFG is generated and accumulating, Dem-Con will install a passive venting system.

Additional contingency actions may be required in the future. These actions may be driven by emergency conditions determined during routine monitoring or nuisance conditions. Possible actions include but are not limited to increased monitoring, installation of monitoring probes, and extension of the passive venting system, or installation of an active collection system. Specific contingency actions to be determined and implemented based on the nature of the problem.

Stantec

Memo

To:	Mark Pahl, Dem-Con Companies	From:	Ethan Ketelsen, PE – Stantec Noah Garay, EIT – Stantec
Project/File:	227708930	Date:	April 22, 2026 Revised September 2026

Reference: Dem-Con Pilgrim Surface Water Analysis

Stantec prepared this Surface Water Analysis (SWA) for the Dem-Con Companies Pilgrim Landfill (Facility), located in Mankato, MN. Per Minnesota Pollution Control Agency (MPCA) rules, the surface water management system must be designed to manage the 25-year 24-hour storm event. At the site, the regulatory storm event is 5.29-inches. Stormwater generated by the facility will be controlled primarily via drainage berms and ditches, routing to three stormwater ponds as shown in the drawings. Storm features at the facility have been sized to minimize erosion from the site based on the required 25-year storm event.

Sub-watershed areas representative of the facility run-off are shown on the attached sub-watershed map. The facility is divided into three (3) primary drainage areas based on the receiving pond with sub-watersheds delineated within those areas, as shown on the figure. The south and southwest areas of the facility drain to a proposed basin in the southwest portion of the facility. The majority of the remainder of the landfill will drain to a proposed basin on the north side of the landfill, and a small part of the perimeter berm and ditching will drain to a proposed basin in the southeast portion of the facility.

The surface water analysis was based on the Natural Resources Conservations Service (NRCS) methodology using curve numbers (CN), time of concentration (Tc), and Atlas 14 precipitation data with MSE3 24-hour distributions in HydroCAD. To determine surface water runoff for this analysis, the primary sub-watersheds were further delineated based on the flow routing consistent with the design plans. Flows are routed from each sub-watershed through the facility's stormwater features and then discharged to the stormwater basins. Routing and calculations were performed to determine the maximum water elevations in each pond.

For developed conditions, the facility's final cover will be planted with shallow-rooted, drought-resistance grasses that will be mowed periodically. A runoff CN of 74 was selected for the facility, based on grasslands with HSG C soils. Time of concentration in the final cover area was calculated using the HydroCAD model by inputting hydraulic distance and slope for each sub-watershed for applicable sheet flow and shallow concentrated flow conditions

Runoff calculations were used in sizing the various components of the surface water management system discussed below.

Drainage Berms and Perimeter Ditching

Surface water diversion berms, located on the outer side slopes around the perimeter of the site provide 2-feet of flow depth. At the toe of the side slopes, a perimeter ditch, providing a minimum of 2 feet flow depth, exists between the facility's liner limits and the outer perimeter road, as shown on the drawings.
The drainage berms have been designed to handle the flow for each sub-watershed and to minimize erosion and direct the runoff to the appropriate storm control. It is anticipated that erosion control blanket will be installed over any final cover slopes greater than 10% to address erosion concerns and provide stabilization prior to vegetation establishment. One downslope structure is proposed, a dual 36-inch downslope drop pipe in the southwest corner of the landfill.

Stormwater Ponds

The proposed design consists of three stormwater ponds. The southwest pond was previously constructed and currently provides stormwater management for developed portions of the site. Ponds located at the north and southeast portions of the facility are proposed, receiving runoff from the north and southeastern portions of the facility, respectively.

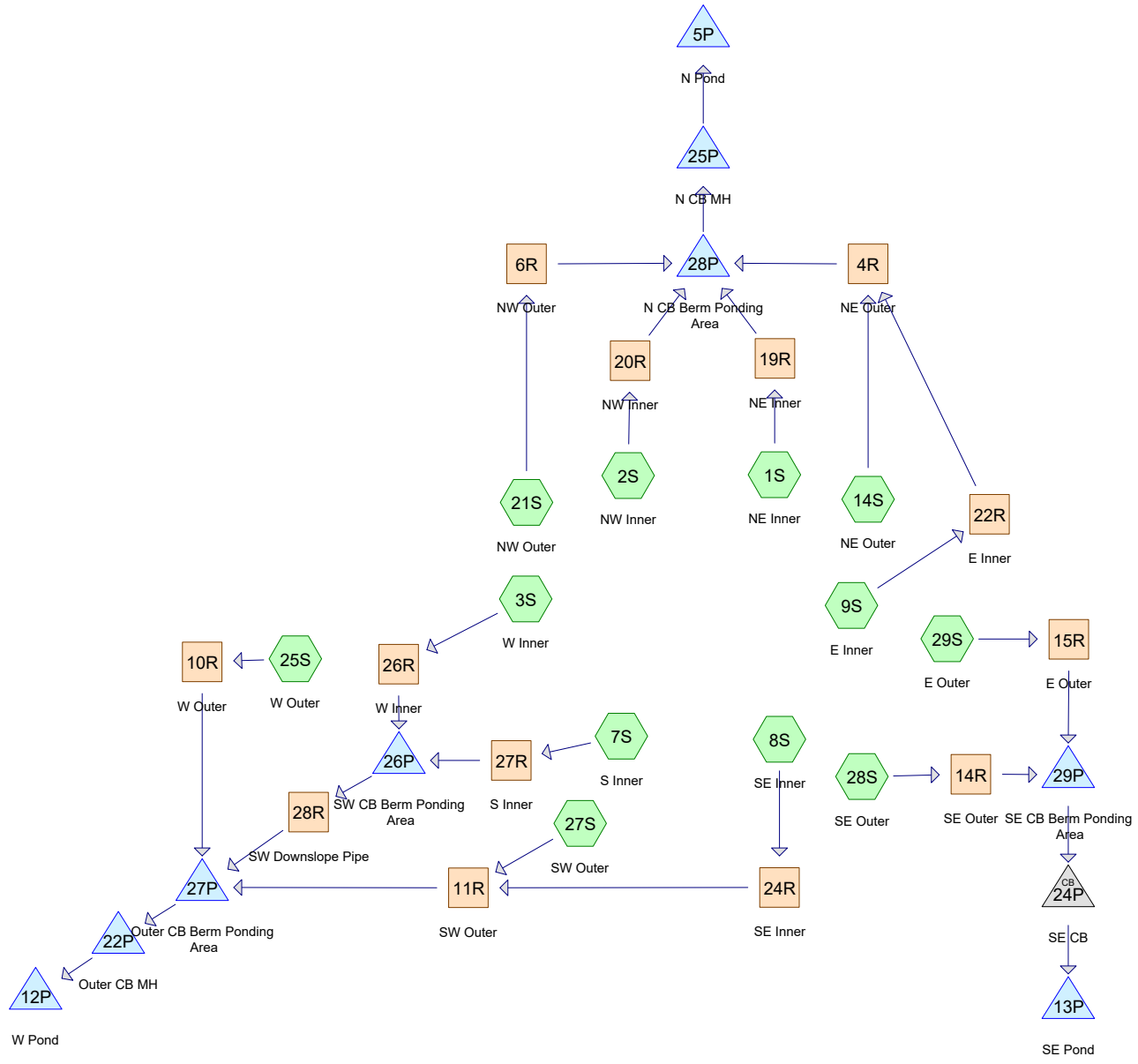
Design details and HydroCAD model outputs for the ponds are tabulated below. The revised HydroCAD report is included as an attachment to this memo, including extended stormwater calculations to 72 hours, and additional ponding nodes upstream of the catch basins to verify the stormwater berms are not overtopped at any point during the calculation period. Note that the pond designs remained the same as the previous memo, but individual stormwater controls may have increased depths to accommodate the 25-year storm. Note that catch basins may fill and back up into the ponding areas, but that the ponding areas do not overtop the adjacent berms.

Table 1. Pond Design Parameters Summary

Pond	Bottom Elevation (ft)	Top Elevation (ft)	Total Storage Capacity (acre-ft)
North (N Pond)	804	814	31.525
Southeast (SE Pond)	804	812	1.720
West (W Pond)	802	810	11.877

Table 2. 25-year Storm Event Summary

Pond	Peak Inflow (cfs)	Discharge (cfs)	Peak Storage Volume (acre-ft)	HWL (ft)
North (N Pond)	88.62	3.71	19.566	810.73
Southeast (SE Pond)	4.97	2.00	0.598	807.79
West (W Pond)	99.04	4.08	9.500	809.62



Subcat Reach Pond Link

Routing Diagram for Demcon Final Cover Stormwater 2026.09.16
Prepared by Stantec Consultants, Printed 9/17/2026
HydroCAD® 10.20-6a s/n 02201 © 2024 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
77.610	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 7S, 8S, 9S, 14S, 21S, 25S, 27S, 28S, 29S)
77.610	**74**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
77.610	HSG C	1S, 2S, 3S, 7S, 8S, 9S, 14S, 21S, 25S, 27S, 28S, 29S
0.000	HSG D	
0.000	Other	
77.610		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	77.610	0.000	0.000	77.610	>75% Grass cover, Good	1S, 2S, 3S, 7S, 8S, 9S, 14S, 21S, 25S, 27S, 28S, 29S
0.000	**0.000**	**77.610**	**0.000**	**0.000**	**77.610**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	28R	830.00	816.00	70.0	0.2000	0.013	0.0	36.0	0.0	
2	5P	809.00	804.00	100.0	0.0500	0.011	0.0	12.0	0.0	
3	12P	805.75	805.00	100.0	0.0075	0.011	0.0	10.0	0.0	
4	13P	807.00	804.00	300.0	0.0100	0.011	0.0	12.0	0.0	
5	22P	808.50	808.00	165.0	0.0030	0.012	0.0	48.0	0.0	
6	24P	816.00	812.00	330.0	0.0121	0.012	0.0	24.0	0.0	
7	25P	814.00	813.00	75.0	0.0133	0.012	0.0	36.0	0.0	

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: NE Inner Runoff Area=10.560 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=870' Tc=19.2 min CN=74 Runoff=31.16 cfs 2.286 af

Subcatchment2S: NW Inner Runoff Area=13.230 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=867' Tc=19.1 min CN=74 Runoff=39.17 cfs 2.864 af

Subcatchment3S: W Inner Runoff Area=8.040 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=825' Tc=18.6 min CN=74 Runoff=24.11 cfs 1.740 af

Subcatchment7S: S Inner Runoff Area=18.940 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=874' Tc=19.3 min CN=74 Runoff=55.76 cfs 4.100 af

Subcatchment8S: SE Inner Runoff Area=8.040 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=636' Tc=15.1 min CN=74 Runoff=26.68 cfs 1.740 af

Subcatchment9S: E Inner Runoff Area=11.510 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=836' Tc=18.8 min CN=74 Runoff=34.32 cfs 2.492 af

Subcatchment14S: NE Outer Runoff Area=0.920 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,268' Slope=0.0500 '/' Tc=20.5 min CN=74 Runoff=2.63 cfs 0.199 af

Subcatchment21S: NW Outer Runoff Area=0.590 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=883' Slope=0.0500 '/' Tc=15.4 min CN=74 Runoff=1.94 cfs 0.128 af

Subcatchment25S: W Outer Runoff Area=1.560 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,247' Slope=0.0500 '/' Tc=20.3 min CN=74 Runoff=4.48 cfs 0.338 af

Subcatchment27S: SW Outer Runoff Area=2.350 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,670' Slope=0.0500 '/' Tc=25.6 min CN=74 Runoff=5.94 cfs 0.509 af

Subcatchment28S: SE Outer Runoff Area=0.600 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=805' Slope=0.0500 '/' Tc=14.3 min CN=74 Runoff=2.04 cfs 0.130 af

Subcatchment29S: E Outer Runoff Area=1.270 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=1,274' Slope=0.0500 '/' Tc=20.6 min CN=74 Runoff=3.62 cfs 0.275 af

Reach 4R: NE Outer Avg. Flow Depth=1.45' Max Vel=3.49 fps Inflow=35.27 cfs 2.691 af
n=0.030 L=470.0' S=0.0053 '/' Capacity=292.69 cfs Outflow=34.55 cfs 2.691 af

Reach 6R: NW Outer Avg. Flow Depth=0.30' Max Vel=1.42 fps Inflow=1.94 cfs 0.128 af
n=0.030 L=100.0' S=0.0050 '/' Capacity=283.77 cfs Outflow=1.89 cfs 0.128 af

Reach 10R: W Outer Avg. Flow Depth=0.44' Max Vel=1.90 fps Inflow=4.48 cfs 0.338 af
n=0.030 L=742.0' S=0.0057 '/' Capacity=109.65 cfs Outflow=4.06 cfs 0.338 af

Reach 11R: SW Outer Avg. Flow Depth=1.31' Max Vel=3.24 fps Inflow=31.08 cfs 2.249 af
n=0.030 L=1,171.0' S=0.0051 '/' Capacity=103.71 cfs Outflow=28.07 cfs 2.249 af

Reach 14R: SE Outer Avg. Flow Depth=0.30' Max Vel=1.44 fps Inflow=2.04 cfs 0.130 af
n=0.030 L=287.0' S=0.0052 '/' Capacity=65.99 cfs Outflow=1.93 cfs 0.130 af

Reach 15R: E Outer Avg. Flow Depth=0.42' Max Vel=1.71 fps Inflow=3.62 cfs 0.275 af
n=0.030 L=481.0' S=0.0050 '/' Capacity=64.48 cfs Outflow=3.40 cfs 0.275 af

Reach 19R: NE Inner Avg. Flow Depth=1.45' Max Vel=3.89 fps Inflow=31.16 cfs 2.286 af
n=0.030 L=1,204.0' S=0.0100 '/' Capacity=67.41 cfs Outflow=28.60 cfs 2.286 af

Reach 20R: NW Inner Avg. Flow Depth=1.52' Max Vel=4.71 fps Inflow=39.17 cfs 2.864 af
n=0.030 L=867.0' S=0.0138 '/' Capacity=79.44 cfs Outflow=37.89 cfs 2.864 af

Reach 22R: E Inner Avg. Flow Depth=1.53' Max Vel=4.02 fps Inflow=34.32 cfs 2.492 af
n=0.030 L=805.0' S=0.0099 '/' Capacity=67.31 cfs Outflow=32.90 cfs 2.492 af

Reach 24R: SE Inner Avg. Flow Depth=1.37' Max Vel=3.85 fps Inflow=26.68 cfs 1.740 af
n=0.030 L=757.0' S=0.0106 '/' Capacity=69.41 cfs Outflow=25.21 cfs 1.740 af

Reach 26R: W Inner Avg. Flow Depth=1.35' Max Vel=3.69 fps Inflow=24.11 cfs 1.740 af
n=0.030 L=625.0' S=0.0100 '/' Capacity=199.08 cfs Outflow=23.46 cfs 1.740 af

Reach 27R: S Inner Avg. Flow Depth=1.81' Max Vel=4.52 fps Inflow=55.76 cfs 4.100 af
n=0.030 L=1,345.0' S=0.0100 '/' Capacity=199.45 cfs Outflow=51.35 cfs 4.100 af

Reach 28R: SW Downslope Pipe Avg. Flow Depth=0.71' Max Vel=28.60 fps Inflow=73.07 cfs 5.840 af
36.0" Round Pipe x 2.00 n=0.013 L=70.0' S=0.2000 '/' Capacity=596.57 cfs Outflow=73.03 cfs 5.840 af

Pond 5P: N Pond Peak Elev=810.73' Storage=19.566 af Inflow=88.62 cfs 7.968 af
12.0" Round Culvert n=0.011 L=100.0' S=0.0500 '/' Outflow=3.71 cfs 7.296 af

Pond 12P: W Pond Peak Elev=809.62' Storage=9.500 af Inflow=99.04 cfs 8.427 af
10.0" Round Culvert n=0.011 L=100.0' S=0.0075 '/' Outflow=4.08 cfs 8.257 af

Pond 13P: SE Pond Peak Elev=807.79' Storage=0.598 af Inflow=4.97 cfs 0.405 af
12.0" Round Culvert n=0.011 L=300.0' S=0.0100 '/' Outflow=2.00 cfs 0.404 af

Pond 22P: Outer CB MH Peak Elev=814.12' Storage=0.010 af Inflow=98.78 cfs 8.427 af
48.0" Round Culvert n=0.012 L=165.0' S=0.0030 '/' Outflow=99.04 cfs 8.427 af

Pond 24P: SE CB Peak Elev=816.96' Inflow=4.97 cfs 0.405 af
24.0" Round Culvert n=0.012 L=330.0' S=0.0121 '/' Outflow=4.97 cfs 0.405 af

Pond 25P: N CB MH Peak Elev=817.19' Storage=0.002 af Inflow=88.62 cfs 7.968 af
36.0" Round Culvert x 2.00 n=0.012 L=75.0' S=0.0133 '/' Outflow=88.62 cfs 7.968 af

Pond 26P: SW CB Berm Ponding Area Peak Elev=832.64' Storage=4,020 cf Inflow=73.36 cfs 5.840 af
Outflow=73.07 cfs 5.840 af

Pond 27P: Outer CB Berm Ponding Area Peak Elev=819.66' Storage=8,909 cf Inflow=102.70 cfs 8.427 af
Outflow=98.78 cfs 8.427 af

Pond 28P: N CB Berm Ponding Area Peak Elev=825.19' Storage=28,089 cf Inflow=100.26 cfs 7.968 af
Outflow=88.62 cfs 7.968 af

Pond 29P: SE CB Berm Ponding Area Peak Elev=818.01' Storage=16 cf Inflow=4.97 cfs 0.405 af
Outflow=4.97 cfs 0.405 af

Total Runoff Area = 77.610 ac Runoff Volume = 16.800 af Average Runoff Depth = 2.60"
100.00% Pervious = 77.610 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1S: NE Inner

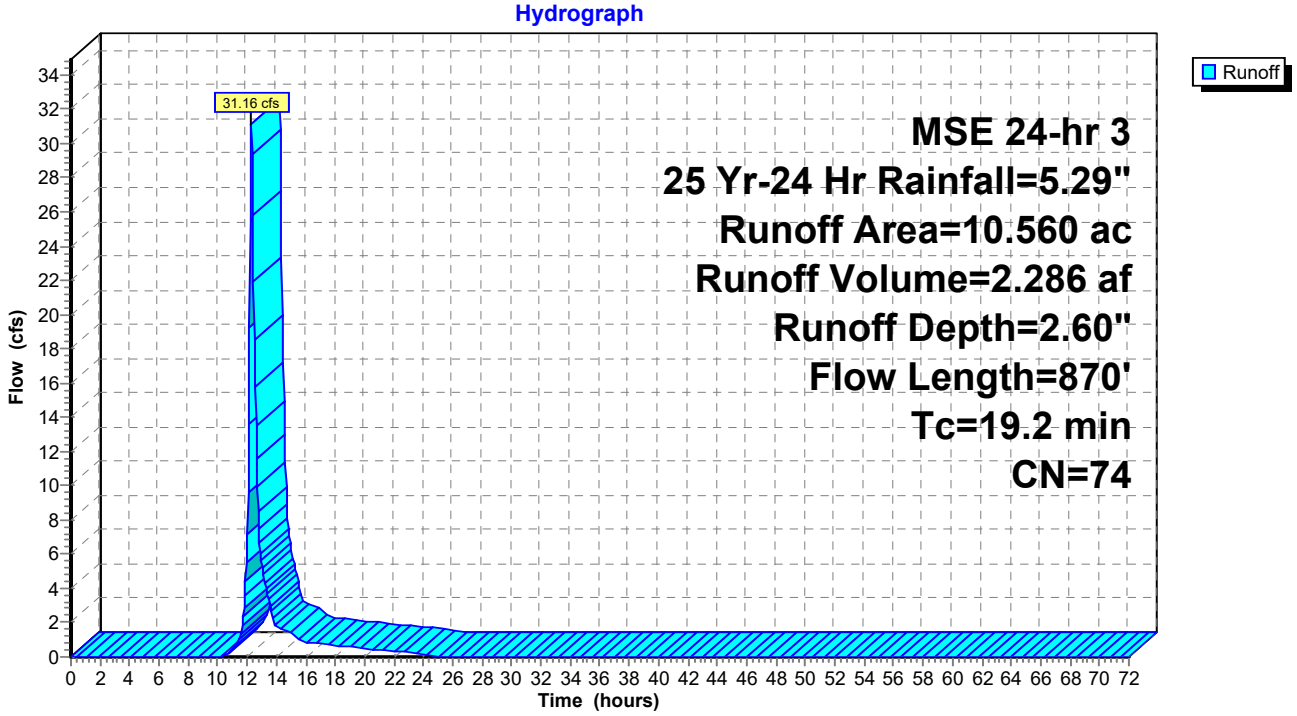
Runoff = 31.16 cfs @ 12.29 hrs, Volume= 2.286 af, Depth= 2.60"
Routed to Reach 19R : NE Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
10.560	74	>75% Grass cover, Good, HSG C
10.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	790	0.0300	0.73		**Lag/CN Method, 33:1**
1.0	80	0.2500	1.32		**Lag/CN Method, 4:1**
19.2	870	Total			

Subcatchment 1S: NE Inner



Summary for Subcatchment 2S: NW Inner

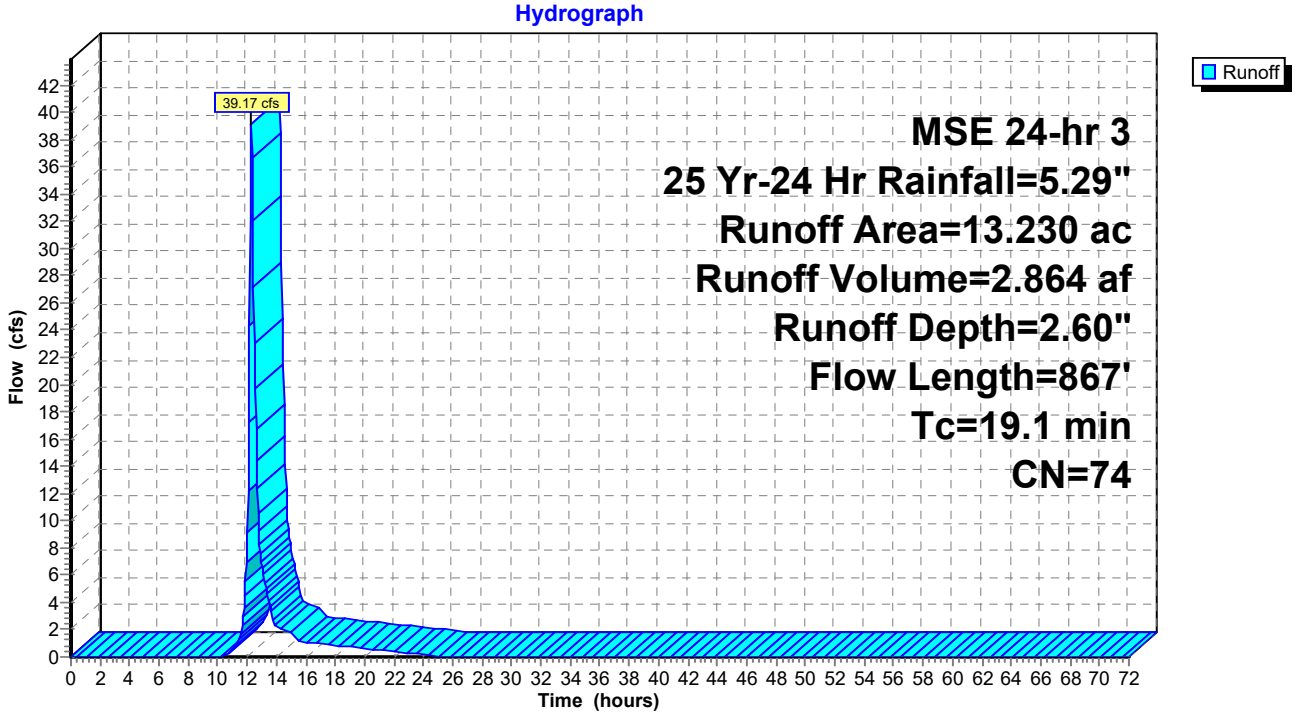
Runoff = 39.17 cfs @ 12.29 hrs, Volume= 2.864 af, Depth= 2.60"
Routed to Reach 20R : NW Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
13.230	74	>75% Grass cover, Good, HSG C
13.230		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	787	0.0300	0.72		**Lag/CN Method, 33:1**
1.0	80	0.2500	1.32		**Lag/CN Method, 4:1**
19.1	867	Total			

Subcatchment 2S: NW Inner



Summary for Subcatchment 3S: W Inner

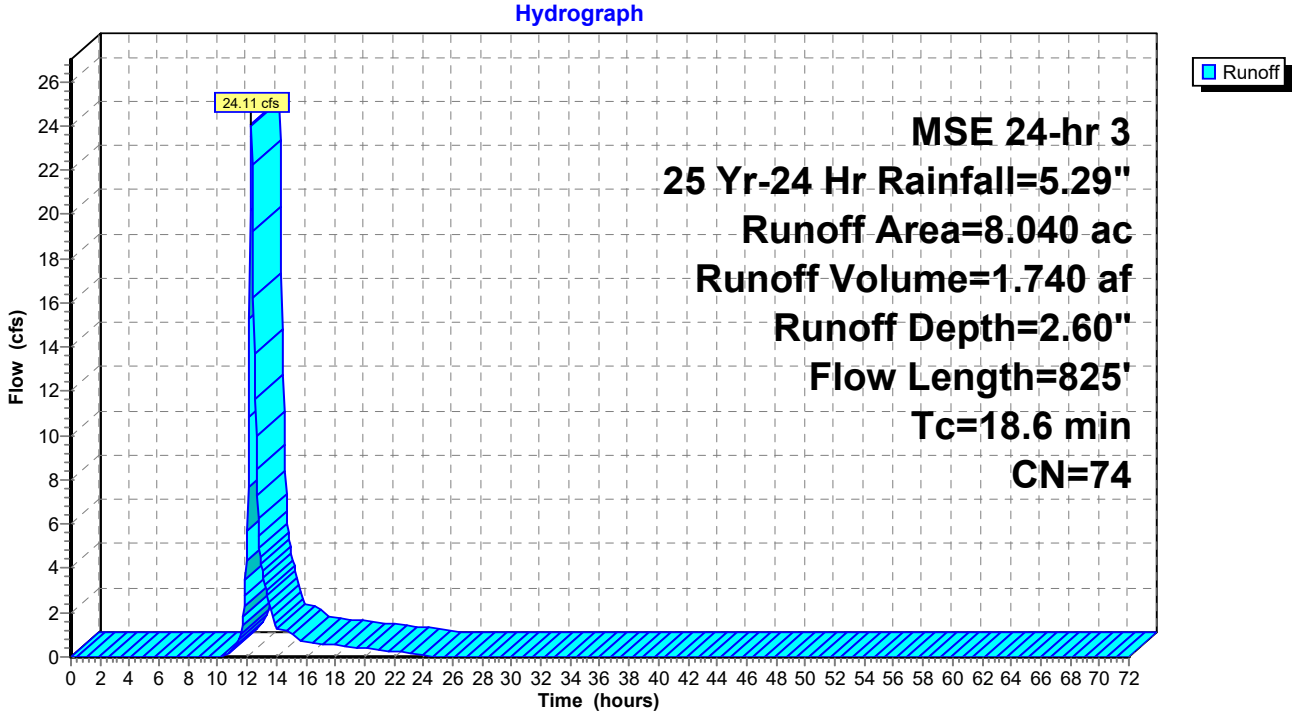
Runoff = 24.11 cfs @ 12.29 hrs, Volume= 1.740 af, Depth= 2.60"
Routed to Reach 26R : W Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
8.040	74	>75% Grass cover, Good, HSG C
8.040		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.8	769	0.0300	0.72		**Lag/CN Method, 33:1 Slope**
0.8	56	0.2500	1.23		**Lag/CN Method, 4:1 slope**
18.6	825	Total			

Subcatchment 3S: W Inner



Summary for Subcatchment 7S: S Inner

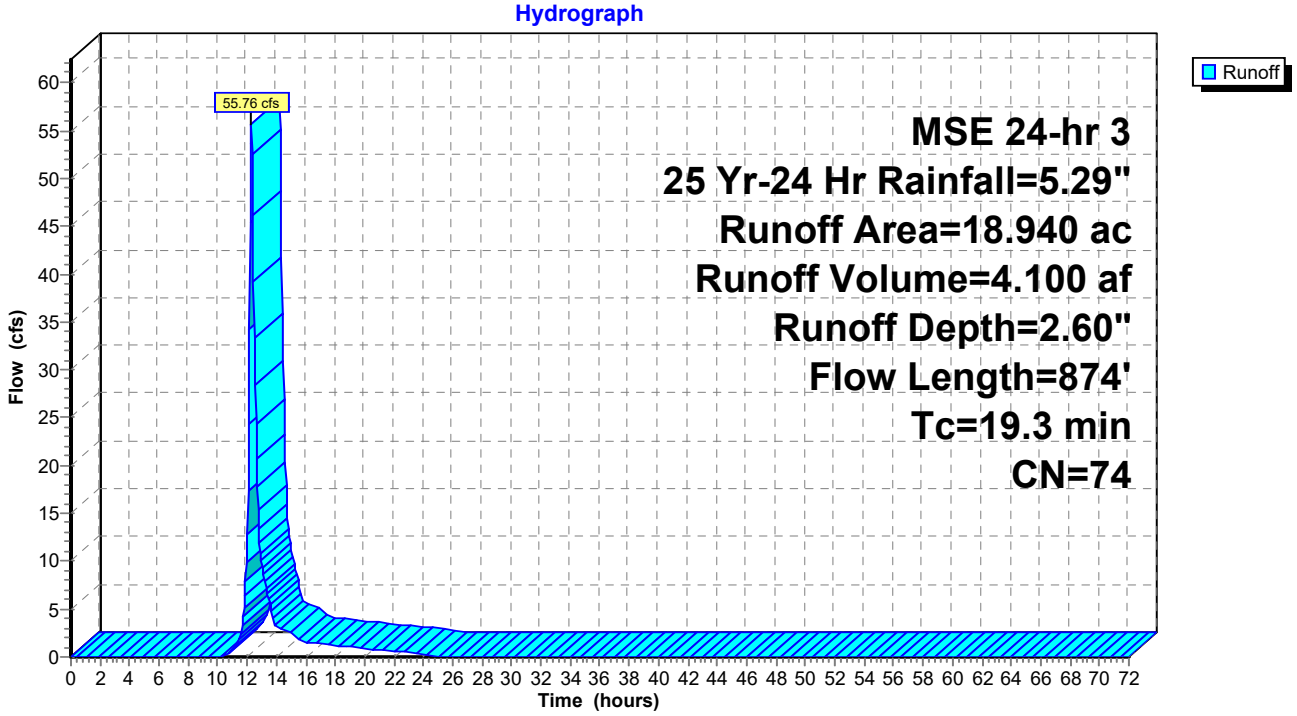
Runoff = 55.76 cfs @ 12.29 hrs, Volume= 4.100 af, Depth= 2.60"
Routed to Reach 27R : S Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
18.940	74	>75% Grass cover, Good, HSG C
18.940		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	802	0.0300	0.73		**Lag/CN Method, 33:1**
0.9	72	0.2500	1.30		**Lag/CN Method, 4:1**
19.3	874	Total			

Subcatchment 7S: S Inner



Summary for Subcatchment 8S: SE Inner

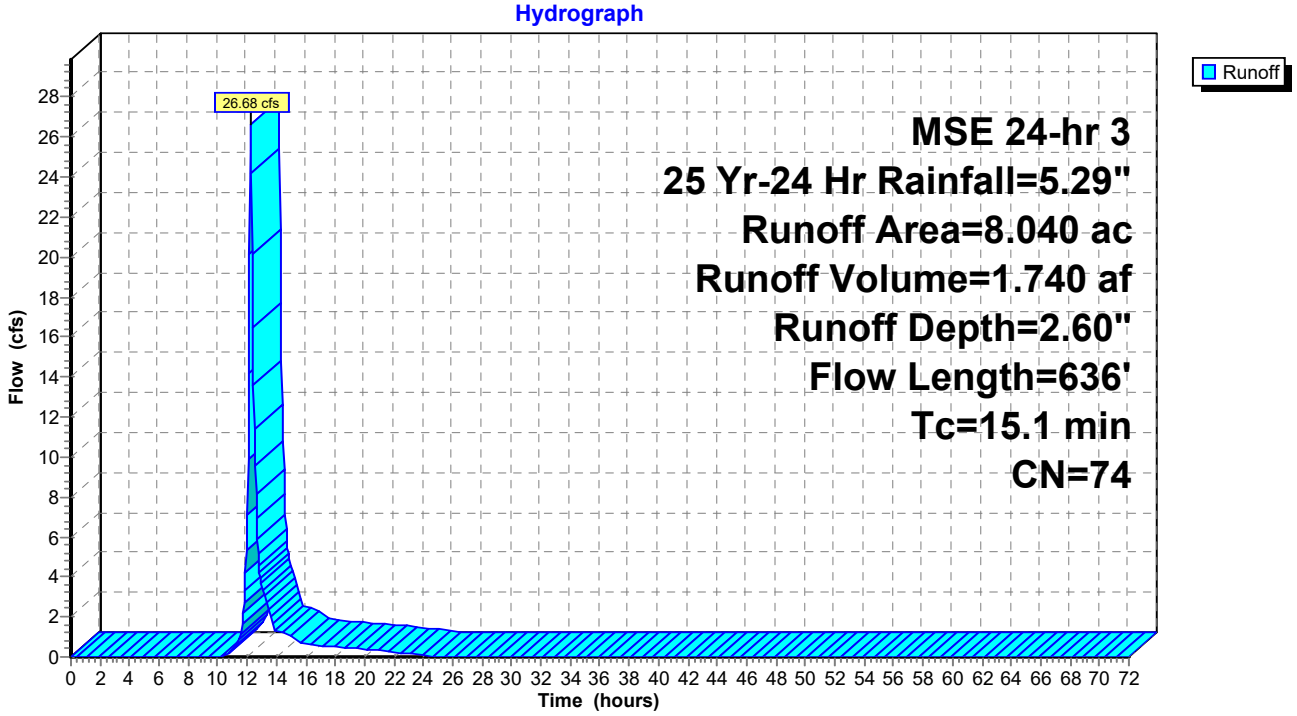
Runoff = 26.68 cfs @ 12.24 hrs, Volume= 1.740 af, Depth= 2.60"
Routed to Reach 24R : SE Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
8.040	74	>75% Grass cover, Good, HSG C
8.040		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	596	0.0300	0.69		**Lag/CN Method, 33:1**
0.6	40	0.2500	1.15		**Lag/CN Method, 4:1**
15.1	636	Total			

Subcatchment 8S: SE Inner



Summary for Subcatchment 9S: E Inner

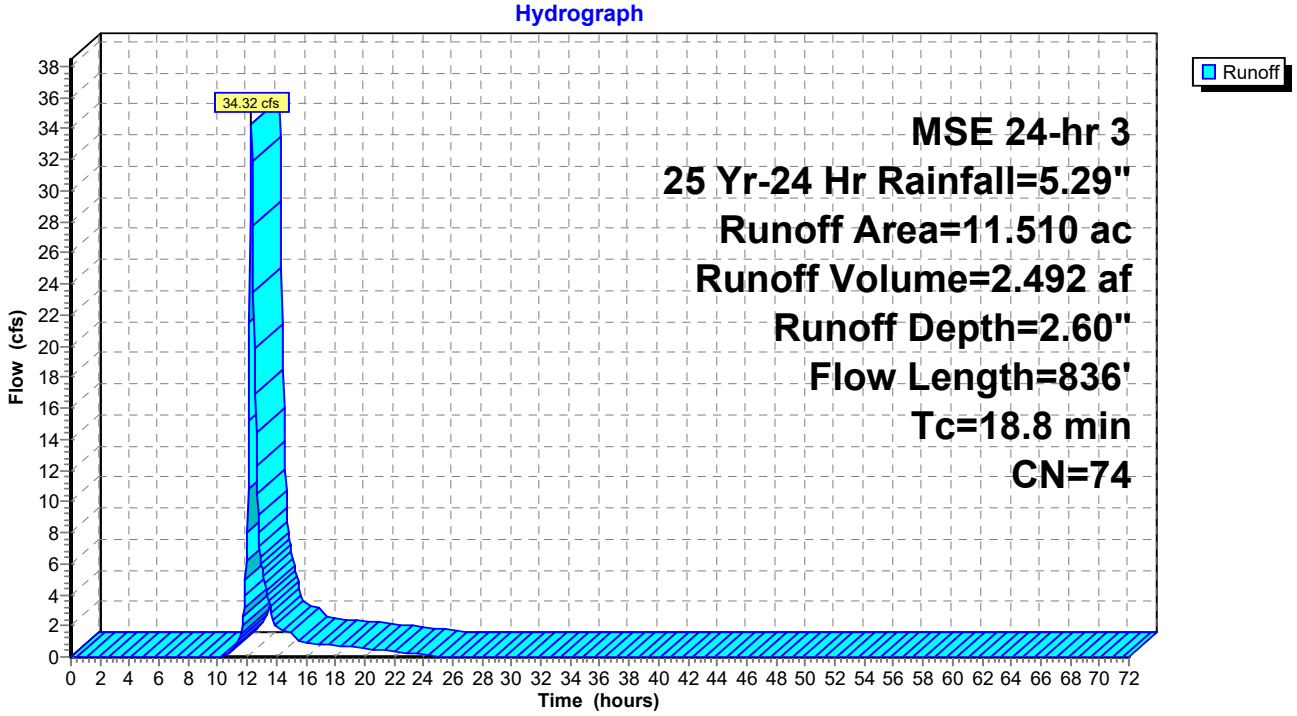
Runoff = 34.32 cfs @ 12.29 hrs, Volume= 2.492 af, Depth= 2.60"
Routed to Reach 22R : E Inner

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
11.510	74	>75% Grass cover, Good, HSG C
11.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	786	0.0300	0.72		**Lag/CN Method, 33:1**
0.7	50	0.2500	1.21		**Lag/CN Method, 4:1**
18.8	836	Total			

Subcatchment 9S: E Inner



Summary for Subcatchment 14S: NE Outer

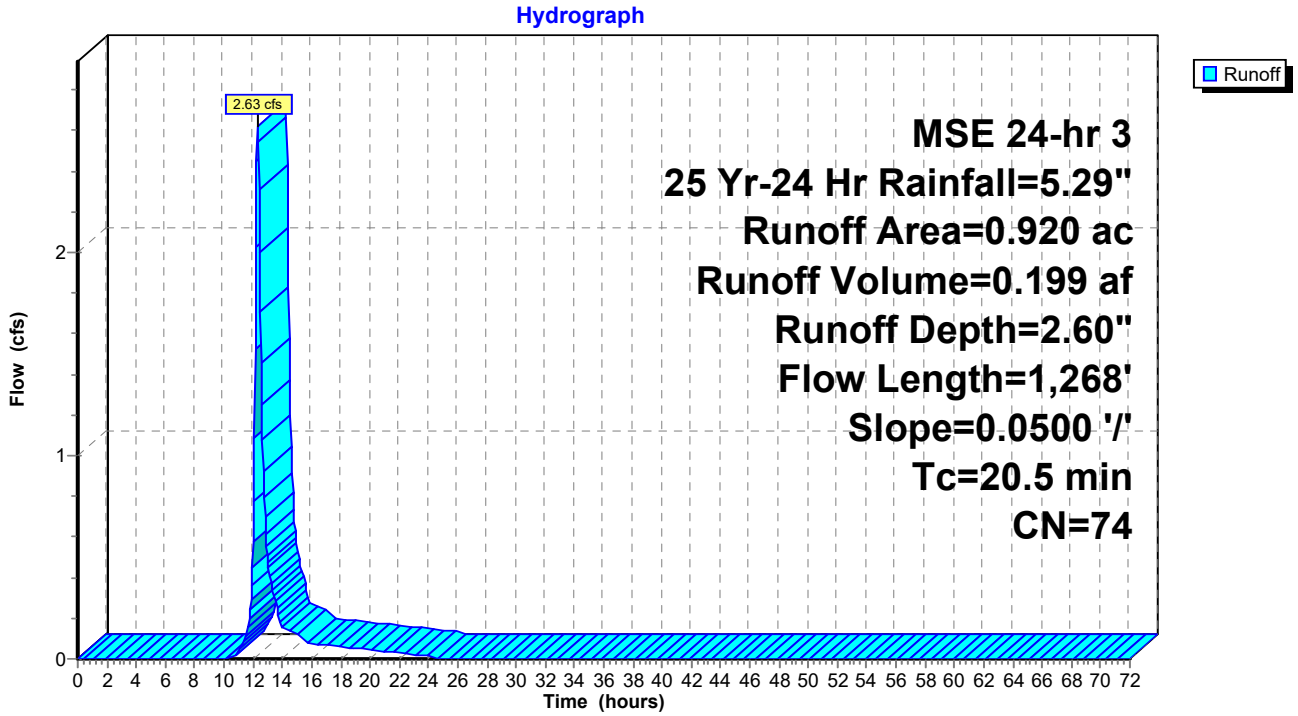
Runoff = 2.63 cfs @ 12.31 hrs, Volume= 0.199 af, Depth= 2.60"
Routed to Reach 4R : NE Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
0.920	74	>75% Grass cover, Good, HSG C
0.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	1,268	0.0500	1.03		**Lag/CN Method,**

Subcatchment 14S: NE Outer



Summary for Subcatchment 21S: NW Outer

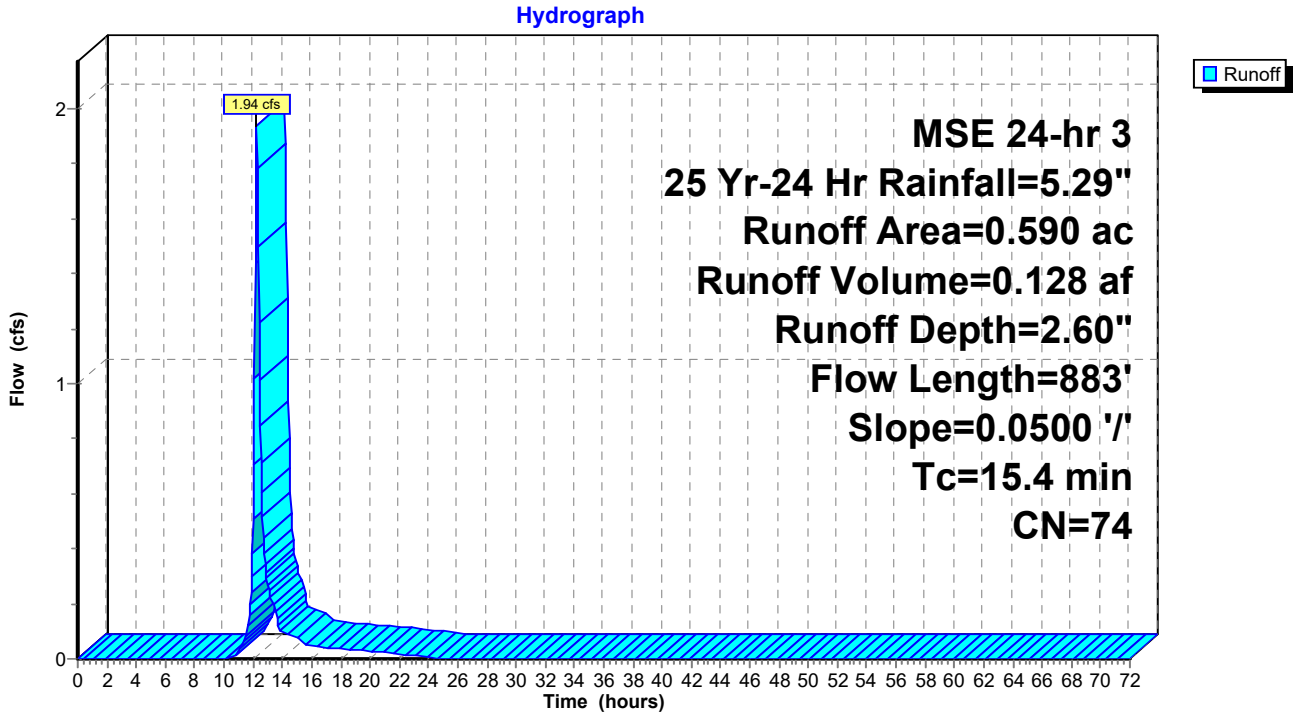
Runoff = 1.94 cfs @ 12.25 hrs, Volume= 0.128 af, Depth= 2.60"
Routed to Reach 6R : NW Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
0.590	74	>75% Grass cover, Good, HSG C
0.590		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	883	0.0500	0.96		**Lag/CN Method,**

Subcatchment 21S: NW Outer



Summary for Subcatchment 25S: W Outer

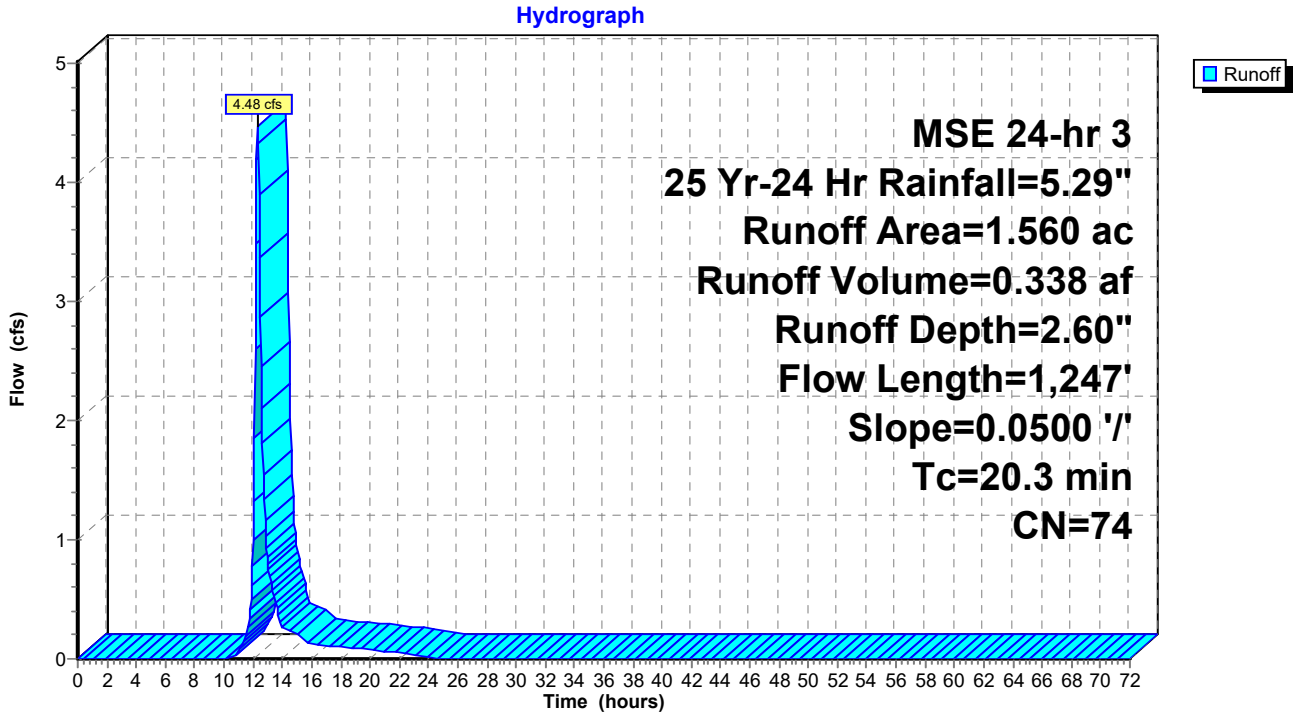
Runoff = 4.48 cfs @ 12.31 hrs, Volume= 0.338 af, Depth= 2.60"
Routed to Reach 10R : W Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
1.560	74	>75% Grass cover, Good, HSG C
1.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	1,247	0.0500	1.03		**Lag/CN Method,**

Subcatchment 25S: W Outer



Summary for Subcatchment 27S: SW Outer

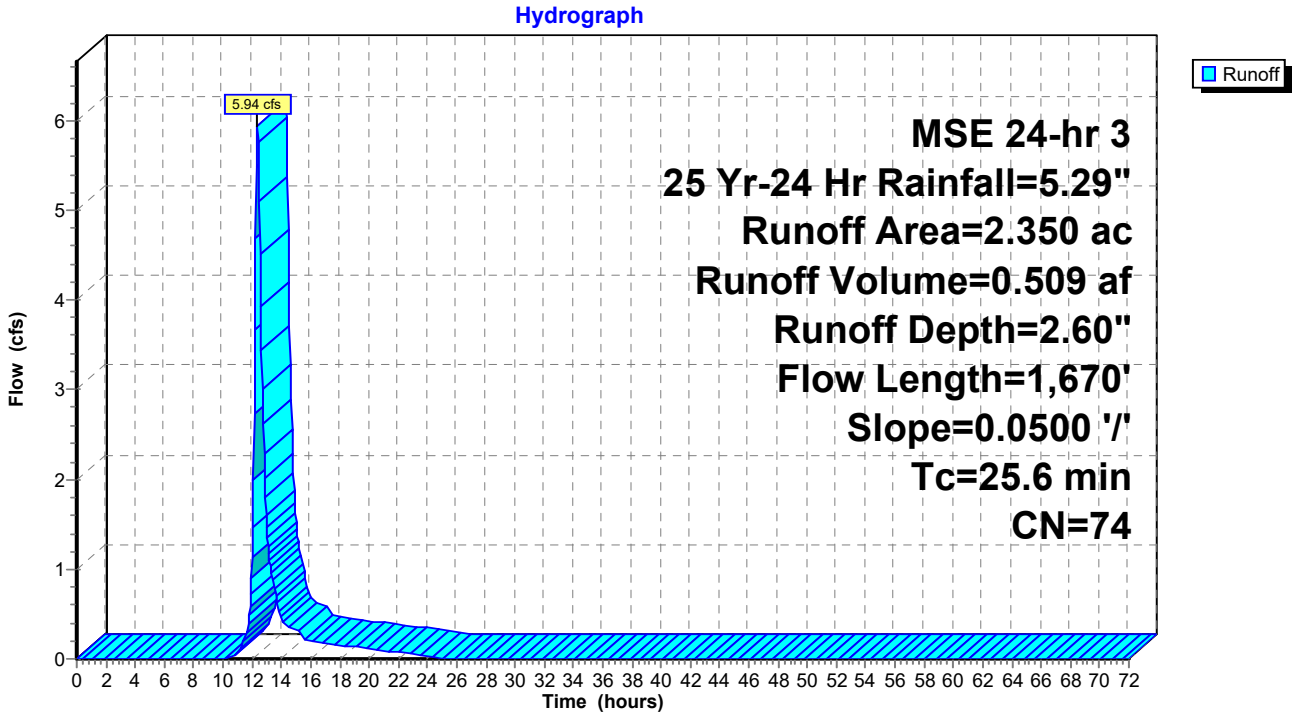
Runoff = 5.94 cfs @ 12.38 hrs, Volume= 0.509 af, Depth= 2.60"
Routed to Reach 11R : SW Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
2.350	74	>75% Grass cover, Good, HSG C
2.350		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.6	1,670	0.0500	1.09		**Lag/CN Method,**

Subcatchment 27S: SW Outer



Summary for Subcatchment 28S: SE Outer

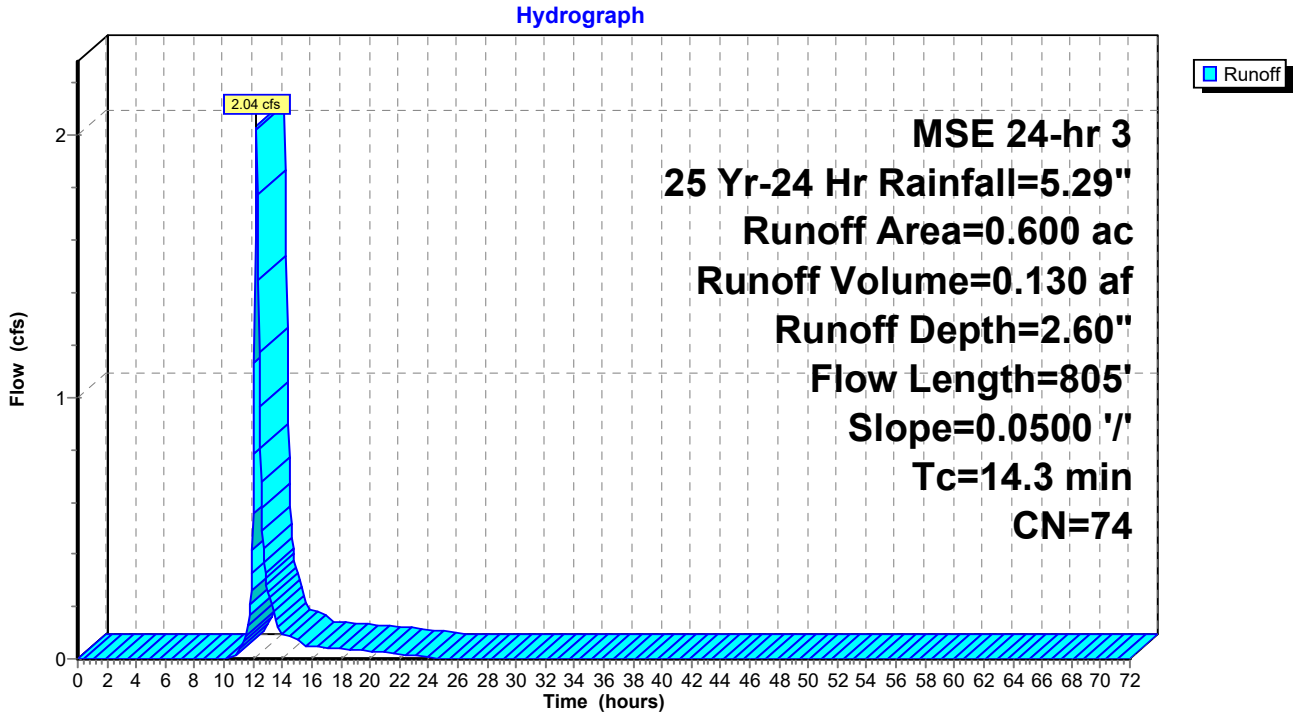
Runoff = 2.04 cfs @ 12.23 hrs, Volume= 0.130 af, Depth= 2.60"
Routed to Reach 14R : SE Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	805	0.0500	0.94		**Lag/CN Method,**

Subcatchment 28S: SE Outer



Summary for Subcatchment 29S: E Outer

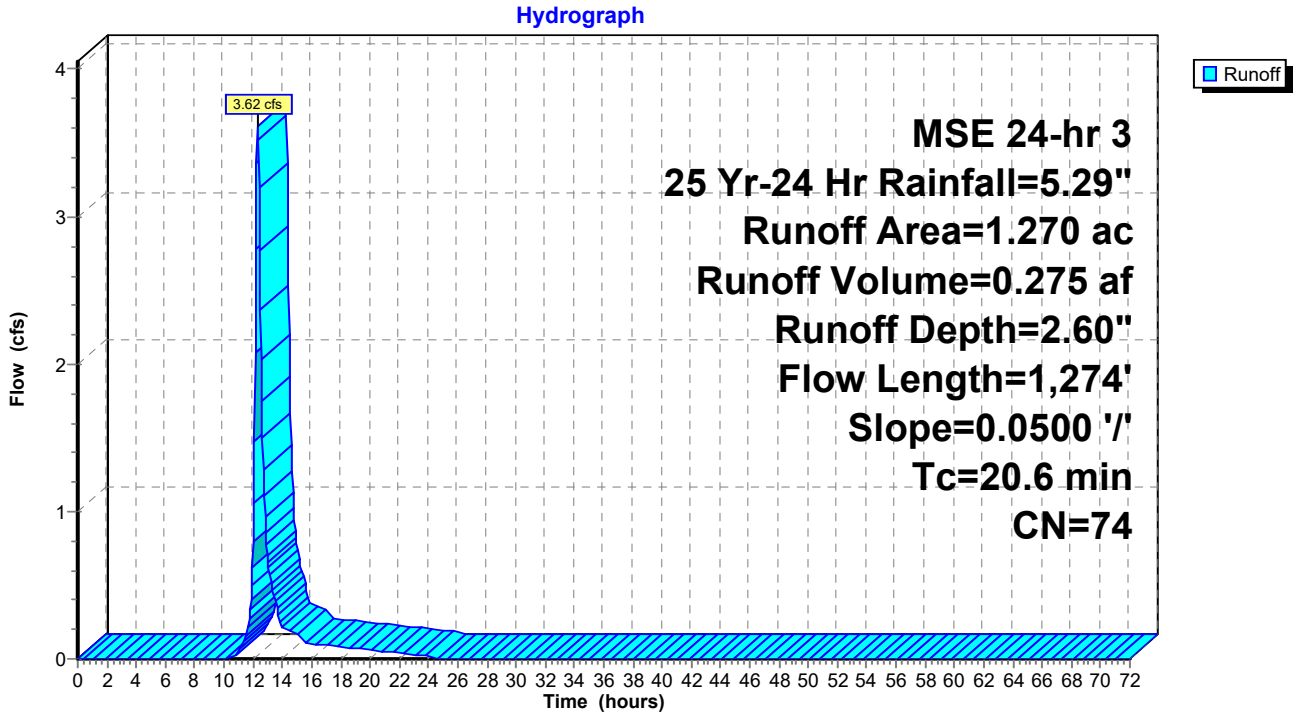
Runoff = 3.62 cfs @ 12.31 hrs, Volume= 0.275 af, Depth= 2.60"
Routed to Reach 15R : E Outer

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 25 Yr-24 Hr Rainfall=5.29"

Area (ac)	CN	Description
1.270	74	>75% Grass cover, Good, HSG C
1.270		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	1,274	0.0500	1.03		**Lag/CN Method,**

Subcatchment 29S: E Outer



Summary for Reach 4R: NE Outer

[62] Hint: Exceeded Reach 22R OUTLET depth by 0.02' @ 12.50 hrs

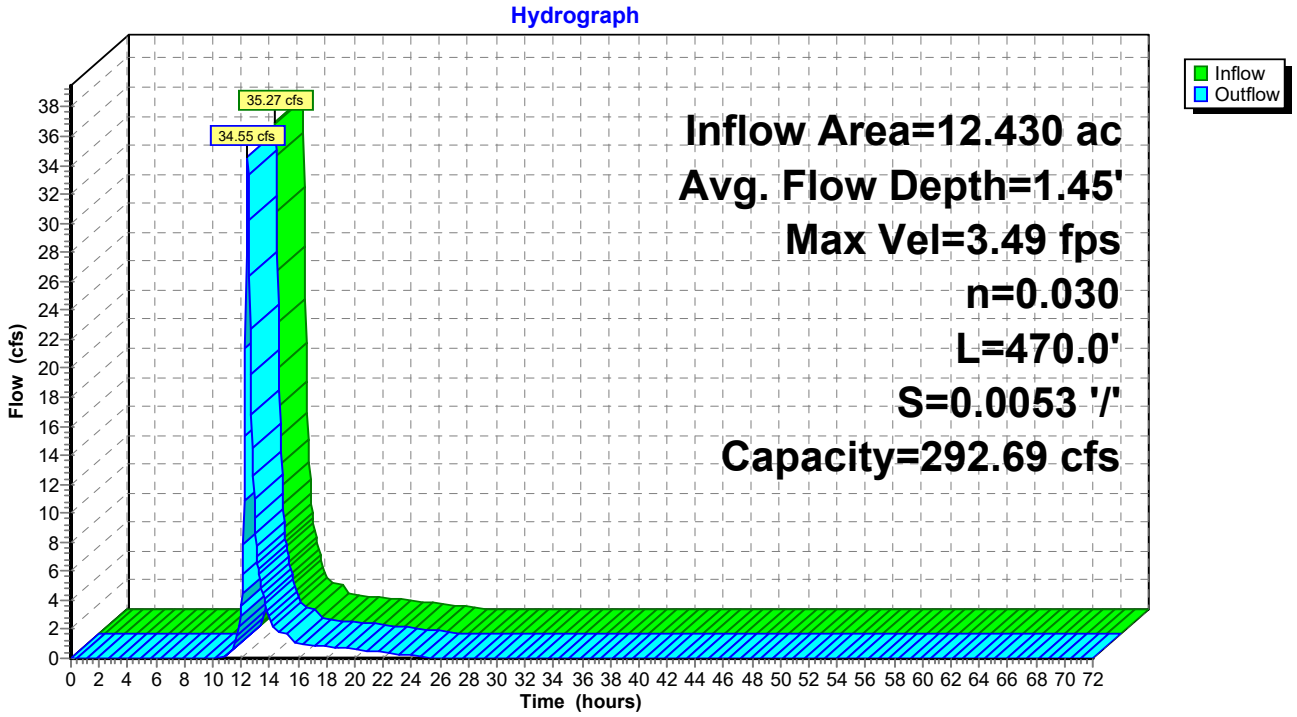
Inflow Area = 12.430 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 35.27 cfs @ 12.39 hrs, Volume= 2.691 af
Outflow = 34.55 cfs @ 12.45 hrs, Volume= 2.691 af, Atten= 2%, Lag= 4.1 min
Routed to Pond 28P : N CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.49 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 0.99 fps, Avg. Travel Time= 7.9 min

Peak Storage= 4,685 cf @ 12.42 hrs
Average Depth at Peak Storage= 1.45' , Surface Width= 9.78'
Bank-Full Depth= 4.00' Flow Area= 48.0 sf, Capacity= 292.69 cfs

4.00' x 4.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 20.00'
Length= 470.0' Slope= 0.0053 '/'
Inlet Invert= 830.00', Outlet Invert= 827.50'

Reach 4R: NE Outer



Summary for Reach 6R: NW Outer

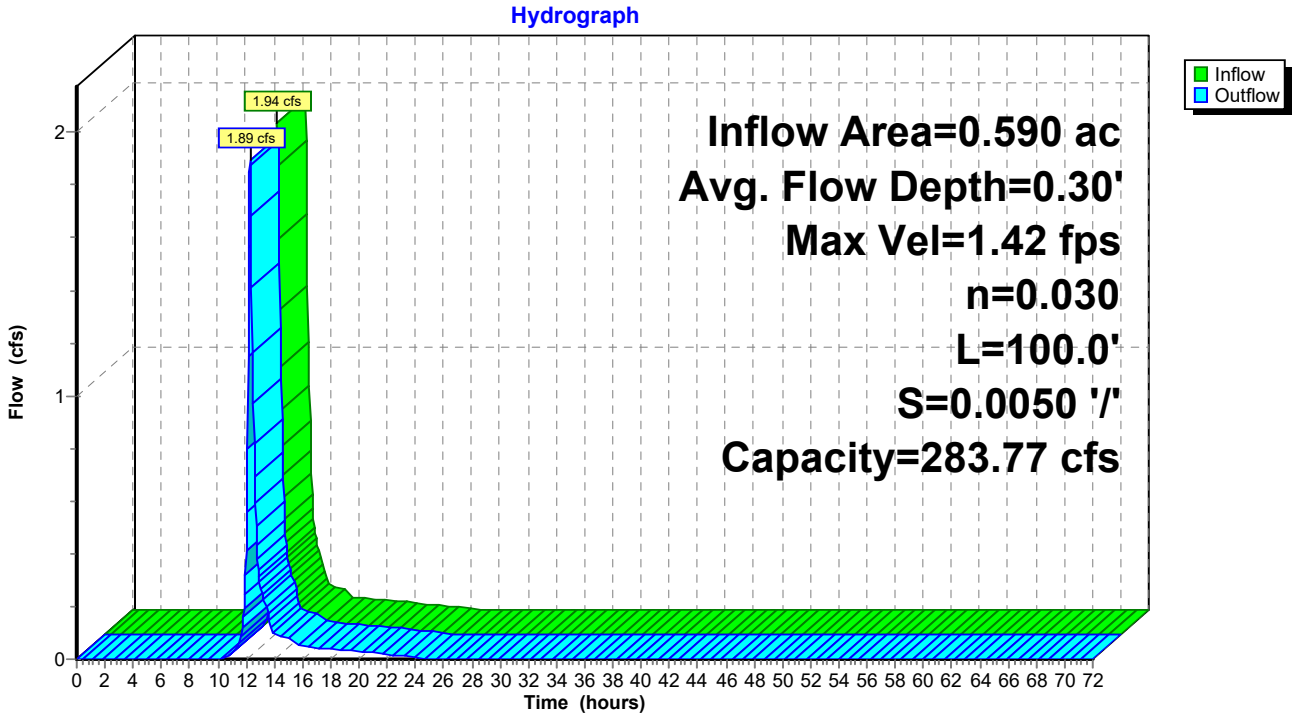
Inflow Area = 0.590 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 1.94 cfs @ 12.25 hrs, Volume= 0.128 af
Outflow = 1.89 cfs @ 12.28 hrs, Volume= 0.128 af, Atten= 3%, Lag= 2.1 min
Routed to Pond 28P : N CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.42 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 0.47 fps, Avg. Travel Time= 3.6 min

Peak Storage= 137 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.30' , Surface Width= 5.19'
Bank-Full Depth= 4.00' Flow Area= 48.0 sf, Capacity= 283.77 cfs

4.00' x 4.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 20.00'
Length= 100.0' Slope= 0.0050 '/'
Inlet Invert= 826.00', Outlet Invert= 825.50'

Reach 6R: NW Outer



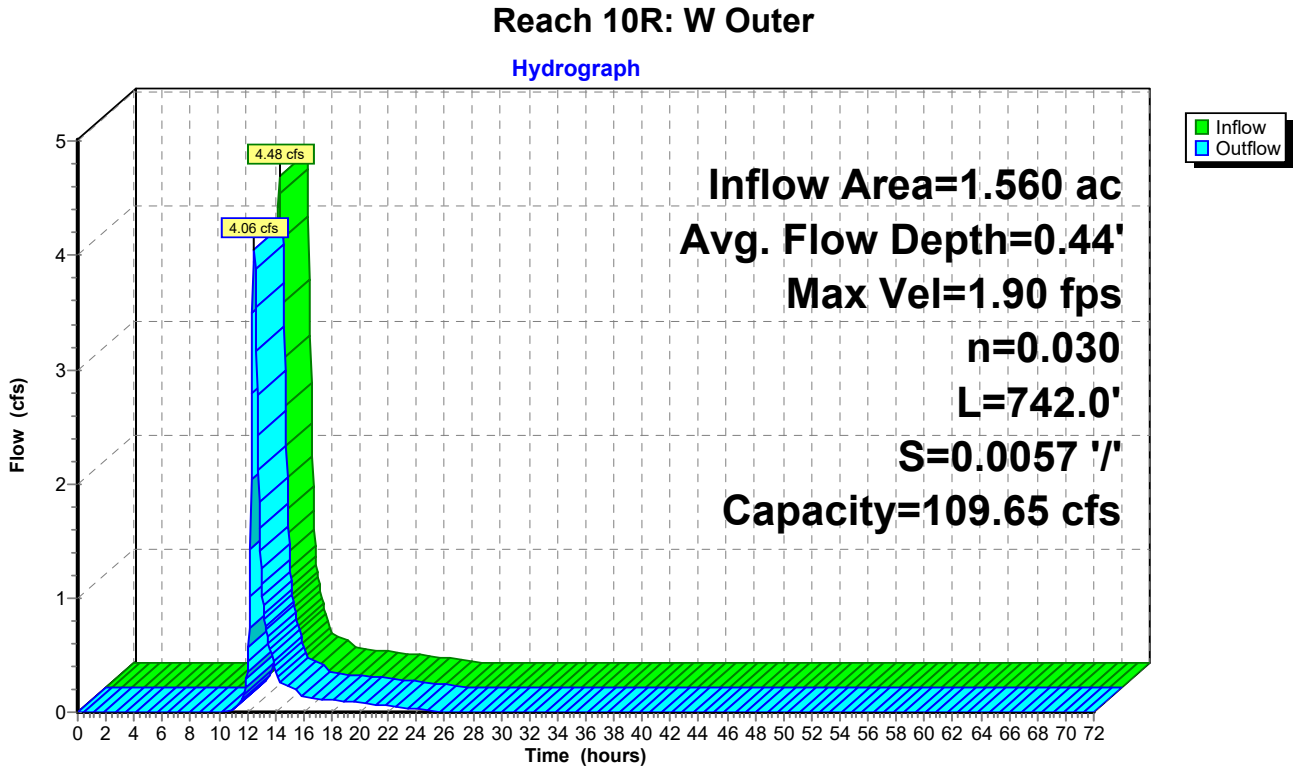
Summary for Reach 10R: W Outer

Inflow Area = 1.560 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 4.48 cfs @ 12.31 hrs, Volume= 0.338 af
Outflow = 4.06 cfs @ 12.50 hrs, Volume= 0.338 af, Atten= 9%, Lag= 11.3 min
Routed to Pond 27P : Outer CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.90 fps, Min. Travel Time= 6.5 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 23.7 min

Peak Storage= 1,594 cf @ 12.39 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 5.76'
Bank-Full Depth= 2.50' Flow Area= 22.5 sf, Capacity= 109.65 cfs

4.00' x 2.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 14.00'
Length= 742.0' Slope= 0.0057 '/'
Inlet Invert= 821.25', Outlet Invert= 817.00'



Summary for Reach 11R: SW Outer

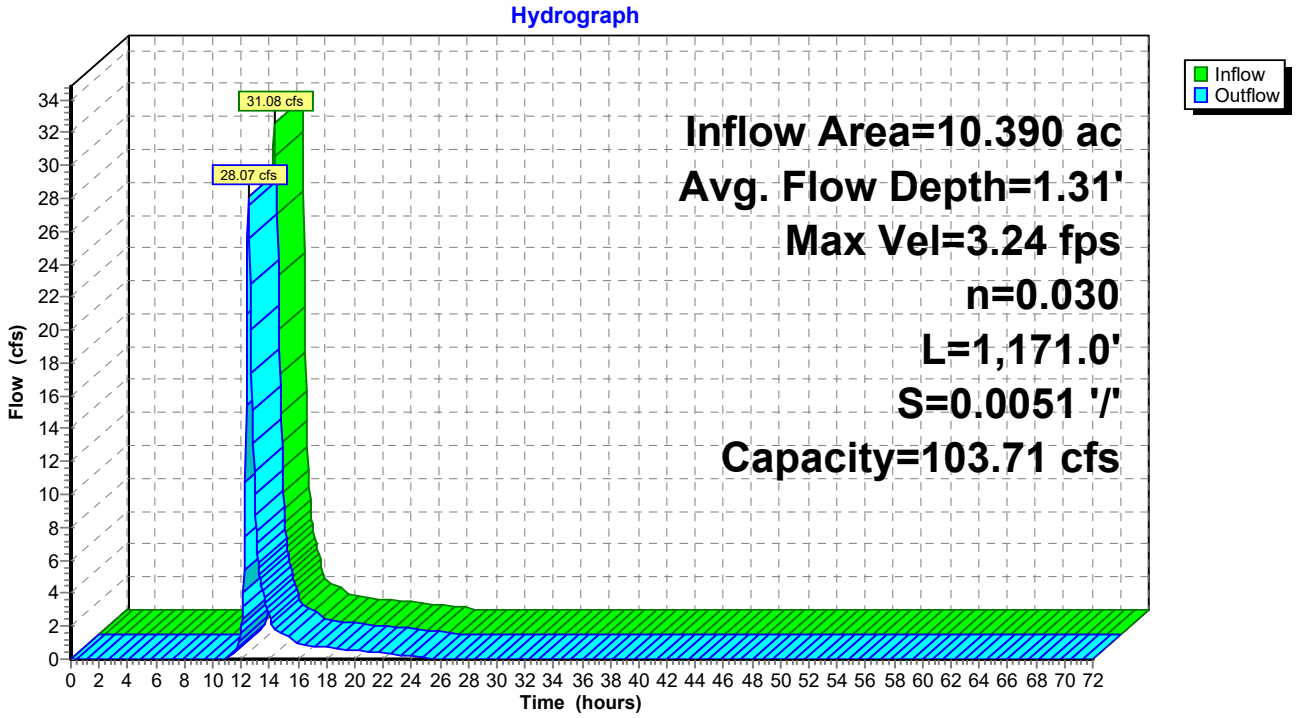
Inflow Area = 10.390 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 31.08 cfs @ 12.35 hrs, Volume= 2.249 af
Outflow = 28.07 cfs @ 12.52 hrs, Volume= 2.249 af, Atten= 10%, Lag= 10.4 min
Routed to Pond 27P : Outer CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.24 fps, Min. Travel Time= 6.0 min
Avg. Velocity = 0.80 fps, Avg. Travel Time= 24.5 min

Peak Storage= 10,116 cf @ 12.42 hrs
Average Depth at Peak Storage= 1.31' , Surface Width= 9.23'
Bank-Full Depth= 2.50' Flow Area= 22.5 sf, Capacity= 103.71 cfs

4.00' x 2.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 14.00'
Length= 1,171.0' Slope= 0.0051 '/'
Inlet Invert= 823.00', Outlet Invert= 817.00'

Reach 11R: SW Outer



Summary for Reach 14R: SE Outer

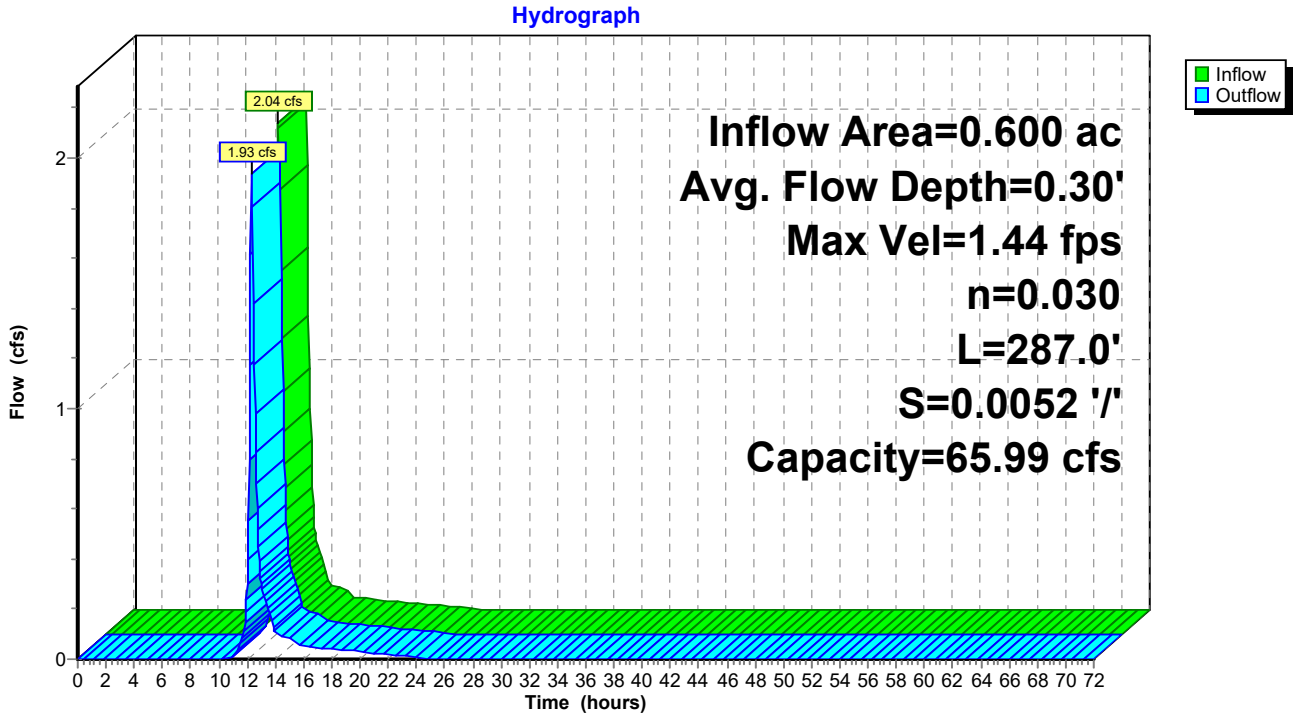
Inflow Area = 0.600 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 2.04 cfs @ 12.23 hrs, Volume= 0.130 af
Outflow = 1.93 cfs @ 12.33 hrs, Volume= 0.130 af, Atten= 5%, Lag= 5.7 min
Routed to Pond 29P : SE CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.44 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.39 fps, Avg. Travel Time= 12.3 min

Peak Storage= 390 cf @ 12.27 hrs
Average Depth at Peak Storage= 0.30' , Surface Width= 5.18'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 65.99 cfs

4.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 12.00'
Length= 287.0' Slope= 0.0052 '/'
Inlet Invert= 819.50', Outlet Invert= 818.00'

Reach 14R: SE Outer



Summary for Reach 15R: E Outer

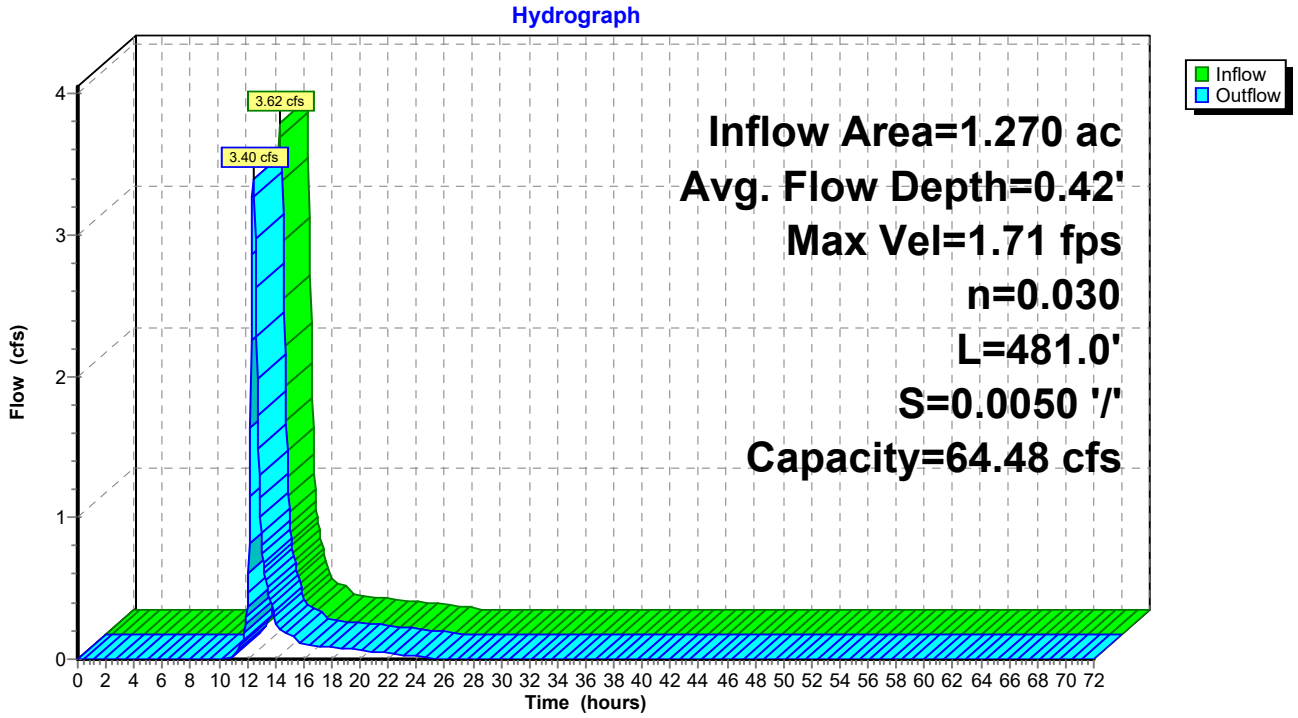
Inflow Area = 1.270 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 3.62 cfs @ 12.31 hrs, Volume= 0.275 af
Outflow = 3.40 cfs @ 12.45 hrs, Volume= 0.275 af, Atten= 6%, Lag= 8.3 min
Routed to Pond 29P : SE CB Berm Ponding Area

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.71 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 0.46 fps, Avg. Travel Time= 17.3 min

Peak Storage= 965 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 5.66'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 64.48 cfs

4.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 2.0 '/' Top Width= 12.00'
Length= 481.0' Slope= 0.0050 '/'
Inlet Invert= 820.40', Outlet Invert= 818.00'

Reach 15R: E Outer



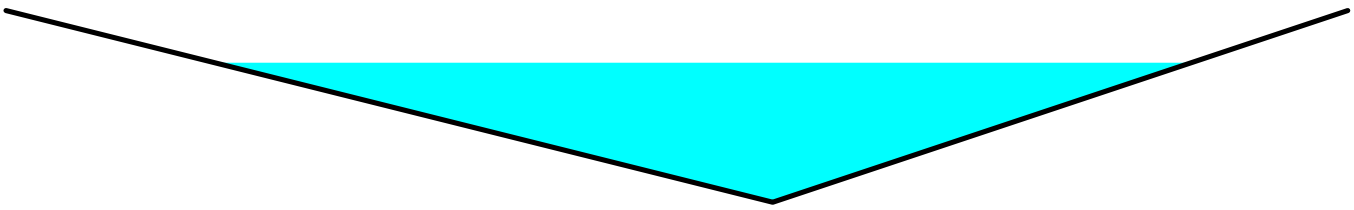
Summary for Reach 19R: NE Inner

Inflow Area = 10.560 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 31.16 cfs @ 12.29 hrs, Volume= 2.286 af
Outflow = 28.60 cfs @ 12.45 hrs, Volume= 2.286 af, Atten= 8%, Lag= 9.3 min
Routed to Pond 28P : N CB Berm Ponding Area

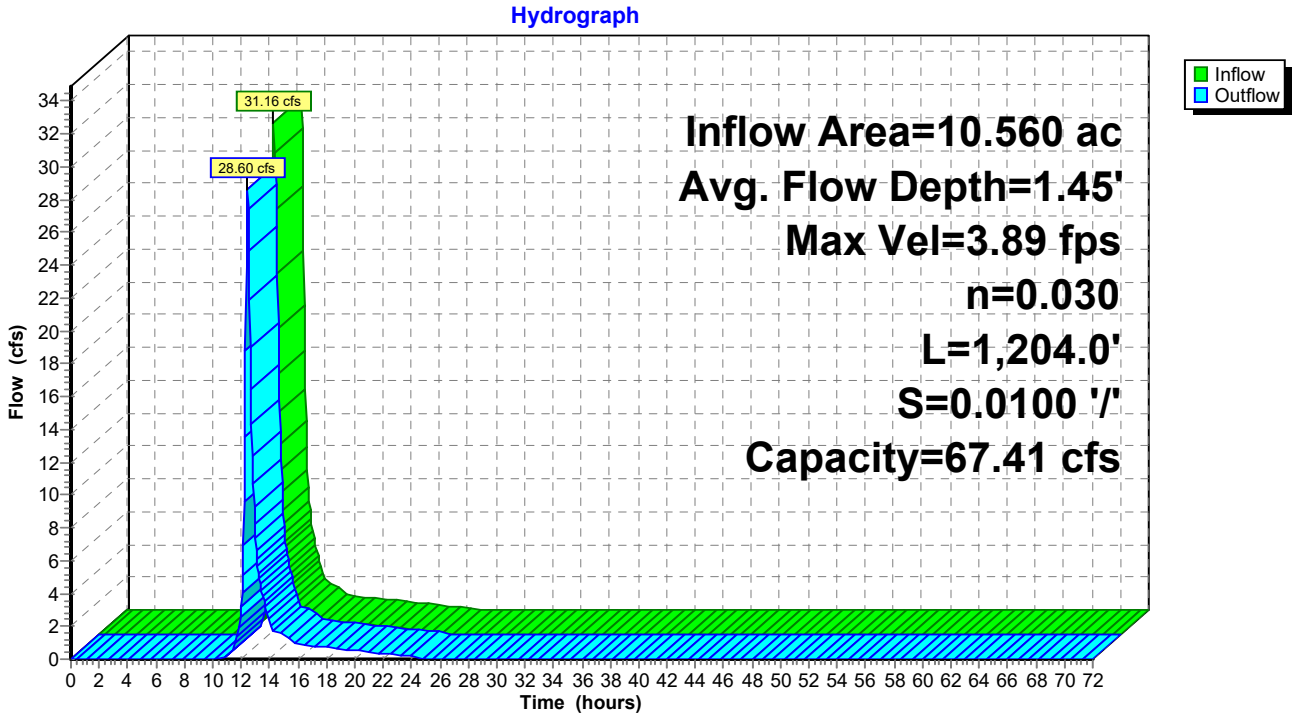
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.89 fps, Min. Travel Time= 5.2 min
Avg. Velocity = 1.18 fps, Avg. Travel Time= 17.0 min

Peak Storage= 8,920 cf @ 12.36 hrs
Average Depth at Peak Storage= 1.45' , Surface Width= 10.18'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 67.41 cfs

0.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 4.0 3.0 '/' Top Width= 14.00'
Length= 1,204.0' Slope= 0.0100 '/'
Inlet Invert= 838.00', Outlet Invert= 826.00'



Reach 19R: NE Inner



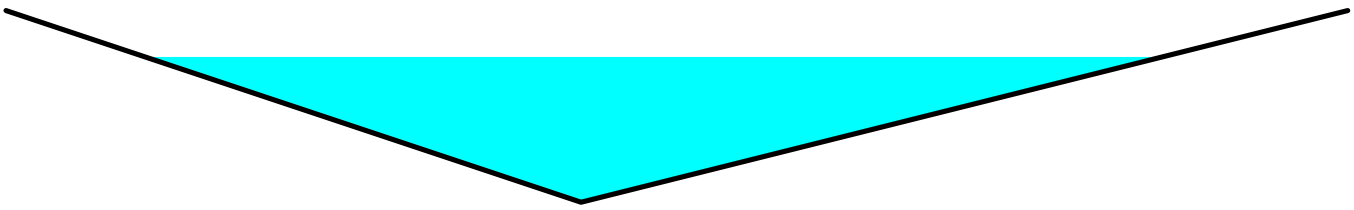
Summary for Reach 20R: NW Inner

Inflow Area = 13.230 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 39.17 cfs @ 12.29 hrs, Volume= 2.864 af
Outflow = 37.89 cfs @ 12.38 hrs, Volume= 2.864 af, Atten= 3%, Lag= 5.6 min
Routed to Pond 28P : N CB Berm Ponding Area

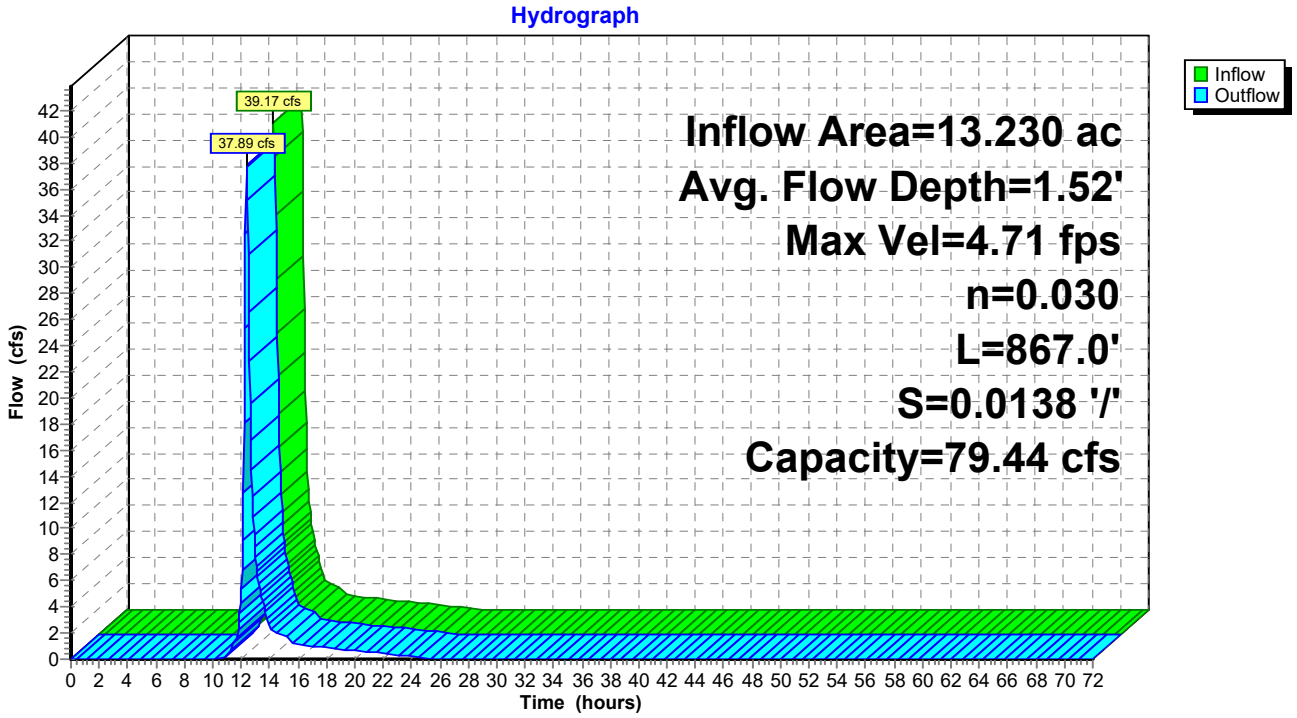
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.71 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 1.56 fps, Avg. Travel Time= 9.3 min

Peak Storage= 6,972 cf @ 12.33 hrs
Average Depth at Peak Storage= 1.52' , Surface Width= 10.61'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 79.44 cfs

0.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 4.0 '/' Top Width= 14.00'
Length= 867.0' Slope= 0.0138 '/'
Inlet Invert= 838.00', Outlet Invert= 826.00'



Reach 20R: NW Inner



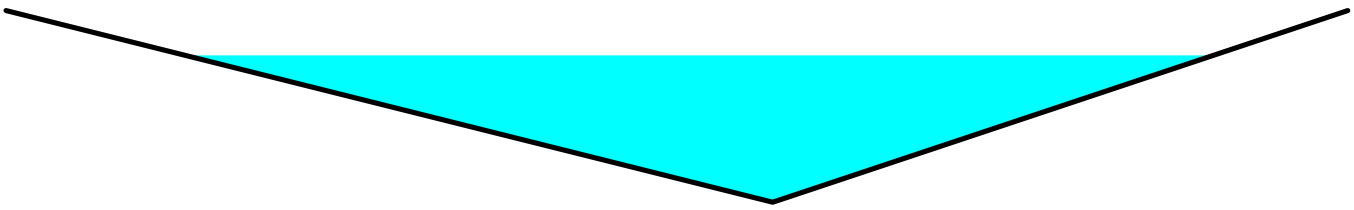
Summary for Reach 22R: E Inner

Inflow Area = 11.510 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 34.32 cfs @ 12.29 hrs, Volume= 2.492 af
Outflow = 32.90 cfs @ 12.39 hrs, Volume= 2.492 af, Atten= 4%, Lag= 6.1 min
Routed to Reach 4R : NE Outer

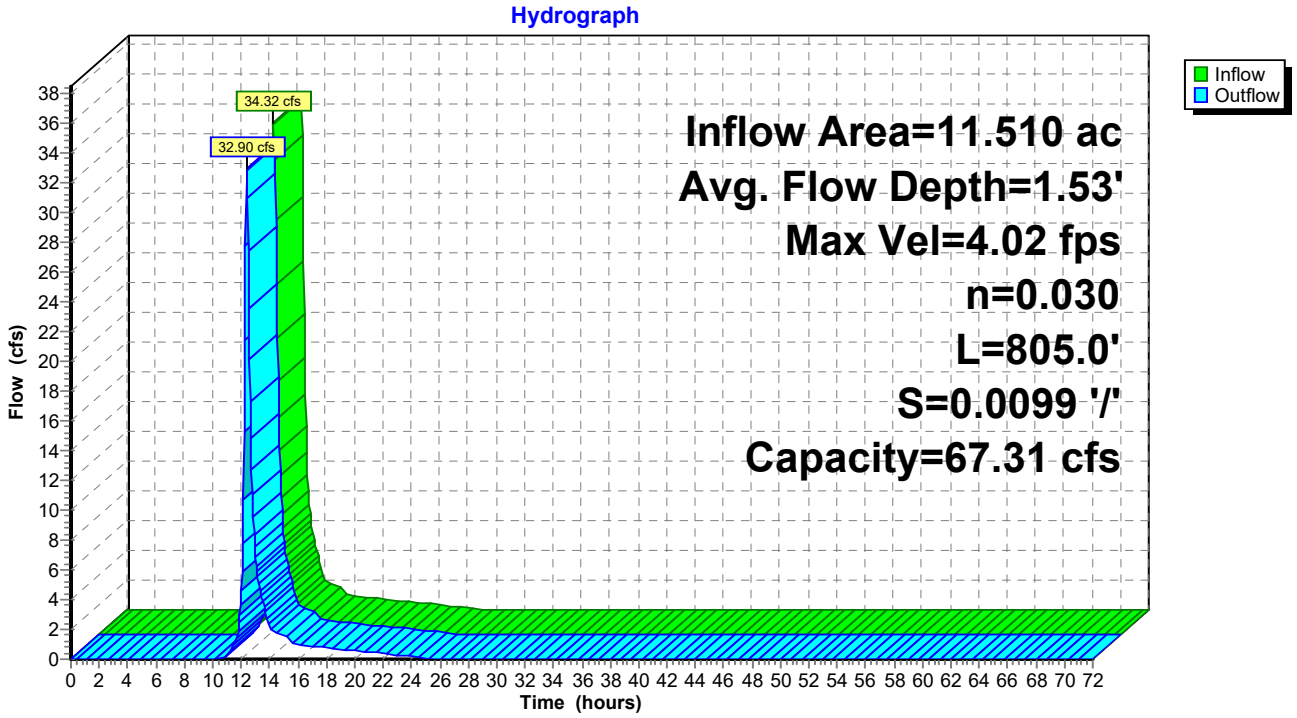
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.02 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 10.2 min

Peak Storage= 6,610 cf @ 12.33 hrs
Average Depth at Peak Storage= 1.53' , Surface Width= 10.72'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 67.31 cfs

0.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 4.0 3.0 '/' Top Width= 14.00'
Length= 805.0' Slope= 0.0099 '/'
Inlet Invert= 838.00', Outlet Invert= 830.00'



Reach 22R: E Inner



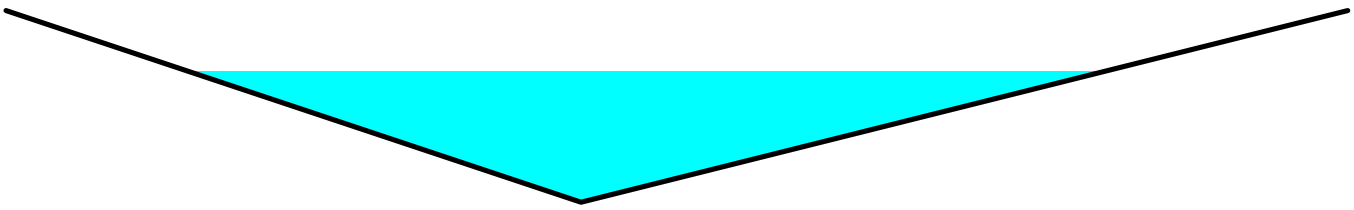
Summary for Reach 24R: SE Inner

Inflow Area = 8.040 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 26.68 cfs @ 12.24 hrs, Volume= 1.740 af
Outflow = 25.21 cfs @ 12.34 hrs, Volume= 1.740 af, Atten= 6%, Lag= 5.9 min
Routed to Reach 11R : SW Outer

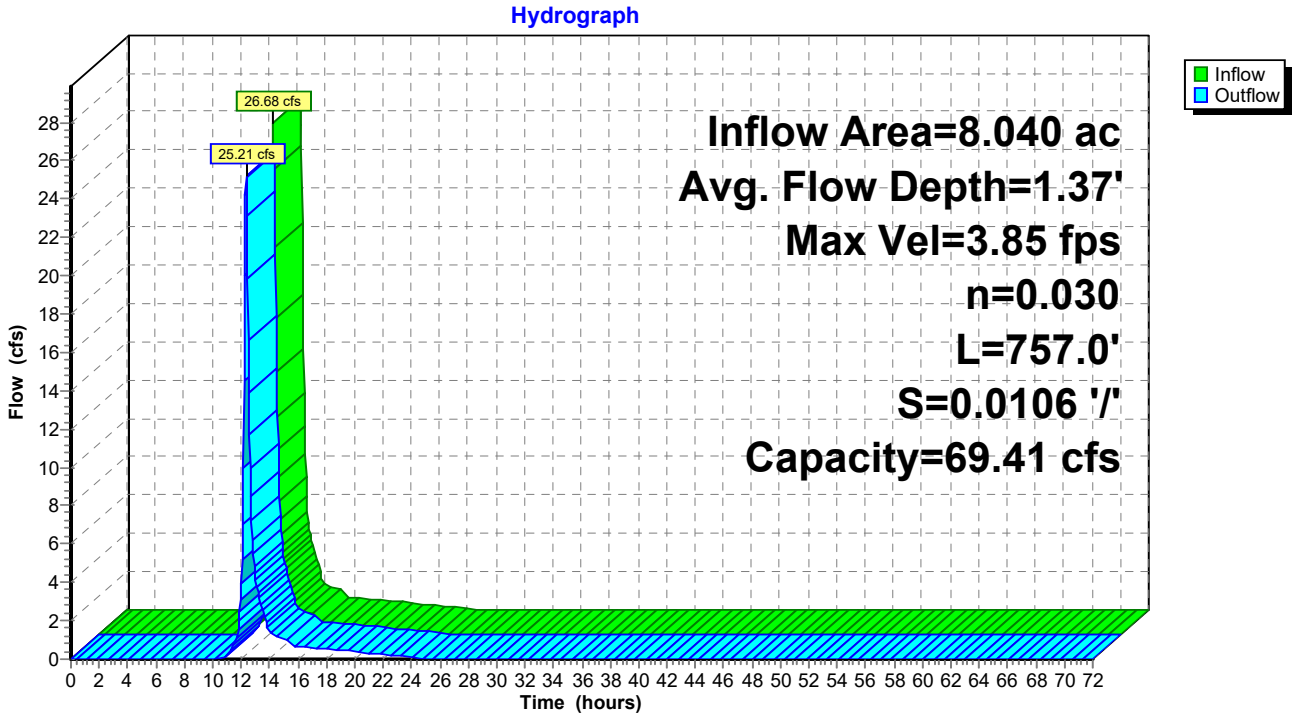
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.85 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 10.1 min

Peak Storage= 4,976 cf @ 12.29 hrs
Average Depth at Peak Storage= 1.37' , Surface Width= 9.59'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 69.41 cfs

0.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 4.0 '/' Top Width= 14.00'
Length= 757.0' Slope= 0.0106 '/'
Inlet Invert= 834.00', Outlet Invert= 826.00'



Reach 24R: SE Inner



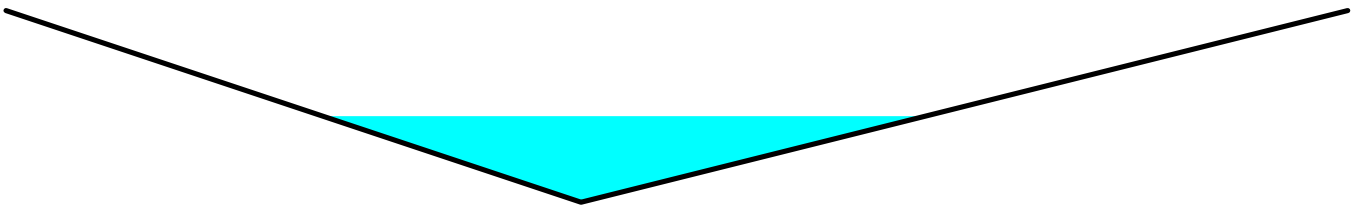
Summary for Reach 26R: W Inner

Inflow Area = 8.040 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 24.11 cfs @ 12.29 hrs, Volume= 1.740 af
Outflow = 23.46 cfs @ 12.37 hrs, Volume= 1.740 af, Atten= 3%, Lag= 5.1 min
Routed to Pond 26P : SW CB Berm Ponding Area

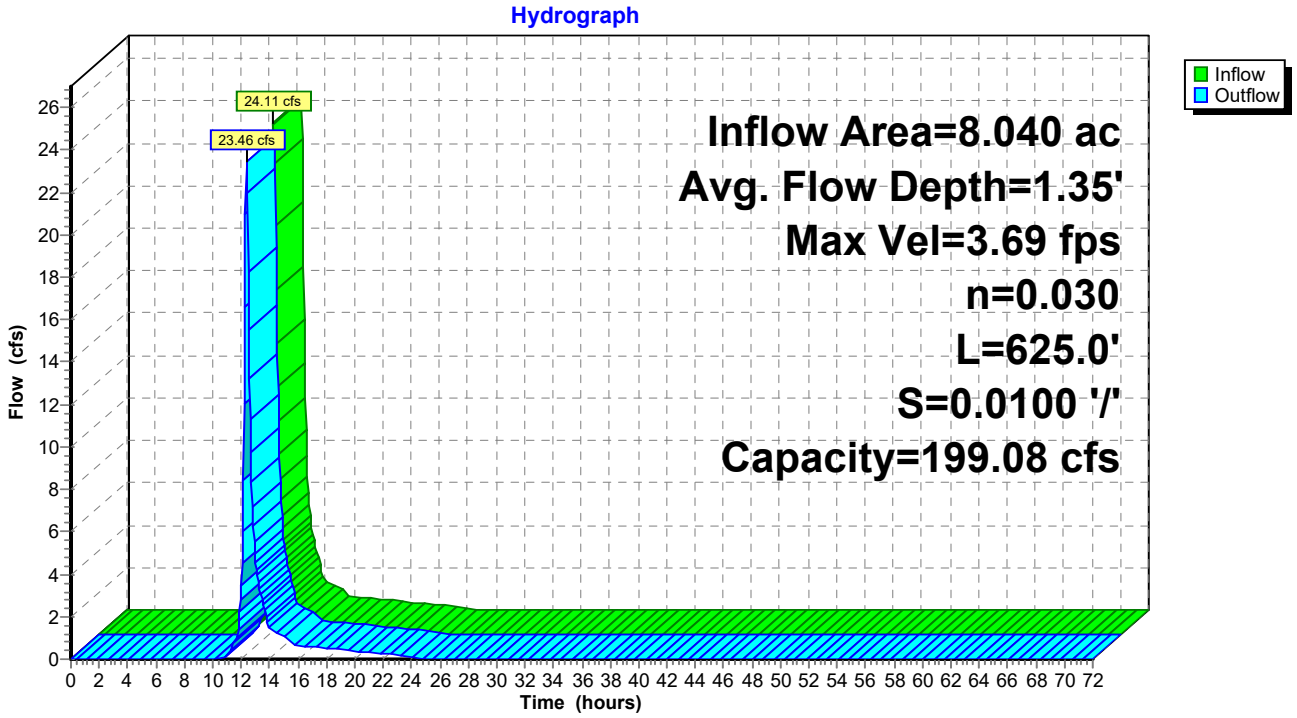
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.69 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 8.0 min

Peak Storage= 3,967 cf @ 12.32 hrs
Average Depth at Peak Storage= 1.35' , Surface Width= 9.43'
Bank-Full Depth= 3.00' Flow Area= 31.5 sf, Capacity= 199.08 cfs

0.00' x 3.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 4.0 '/' Top Width= 21.00'
Length= 625.0' Slope= 0.0100 '/'
Inlet Invert= 836.25', Outlet Invert= 830.00'



Reach 26R: W Inner



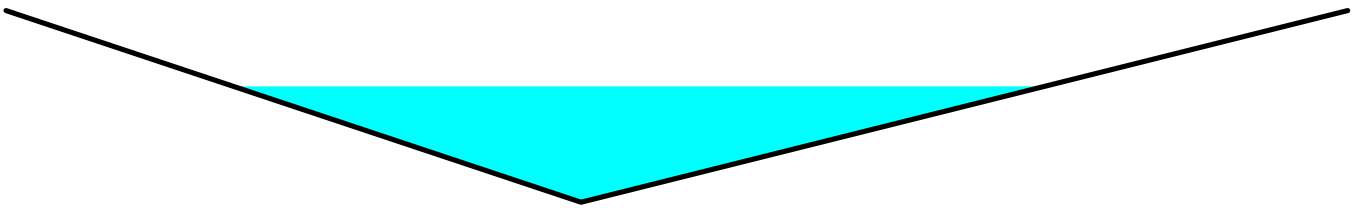
Summary for Reach 27R: S Inner

Inflow Area = 18.940 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 55.76 cfs @ 12.29 hrs, Volume= 4.100 af
Outflow = 51.35 cfs @ 12.44 hrs, Volume= 4.100 af, Atten= 8%, Lag= 9.0 min
Routed to Pond 26P : SW CB Berm Ponding Area

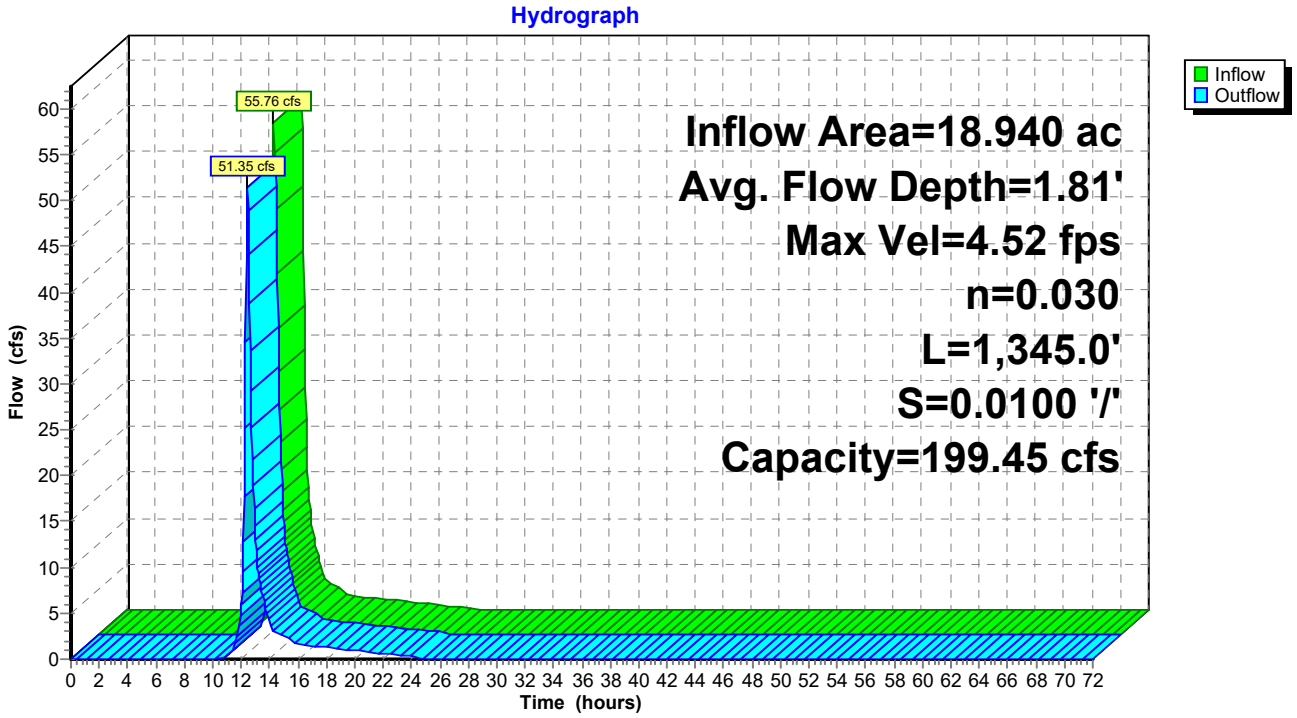
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.52 fps, Min. Travel Time= 5.0 min
Avg. Velocity = 1.38 fps, Avg. Travel Time= 16.2 min

Peak Storage= 15,432 cf @ 12.36 hrs
Average Depth at Peak Storage= 1.81' , Surface Width= 12.67'
Bank-Full Depth= 3.00' Flow Area= 31.5 sf, Capacity= 199.45 cfs

0.00' x 3.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 4.0 '/' Top Width= 21.00'
Length= 1,345.0' Slope= 0.0100 '/'
Inlet Invert= 843.50', Outlet Invert= 830.00'



Reach 27R: S Inner



Summary for Reach 28R: SW Downslope Pipe

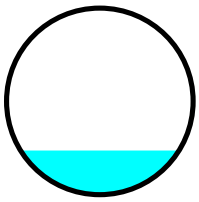
[52] Hint: Inlet/Outlet conditions not evaluated
[79] Warning: Submerged Pond 26P Primary device # 1 by 0.71'

Inflow Area = 26.980 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 73.07 cfs @ 12.43 hrs, Volume= 5.840 af
Outflow = 73.03 cfs @ 12.44 hrs, Volume= 5.840 af, Atten= 0%, Lag= 0.1 min
Routed to Pond 27P : Outer CB Berm Ponding Area

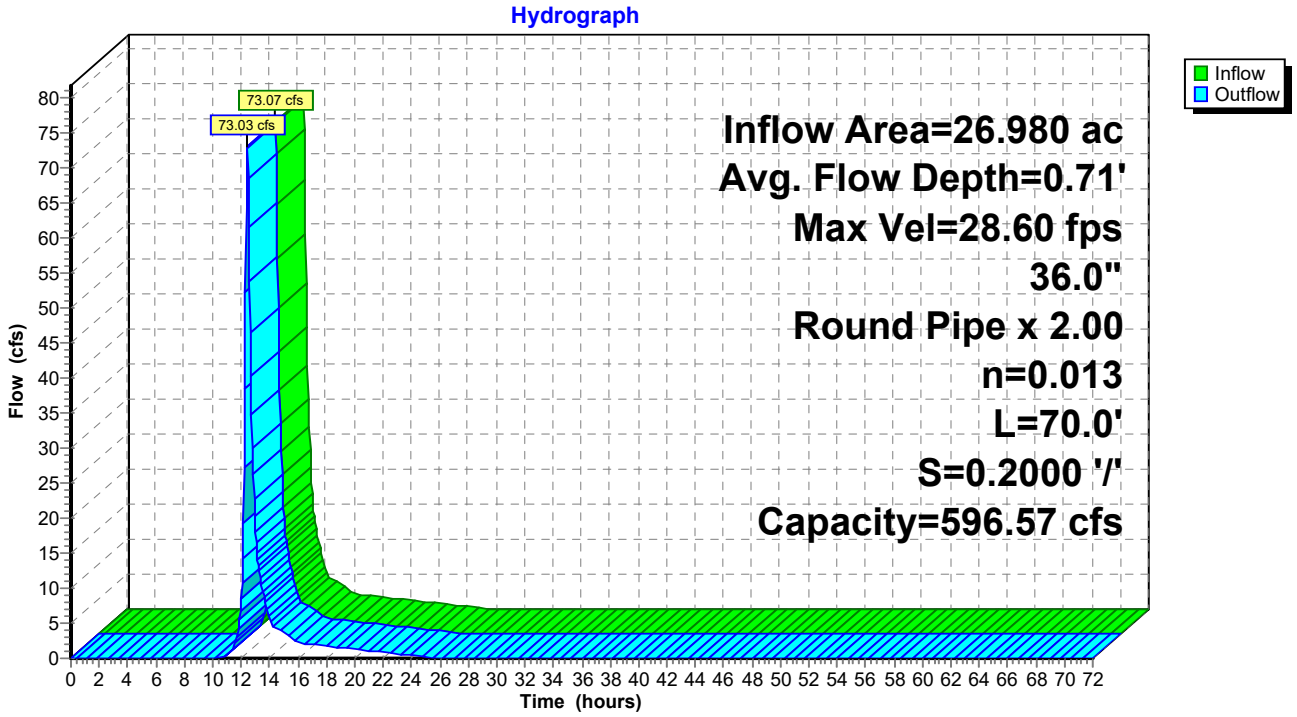
Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 28.60 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 8.42 fps, Avg. Travel Time= 0.1 min

Peak Storage= 179 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 5.10'
Bank-Full Depth= 3.00' Flow Area= 14.1 sf, Capacity= 596.57 cfs

A factor of 2.00 has been applied to the storage and discharge capacity
36.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 70.0' Slope= 0.2000 '/'
Inlet Invert= 830.00', Outlet Invert= 816.00'



Reach 28R: SW Downslope Pipe



Summary for Pond 5P: N Pond

Inflow Area = 36.810 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af
Outflow = 3.71 cfs @ 15.69 hrs, Volume= 7.296 af, Atten= 96%, Lag= 189.9 min
Primary = 3.71 cfs @ 15.69 hrs, Volume= 7.296 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 809.00' Surf.Area= 3.146 ac Storage= 13.886 af
Peak Elev= 810.73' @ 15.69 hrs Surf.Area= 3.408 ac Storage= 19.566 af (5.680 af above start)

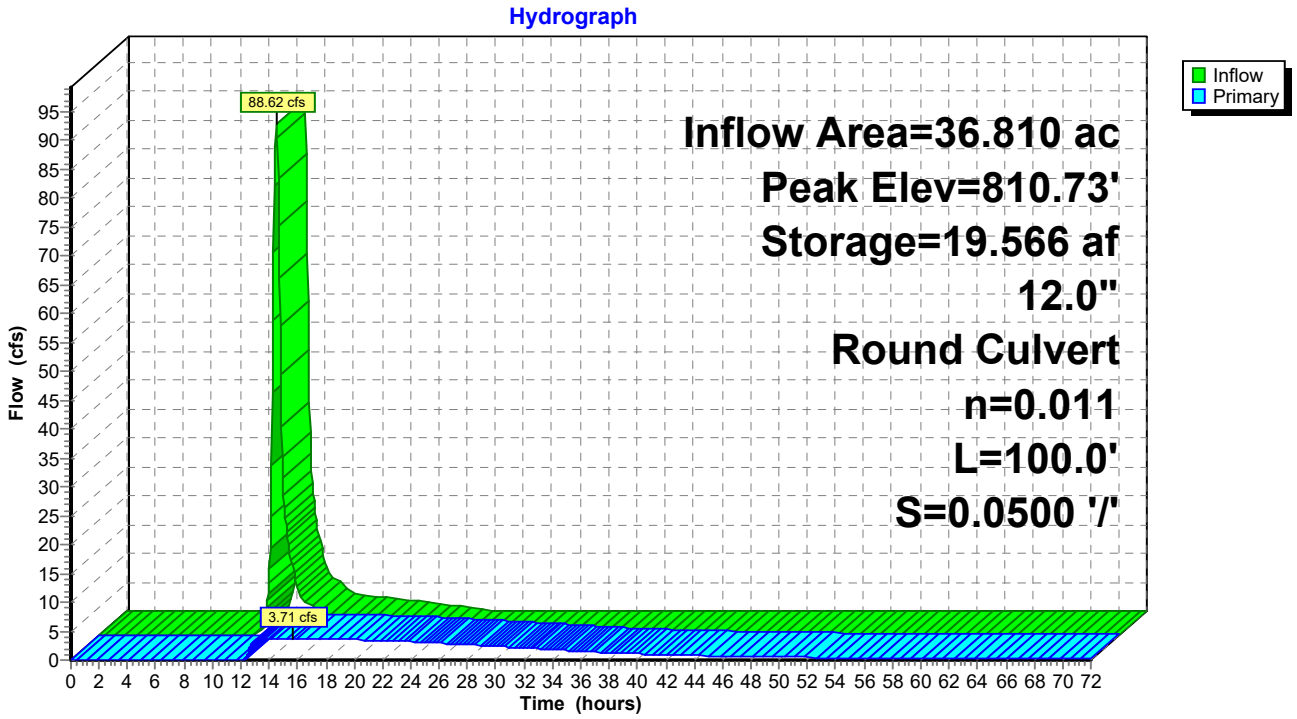
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 858.5 min (1,700.0 - 841.5)

Volume	Invert	Avail.Storage	Storage Description
#1	804.00'	31.525 af	**115.00'W x 915.00'L x 10.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	809.00'	**12.0" Round Culvert** L= 100.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 809.00' / 804.00' S= 0.0500 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=3.71 cfs @ 15.69 hrs HW=810.73' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.71 cfs @ 4.72 fps)

Pond 5P: N Pond



Summary for Pond 12P: W Pond

[81] Warning: Exceeded Pond 22P by 0.39' @ 16.30 hrs

Inflow Area =	38.930 ac,	0.00% Impervious,	Inflow Depth =	2.60"	for 25 Yr-24 Hr event
Inflow =	99.04 cfs @	12.51 hrs,	Volume=	8.427 af	
Outflow =	4.08 cfs @	15.61 hrs,	Volume=	8.257 af,	Atten= 96%, Lag= 185.9 min
Primary =	4.08 cfs @	15.61 hrs,	Volume=	8.257 af	

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 805.75' Surf.Area= 1.391 ac Storage= 3.568 af
Peak Elev= 809.62' @ 15.61 hrs Surf.Area= 1.675 ac Storage= 9.500 af (5.932 af above start)

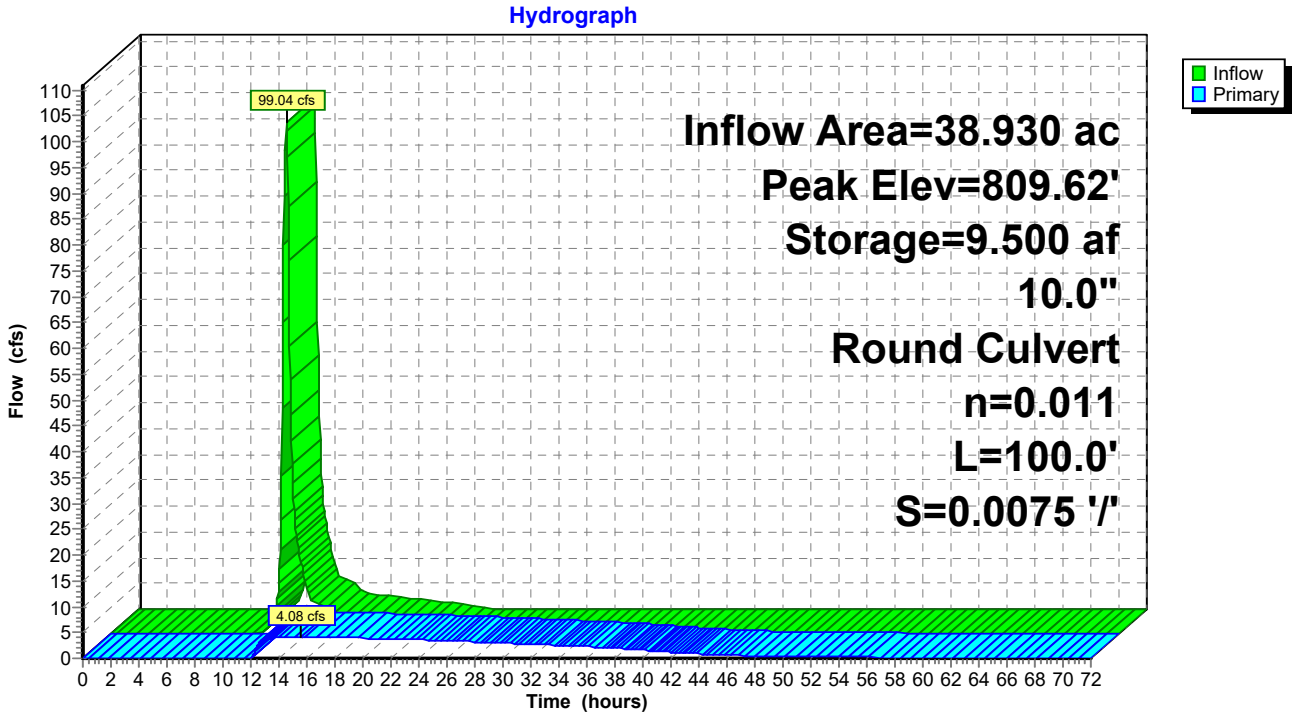
Plug-Flow detention time= 1,297.5 min calculated for 4.689 af (56% of inflow)
Center-of-Mass det. time= 786.4 min (1,625.2 - 838.8)

Volume	Invert	Avail.Storage	Storage Description
#1	803.00'	11.877 af	**175.00'W x 300.00'L x 8.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	805.75'	**10.0" Round Culvert** L= 100.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 805.75' / 805.00' S= 0.0075 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.55 sf

Primary OutFlow Max=4.08 cfs @ 15.61 hrs HW=809.62' (Free Discharge)
└─**1=Culvert** (Barrel Controls 4.08 cfs @ 7.48 fps)

Pond 12P: W Pond



Summary for Pond 13P: SE Pond

Inflow Area = 1.870 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af
Outflow = 2.00 cfs @ 12.79 hrs, Volume= 0.404 af, Atten= 60%, Lag= 23.2 min
Primary = 2.00 cfs @ 12.79 hrs, Volume= 0.404 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 807.00' Surf.Area= 0.184 ac Storage= 0.445 af
Peak Elev= 807.79' @ 12.79 hrs Surf.Area= 0.205 ac Storage= 0.598 af (0.153 af above start)

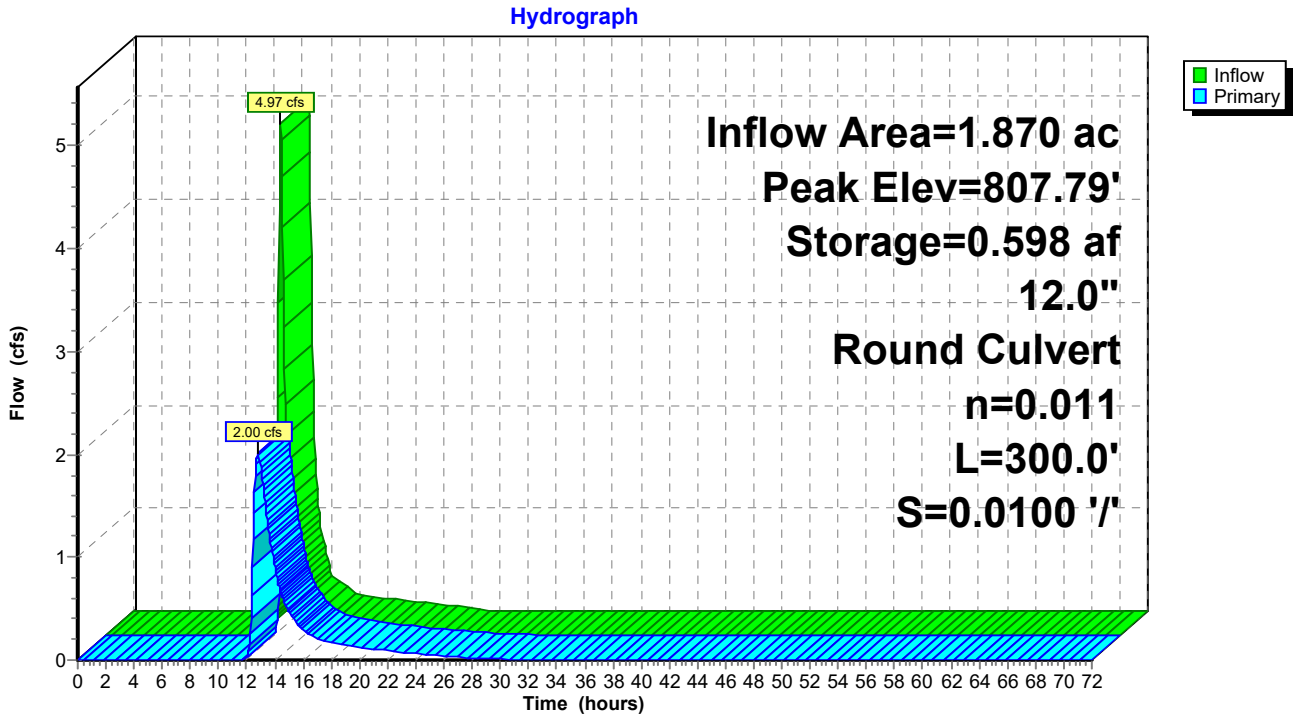
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 115.3 min (948.7 - 833.3)

Volume	Invert	Avail.Storage	Storage Description
#1	804.00'	1.720 af	**50.00'W x 100.00'L x 8.00'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	807.00'	**12.0" Round RCP_Round 12"** L= 300.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 807.00' / 804.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=2.00 cfs @ 12.79 hrs HW=807.79' (Free Discharge)
└─**1=RCP_Round 12"** (Inlet Controls 2.00 cfs @ 3.02 fps)

Pond 13P: SE Pond



Summary for Pond 22P: Outer CB MH

[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 38.930 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 98.78 cfs @ 12.52 hrs, Volume= 8.427 af
Outflow = 99.04 cfs @ 12.51 hrs, Volume= 8.427 af, Atten= 0%, Lag= 0.0 min
Primary = 99.04 cfs @ 12.51 hrs, Volume= 8.427 af
Routed to Pond 12P : W Pond

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 814.12' @ 12.51 hrs Surf.Area= 0.002 ac Storage= 0.010 af

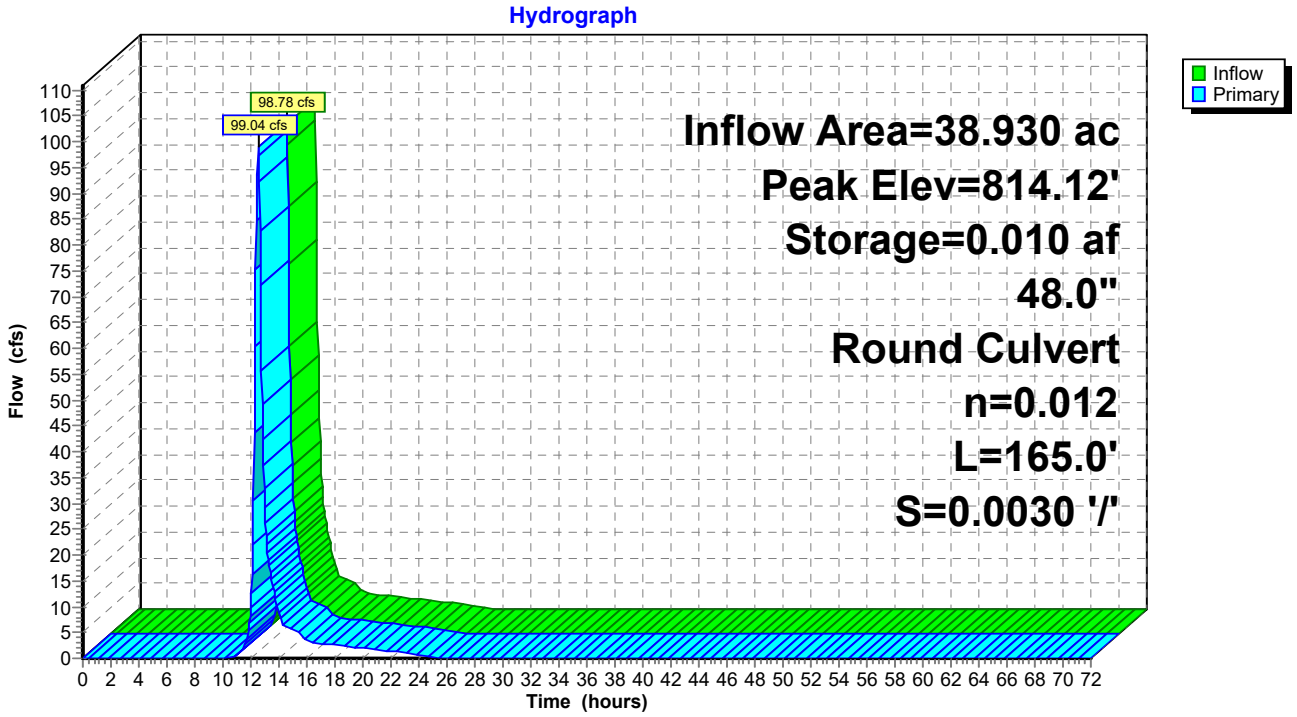
Plug-Flow detention time= 0.2 min calculated for 8.421 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (838.8 - 838.6)

Volume	Invert	Avail.Storage	Storage Description
#1	808.50'	0.015 af	**10.00'D x 8.50'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	808.50'	**48.0" Round Culvert** L= 165.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 808.50' / 808.00' S= 0.0030 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf

Primary OutFlow Max=98.36 cfs @ 12.51 hrs HW=814.09' (Free Discharge)
└─**1=Culvert** (Barrel Controls 98.36 cfs @ 7.83 fps)

Pond 22P: Outer CB MH



Summary for Pond 24P: SE CB

[57] Hint: Peaked at 816.96' (Flood elevation advised)
[79] Warning: Submerged Pond 29P Primary device # 1 by 0.96'

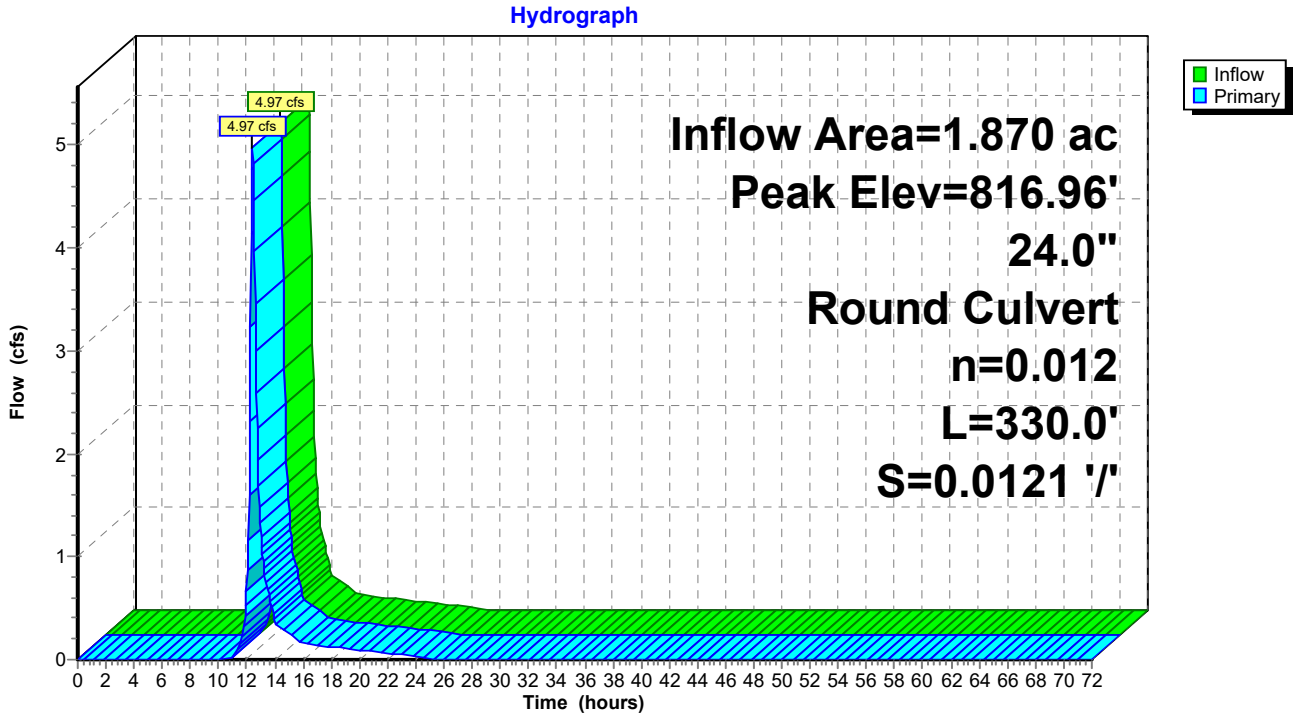
Inflow Area = 1.870 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af
Outflow = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af, Atten= 0%, Lag= 0.0 min
Primary = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af
Routed to Pond 13P : SE Pond

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 816.96' @ 12.40 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	816.00'	**24.0" Round Culvert** L= 330.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 816.00' / 812.00' S= 0.0121 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=4.96 cfs @ 12.40 hrs HW=816.96' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.96 cfs @ 3.33 fps)

Pond 24P: SE CB



Summary for Pond 25P: N CB MH

[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 36.810 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af
Outflow = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af, Atten= 0%, Lag= 0.0 min
Primary = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af
Routed to Pond 5P : N Pond

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 817.19' @ 12.52 hrs Surf.Area= 0.001 ac Storage= 0.002 af

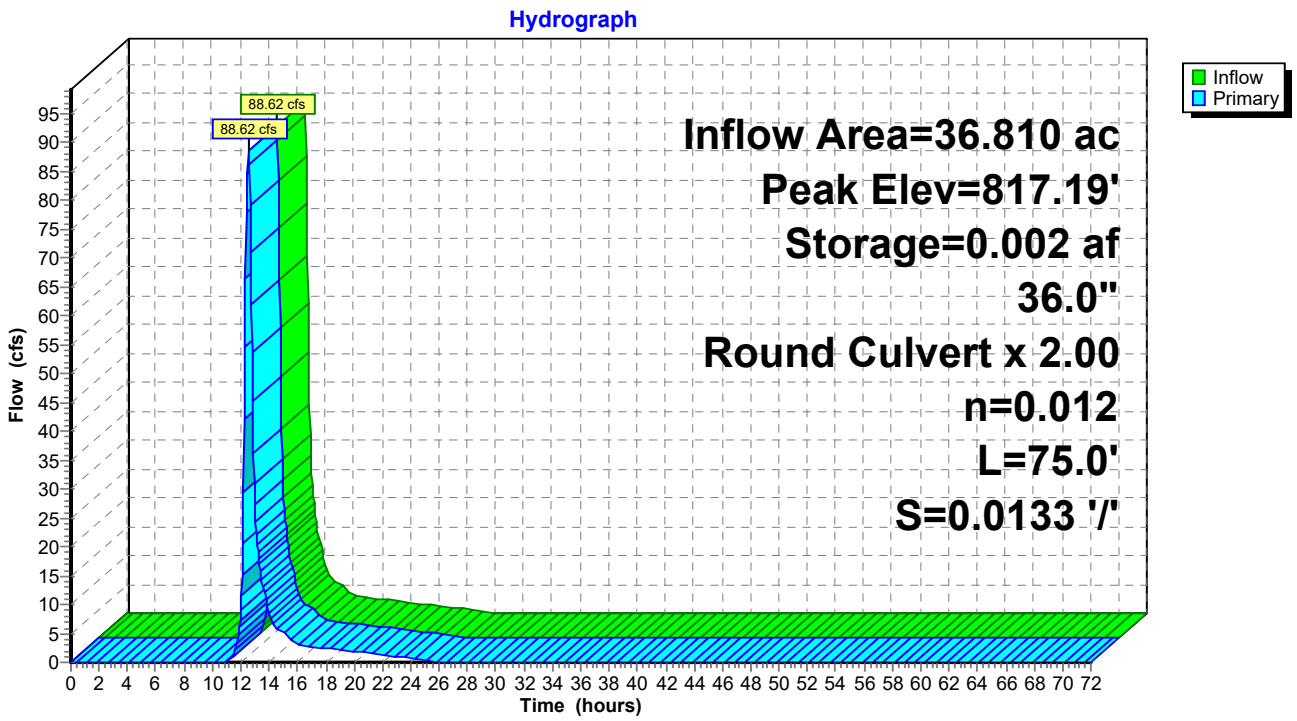
Plug-Flow detention time= 0.0 min calculated for 7.963 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (841.5 - 841.4)

Volume	Invert	Avail.Storage	Storage Description
#1	814.00'	0.005 af	**6.00'D x 8.00'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	814.00'	**36.0" Round Culvert X 2.00** L= 75.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 814.00' / 813.00' S= 0.0133 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=88.15 cfs @ 12.52 hrs HW=817.18' (Free Discharge)
└**1=Culvert** (Inlet Controls 88.15 cfs @ 6.24 fps)

Pond 25P: N CB MH



Summary for Pond 26P: SW CB Berm Ponding Area

[62] Hint: Exceeded Reach 26R OUTLET depth by 1.41' @ 12.45 hrs
[62] Hint: Exceeded Reach 27R OUTLET depth by 0.91' @ 12.45 hrs

Inflow Area = 26.980 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 73.36 cfs @ 12.42 hrs, Volume= 5.840 af
Outflow = 73.07 cfs @ 12.43 hrs, Volume= 5.840 af, Atten= 0%, Lag= 0.8 min
Primary = 73.07 cfs @ 12.43 hrs, Volume= 5.840 af
Routed to Reach 28R : SW Downslope Pipe

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 832.64' @ 12.43 hrs Storage= 4,020 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2.3 min (834.3 - 832.0)

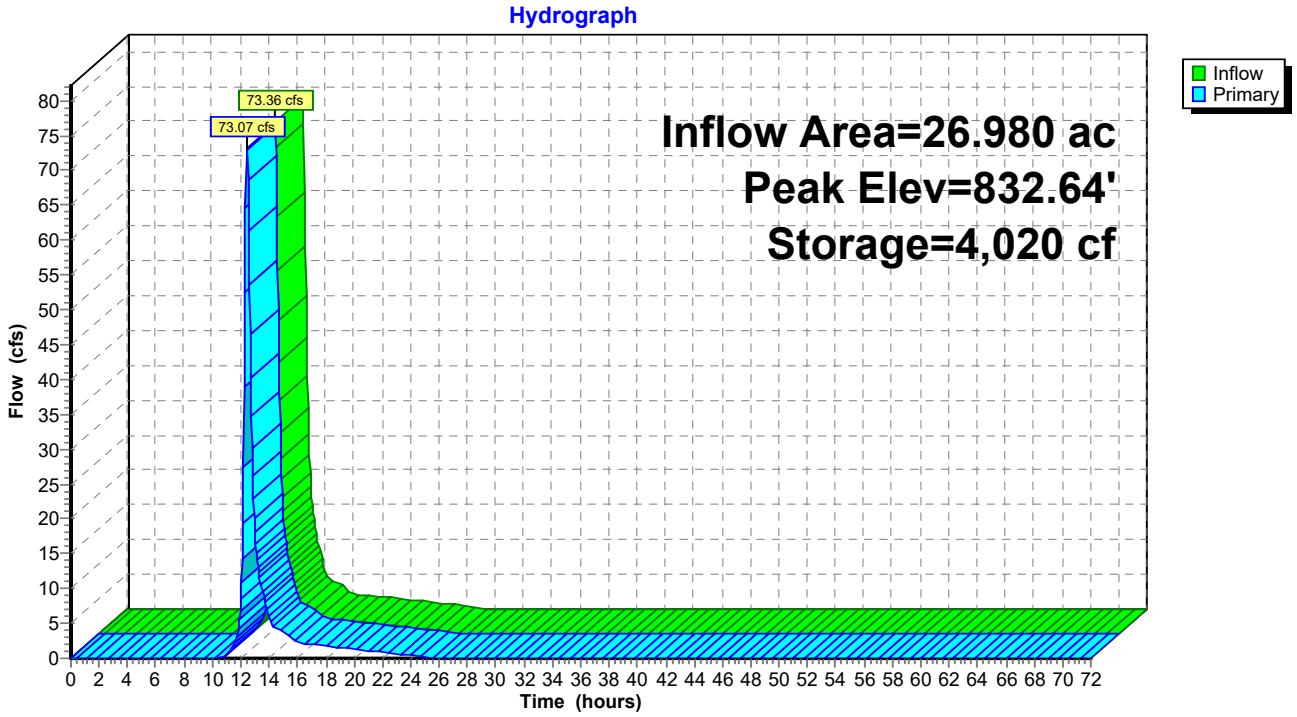
Volume	Invert	Avail.Storage	Storage Description
#1	830.00'	4,560 cf	**Berm Ponding Storage** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
830.00	0	0
833.00	4,560	4,560

Device	Routing	Invert	Outlet Devices
#1	Primary	830.00'	**36.0" Vert. CB Inlet Grate X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=72.51 cfs @ 12.43 hrs HW=832.63' (Free Discharge)
└─**1=CB Inlet Grate** (Orifice Controls 72.51 cfs @ 5.52 fps)

Pond 26P: SW CB Berm Ponding Area



Summary for Pond 27P: Outer CB Berm Ponding Area

[62] Hint: Exceeded Reach 10R OUTLET depth by 2.25' @ 12.50 hrs
[64] Warning: Exceeded Reach 10R outlet bank by 0.16' @ 12.52 hrs
[62] Hint: Exceeded Reach 11R OUTLET depth by 1.43' @ 12.55 hrs
[64] Warning: Exceeded Reach 11R outlet bank by 0.16' @ 12.52 hrs
[62] Hint: Exceeded Reach 28R OUTLET depth by 2.96' @ 12.50 hrs

Inflow Area = 38.930 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 102.70 cfs @ 12.46 hrs, Volume= 8.427 af
Outflow = 98.78 cfs @ 12.52 hrs, Volume= 8.427 af, Atten= 4%, Lag= 3.1 min
Primary = 98.78 cfs @ 12.52 hrs, Volume= 8.427 af
Routed to Pond 22P : Outer CB MH

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 819.66' @ 12.52 hrs Storage= 8,909 cf

Plug-Flow detention time= 1.6 min calculated for 8.427 af (100% of inflow)
Center-of-Mass det. time= 1.6 min (838.6 - 837.0)

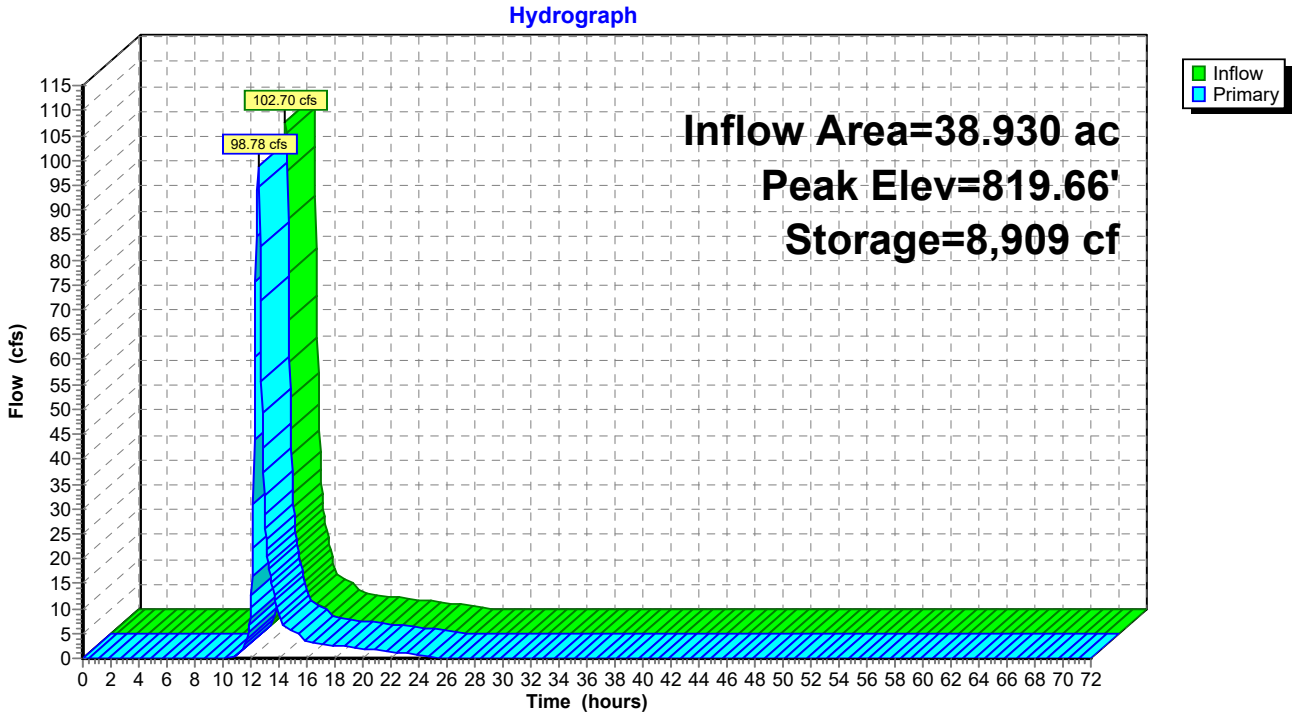
Volume	Invert	Avail.Storage	Storage Description
#1	817.00'	10,250 cf	**Berm Ponding Area** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
817.00	0	0
818.25	3,250	3,250
820.00	7,000	10,250

Device	Routing	Invert	Outlet Devices
#1	Primary	817.00'	**48.0" Horiz. CB Inlet Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=98.18 cfs @ 12.52 hrs HW=819.63' (Free Discharge)
└─**1=CB Inlet Grate** (Orifice Controls 98.18 cfs @ 7.81 fps)

Pond 27P: Outer CB Berm Ponding Area



Summary for Pond 28P: N CB Berm Ponding Area

Inflow Area = 36.810 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 100.26 cfs @ 12.43 hrs, Volume= 7.968 af
Outflow = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af, Atten= 12%, Lag= 5.8 min
Primary = 88.62 cfs @ 12.52 hrs, Volume= 7.968 af
Routed to Pond 25P : N CB MH

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 825.19' @ 12.52 hrs Storage= 28,089 cf

Plug-Flow detention time= 9.6 min calculated for 7.968 af (100% of inflow)
Center-of-Mass det. time= 9.1 min (841.4 - 832.3)

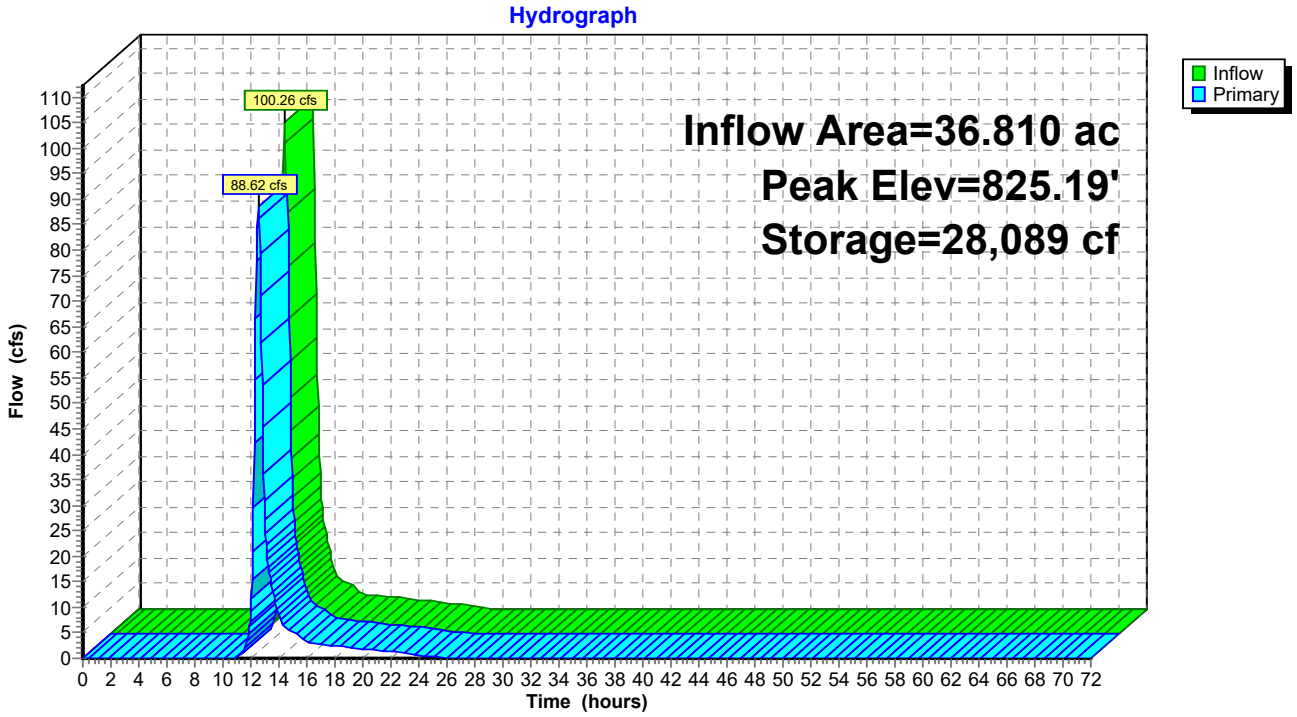
Volume	Invert	Avail.Storage	Storage Description
#1	822.00'	38,400 cf	**Outer Berm Ponding Area** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
822.00	0	0
824.00	12,800	12,800
826.00	25,600	38,400

Device	Routing	Invert	Outlet Devices
#1	Primary	822.00'	**36.0" Vert. CB Inlet Grate X 2.00** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=88.14 cfs @ 12.52 hrs HW=825.18' (Free Discharge)
└─**1=CB Inlet Grate** (Orifice Controls 88.14 cfs @ 6.23 fps)

Pond 28P: N CB Berm Ponding Area



Summary for Pond 29P: SE CB Berm Ponding Area

[44] Hint: Outlet device #1 is below defined storage
[61] Hint: Exceeded Reach 14R outlet invert by 0.01' @ 12.40 hrs
[61] Hint: Exceeded Reach 15R outlet invert by 0.01' @ 12.40 hrs

Inflow Area = 1.870 ac, 0.00% Impervious, Inflow Depth = 2.60" for 25 Yr-24 Hr event
Inflow = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af
Outflow = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af, Atten= 0%, Lag= 0.1 min
Primary = 4.97 cfs @ 12.40 hrs, Volume= 0.405 af
Routed to Pond 24P : SE CB

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 818.01' @ 12.40 hrs Storage= 16 cf

Plug-Flow detention time= 0.1 min calculated for 0.405 af (100% of inflow)
Center-of-Mass det. time= 0.1 min (833.3 - 833.3)

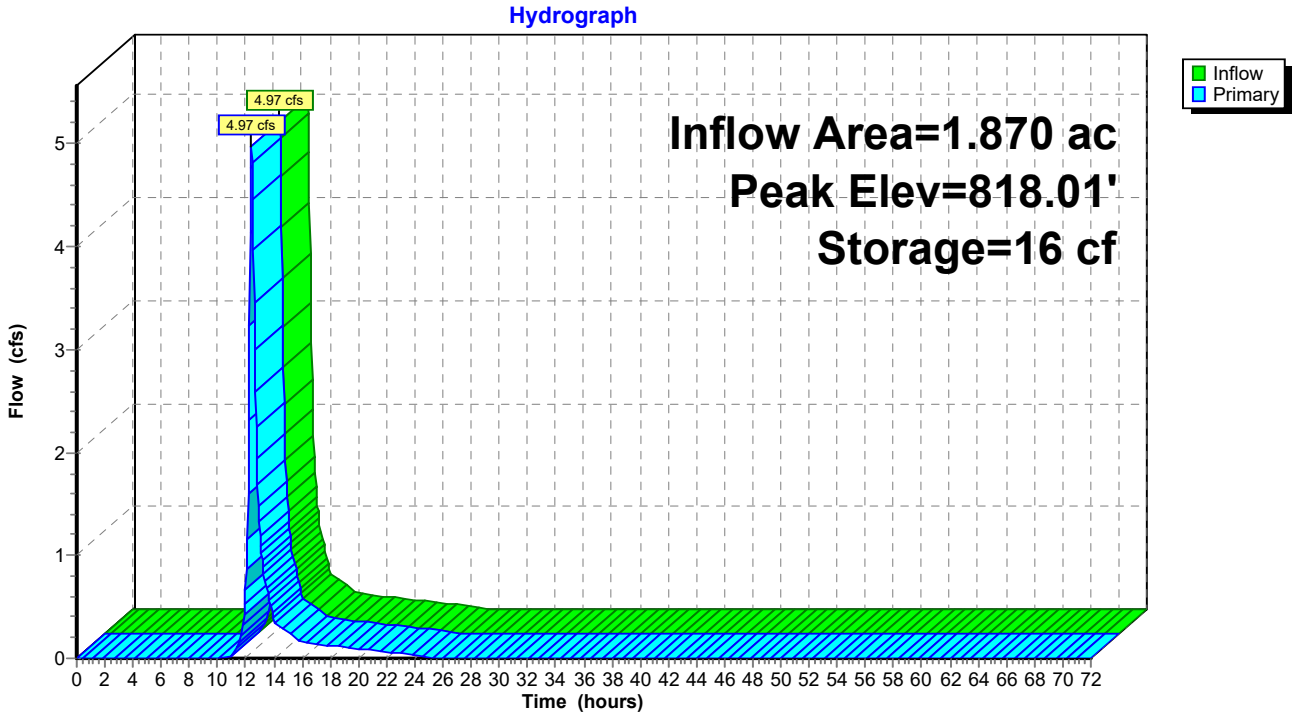
Volume	Invert	Avail.Storage	Storage Description
#1	818.00'	7,200 cf	**Berm Ponding Storage** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
818.00	0	0
819.00	2,400	2,400
820.00	4,800	7,200

Device	Routing	Invert	Outlet Devices
#1	Primary	816.00'	**24.0" Vert. CB Inlet Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=15.18 cfs @ 12.40 hrs HW=818.01' (Free Discharge)
└─**1=CB Inlet Grate** (Orifice Controls 15.18 cfs @ 4.83 fps)

Pond 29P: SE CB Berm Ponding Area



Stantec

Memo

To:	File	From:	Kyle Morberg, PE – Stantec
File:	227708930	Date:	September 17, 2026

Re: Hydraulic Efficiency Analysis for Dem-Con Pilgrim Base Liner System and Final Cover

This memorandum was prepared to present the hydraulic efficiency of the proposed base liner and cover systems for the Dem-Con Pilgrim Landfill (facility or landfill) as presented in the construction plans and specifications provided with this Major Permit Modification request.

To evaluate the performance of the proposed liner system, Stantec performed water balance calculations to illustrate the hydraulic efficiency the profiles. The water balance was calculated using the Hydrologic Evaluation of Landfill Performance (HELP) model, Version 4.0.1, developed for the United States Environmental Protection Agency (EPA). The HELP model, although limited in its use as a quantitative model, is generally used more as a qualitative model for determining landfill performance efficiencies or in this case, the base liner and cover system efficiency. In addition, the HELP model was completed to calculate if the proposed leachate collection pipe layout would maintain less than 1-foot of head on the base liner system during operations and less than 1-foot of head on the cover system during closed conditions. Furthermore, in one area of the landfill, it is proposed to exceed the 100-foot maximum leachate drainage length on the base liner to facilitate tie-in of an overlay system. This scenario was also evaluated and compared to the maximum 1-foot of head requirement.

There were several profiles and scenarios evaluated, including:

1. Scenario 1 – Closed Conditions (3% Slope, 800-foot length) with final cover over 70-feet of waste.
    a. Cover with 6-inches of buffer soil, 40-mil LLDPE geomembrane, 12-inches of drainage layer, 6-inches of rooting zone, and 6-inches of topsoil. Good grass established.
    b. Base liner system as defined in Scenario 2.
2. Scenario 2 - Landfill Floor (2% Slope, 100-foot length), open conditions with 2-feet & 25-feet of waste (2A & 2B)
    a. 6-inches buffer soil, overlain by geocomposite clay liner (GCL), 60-mil HDPE geomembrane and 12-inches of drainage layer sand.
3. Scenario 3 - Landfill Floor (5% Slope, 330-foot length), open conditions with 2-feet & 25-feet of waste (3A & 3B)
    a. 6-inches buffer soil, overlain by GCL, 60-mil HDPE geomembrane and 12-inches of drainage layer sand.

For the open landfill, the HELP model was used to illustrate performance of the base liner system based on the minimum specification requirements for materials as well as using estimated soil and geosynthetic barrier layer parameters included within the HELP model. The simulated conditions were for one acre so that output could easily be extrapolated on a per acre basis. It was assumed that 0% of the modeled area was subject to runoff to simulate open landfill conditions. For closed conditions, 100% of the modeled area was subject to runoff.

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

LINER SYSTEM SOIL DESCRIPTION

The base liner system is illustrated as Figure 1 while the cover system is shown as Figure 2.

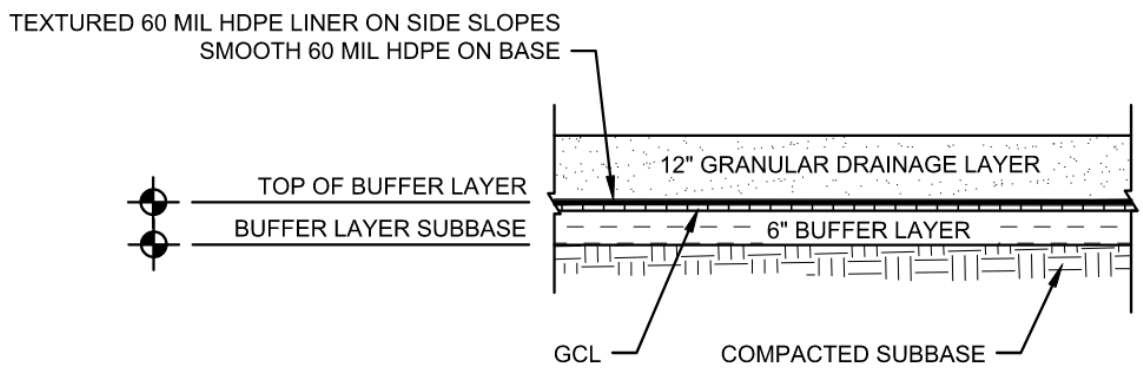


Figure 1: Base Liner System

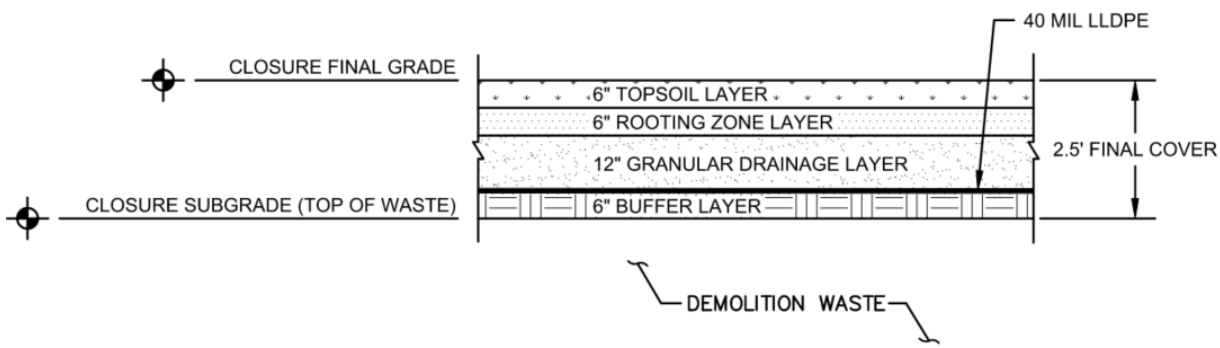


Figure 2: Cover System

HELP MODEL INPUTS

Weather and Solar Data

Synthetic climatological input values were created utilizing the Synthetic Weather Generation (WGEN) program within HELP v4.0.1. Weather parameter values used in WGEN are imported from a database of calculated weather parameters for over 13,000 points located on a 0.25 x 0.25 degree grid across the continental U.S. The program retrieves parameter values from the closest grid point in the dataset based on the latitude and longitude specified for the landfill location. For this site, a latitude of 44.13 and a longitude of 93.98 was used (located in Mankato, MN). The climatological simulation was performed over a period of 5 years. The average amount of rainfall in the 5-year period is 31.43-inches. Year 4 in the model had a total rainfall amount of 37.76-inches, which is greater than 20% of the annual average precipitation as required by MN Rule 7035.2815 Subp 9. C. and D. A leaf area index of 0 was utilized for the open conditions to model bare soil, while an index of 1 was used for closed conditions with turf established.

Soil and Design

Soil types for the liner systems were selected for modeling based on review of project specifications and visual classification from field observations. The layering used in the HELP model for the assessed profiles are shown in Table 1. Soil parameters for the granular drainage layer are assumed based on typical regional soils as well as an assumed permeability of 1 x 10^{-3} cm/sec to align with material specifications. Parameters for the industrial waste layer were manually entered based conditions of typical industrial waste. The GCL was assumed to have a permeability of 3 x 10^{-9} cm/sec permeability based on material specifications.

Open conditions (no final cover) were simulated assuming 2-feet of waste on top of the base liner system with 6" of daily cover soil to model worst-case conditions where the first waste lift was placed in the cell upon beginning filling activities for frost protection. Typical open operational conditions were also modeled with a 25-foot waste thickness. Closed conditions were modeled on the shallowest slope surface with the longest drainage length as a worst-case. A runoff curve number of 74 was manually entered for closed conditions as this value was utilized for the facility stormwater calculations in areas with grass coverage.

Table 1: Soil Layers Used in HELP Model

Layer number	Description	Thickness	Standard HELP Layer Soil Characteristics
Profile 1 – Closed Conditions, 70-feet Waste, 3% Cover Slope and 800-foot Drainage Length			
1	Cover Soil	6"	Silty Clay Loam
2	Rooting Zone	6"	Sandy Loam
3	Drainage Sand	12"	Sand (Assumed 1 x 10^{-3} cm/sec permeability)
4	Liner	40-mil	LLDPE Geomembrane (2 defects & pinholes /ac)
5	Buffer Soil	6"	Silty Clay Loam
6	Waste	840"	Industrial Waste
7	Drainage Sand	12"	Sand (Water collected in this layer is routed to leachate collection system; Assumed 1 x 10^{-3} cm/sec permeability)
8	Geomembrane	60-mil	HDPE (2 defects & pinholes /ac)
9	GCL	0.25"	Bentonite (Assumed 3 x 10^{-9} cm/sec permeability)
10	Buffer Layer	6"	Silty Clay (Moderate)
Profile 2– Open Condition, 2-feet (2A) or 25-feet Waste (2B), 2% Floor Slope and 100-foot Drainage Length			
1	Buffer Soil	6"	Silty Clay Loam
2	Waste	24" or 300"	Industrial Waste
3	Drainage Sand	12"	Sand (Water collected in this layer is routed to leachate collection system; Assumed 1 x 10^{-3} cm/sec permeability)
4	Geomembrane	60-mil	HDPE (2 defects & pinholes /ac)
5	GCL	0.25"	Bentonite (Assumed 3 x 10^{-9} cm/sec permeability)
6	Buffer Layer	6"	Silty Clay (Moderate)
Profile 3 – Open Condition, 2-feet (3A) or 25-feet Waste (3B), 5% Floor Slope and 330-foot Drainage Length			
1	Buffer Soil	6"	Silty Clay Loam

2	Waste	24” or 300”	Industrial Waste
3	Drainage Sand	12”	Sand (Water collected in this layer is routed to leachate collection system; Assumed 1 x 10^{-3} cm/sec permeability)
4	Geomembrane	60-mil	HDPE (2 defects & pinholes /ac)
5	GCL	0.25”	Bentonite (Assumed 3 x 10^{-9} cm/sec permeability)
6	Buffer Layer	6”	Silty Clay (Moderate)

MODEL RESULTS

The results of the HELP model simulations for each of the profiles can be found in Attachments 1-3. Table 2 summarizes the HELP model results under average annual conditions for the 5-year period. The percentage identified for the efficiency is based on leakage through the bottom-most liner layer, or in the case of the final cover, total efficiency of the closed landfill.

Table 2: HELP Model Outputs (Cover)

Profile	Liner Efficiency (%)	Average Head on Base Liner (inches)	Average Head on Cover Liner (inches)
Closed Condition, 3% Cover Slope and 800-foot Drainage Length			
1	>99.9	<0.01	0.15
Open Condition, 2% Floor Slope, 100-foot drainage length			
2A – 24-inches waste	>99.9	9.19	N/A
2B – 300-inches waste	>99.9	1.03	N/A
Open Condition, 5% Floor Slope, 330-foot drainage length			
3A – 24-inches waste	>99.9	11.03	N/A
3B – 300-inches waste	>99.9	1.13	N/A

SUMMARY

The proposed base liner design exceeds MPCA design standards prescribed in MN Rule 7035.2815. Note that per MN Rule 7035.2815 Subp 7.A, this expected performance also exceeds the standards for closure of an MSW disposal facility which requires rejection of 98.5% of precipitation when considering the cover and base liner system. Based on the HELP Model results for the systems described above, the actual performance of the proposed base liner system on the slope is expected to exceed this minimum value.

Furthermore, the maximum head on the base liner under average annual conditions is predicted to be maintained at less than 1-foot as required by the facility Solid Waste Permit. This indicates that the maximum drainage length of 100-feet on the cell floor with a 2% slope and 330-feet with a 5% slope prior to leachate entering a collection pipe is adequate. In addition, results for each individual year in the simulation were reviewed and all scenarios except 3A with 2-feet of waste on the liner met head on the liner requirements. This scenario represents an absolute worst-case and is not indicative of typical operations. Scenario 3B with 25-feet of waste did meet the head on the liner requirements indicating that during the typical operational life of the facility, less than 12-inches of head will be maintained in all areas. The 3% slope with a 800-foot drainage length on the cover system is also adequate to maintain less than 1-foot of head on the cover liner.

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

ATTACHMENT 1

HELP Output Scenario 1 – Closed Conditions 3% Cover Slope and 800-foot drainage length

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

ATTACHMENT 2A

HELP Output Scenario 2A -Open Conditions 2% Floor and 100-foot drainage length, 24-inches waste

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

ATTACHMENT 2B

HELP Output Scenario 2B - Open Conditions 2% Floor and 100-foot drainage length, 300-inches waste

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

ATTACHMENT 3A

HELP Output Scenario 3A - Open Conditions 5% Floor and 330-foot drainage length, 24-inches waste

Reference: Hydraulic Efficiency Analysis for Pilgrim Landfill

ATTACHMENT 3B

HELP Output Scenario 3B - Open Conditions 5% Floor and 330-foot drainage length, 300-inches waste

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HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
HELP MODEL VERSION 4.0 BETA (2018)
DEVELOPED BY USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY

Title: Pilgrim Landfill **Simulated On:** 9/17/2026 9:18

Layer 1

Type 1 - Vertical Percolation Layer (Cover Soil)
SiCL - Silty Clay Loam (Moderate)
Material Texture Number 26

Thickness	=	6	inches
Porosity	=	0.445	vol/vol
Field Capacity	=	0.393	vol/vol
Wilting Point	=	0.277	vol/vol
Initial Soil Water Content	=	0.3191	vol/vol
Effective Sat. Hyd. Conductivity	=	1.90E-06	cm/sec

Layer 2

Type 1 - Vertical Percolation Layer
SL - Sandy Loam
Material Texture Number 6

Thickness	=	6	inches
Porosity	=	0.453	vol/vol
Field Capacity	=	0.19	vol/vol
Wilting Point	=	0.085	vol/vol
Initial Soil Water Content	=	0.085	vol/vol
Effective Sat. Hyd. Conductivity	=	7.20E-04	cm/sec

Layer 3

Type 2 - Lateral Drainage Layer
Sand
Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.0454	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	3	%
Drainage Length	=	800	ft

Layer 4

Type 4 - Flexible Membrane Liner

LDPE Membrane

Material Texture Number 36

Thickness	=	0.04	inches
Effective Sat. Hyd. Conductivity	=	4.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 5

Type 1 - Vertical Percolation Layer

SL - Sandy Loam

Material Texture Number 6

Thickness	=	6	inches
Porosity	=	0.453	vol/vol
Field Capacity	=	0.19	vol/vol
Wilting Point	=	0.085	vol/vol
Initial Soil Water Content	=	0.19	vol/vol
Effective Sat. Hyd. Conductivity	=	7.20E-04	cm/sec

Layer 6

Type 1 - Vertical Percolation Layer (Waste)

Industrial Waste

Material Texture Number 83

Thickness	=	840	inches
Porosity	=	0.578	vol/vol
Field Capacity	=	0.076	vol/vol
Wilting Point	=	0.025	vol/vol
Initial Soil Water Content	=	0.076	vol/vol
Effective Sat. Hyd. Conductivity	=	4.10E-03	cm/sec

Layer 7

Type 2 - Lateral Drainage Layer

Sand

Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.062	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	2	%
Drainage Length	=	100	ft

Layer 8

Type 4 - Flexible Membrane Liner

HDPE Membrane

Material Texture Number 35

Thickness	=	0.06	inches
Effective Sat. Hyd. Conductivity	=	2.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 9

Type 1 - Vertical Percolation Layer

GCL

Material Texture Number 43

Thickness	=	0.25	inches
Porosity	=	0.75	vol/vol
Field Capacity	=	0.747	vol/vol
Wilting Point	=	0.4	vol/vol
Initial Soil Water Content	=	0.6552	vol/vol
Effective Sat. Hyd. Conductivity	=	3.00E-09	cm/sec

Layer 10

Type 1 - Vertical Percolation Layer

SiC - Silty Clay (Moderate)

Material Texture Number 28

Thickness	=	6	inches
Porosity	=	0.452	vol/vol
Field Capacity	=	0.411	vol/vol
Wilting Point	=	0.311	vol/vol
Initial Soil Water Content	=	0.3723	vol/vol
Effective Sat. Hyd. Conductivity	=	1.20E-06	cm/sec

Note: Initial moisture content of the layers and snow water were computed as nearly steady-state values by HELP.

General Design and Evaporative Zone Data

SCS Runoff Curve Number	=	74	
Fraction of Area Allowing Runoff	=	100	%
Area projected on a horizontal plane	=	1	acres
Evaporative Zone Depth	=	18	inches
Initial Water in Evaporative Zone	=	2.569	inches
Upper Limit of Evaporative Storage	=	8.01	inches
Lower Limit of Evaporative Storage	=	2.316	inches
Initial Snow Water	=	0	inches
Initial Water in Layer Materials	=	71.117	inches
Total Initial Water	=	71.117	inches

Total Subsurface Inflow	=	0	inches/year

Note: SCS Runoff Curve Number was User-Specified.

Evapotranspiration and Weather Data

Station Latitude	=	44.13	Degrees
Maximum Leaf Area Index	=	1	
Start of Growing Season (Julian Date)	=	124	days
End of Growing Season (Julian Date)	=	182	days
Average Wind Speed	=	11	mph
Average 1st Quarter Relative Humidity	=	65	%
Average 2nd Quarter Relative Humidity	=	65	%
Average 3rd Quarter Relative Humidity	=	62	%
Average 4th Quarter Relative Humidity	=	65	%

Note: Evapotranspiration data was obtained for Mankato, Minnesota

Normal Mean Monthly Precipitation (inches)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
0.683107	0.60023	1.856155	3.092133	4.531518	6.501913
4.867874	3.191535	2.613059	1.132846	1.140449	1.223736

Note: Precipitation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Normal Mean Monthly Temperature (Degrees Fahrenheit)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
20.6	20.2	36	56.7	62.8	76.6
82.4	78.5	81.4	49.6	38.6	32.4

Note: Temperature was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98
Solar radiation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Daily Output for Year 1

Column key: Head #1: drainage from Layer 4 | Head #2: drainage from Layer 8
Drain #1: drainage from Layer 3 | Drain #2: drainage from Layer 7
Leak #1: leakage thru Layer 4 | Leak #2: leakage thru Layer 8 | Leak #3: leakage thru Layer 10

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:19

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)	Head #3 (inches)	Drain #3 (inches)	Leak #3 (inches)
1	*	*	0.00	0.000	0.004	0.1427	0.0767	0.0000	1.09E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.16E-04
2	*	*	0.00	0.000	0.000	0.1427	0.0764	0.0000	1.08E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.15E-04
3	*	*	0.00	0.000	0.000	0.1427	0.0761	0.0000	1.08E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.15E-04
4	*	*	0.00	0.000	0.000	0.1427	0.0757	0.0000	1.07E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.14E-04
5	*	*	0.00	0.000	0.000	0.1427	0.0754	0.0000	1.07E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.14E-04
6	*	*	0.00	0.000	0.000	0.1427	0.0751	0.0000	1.07E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.13E-04
7	*	*	0.00	0.000	0.000	0.1427	0.0747	0.0000	1.06E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.12E-04
8	*	*	0.00	0.000	0.000	0.1427	0.0744	0.0000	1.06E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	2.12E-04
9	*	*	0.13	0.000	0.003	0.1427	0.0741	0.0000	1.06E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.11E-04
10	*	*	0.01	0.000	0.006	0.1427	0.0738	0.0000	1.05E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.11E-04
11	*	*	0.03	0.000	0.003	0.1427	0.0734	0.0000	1.05E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.10E-04
12	*	*	0.00	0.000	0.005	0.1427	0.0731	0.0000	1.05E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.10E-04
13	*	*	0.00	0.000	0.026	0.1427	0.0728	0.0000	1.04E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.09E-04
14	*	*	0.00	0.000	0.034	0.1427	0.0725	0.0000	1.04E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.09E-04
15	*	*	0.00	0.000	0.016	0.1427	0.0722	0.0000	1.04E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.08E-04
16	*	*	0.00	0.000	0.008	0.1427	0.0719	0.0000	1.03E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.08E-04
17	*	*	0.00	0.000	0.004	0.1427	0.0715	0.0000	1.03E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.07E-04
18	*	*	0.00	0.000	0.003	0.1427	0.0712	0.0000	1.03E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.07E-04
19	*	*	0.00	0.000	0.004	0.1427	0.0709	0.0000	1.02E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.06E-04
20	*	*	0.00	0.000	0.023	0.1427	0.0706	0.0000	1.02E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.06E-04
21	*	*	0.00	0.000	0.009	0.1427	0.0703	0.0000	1.02E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.05E-04
22	*	*	0.06	0.000	0.019	0.1427	0.0700	0.0000	1.01E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.05E-04
23	*	*	0.03	0.000	0.020	0.1427	0.0697	0.0000	1.01E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.04E-04
24	*	*	0.02	0.000	0.000	0.1427	0.0694	0.0000	1.01E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.04E-04
25	*	*	0.00	0.000	0.025	0.1427	0.0691	0.0000	1.00E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.03E-04
26	*	*	0.00	0.000	0.023	0.1427	0.0687	0.0000	9.98E-05	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.03E-04
27	*	*	0.13	0.000	0.022	0.1427	0.0684	0.0000	9.95E-05	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.02E-04
28	*	*	0.02	0.000	0.010	0.1427	0.0681	0.0000	9.92E-05	0.0006	0.0000	6.98E-09	0.0000	0.0000	2.02E-04
29	*	*	0.00	0.000	0.020	0.1427	0.0678	0.0000	9.88E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	2.01E-04
30	*	*	0.00	0.000	0.018	0.1427	0.0675	0.0000	9.85E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	2.01E-04

31	*	*	0.05	0.000	0.000	0.1427	0.0672	0.0000	9.82E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	2.00E-04
32	*	*	0.00	0.000	0.013	0.1427	0.0669	0.0000	9.78E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	2.00E-04
33	*	*	0.00	0.000	0.024	0.1427	0.0666	0.0000	9.75E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.99E-04
34		*	0.00	0.000	0.045	0.1479	0.0663	0.0000	9.72E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.99E-04
35		*	0.00	0.000	0.000	0.1479	0.0660	0.0000	9.68E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.98E-04
36	*	*	0.00	0.000	0.000	0.1479	0.0657	0.0000	9.65E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.98E-04
37	*	*	0.01	0.000	0.014	0.1479	0.0655	0.0000	9.62E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.97E-04
38		*	0.00	0.000	0.000	0.1479	0.0652	0.0000	9.58E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.97E-04
39		*	0.00	0.000	0.000	0.1479	0.0649	0.0000	9.55E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.96E-04
40		*	0.00	0.000	0.000	0.1479	0.0646	0.0000	9.52E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.96E-04
41	*	*	0.00	0.000	0.000	0.1479	0.0643	0.0000	9.49E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.95E-04
42	*	*	0.00	0.000	0.000	0.1479	0.0640	0.0000	9.45E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.95E-04
43		*	0.00	0.000	0.000	0.1479	0.0637	0.0000	9.42E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.94E-04
44	*	*	0.00	0.000	0.000	0.1479	0.0634	0.0000	9.39E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.94E-04
45	*	*	0.00	0.000	0.000	0.1479	0.0631	0.0000	9.36E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.93E-04
46	*	*	0.00	0.000	0.000	0.1479	0.0629	0.0000	9.32E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.93E-04
47	*	*	0.00	0.000	0.000	0.1479	0.0626	0.0000	9.29E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.93E-04
48	*	*	0.00	0.000	0.000	0.1479	0.0623	0.0000	9.26E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.92E-04
49	*	*	0.00	0.000	0.000	0.1479	0.0620	0.0000	9.23E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.92E-04
50	*	*	0.00	0.000	0.000	0.1479	0.0617	0.0000	9.20E-05	0.0006	0.0000	6.97E-09	0.0000	0.0000	1.91E-04
51		*	0.00	0.000	0.000	0.1479	0.0614	0.0000	9.16E-05	0.0006	0.0000	6.96E-09	0.0000	0.0000	1.91E-04
52		*	0.00	0.000	0.000	0.1479	0.0612	0.0000	9.13E-05	0.0006	0.0000	6.96E-09	0.0000	0.0000	1.90E-04
53		*	0.17	0.166	0.003	0.1479	0.0609	0.0000	9.10E-05	0.0006	0.0000	6.96E-09	0.0000	0.0000	1.90E-04
54		*	0.00	0.000	0.000	0.1479	0.0606	0.0000	9.07E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.89E-04
55		*	0.00	0.000	0.000	0.1479	0.0603	0.0000	9.04E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.89E-04
56		*	0.00	0.000	0.000	0.1479	0.0601	0.0000	9.01E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.89E-04
57		*	0.00	0.000	0.002	0.1479	0.0598	0.0000	8.98E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.88E-04
58		*	0.00	0.000	0.000	0.1479	0.0595	0.0000	8.94E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.88E-04
59	*	*	0.10	0.000	0.056	0.1479	0.0592	0.0000	8.91E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.87E-04
60		*	0.00	0.000	0.047	0.1479	0.0590	0.0000	8.88E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.87E-04
61	*	*	0.00	0.000	0.005	0.1479	0.0587	0.0000	8.85E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.86E-04
62		*	0.45	0.447	0.003	0.1479	0.0584	0.0000	8.82E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.86E-04
63	*	*	0.00	0.000	0.000	0.1479	0.0582	0.0000	8.79E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.86E-04
64	*	*	0.00	0.000	0.004	0.1479	0.0579	0.0000	8.76E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.85E-04
65	*	*	0.02	0.000	0.007	0.1479	0.0576	0.0000	8.73E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.85E-04
66	*	*	0.17	0.000	0.006	0.1479	0.0574	0.0000	8.70E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.84E-04
67	*	*	0.00	0.000	0.046	0.1479	0.0571	0.0000	8.67E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.84E-04
68	*	*	0.01	0.000	0.010	0.1479	0.0568	0.0000	8.64E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.83E-04

69	*	*	0.00	0.000	0.030	0.1479	0.0566	0.0000	8.61E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.83E-04
70		*	0.00	0.000	0.096	0.1479	0.0563	0.0000	8.58E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.83E-04
71		*	0.00	0.000	0.000	0.1479	0.0561	0.0000	8.55E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.82E-04
72	*	*	0.00	0.000	0.000	0.1479	0.0558	0.0000	8.52E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.82E-04
73	*	*	0.00	0.000	0.000	0.1479	0.0555	0.0000	8.49E-05	0.0005	0.0000	6.96E-09	0.0000	0.0000	1.81E-04
74	*	*	0.00	0.000	0.000	0.1479	0.0553	0.0000	8.46E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.81E-04
75	*	*	0.00	0.000	0.000	0.1479	0.0550	0.0000	8.43E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.81E-04
76	*	*	0.00	0.000	0.000	0.1479	0.0548	0.0000	8.40E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.80E-04
77	*	*	0.00	0.000	0.000	0.1479	0.0545	0.0000	8.37E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.80E-04
78	*	*	0.00	0.000	0.000	0.1479	0.0543	0.0000	8.34E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.79E-04
79	*	*	0.00	0.000	0.000	0.1479	0.0540	0.0000	8.31E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.79E-04
80	*	*	0.07	0.000	0.008	0.1479	0.0538	0.0000	8.28E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.79E-04
81		*	0.00	0.000	0.062	0.1479	0.0535	0.0000	8.25E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.78E-04
82	*	*	0.00	0.000	0.000	0.1479	0.0533	0.0000	8.22E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.78E-04
83	*	*	0.00	0.000	0.000	0.1479	0.0530	0.0000	8.19E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.77E-04
84		*	0.00	0.000	0.000	0.1479	0.0528	0.0000	8.16E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.77E-04
85		*	0.00	0.000	0.000	0.1479	0.0525	0.0000	8.13E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.77E-04
86		*	0.00	0.000	0.000	0.1479	0.0523	0.0000	8.10E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.76E-04
87		*	0.00	0.000	0.000	0.1479	0.0520	0.0000	8.07E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.76E-04
88		*	0.00	0.000	0.000	0.1479	0.0518	0.0000	8.04E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.76E-04
89		*	0.00	0.000	0.000	0.1479	0.0515	0.0000	8.01E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.75E-04
90		*	0.00	0.000	0.000	0.1479	0.0513	0.0000	7.99E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.75E-04
91		*	0.00	0.000	0.000	0.1479	0.0510	0.0000	7.96E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.74E-04
92		*	0.00	0.000	0.000	0.1479	0.0508	0.0000	7.93E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.74E-04
93		*	0.41	0.405	0.003	0.1479	0.0506	0.0000	7.90E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.74E-04
94		*	0.11	0.000	0.003	0.1536	0.0503	0.0000	7.87E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.73E-04
95		*	0.00	0.000	0.000	0.1536	0.0501	0.0000	7.84E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.73E-04
96		*	0.04	0.000	0.003	0.1554	0.0499	0.0000	7.82E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.73E-04
97			0.21	0.078	0.083	0.1582	0.0496	0.0000	7.79E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.72E-04
98			0.34	0.123	0.187	0.1598	0.0494	0.0000	7.76E-05	0.0005	0.0000	6.95E-09	0.0000	0.0000	1.72E-04
99			0.00	0.000	0.237	0.1466	0.0491	0.0000	7.73E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.72E-04
100			0.00	0.000	0.203	0.1354	0.0489	0.0000	7.70E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.71E-04
101			0.00	0.000	0.096	0.1300	0.0487	0.0000	7.67E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.71E-04
102			0.00	0.000	0.018	0.1287	0.0595	0.0000	8.93E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.70E-04
103			0.00	0.000	0.000	0.1287	0.0658	0.0000	9.66E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.70E-04
104			0.00	0.000	0.000	0.1287	0.0656	0.0000	9.63E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.70E-04
105			0.00	0.000	0.000	0.1287	0.0653	0.0000	9.60E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.69E-04
106	*		0.00	0.000	0.000	0.1287	0.0650	0.0000	9.57E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.69E-04

107		0.00	0.000	0.000	0.1287	0.0647	0.0000	9.53E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.69E-04
108		0.00	0.000	0.000	0.1287	0.0644	0.0000	9.50E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.68E-04
109		0.00	0.000	0.000	0.1287	0.0641	0.0000	9.47E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.68E-04
110		0.00	0.000	0.000	0.1287	0.0638	0.0000	9.43E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.68E-04
111		0.08	0.000	0.005	0.1328	0.0635	0.0000	9.40E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.67E-04
112		0.00	0.000	0.002	0.1327	0.0633	0.0000	9.37E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.67E-04
113		0.00	0.000	0.009	0.1322	0.0630	0.0000	9.34E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.67E-04
114		0.00	0.000	0.011	0.1316	0.0627	0.0000	9.31E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.66E-04
115		0.00	0.000	0.012	0.1309	0.0624	0.0000	9.27E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.66E-04
116		0.07	0.000	0.009	0.1342	0.0621	0.0000	9.24E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.66E-04
117		0.15	0.014	0.012	0.1412	0.0618	0.0000	9.21E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.65E-04
118	*	0.00	0.000	0.003	0.1412	0.0616	0.0000	9.18E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.65E-04
119	*	0.44	0.000	0.021	0.1423	0.0613	0.0000	9.15E-05	0.0005	0.0000	6.94E-09	0.0000	0.0000	1.65E-04
120	*	0.02	0.000	0.033	0.1434	0.0610	0.0000	9.11E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.64E-04
121		0.00	0.158	0.074	0.1509	0.0607	0.0000	9.08E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.64E-04
122		0.00	0.000	0.079	0.1465	0.0607	0.0000	9.08E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.64E-04
123		0.00	0.000	0.012	0.1458	0.0605	0.0000	9.06E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.63E-04
124		0.00	0.000	0.012	0.1451	0.0603	0.0000	9.03E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.63E-04
125		0.25	0.114	0.015	0.1520	0.0601	0.0000	9.01E-05	0.0004	0.0000	6.94E-09	0.0000	0.0000	1.63E-04
126		0.14	0.003	0.121	0.1528	0.0598	0.0000	8.97E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.62E-04
127		0.00	0.000	0.015	0.1519	0.0603	0.0000	9.03E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.62E-04
128		0.14	0.016	0.015	0.1581	0.0642	0.0000	9.48E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.62E-04
129		0.08	0.000	0.125	0.1553	0.0651	0.0000	9.57E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.61E-04
130		0.31	0.156	0.019	0.1626	0.0648	0.0000	9.54E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.61E-04
131		0.00	0.000	0.171	0.1531	0.0652	0.0000	9.58E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.61E-04
132		0.00	0.000	0.011	0.1525	0.0652	0.0000	9.59E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.60E-04
133		0.00	0.000	0.010	0.1519	0.0649	0.0000	9.56E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.60E-04
134		0.61	0.429	0.018	0.1608	0.0646	0.0000	9.53E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.60E-04
135		0.00	0.000	0.266	0.1461	0.0644	0.0000	9.49E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.59E-04
136		0.00	0.000	0.246	0.1325	0.0641	0.0000	9.46E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.59E-04
137		1.02	0.669	0.147	0.1436	0.0640	0.0000	9.45E-05	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.59E-04
138		0.15	0.015	0.167	0.1417	0.0709	0.0000	1.02E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.58E-04
139		0.27	0.114	0.133	0.1428	0.0827	0.0000	1.15E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.58E-04
140		0.18	0.039	0.117	0.1442	0.0824	0.0000	1.15E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.58E-04
141		0.00	0.000	0.101	0.1387	0.0820	0.0000	1.14E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.58E-04
142		0.10	0.000	0.118	0.1375	0.0817	0.0000	1.14E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.57E-04
143		0.00	0.000	0.121	0.1308	0.0813	0.0000	1.13E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.57E-04
144		0.00	0.000	0.027	0.1292	0.0845	0.0000	1.17E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.57E-04

145	0.42	0.185	0.063	0.1387	0.0863	0.0000	1.19E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.56E-04
146	0.00	0.000	0.027	0.1373	0.0860	0.0000	1.18E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.56E-04
147	0.05	0.000	0.026	0.1386	0.0873	0.0000	1.20E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.56E-04
148	0.07	0.000	0.024	0.1413	0.0878	0.0000	1.20E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.55E-04
149	0.09	0.000	0.017	0.1453	0.0880	0.0000	1.21E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.55E-04
150	0.03	0.000	0.061	0.1436	0.0880	0.0000	1.21E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.55E-04
151	0.00	0.000	0.020	0.1425	0.0876	0.0000	1.20E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.55E-04
152	0.00	0.000	0.023	0.1412	0.0873	0.0000	1.20E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.54E-04
153	0.19	0.056	0.024	0.1473	0.0887	0.0000	1.21E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	1.54E-04
154	0.00	0.000	0.083	0.1427	0.0894	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.54E-04
155	0.05	0.000	0.020	0.1441	0.0896	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.53E-04
156	0.00	0.000	0.017	0.1431	0.0896	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.53E-04
157	0.00	0.000	0.018	0.1421	0.0892	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.53E-04
158	0.47	0.285	0.025	0.1507	0.0890	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.53E-04
159	0.22	0.081	0.107	0.1523	0.0890	0.0000	1.22E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.52E-04
160	0.08	0.000	0.099	0.1510	0.0914	0.0000	1.24E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.52E-04
161	0.00	0.000	0.159	0.1421	0.0925	0.0000	1.25E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.52E-04
162	0.73	0.417	0.148	0.1514	0.0921	0.0000	1.25E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.51E-04
163	1.39	1.093	0.181	0.1578	0.0918	0.0000	1.24E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.51E-04
164	0.04	0.000	0.105	0.1541	0.0914	0.0000	1.24E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.51E-04
165	0.15	0.001	0.102	0.1565	0.0913	0.0000	1.24E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.51E-04
166	0.02	0.000	0.186	0.1470	0.0921	0.0000	1.25E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.50E-04
167	0.02	0.000	0.119	0.1413	0.0983	0.0000	1.31E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.50E-04
168	0.00	0.000	0.182	0.1313	0.1000	0.0000	1.33E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.50E-04
169	0.01	0.000	0.052	0.1291	0.0996	0.0000	1.32E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.49E-04
170	0.37	0.162	0.062	0.1370	0.1060	0.0000	1.39E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.49E-04
171	0.82	0.385	0.317	0.1434	0.1096	0.0000	1.43E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.49E-04
172	0.00	0.000	0.157	0.1347	0.1092	0.0000	1.42E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.49E-04
173	0.00	0.000	0.090	0.1297	0.1087	0.0000	1.42E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.48E-04
174	0.78	0.444	0.148	0.1403	0.1083	0.0000	1.41E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.48E-04
175	1.15	0.746	0.291	0.1468	0.1079	0.0000	1.41E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.48E-04
176	0.13	0.000	0.175	0.1443	0.1076	0.0000	1.41E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.48E-04
177	0.00	0.000	0.113	0.1379	0.1114	0.0000	1.44E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.47E-04
178	0.01	0.000	0.140	0.1307	0.1132	0.0000	1.46E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.47E-04
179	0.43	0.155	0.147	0.1377	0.1127	0.0000	1.46E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.47E-04
180	0.00	0.000	0.096	0.1324	0.1122	0.0000	1.45E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.46E-04
181	0.00	0.000	0.041	0.1299	0.1184	0.0000	1.51E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.46E-04
182	0.00	0.000	0.015	0.1290	0.1219	0.0000	1.55E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.46E-04

183	0.00	0.000	0.005	0.1288	0.1214	0.0000	1.54E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.46E-04
184	0.05	0.000	0.007	0.1310	0.1217	0.0000	1.54E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	1.45E-04
185	0.00	0.000	0.003	0.1309	0.1217	0.0000	1.54E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.45E-04
186	0.00	0.000	0.006	0.1306	0.1212	0.0000	1.54E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.45E-04
187	0.11	0.000	0.008	0.1363	0.1208	0.0000	1.53E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.45E-04
188	1.26	1.109	0.028	0.1432	0.1203	0.0000	1.53E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.44E-04
189	0.59	0.142	0.336	0.1497	0.1198	0.0000	1.53E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.44E-04
190	0.12	0.000	0.084	0.1517	0.1194	0.0000	1.52E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.44E-04
191	0.30	0.108	0.177	0.1524	0.1190	0.0000	1.52E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.44E-04
192	0.06	0.000	0.128	0.1486	0.1185	0.0000	1.51E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.43E-04
193	0.05	0.000	0.114	0.1449	0.1181	0.0000	1.51E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.43E-04
194	0.02	0.000	0.103	0.1399	0.1206	0.0000	1.53E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.43E-04
195	0.04	0.000	0.134	0.1346	0.1219	0.0000	1.55E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.43E-04
196	0.00	0.000	0.062	0.1312	0.1214	0.0000	1.54E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.42E-04
197	0.25	0.096	0.031	0.1378	0.1254	0.0000	1.58E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.42E-04
198	0.00	0.000	0.024	0.1365	0.1276	0.0000	1.60E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.42E-04
199	0.00	0.000	0.021	0.1353	0.1271	0.0000	1.60E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.42E-04
200	0.00	0.000	0.023	0.1341	0.1269	0.0000	1.59E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	1.41E-04
201	0.08	0.000	0.024	0.1372	0.1265	0.0000	1.59E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.41E-04
202	0.00	0.000	0.017	0.1362	0.1261	0.0000	1.59E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.41E-04
203	0.00	0.000	0.012	0.1356	0.1260	0.0000	1.59E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.41E-04
204	0.20	0.067	0.018	0.1420	0.1258	0.0000	1.58E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.40E-04
205	0.00	0.000	0.011	0.1414	0.1253	0.0000	1.58E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.40E-04
206	0.00	0.000	0.011	0.1408	0.1251	0.0000	1.58E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.40E-04
207	0.45	0.264	0.025	0.1496	0.1248	0.0000	1.57E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.40E-04
208	0.13	0.002	0.071	0.1530	0.1243	0.0000	1.57E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.39E-04
209	0.00	0.000	0.073	0.1490	0.1238	0.0000	1.56E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.39E-04
210	0.00	0.000	0.100	0.1434	0.1235	0.0000	1.56E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.39E-04
211	0.11	0.000	0.100	0.1437	0.1231	0.0000	1.56E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.39E-04
212	0.01	0.000	0.052	0.1411	0.1227	0.0000	1.55E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.38E-04
213	0.00	0.000	0.040	0.1389	0.1222	0.0000	1.55E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.38E-04
214	0.00	0.000	0.034	0.1369	0.1224	0.0000	1.55E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.38E-04
215	0.00	0.000	0.023	0.1356	0.1272	0.0000	1.60E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.38E-04
216	0.06	0.000	0.024	0.1377	0.1271	0.0000	1.60E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.38E-04
217	0.09	0.000	0.024	0.1411	0.1266	0.0000	1.59E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.37E-04
218	0.00	0.000	0.022	0.1399	0.1262	0.0000	1.59E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	1.37E-04
219	0.11	0.000	0.019	0.1448	0.1272	0.0000	1.60E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.37E-04
220	0.00	0.000	0.011	0.1442	0.1275	0.0000	1.60E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.37E-04

221	0.00	0.000	0.010	0.1436	0.1271	0.0000	1.60E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.36E-04
222	0.29	0.136	0.016	0.1512	0.1267	0.0000	1.59E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.36E-04
223	0.58	0.298	0.169	0.1577	0.1262	0.0000	1.59E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.36E-04
224	0.17	0.036	0.102	0.1594	0.1257	0.0000	1.58E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.36E-04
225	0.00	0.000	0.134	0.1519	0.1255	0.0000	1.58E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.35E-04
226	0.00	0.000	0.102	0.1462	0.1252	0.0000	1.58E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.35E-04
227	0.01	0.000	0.107	0.1406	0.1247	0.0000	1.57E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.35E-04
228	0.00	0.000	0.165	0.1314	0.1242	0.0000	1.57E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.35E-04
229	0.00	0.000	0.039	0.1293	0.1237	0.0000	1.56E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.35E-04
230	0.00	0.000	0.006	0.1287	0.1324	0.0000	1.65E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.34E-04
231	0.00	0.000	0.000	0.1287	0.1373	0.0000	1.69E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.34E-04
232	0.00	0.000	0.000	0.1287	0.1368	0.0000	1.69E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.34E-04
233	0.00	0.000	0.000	0.1287	0.1363	0.0000	1.68E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.34E-04
234	0.00	0.000	0.000	0.1287	0.1357	0.0000	1.68E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.33E-04
235	0.00	0.000	0.000	0.1287	0.1352	0.0000	1.67E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.33E-04
236	0.00	0.000	0.000	0.1287	0.1347	0.0000	1.67E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.33E-04
237	0.32	0.145	0.014	0.1377	0.1342	0.0000	1.66E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.33E-04
238	0.00	0.000	0.010	0.1372	0.1337	0.0000	1.66E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.33E-04
239	0.00	0.000	0.010	0.1366	0.1331	0.0000	1.65E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.32E-04
240	0.00	0.000	0.012	0.1359	0.1326	0.0000	1.65E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.32E-04
241	0.00	0.000	0.013	0.1352	0.1321	0.0000	1.64E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.32E-04
242	0.00	0.000	0.014	0.1346	0.1316	0.0000	1.64E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.32E-04
243	0.00	0.000	0.013	0.1339	0.1311	0.0000	1.63E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.32E-04
244	0.00	0.000	0.013	0.1332	0.1306	0.0000	1.63E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.31E-04
245	0.00	0.000	0.012	0.1325	0.1302	0.0000	1.62E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.31E-04
246	0.00	0.000	0.012	0.1319	0.1297	0.0000	1.62E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.31E-04
247	0.08	0.000	0.015	0.1356	0.1292	0.0000	1.62E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.31E-04
248	0.02	0.000	0.014	0.1362	0.1287	0.0000	1.61E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.30E-04
249	0.78	0.626	0.019	0.1437	0.1282	0.0000	1.61E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.30E-04
250	0.64	0.326	0.196	0.1501	0.1277	0.0000	1.60E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.30E-04
251	0.45	0.190	0.140	0.1566	0.1272	0.0000	1.60E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.30E-04
252	0.99	0.628	0.248	0.1630	0.1267	0.0000	1.59E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.30E-04
253	0.03	0.000	0.210	0.1532	0.1266	0.0000	1.59E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.29E-04
254	0.00	0.000	0.175	0.1435	0.1264	0.0000	1.59E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.29E-04
255	0.00	0.000	0.090	0.1385	0.1259	0.0000	1.58E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	1.29E-04
256	0.00	0.000	0.129	0.1313	0.1254	0.0000	1.58E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.29E-04
257	1.56	1.210	0.147	0.1424	0.1249	0.0000	1.57E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.29E-04
258	0.00	0.000	0.155	0.1338	0.1250	0.0000	1.58E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.28E-04

259	0.00	0.000	0.062	0.1301	0.1349	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.28E-04
260	0.00	0.000	0.019	0.1290	0.1396	0.0000	1.71E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.28E-04
261	0.00	0.000	0.003	0.1287	0.1443	0.0000	1.76E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.28E-04
262	0.11	0.000	0.008	0.1341	0.1469	0.0000	1.78E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.28E-04
263	0.00	0.000	0.019	0.1330	0.1463	0.0000	1.78E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.27E-04
264	0.04	0.000	0.023	0.1337	0.1458	0.0000	1.77E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.27E-04
265	0.00	0.000	0.021	0.1325	0.1452	0.0000	1.77E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.27E-04
266	0.00	0.000	0.015	0.1317	0.1449	0.0000	1.76E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.27E-04
267	0.00	0.000	0.015	0.1309	0.1450	0.0000	1.76E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.27E-04
268	0.33	0.157	0.030	0.1386	0.1445	0.0000	1.76E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.26E-04
269	0.00	0.000	0.013	0.1378	0.1440	0.0000	1.76E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.26E-04
270	0.00	0.000	0.011	0.1372	0.1438	0.0000	1.75E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.26E-04
271	0.00	0.000	0.013	0.1365	0.1435	0.0000	1.75E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.26E-04
272	0.00	0.000	0.014	0.1357	0.1430	0.0000	1.75E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.26E-04
273	0.00	0.000	0.013	0.1350	0.1424	0.0000	1.74E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.25E-04
274	0.00	0.000	0.013	0.1343	0.1419	0.0000	1.74E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.25E-04
275	0.03	0.000	0.016	0.1349	0.1414	0.0000	1.73E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.25E-04
276	0.01	0.000	0.015	0.1346	0.1408	0.0000	1.73E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.25E-04
277	0.00	0.000	0.012	0.1339	0.1403	0.0000	1.72E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.25E-04
278	0.00	0.000	0.010	0.1333	0.1398	0.0000	1.72E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.24E-04
279	0.00	0.000	0.010	0.1327	0.1400	0.0000	1.72E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.24E-04
280	0.00	0.000	0.010	0.1322	0.1399	0.0000	1.72E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.24E-04
281	0.00	0.000	0.010	0.1316	0.1393	0.0000	1.71E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.24E-04
282	0.00	0.000	0.010	0.1311	0.1388	0.0000	1.71E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.24E-04
283	0.07	0.000	0.013	0.1340	0.1383	0.0000	1.70E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
284	0.25	0.111	0.013	0.1410	0.1377	0.0000	1.70E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
285	0.00	0.000	0.067	0.1373	0.1376	0.0000	1.70E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
286	0.00	0.000	0.010	0.1368	0.1373	0.0000	1.69E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
287	0.00	0.000	0.010	0.1362	0.1368	0.0000	1.69E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
288	0.05	0.000	0.013	0.1380	0.1363	0.0000	1.68E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.23E-04
289	0.06	0.000	0.013	0.1407	0.1358	0.0000	1.68E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.22E-04
290	0.00	0.000	0.011	0.1401	0.1353	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.22E-04
291	0.19	0.053	0.014	0.1467	0.1348	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.22E-04
292	0.05	0.000	0.057	0.1460	0.1345	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.22E-04
293	0.00	0.000	0.038	0.1439	0.1352	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.22E-04
294	0.00	0.000	0.041	0.1416	0.1357	0.0000	1.68E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.21E-04
295	0.00	0.000	0.040	0.1394	0.1352	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.21E-04
296	0.00	0.000	0.031	0.1377	0.1346	0.0000	1.67E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.21E-04

297			0.00	0.000	0.026	0.1362	0.1341	0.0000	1.66E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	1.21E-04
298			0.00	0.000	0.023	0.1350	0.1336	0.0000	1.66E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.21E-04
299			0.00	0.000	0.021	0.1338	0.1331	0.0000	1.65E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.21E-04
300			0.00	0.000	0.019	0.1328	0.1326	0.0000	1.65E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.20E-04
301	*		0.00	0.000	0.000	0.1328	0.1321	0.0000	1.64E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.20E-04
302	*		0.00	0.000	0.000	0.1328	0.1315	0.0000	1.64E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.20E-04
303	*		0.00	0.000	0.000	0.1328	0.1310	0.0000	1.63E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.20E-04
304	*		0.00	0.000	0.000	0.1328	0.1305	0.0000	1.63E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.20E-04
305	*		0.00	0.000	0.000	0.1328	0.1300	0.0000	1.62E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
306			0.00	0.000	0.018	0.1318	0.1295	0.0000	1.62E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
307			0.00	0.000	0.017	0.1309	0.1290	0.0000	1.61E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
308			0.01	0.000	0.019	0.1306	0.1285	0.0000	1.61E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
309			0.00	0.000	0.018	0.1296	0.1280	0.0000	1.60E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
310			0.00	0.000	0.011	0.1289	0.1301	0.0000	1.62E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.19E-04
311			0.00	0.000	0.003	0.1288	0.1312	0.0000	1.63E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
312			0.00	0.000	0.001	0.1287	0.1307	0.0000	1.63E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
313			0.00	0.000	0.000	0.1287	0.1302	0.0000	1.62E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
314			0.04	0.000	0.005	0.1305	0.1297	0.0000	1.62E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
315	*		0.00	0.000	0.002	0.1304	0.1292	0.0000	1.62E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
316			0.04	0.000	0.006	0.1324	0.1287	0.0000	1.61E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.18E-04
317	*		0.00	0.000	0.000	0.1324	0.1282	0.0000	1.61E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
318			0.00	0.000	0.008	0.1320	0.1277	0.0000	1.60E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
319	*		0.00	0.000	0.000	0.1320	0.1272	0.0000	1.60E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
320	*		0.00	0.000	0.000	0.1320	0.1267	0.0000	1.59E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
321			0.00	0.000	0.007	0.1315	0.1262	0.0000	1.59E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
322	*		0.00	0.000	0.000	0.1315	0.1257	0.0000	1.58E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.17E-04
323	*		0.00	0.000	0.000	0.1315	0.1252	0.0000	1.58E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
324	*		0.00	0.000	0.000	0.1315	0.1247	0.0000	1.57E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
325	*		0.00	0.000	0.000	0.1315	0.1242	0.0000	1.57E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
326	*		0.00	0.000	0.010	0.1310	0.1238	0.0000	1.56E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
327	*	*	0.00	0.000	0.000	0.1310	0.1233	0.0000	1.56E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
328	*	*	0.00	0.000	0.000	0.1310	0.1228	0.0000	1.55E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.16E-04
329	*	*	0.00	0.000	0.000	0.1310	0.1224	0.0000	1.55E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04
330	*	*	0.00	0.000	0.000	0.1310	0.1219	0.0000	1.55E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04
331	*	*	0.00	0.000	0.000	0.1310	0.1214	0.0000	1.54E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04
332	*	*	0.00	0.000	0.000	0.1310	0.1209	0.0000	1.54E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04
333	*	*	0.00	0.000	0.000	0.1310	0.1204	0.0000	1.53E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04
334	*	*	0.00	0.000	0.000	0.1310	0.1200	0.0000	1.53E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.15E-04

335	*	*	0.17	0.000	0.044	0.1310	0.1195	0.0000	1.52E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
336		*	0.00	0.000	0.082	0.1336	0.1190	0.0000	1.52E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
337		*	0.00	0.000	0.000	0.1336	0.1185	0.0000	1.51E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
338		*	0.00	0.000	0.000	0.1336	0.1181	0.0000	1.51E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
339		*	0.00	0.000	0.000	0.1336	0.1176	0.0000	1.50E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
340		*	0.00	0.000	0.000	0.1336	0.1171	0.0000	1.50E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.14E-04
341		*	0.00	0.000	0.000	0.1336	0.1167	0.0000	1.49E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.13E-04
342		*	0.02	0.000	0.003	0.1348	0.1162	0.0000	1.49E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.13E-04
343		*	0.00	0.000	0.000	0.1348	0.1158	0.0000	1.49E-04	0.0002	0.0000	6.88E-09	0.0000	0.0000	1.13E-04
344		*	0.00	0.000	0.000	0.1348	0.1153	0.0000	1.48E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.13E-04
345		*	0.00	0.000	0.000	0.1348	0.1148	0.0000	1.48E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.13E-04
346		*	0.00	0.000	0.000	0.1348	0.1144	0.0000	1.47E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.13E-04
347		*	0.00	0.000	0.000	0.1348	0.1139	0.0000	1.47E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
348	*	*	0.00	0.000	0.000	0.1348	0.1135	0.0000	1.46E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
349		*	0.01	0.000	0.003	0.1354	0.1130	0.0000	1.46E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
350	*	*	0.00	0.000	0.000	0.1354	0.1126	0.0000	1.45E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
351		*	0.12	0.000	0.003	0.1417	0.1121	0.0000	1.45E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
352	*	*	0.00	0.000	0.000	0.1417	0.1117	0.0000	1.45E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
353	*	*	0.03	0.000	0.018	0.1417	0.1112	0.0000	1.44E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.12E-04
354	*	*	0.02	0.000	0.007	0.1417	0.1108	0.0000	1.44E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
355	*	*	0.24	0.000	0.003	0.1417	0.1103	0.0000	1.43E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
356	*	*	0.04	0.000	0.002	0.1417	0.1099	0.0000	1.43E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
357	*	*	0.00	0.000	0.004	0.1417	0.1094	0.0000	1.42E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
358	*	*	0.00	0.000	0.006	0.1417	0.1090	0.0000	1.42E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
359	*	*	0.00	0.000	0.000	0.1417	0.1085	0.0000	1.41E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.11E-04
360	*	*	0.00	0.000	0.042	0.1417	0.1081	0.0000	1.41E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
361		*	0.00	0.194	0.048	0.1417	0.1077	0.0000	1.41E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
362		*	0.00	0.000	0.000	0.1417	0.1072	0.0000	1.40E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
363		*	0.00	0.000	0.000	0.1417	0.1068	0.0000	1.40E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
364		*	0.02	0.000	0.003	0.1425	0.1064	0.0000	1.39E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
365		*	0.00	0.000	0.000	0.1425	0.1059	0.0000	1.39E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04

* = Frozen (air or soil)

Annual Totals for Year 1			
	inches	cubic feet	percent
Precipitation	26.23	95,214.0	100.00

Runoff	12.855	46,664.7	49.01
Evapotranspiration	13.311	48,320.2	50.75
Drainage Collected from Layer 3	0.0077	27.8	0.03
Percolation/Leakage through Layer 4	0.047594	172.8	0.18
Average Head on Top of Layer 4	0.0988	---	---
Drainage Collected from Layer 7	0.0002	0.5844	0.00
Percolation/Leakage through Layer 8	0.000003	0.0092	0.00
Average Head on Top of Layer 8	0.0004	---	---
Percolation/Leakage through Layer 10	0.055179	200.3	0.21
Change in Water Storage	0.0001	0.4520	0.00
Soil Water at Start of Year	72.4433	262,969.1	276.19
Soil Water at End of Year	72.4434	262,969.5	276.19
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 2

Column key: Head #1: drainage from Layer 4 | Head #2: drainage from Layer 8
Drain #1: drainage from Layer 3 | Drain #2: drainage from Layer 7
Leak #1: leakage thru Layer 4 | Leak #2: leakage thru Layer 8 | Leak #3: leakage thru Layer 10

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:19

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)	Head #3 (inches)	Drain #3 (inches)	Leak #3 (inches)
1	*	*	0.00	0.000	0.000	0.1425	0.1055	0.0000	1.38E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.10E-04
2	*	*	0.00	0.000	0.000	0.1425	0.1051	0.0000	1.38E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
3	*	*	0.00	0.000	0.000	0.1425	0.1047	0.0000	1.38E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
4	*	*	0.00	0.000	0.000	0.1425	0.1042	0.0000	1.37E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
5	*	*	0.53	0.000	0.027	0.1425	0.1038	0.0000	1.37E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
6		*	0.00	0.500	0.000	0.1425	0.1034	0.0000	1.36E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
7		*	0.00	0.000	0.000	0.1425	0.1030	0.0000	1.36E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.09E-04
8		*	0.26	0.260	0.003	0.1425	0.1025	0.0000	1.35E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
9		*	0.41	0.406	0.003	0.1425	0.1021	0.0000	1.35E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
10		*	0.00	0.000	0.000	0.1425	0.1017	0.0000	1.35E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
11		*	0.00	0.000	0.000	0.1425	0.1013	0.0000	1.34E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
12		*	0.00	0.000	0.000	0.1425	0.1009	0.0000	1.34E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
13	*	*	0.00	0.000	0.000	0.1425	0.1005	0.0000	1.33E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
14	*	*	0.00	0.000	0.000	0.1425	0.1000	0.0000	1.33E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.08E-04
15		*	0.00	0.000	0.000	0.1425	0.0996	0.0000	1.32E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
16		*	0.00	0.000	0.000	0.1425	0.0992	0.0000	1.32E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
17		*	0.00	0.000	0.000	0.1425	0.0988	0.0000	1.32E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
18		*	0.00	0.000	0.000	0.1425	0.0984	0.0000	1.31E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
19		*	0.05	0.000	0.003	0.1452	0.0980	0.0000	1.31E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
20	*	*	0.00	0.000	0.000	0.1452	0.0976	0.0000	1.30E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
21	*	*	0.00	0.000	0.000	0.1452	0.0972	0.0000	1.30E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.07E-04
22	*	*	0.16	0.000	0.039	0.1452	0.0968	0.0000	1.30E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
23		*	0.00	0.000	0.044	0.1465	0.0964	0.0000	1.29E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
24		*	0.00	0.000	0.054	0.1465	0.0960	0.0000	1.29E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
25	*	*	0.00	0.000	0.000	0.1465	0.0956	0.0000	1.28E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
26	*	*	0.00	0.000	0.000	0.1465	0.0952	0.0000	1.28E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
27		*	0.00	0.000	0.000	0.1465	0.0948	0.0000	1.28E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
28		*	0.00	0.000	0.000	0.1465	0.0944	0.0000	1.27E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
29	*	*	0.00	0.000	0.000	0.1465	0.0940	0.0000	1.27E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.06E-04
30	*	*	0.00	0.000	0.000	0.1465	0.0936	0.0000	1.26E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.05E-04

31		*	0.10	0.000	0.003	0.1521	0.0932	0.0000	1.26E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.05E-04
32	*	*	0.01	0.000	0.012	0.1521	0.0929	0.0000	1.26E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	1.05E-04
33	*	*	0.00	0.000	0.000	0.1521	0.0925	0.0000	1.25E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.05E-04
34	*	*	0.00	0.000	0.000	0.1521	0.0921	0.0000	1.25E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.05E-04
35	*	*	0.00	0.000	0.000	0.1521	0.0917	0.0000	1.24E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.05E-04
36	*	*	0.00	0.000	0.000	0.1521	0.0913	0.0000	1.24E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.05E-04
37	*	*	0.00	0.000	0.000	0.1521	0.0909	0.0000	1.24E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
38	*	*	0.00	0.000	0.000	0.1521	0.0906	0.0000	1.23E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
39	*	*	0.00	0.000	0.000	0.1521	0.0902	0.0000	1.23E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
40		*	0.00	0.000	0.000	0.1521	0.0898	0.0000	1.22E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
41		*	0.00	0.000	0.000	0.1521	0.0894	0.0000	1.22E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
42		*	0.06	0.000	0.003	0.1551	0.0890	0.0000	1.22E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
43		*	0.06	0.000	0.003	0.1585	0.0887	0.0000	1.21E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.04E-04
44		*	0.00	0.000	0.000	0.1585	0.0883	0.0000	1.21E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
45	*	*	0.09	0.000	0.036	0.1585	0.0879	0.0000	1.20E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
46	*	*	0.00	0.000	0.012	0.1585	0.0876	0.0000	1.20E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
47	*	*	0.00	0.000	0.008	0.1585	0.0872	0.0000	1.20E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
48	*	*	0.00	0.000	0.008	0.1585	0.0868	0.0000	1.19E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
49	*	*	0.03	0.000	0.000	0.1585	0.0865	0.0000	1.19E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
50		*	0.05	0.000	0.099	0.1585	0.0861	0.0000	1.19E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
51		*	0.00	0.000	0.000	0.1585	0.0857	0.0000	1.18E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.03E-04
52	*	*	0.00	0.000	0.000	0.1585	0.0854	0.0000	1.18E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
53	*	*	0.03	0.000	0.025	0.1585	0.0850	0.0000	1.17E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
54	*	*	0.01	0.000	0.010	0.1585	0.0846	0.0000	1.17E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
55	*	*	0.00	0.000	0.000	0.1585	0.0843	0.0000	1.17E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
56		*	0.00	0.000	0.000	0.1585	0.0839	0.0000	1.16E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
57		*	0.00	0.000	0.000	0.1585	0.0836	0.0000	1.16E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
58		*	0.03	0.000	0.003	0.1601	0.0832	0.0000	1.15E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.02E-04
59		*	0.04	0.000	0.003	0.1622	0.0829	0.0000	1.15E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
60		*	0.68	0.675	0.003	0.1622	0.0825	0.0000	1.15E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
61		*	0.00	0.000	0.000	0.1622	0.0821	0.0000	1.14E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
62		*	0.24	0.239	0.003	0.1622	0.0818	0.0000	1.14E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
63	*	*	0.07	0.000	0.043	0.1622	0.0814	0.0000	1.14E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
64		*	0.19	0.006	0.110	0.1681	0.0811	0.0000	1.13E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
65	*	*	0.00	0.000	0.000	0.1681	0.0808	0.0000	1.13E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
66	*	*	0.00	0.000	0.000	0.1681	0.0804	0.0000	1.13E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.01E-04
67	*	*	0.23	0.000	0.023	0.1681	0.0801	0.0000	1.12E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.00E-04
68	*	*	0.10	0.000	0.011	0.1681	0.0797	0.0000	1.12E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.00E-04

69	*	*	0.01	0.000	0.015	0.1681	0.0794	0.0000	1.11E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.00E-04
70		*	0.00	0.260	0.029	0.1681	0.0790	0.0000	1.11E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.00E-04
71		*	0.00	0.000	0.001	0.1681	0.0787	0.0000	1.11E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	1.00E-04
72		*	0.01	0.000	0.003	0.1685	0.0784	0.0000	1.10E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.98E-05
73		*	0.03	0.000	0.003	0.1701	0.0780	0.0000	1.10E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.97E-05
74		*	0.00	0.000	0.000	0.1701	0.0777	0.0000	1.10E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.96E-05
75	*	*	0.00	0.000	0.000	0.1701	0.0773	0.0000	1.09E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.95E-05
76	*	*	0.00	0.000	0.000	0.1701	0.0770	0.0000	1.09E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.94E-05
77		*	0.00	0.000	0.000	0.1701	0.0767	0.0000	1.08E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.92E-05
78		*	0.00	0.000	0.000	0.1701	0.0763	0.0000	1.08E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.91E-05
79	*	*	0.22	0.000	0.019	0.1701	0.0760	0.0000	1.08E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.90E-05
80	*	*	0.00	0.000	0.062	0.1701	0.0757	0.0000	1.07E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.89E-05
81		*	0.00	0.000	0.135	0.1701	0.0754	0.0000	1.07E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.87E-05
82	*	*	0.00	0.000	0.000	0.1701	0.0750	0.0000	1.07E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.86E-05
83	*	*	0.00	0.000	0.000	0.1701	0.0747	0.0000	1.06E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.85E-05
84		*	0.00	0.000	0.000	0.1701	0.0744	0.0000	1.06E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.84E-05
85		*	0.00	0.000	0.000	0.1701	0.0740	0.0000	1.06E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.83E-05
86		*	0.00	0.000	0.000	0.1701	0.0737	0.0000	1.05E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.81E-05
87		*	0.00	0.000	0.000	0.1701	0.0734	0.0000	1.05E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.80E-05
88		*	0.17	0.170	0.003	0.1701	0.0731	0.0000	1.05E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.79E-05
89		*	0.00	0.000	0.000	0.1701	0.0728	0.0000	1.04E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.78E-05
90		*	0.00	0.000	0.000	0.1701	0.0724	0.0000	1.04E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.77E-05
91	*	*	0.71	0.000	0.040	0.1701	0.0721	0.0000	1.04E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.75E-05
92	*	*	0.00	0.000	0.017	0.1701	0.0718	0.0000	1.03E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.74E-05
93	*	*	0.63	0.000	0.000	0.1701	0.0715	0.0000	1.03E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.73E-05
94		*	0.23	0.750	0.000	0.1701	0.0712	0.0000	1.03E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.72E-05
95	*	*	0.00	0.000	0.034	0.1701	0.0709	0.0000	1.02E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	9.71E-05
96	*	*	0.00	0.000	0.018	0.1701	0.0706	0.0000	1.02E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.69E-05
97	*	*	0.01	0.000	0.000	0.1701	0.0702	0.0000	1.01E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.68E-05
98		*	0.04	0.762	0.004	0.1701	0.0699	0.0000	1.01E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.67E-05
99		*	0.15	0.147	0.003	0.1701	0.0696	0.0000	1.01E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.66E-05
100	*	*	0.31	0.000	0.034	0.1701	0.0693	0.0000	1.00E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.65E-05
101	*	*	0.00	0.000	0.042	0.1701	0.0690	0.0000	1.00E-04	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.64E-05
102		*	0.00	0.000	0.056	0.1701	0.0687	0.0000	9.98E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.62E-05
103	*	*	0.00	0.000	0.064	0.1701	0.0684	0.0000	9.94E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.61E-05
104		*	0.00	0.000	0.111	0.1701	0.0681	0.0000	9.91E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.60E-05
105		*	0.00	0.000	0.000	0.1701	0.0678	0.0000	9.88E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.59E-05
106		*	0.00	0.000	0.000	0.1701	0.0675	0.0000	9.84E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.58E-05

107		*	0.00	0.000	0.000	0.1701	0.0672	0.0000	9.81E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.57E-05
108		*	0.00	0.000	0.000	0.1701	0.0669	0.0000	9.78E-05	0.0002	0.0000	6.85E-09	0.0000	0.0000	9.56E-05
109		*	0.00	0.000	0.000	0.1701	0.0666	0.0000	9.74E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.54E-05
110	*	*	0.13	0.000	0.057	0.1701	0.0663	0.0000	9.71E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.53E-05
111		*	0.03	0.000	0.097	0.1704	0.0660	0.0000	9.68E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.52E-05
112			0.00	0.000	0.115	0.1640	0.0657	0.0000	9.64E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.51E-05
113			0.00	0.000	0.092	0.1589	0.0654	0.0000	9.61E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.50E-05
114	*		0.01	0.000	0.049	0.1570	0.0651	0.0000	9.58E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.49E-05
115	*		0.06	0.000	0.061	0.1570	0.0648	0.0000	9.55E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.48E-05
116	*		0.44	0.000	0.022	0.1581	0.0645	0.0000	9.51E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.47E-05
117			0.03	0.245	0.030	0.1663	0.0642	0.0000	9.48E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.45E-05
118	*		0.65	0.000	0.034	0.1674	0.0640	0.0000	9.45E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.44E-05
119	*		0.00	0.000	0.027	0.1685	0.0637	0.0000	9.42E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.43E-05
120	*		0.06	0.000	0.028	0.1696	0.0634	0.0000	9.38E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.42E-05
121			0.00	0.282	0.142	0.1771	0.0631	0.0000	9.35E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.41E-05
122			0.08	0.000	0.253	0.1673	0.0637	0.0000	9.42E-05	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.40E-05
123			0.15	0.000	0.194	0.1647	0.0723	0.0000	1.04E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.39E-05
124			0.46	0.118	0.244	0.1703	0.0765	0.0000	1.08E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.38E-05
125	*		0.00	0.000	0.104	0.1646	0.0761	0.0000	1.08E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.37E-05
126			0.00	0.000	0.231	0.1512	0.0853	0.0000	1.17E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.35E-05
127			0.00	0.000	0.216	0.1393	0.1006	0.0000	1.33E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.34E-05
128			0.00	0.000	0.118	0.1327	0.1002	0.0000	1.33E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.33E-05
129			1.28	1.013	0.064	0.1438	0.0998	0.0000	1.33E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.32E-05
130			0.30	0.115	0.223	0.1410	0.1174	0.0000	1.50E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.31E-05
131			0.07	0.000	0.055	0.1421	0.1277	0.0000	1.60E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.30E-05
132			0.28	0.129	0.056	0.1473	0.1272	0.0000	1.60E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.29E-05
133			0.00	0.000	0.111	0.1411	0.1267	0.0000	1.59E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.28E-05
134			0.24	0.062	0.227	0.1382	0.1262	0.0000	1.59E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.27E-05
135			0.00	0.000	0.110	0.1321	0.1257	0.0000	1.58E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.26E-05
136			0.39	0.155	0.138	0.1372	0.1331	0.0000	1.65E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.25E-05
137			0.00	0.000	0.056	0.1341	0.1373	0.0000	1.69E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.24E-05
138			0.00	0.000	0.076	0.1298	0.1377	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.22E-05
139			0.00	0.000	0.017	0.1288	0.1377	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.21E-05
140			0.00	0.000	0.002	0.1287	0.1383	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.20E-05
141			0.09	0.000	0.008	0.1334	0.1385	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.19E-05
142			0.04	0.000	0.017	0.1349	0.1379	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.18E-05
143			0.67	0.500	0.038	0.1421	0.1374	0.0000	1.69E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.17E-05
144			0.16	0.028	0.060	0.1461	0.1369	0.0000	1.69E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.16E-05

145	0.00	0.000	0.096	0.1408	0.1364	0.0000	1.68E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.15E-05
146	0.00	0.000	0.153	0.1323	0.1359	0.0000	1.68E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.14E-05
147	0.00	0.000	0.050	0.1295	0.1354	0.0000	1.67E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.13E-05
148	0.00	0.000	0.012	0.1287	0.1387	0.0000	1.71E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.12E-05
149	0.00	0.000	0.000	0.1287	0.1409	0.0000	1.73E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.11E-05
150	0.00	0.000	0.000	0.1287	0.1404	0.0000	1.72E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.10E-05
151	0.00	0.000	0.000	0.1287	0.1399	0.0000	1.72E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.09E-05
152	0.00	0.000	0.000	0.1287	0.1393	0.0000	1.71E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.08E-05
153	0.00	0.000	0.000	0.1287	0.1388	0.0000	1.71E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.07E-05
154	0.00	0.000	0.000	0.1287	0.1383	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.06E-05
155	0.00	0.000	0.000	0.1287	0.1377	0.0000	1.70E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.05E-05
156	0.00	0.000	0.000	0.1287	0.1372	0.0000	1.69E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.04E-05
157	0.00	0.000	0.000	0.1287	0.1367	0.0000	1.69E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.03E-05
158	0.00	0.000	0.000	0.1287	0.1362	0.0000	1.68E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.02E-05
159	0.00	0.000	0.000	0.1287	0.1356	0.0000	1.68E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.01E-05
160	0.00	0.000	0.000	0.1287	0.1351	0.0000	1.67E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	9.00E-05
161	0.00	0.000	0.000	0.1287	0.1346	0.0000	1.67E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.99E-05
162	0.00	0.000	0.000	0.1287	0.1341	0.0000	1.66E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.98E-05
163	0.00	0.000	0.000	0.1287	0.1336	0.0000	1.66E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.97E-05
164	0.39	0.202	0.021	0.1382	0.1330	0.0000	1.65E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.96E-05
165	0.13	0.005	0.011	0.1443	0.1325	0.0000	1.65E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.95E-05
166	0.16	0.041	0.011	0.1504	0.1320	0.0000	1.64E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.94E-05
167	0.28	0.146	0.020	0.1568	0.1315	0.0000	1.64E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.93E-05
168	0.10	0.000	0.176	0.1524	0.1310	0.0000	1.63E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.92E-05
169	0.00	0.000	0.013	0.1518	0.1305	0.0000	1.63E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.91E-05
170	0.00	0.000	0.013	0.1511	0.1300	0.0000	1.62E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	8.90E-05
171	0.37	0.204	0.020	0.1593	0.1297	0.0000	1.62E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.89E-05
172	0.00	0.000	0.190	0.1488	0.1297	0.0000	1.62E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.88E-05
173	0.00	0.000	0.010	0.1482	0.1293	0.0000	1.62E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.87E-05
174	0.00	0.000	0.010	0.1477	0.1288	0.0000	1.61E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.86E-05
175	0.00	0.000	0.010	0.1471	0.1283	0.0000	1.61E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.85E-05
176	0.68	0.499	0.018	0.1563	0.1278	0.0000	1.60E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.84E-05
177	0.00	0.000	0.144	0.1483	0.1273	0.0000	1.60E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.83E-05
178	0.95	0.511	0.286	0.1570	0.1268	0.0000	1.59E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.82E-05
179	0.87	0.469	0.288	0.1635	0.1264	0.0000	1.59E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.81E-05
180	0.93	0.499	0.317	0.1699	0.1259	0.0000	1.58E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.80E-05
181	0.00	0.000	0.224	0.1575	0.1254	0.0000	1.58E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.79E-05
182	0.00	0.000	0.209	0.1458	0.1278	0.0000	1.60E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.78E-05

183	0.00	0.000	0.224	0.1333	0.1290	0.0000	1.61E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.77E-05
184	0.00	0.000	0.065	0.1293	0.1338	0.0000	1.66E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.76E-05
185	0.00	0.000	0.006	0.1287	0.1563	0.0000	1.87E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.75E-05
186	0.00	0.000	0.000	0.1287	0.1600	0.0000	1.90E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.74E-05
187	0.00	0.000	0.000	0.1287	0.1595	0.0000	1.90E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.73E-05
188	0.01	0.000	0.006	0.1287	0.1590	0.0000	1.89E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.72E-05
189	0.03	0.000	0.006	0.1297	0.1584	0.0000	1.89E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.71E-05
190	0.82	0.608	0.032	0.1398	0.1578	0.0000	1.88E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.70E-05
191	0.00	0.000	0.145	0.1318	0.1572	0.0000	1.88E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.69E-05
192	0.04	0.000	0.021	0.1328	0.1566	0.0000	1.87E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.68E-05
193	0.54	0.349	0.028	0.1416	0.1560	0.0000	1.87E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.67E-05
194	0.02	0.000	0.168	0.1332	0.1554	0.0000	1.86E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.66E-05
195	0.35	0.143	0.190	0.1340	0.1587	0.0000	1.89E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.65E-05
196	0.00	0.000	0.037	0.1319	0.1604	0.0000	1.91E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.64E-05
197	0.16	0.008	0.063	0.1366	0.1623	0.0000	1.92E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.64E-05
198	0.04	0.000	0.042	0.1363	0.1631	0.0000	1.93E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.63E-05
199	0.41	0.224	0.049	0.1437	0.1625	0.0000	1.93E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.62E-05
200	0.00	0.000	0.151	0.1353	0.1619	0.0000	1.92E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.61E-05
201	0.00	0.000	0.026	0.1338	0.1620	0.0000	1.92E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.60E-05
202	0.00	0.000	0.023	0.1325	0.1618	0.0000	1.92E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.59E-05
203	0.00	0.000	0.027	0.1312	0.1612	0.0000	1.91E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.58E-05
204	0.09	0.000	0.028	0.1348	0.1606	0.0000	1.91E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.57E-05
205	0.36	0.202	0.030	0.1419	0.1600	0.0000	1.90E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.56E-05
206	0.07	0.000	0.162	0.1367	0.1615	0.0000	1.92E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.55E-05
207	0.28	0.136	0.028	0.1432	0.1671	0.0000	1.97E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.54E-05
208	0.35	0.111	0.276	0.1412	0.1665	0.0000	1.96E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.53E-05
209	0.00	0.000	0.138	0.1335	0.1678	0.0000	1.97E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.52E-05
210	0.00	0.000	0.058	0.1303	0.1706	0.0000	2.00E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.51E-05
211	0.65	0.404	0.063	0.1401	0.1700	0.0000	1.99E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.51E-05
212	0.42	0.117	0.256	0.1429	0.1693	0.0000	1.99E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.50E-05
213	0.00	0.000	0.158	0.1341	0.1687	0.0000	1.98E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.49E-05
214	0.00	0.000	0.067	0.1302	0.1741	0.0000	2.03E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.48E-05
215	0.01	0.000	0.026	0.1291	0.1770	0.0000	2.06E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.47E-05
216	0.02	0.000	0.012	0.1293	0.1821	0.0000	2.10E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.46E-05
217	0.02	0.000	0.008	0.1298	0.1849	0.0000	2.13E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.45E-05
218	0.65	0.426	0.042	0.1398	0.1843	0.0000	2.12E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.44E-05
219	0.57	0.271	0.179	0.1462	0.1836	0.0000	2.11E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.43E-05
220	1.01	0.620	0.275	0.1527	0.1829	0.0000	2.11E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.42E-05

221	0.86	0.501	0.243	0.1592	0.1823	0.0000	2.10E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.42E-05
222	0.25	0.106	0.180	0.1571	0.1816	0.0000	2.10E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.41E-05
223	0.21	0.070	0.171	0.1554	0.1810	0.0000	2.09E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.40E-05
224	0.00	0.000	0.090	0.1504	0.1803	0.0000	2.08E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.39E-05
225	0.01	0.000	0.102	0.1449	0.1858	0.0000	2.13E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.38E-05
226	0.00	0.000	0.155	0.1363	0.1888	0.0000	2.16E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.37E-05
227	0.00	0.000	0.117	0.1298	0.1881	0.0000	2.15E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.36E-05
228	0.81	0.463	0.147	0.1408	0.1875	0.0000	2.15E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.35E-05
229	0.23	0.103	0.076	0.1436	0.1904	0.0000	2.17E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.35E-05
230	0.25	0.106	0.124	0.1448	0.1959	0.0000	2.22E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.34E-05
231	0.52	0.114	0.298	0.1510	0.1951	0.0000	2.21E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.33E-05
232	0.05	0.000	0.076	0.1496	0.1944	0.0000	2.21E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.32E-05
233	0.04	0.000	0.152	0.1434	0.1938	0.0000	2.20E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.31E-05
234	0.40	0.116	0.269	0.1444	0.1931	0.0000	2.20E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.30E-05
235	0.52	0.273	0.126	0.1509	0.1924	0.0000	2.19E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.29E-05
236	0.00	0.000	0.102	0.1452	0.1917	0.0000	2.18E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.28E-05
237	0.21	0.071	0.111	0.1468	0.1956	0.0000	2.22E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.28E-05
238	0.00	0.000	0.151	0.1384	0.1976	0.0000	2.24E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.27E-05
239	0.00	0.000	0.148	0.1301	0.1990	0.0000	2.25E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.26E-05
240	0.15	0.000	0.035	0.1364	0.1995	0.0000	2.25E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.25E-05
241	0.00	0.000	0.081	0.1317	0.2042	0.0000	2.29E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.24E-05
242	0.00	0.000	0.042	0.1294	0.2068	0.0000	2.31E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.23E-05
243	0.00	0.000	0.010	0.1289	0.2060	0.0000	2.31E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.22E-05
244	0.00	0.000	0.002	0.1287	0.2066	0.0000	2.31E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.22E-05
245	0.00	0.000	0.000	0.1287	0.2066	0.0000	2.31E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.21E-05
246	0.00	0.000	0.000	0.1287	0.2060	0.0000	2.31E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.20E-05
247	0.22	0.051	0.006	0.1379	0.2053	0.0000	2.30E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.19E-05
248	0.00	0.000	0.012	0.1373	0.2046	0.0000	2.30E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.18E-05
249	0.00	0.000	0.013	0.1366	0.2038	0.0000	2.29E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.17E-05
250	0.13	0.000	0.019	0.1428	0.2031	0.0000	2.28E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.17E-05
251	0.19	0.060	0.015	0.1490	0.2024	0.0000	2.28E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.16E-05
252	1.28	1.141	0.026	0.1555	0.2017	0.0000	2.27E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.15E-05
253	0.21	0.066	0.098	0.1577	0.2012	0.0000	2.27E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.14E-05
254	0.00	0.000	0.134	0.1503	0.2007	0.0000	2.26E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.13E-05
255	0.12	0.000	0.117	0.1502	0.2000	0.0000	2.26E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.12E-05
256	0.14	0.000	0.137	0.1507	0.1993	0.0000	2.25E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.12E-05
257	0.08	0.000	0.115	0.1486	0.2055	0.0000	2.30E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.11E-05
258	0.04	0.000	0.099	0.1455	0.2089	0.0000	2.33E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.10E-05

259		0.00	0.000	0.143	0.1376	0.2082	0.0000	2.33E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.09E-05
260		0.00	0.000	0.088	0.1326	0.2111	0.0000	2.35E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.08E-05
261		0.08	0.000	0.053	0.1341	0.2125	0.0000	2.36E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.07E-05
262		0.00	0.000	0.027	0.1324	0.2140	0.0000	2.38E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.07E-05
263		0.00	0.000	0.016	0.1315	0.2199	0.0000	2.43E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.06E-05
264		0.00	0.000	0.011	0.1309	0.2192	0.0000	2.42E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.05E-05
265		0.00	0.000	0.009	0.1304	0.2184	0.0000	2.41E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	8.04E-05
266		0.00	0.000	0.008	0.1302	0.2184	0.0000	2.41E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	8.03E-05
267		0.07	0.000	0.007	0.1336	0.2181	0.0000	2.41E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	8.02E-05
268		0.28	0.136	0.021	0.1406	0.2174	0.0000	2.40E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	8.02E-05
269		0.19	0.073	0.014	0.1466	0.2167	0.0000	2.40E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	8.01E-05
270		0.11	0.000	0.051	0.1497	0.2159	0.0000	2.39E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	8.00E-05
271		0.02	0.000	0.083	0.1464	0.2152	0.0000	2.39E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.99E-05
272		0.00	0.000	0.096	0.1410	0.2144	0.0000	2.38E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.98E-05
273		0.00	0.000	0.042	0.1387	0.2137	0.0000	2.37E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.98E-05
274	*	0.01	0.000	0.039	0.1370	0.2138	0.0000	2.37E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.97E-05
275		0.01	0.000	0.030	0.1361	0.2135	0.0000	2.37E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.96E-05
276	*	0.02	0.000	0.041	0.1349	0.2128	0.0000	2.37E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.95E-05
277	*	0.12	0.000	0.043	0.1360	0.2120	0.0000	2.36E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.94E-05
278		0.00	0.000	0.074	0.1352	0.2113	0.0000	2.35E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.94E-05
279		0.05	0.000	0.024	0.1367	0.2105	0.0000	2.35E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.93E-05
280		0.00	0.000	0.022	0.1355	0.2098	0.0000	2.34E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.92E-05
281		0.00	0.000	0.020	0.1344	0.2091	0.0000	2.33E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.91E-05
282		0.00	0.000	0.020	0.1333	0.2083	0.0000	2.33E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.91E-05
283		0.04	0.000	0.024	0.1343	0.2086	0.0000	2.33E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.90E-05
284		0.00	0.000	0.017	0.1334	0.2095	0.0000	2.34E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.89E-05
285		0.00	0.000	0.014	0.1325	0.2098	0.0000	2.34E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.88E-05
286		0.00	0.000	0.011	0.1321	0.2097	0.0000	2.34E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.87E-05
287		0.00	0.000	0.012	0.1314	0.2092	0.0000	2.34E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.87E-05
288		0.00	0.000	0.011	0.1307	0.2087	0.0000	2.33E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.86E-05
289		0.17	0.028	0.009	0.1382	0.2080	0.0000	2.33E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.85E-05
290		0.00	0.000	0.009	0.1378	0.2073	0.0000	2.32E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.84E-05
291		0.00	0.000	0.007	0.1374	0.2068	0.0000	2.31E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.83E-05
292		0.00	0.000	0.008	0.1369	0.2062	0.0000	2.31E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.83E-05
293		0.00	0.000	0.009	0.1364	0.2054	0.0000	2.30E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.82E-05
294	*	0.00	0.000	0.000	0.1364	0.2047	0.0000	2.30E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.81E-05
295	*	0.00	0.000	0.000	0.1364	0.2040	0.0000	2.29E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.80E-05
296	*	0.04	0.000	0.015	0.1375	0.2032	0.0000	2.28E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.80E-05

297	*		0.00	0.000	0.008	0.1376	0.2025	0.0000	2.28E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.79E-05
298	*		0.00	0.000	0.000	0.1376	0.2018	0.0000	2.27E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.78E-05
299	*		0.00	0.000	0.000	0.1376	0.2011	0.0000	2.27E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.77E-05
300	*		0.00	0.000	0.000	0.1376	0.2004	0.0000	2.26E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.77E-05
301	*		0.00	0.000	0.000	0.1376	0.1996	0.0000	2.25E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.76E-05
302	*		0.00	0.000	0.000	0.1376	0.1989	0.0000	2.25E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.75E-05
303	*		0.00	0.000	0.003	0.1376	0.1982	0.0000	2.24E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.74E-05
304	*		0.00	0.000	0.000	0.1376	0.1975	0.0000	2.23E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.74E-05
305	*		0.00	0.000	0.000	0.1376	0.1968	0.0000	2.23E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.73E-05
306	*		0.00	0.000	0.000	0.1376	0.1961	0.0000	2.22E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.72E-05
307			0.00	0.000	0.010	0.1370	0.1954	0.0000	2.22E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.71E-05
308			0.00	0.000	0.012	0.1365	0.1947	0.0000	2.21E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.71E-05
309			0.12	0.000	0.014	0.1423	0.1940	0.0000	2.20E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.70E-05
310			0.00	0.000	0.007	0.1419	0.1933	0.0000	2.20E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.69E-05
311			0.00	0.000	0.006	0.1416	0.1928	0.0000	2.19E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.68E-05
312			0.00	0.000	0.007	0.1412	0.1923	0.0000	2.19E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.68E-05
313			0.01	0.000	0.011	0.1409	0.1916	0.0000	2.18E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.67E-05
314	*		0.00	0.000	0.009	0.1404	0.1909	0.0000	2.18E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.66E-05
315	*		0.00	0.000	0.000	0.1404	0.1902	0.0000	2.17E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.65E-05
316	*		0.00	0.000	0.000	0.1404	0.1895	0.0000	2.17E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.65E-05
317	*		0.00	0.000	0.000	0.1404	0.1888	0.0000	2.16E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.64E-05
318	*	*	0.00	0.000	0.000	0.1404	0.1881	0.0000	2.15E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.63E-05
319	*	*	0.00	0.000	0.000	0.1404	0.1875	0.0000	2.15E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.62E-05
320	*	*	0.00	0.000	0.000	0.1404	0.1868	0.0000	2.14E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.62E-05
321	*	*	0.00	0.000	0.000	0.1404	0.1861	0.0000	2.14E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.61E-05
322	*	*	0.00	0.000	0.000	0.1404	0.1854	0.0000	2.13E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.60E-05
323	*	*	0.00	0.000	0.000	0.1404	0.1848	0.0000	2.12E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.59E-05
324	*	*	0.00	0.000	0.000	0.1404	0.1841	0.0000	2.12E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.59E-05
325	*	*	0.00	0.000	0.000	0.1404	0.1834	0.0000	2.11E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.58E-05
326	*	*	0.00	0.000	0.000	0.1404	0.1827	0.0000	2.11E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.57E-05
327	*	*	0.23	0.000	0.041	0.1404	0.1821	0.0000	2.10E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.57E-05
328		*	0.00	0.113	0.032	0.1430	0.1814	0.0000	2.09E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.56E-05
329		*	0.01	0.000	0.004	0.1435	0.1808	0.0000	2.09E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.55E-05
330		*	0.17	0.164	0.004	0.1435	0.1801	0.0000	2.08E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.54E-05
331		*	0.00	0.000	0.002	0.1436	0.1794	0.0000	2.08E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.54E-05
332		*	0.00	0.000	0.000	0.1436	0.1788	0.0000	2.07E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.53E-05
333		*	0.00	0.000	0.000	0.1436	0.1781	0.0000	2.07E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.52E-05
334	*	*	0.00	0.000	0.000	0.1436	0.1775	0.0000	2.06E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.52E-05

335		*	0.00	0.000	0.000	0.1436	0.1768	0.0000	2.05E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.51E-05
336	*	*	0.01	0.000	0.008	0.1436	0.1762	0.0000	2.05E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.50E-05
337	*	*	0.00	0.000	0.000	0.1436	0.1755	0.0000	2.04E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.49E-05
338	*	*	0.05	0.000	0.028	0.1436	0.1749	0.0000	2.04E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.49E-05
339	*	*	0.00	0.000	0.020	0.1436	0.1743	0.0000	2.03E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.48E-05
340		*	0.00	0.000	0.000	0.1436	0.1736	0.0000	2.02E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.47E-05
341		*	0.00	0.000	0.000	0.1436	0.1730	0.0000	2.02E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.47E-05
342		*	0.13	0.130	0.004	0.1436	0.1723	0.0000	2.01E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.46E-05
343		*	0.01	0.000	0.004	0.1439	0.1717	0.0000	2.01E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.45E-05
344		*	0.02	0.000	0.004	0.1448	0.1711	0.0000	2.00E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.44E-05
345		*	0.00	0.000	0.002	0.1448	0.1705	0.0000	2.00E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.44E-05
346	*	*	0.57	0.000	0.040	0.1448	0.1698	0.0000	1.99E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.43E-05
347	*	*	0.24	0.000	0.015	0.1448	0.1692	0.0000	1.99E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.42E-05
348	*	*	0.73	0.000	0.025	0.1448	0.1686	0.0000	1.98E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.42E-05
349	*	*	0.05	0.000	0.010	0.1448	0.1679	0.0000	1.97E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.41E-05
350	*	*	0.00	0.000	0.022	0.1448	0.1673	0.0000	1.97E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.40E-05
351	*	*	0.00	0.000	0.025	0.1448	0.1667	0.0000	1.96E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.40E-05
352		*	0.03	0.238	0.000	0.1448	0.1661	0.0000	1.96E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.39E-05
353	*	*	0.00	0.000	0.041	0.1448	0.1655	0.0000	1.95E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.38E-05
354		*	0.09	0.160	0.000	0.1448	0.1649	0.0000	1.95E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.38E-05
355		*	0.00	1.125	0.000	0.1448	0.1643	0.0000	1.94E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.37E-05
356		*	0.00	0.000	0.000	0.1448	0.1636	0.0000	1.94E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.36E-05
357	*	*	0.00	0.000	0.000	0.1448	0.1630	0.0000	1.93E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.35E-05
358	*	*	0.00	0.000	0.000	0.1448	0.1624	0.0000	1.92E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.35E-05
359	*	*	0.00	0.000	0.000	0.1448	0.1618	0.0000	1.92E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.34E-05
360	*	*	0.00	0.000	0.000	0.1448	0.1612	0.0000	1.91E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.33E-05
361		*	0.22	0.221	0.004	0.1448	0.1606	0.0000	1.91E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.33E-05
362		*	0.00	0.000	0.000	0.1448	0.1600	0.0000	1.90E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.32E-05
363	*	*	0.00	0.000	0.000	0.1448	0.1594	0.0000	1.90E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.31E-05
364		*	0.00	0.000	0.000	0.1448	0.1588	0.0000	1.89E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.31E-05
365		*	0.05	0.000	0.004	0.1475	0.1582	0.0000	1.89E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.30E-05

* = Frozen (air or soil)

Annual Totals for Year 2			
	inches	cubic feet	percent
Precipitation	34.27	124,383.8	100.00

Runoff	18.647	67,687.5	54.42
Evapotranspiration	15.436	56,031.1	45.05
Drainage Collected from Layer 3	0.0110	40.0	0.03
Percolation/Leakage through Layer 4	0.062702	227.6	0.18
Average Head on Top of Layer 4	0.1422	---	---
Drainage Collected from Layer 7	0.0001	0.1877	0.00
Percolation/Leakage through Layer 8	0.000002	0.0091	0.00
Average Head on Top of Layer 8	0.0001	---	---
Percolation/Leakage through Layer 10	0.032436	117.7	0.09
Change in Water Storage	0.1398	507.4	0.41
Soil Water at Start of Year	72.4434	262,969.5	211.42
Soil Water at End of Year	72.5832	263,476.9	211.83
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 3

Column key: Head #1: drainage from Layer 4 | Head #2: drainage from Layer 8
Drain #1: drainage from Layer 3 | Drain #2: drainage from Layer 7
Leak #1: leakage thru Layer 4 | Leak #2: leakage thru Layer 8 | Leak #3: leakage thru Layer 10

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:19

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)	Head #3 (inches)	Drain #3 (inches)	Leak #3 (inches)
1	*	*	0.00	0.000	0.000	0.1475	0.1576	0.0000	1.88E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.29E-05
2		*	0.00	0.000	0.000	0.1475	0.1571	0.0000	1.88E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.29E-05
3	*	*	0.00	0.000	0.000	0.1475	0.1565	0.0000	1.87E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.28E-05
4	*	*	0.00	0.000	0.000	0.1475	0.1559	0.0000	1.86E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.27E-05
5	*	*	0.01	0.000	0.010	0.1475	0.1553	0.0000	1.86E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.27E-05
6	*	*	0.00	0.000	0.000	0.1475	0.1547	0.0000	1.85E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.26E-05
7		*	0.00	0.000	0.000	0.1475	0.1541	0.0000	1.85E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.25E-05
8	*	*	0.00	0.000	0.000	0.1475	0.1535	0.0000	1.84E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.25E-05
9	*	*	0.00	0.000	0.000	0.1475	0.1530	0.0000	1.84E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.24E-05
10	*	*	0.19	0.000	0.007	0.1475	0.1524	0.0000	1.83E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.23E-05
11	*	*	0.12	0.000	0.003	0.1475	0.1518	0.0000	1.83E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.23E-05
12	*	*	0.00	0.000	0.021	0.1475	0.1512	0.0000	1.82E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.22E-05
13	*	*	0.02	0.000	0.000	0.1475	0.1507	0.0000	1.82E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.21E-05
14	*	*	0.02	0.000	0.000	0.1475	0.1501	0.0000	1.81E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.21E-05
15	*	*	0.21	0.000	0.000	0.1475	0.1495	0.0000	1.81E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.20E-05
16	*	*	0.03	0.000	0.000	0.1475	0.1490	0.0000	1.80E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.19E-05
17	*	*	0.00	0.000	0.033	0.1475	0.1484	0.0000	1.80E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.19E-05
18	*	*	0.00	0.000	0.023	0.1475	0.1478	0.0000	1.79E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.18E-05
19		*	0.00	0.304	0.013	0.1475	0.1473	0.0000	1.79E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.17E-05
20		*	0.00	0.144	0.032	0.1475	0.1467	0.0000	1.78E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.17E-05
21	*	*	0.03	0.000	0.028	0.1475	0.1462	0.0000	1.78E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.16E-05
22	*	*	0.15	0.000	0.030	0.1475	0.1456	0.0000	1.77E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.15E-05
23	*	*	0.00	0.000	0.036	0.1475	0.1451	0.0000	1.77E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.15E-05
24		*	0.00	0.000	0.065	0.1487	0.1445	0.0000	1.76E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.14E-05
25	*	*	0.00	0.000	0.000	0.1487	0.1440	0.0000	1.75E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.14E-05
26	*	*	0.00	0.000	0.000	0.1487	0.1434	0.0000	1.75E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.13E-05
27	*	*	0.00	0.000	0.000	0.1487	0.1429	0.0000	1.74E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.12E-05
28	*	*	0.00	0.000	0.000	0.1487	0.1423	0.0000	1.74E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	7.12E-05
29	*	*	0.00	0.000	0.000	0.1487	0.1418	0.0000	1.73E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.11E-05
30		*	0.00	0.000	0.000	0.1487	0.1412	0.0000	1.73E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.10E-05

31		*	0.00	0.000	0.000	0.1487	0.1407	0.0000	1.72E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.10E-05
32	*	*	0.00	0.000	0.000	0.1487	0.1402	0.0000	1.72E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.09E-05
33	*	*	0.00	0.000	0.000	0.1487	0.1396	0.0000	1.71E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.08E-05
34	*	*	0.13	0.000	0.027	0.1487	0.1391	0.0000	1.71E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.08E-05
35	*	*	0.00	0.000	0.021	0.1487	0.1385	0.0000	1.70E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.07E-05
36		*	0.19	0.256	0.015	0.1487	0.1380	0.0000	1.70E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.07E-05
37		*	0.00	0.000	0.000	0.1487	0.1375	0.0000	1.69E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.06E-05
38		*	0.00	0.000	0.000	0.1487	0.1370	0.0000	1.69E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.05E-05
39		*	0.00	0.000	0.000	0.1487	0.1364	0.0000	1.68E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.05E-05
40		*	0.00	0.000	0.000	0.1487	0.1359	0.0000	1.68E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.04E-05
41		*	0.00	0.000	0.000	0.1487	0.1354	0.0000	1.67E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.03E-05
42	*	*	0.02	0.000	0.021	0.1487	0.1349	0.0000	1.67E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.03E-05
43	*	*	0.00	0.000	0.000	0.1487	0.1343	0.0000	1.66E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.02E-05
44	*	*	0.00	0.000	0.000	0.1487	0.1338	0.0000	1.66E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.02E-05
45	*	*	0.00	0.000	0.000	0.1487	0.1333	0.0000	1.65E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.01E-05
46	*	*	0.00	0.000	0.000	0.1487	0.1328	0.0000	1.65E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.00E-05
47	*	*	0.25	0.000	0.033	0.1487	0.1323	0.0000	1.64E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	7.00E-05
48		*	0.01	0.182	0.000	0.1487	0.1318	0.0000	1.64E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.99E-05
49		*	0.01	0.000	0.053	0.1487	0.1312	0.0000	1.64E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.98E-05
50		*	0.00	0.000	0.000	0.1487	0.1307	0.0000	1.63E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.98E-05
51	*	*	0.00	0.000	0.000	0.1487	0.1302	0.0000	1.63E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.97E-05
52		*	0.00	0.000	0.000	0.1487	0.1297	0.0000	1.62E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.97E-05
53	*	*	0.00	0.000	0.000	0.1487	0.1292	0.0000	1.62E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.96E-05
54	*	*	0.00	0.000	0.000	0.1487	0.1287	0.0000	1.61E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.95E-05
55	*	*	0.00	0.000	0.000	0.1487	0.1282	0.0000	1.61E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.95E-05
56		*	0.00	0.000	0.000	0.1487	0.1277	0.0000	1.60E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.94E-05
57		*	0.00	0.000	0.000	0.1487	0.1272	0.0000	1.60E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.94E-05
58	*	*	0.00	0.000	0.000	0.1487	0.1267	0.0000	1.59E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.93E-05
59		*	0.00	0.000	0.000	0.1487	0.1262	0.0000	1.59E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.92E-05
60		*	0.00	0.000	0.000	0.1487	0.1257	0.0000	1.58E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.92E-05
61	*	*	0.00	0.000	0.004	0.1487	0.1252	0.0000	1.58E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.91E-05
62	*	*	0.03	0.000	0.030	0.1487	0.1247	0.0000	1.57E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.90E-05
63	*	*	0.42	0.000	0.010	0.1487	0.1242	0.0000	1.57E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.90E-05
64	*	*	0.96	0.000	0.000	0.1487	0.1238	0.0000	1.56E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.89E-05
65	*	*	0.00	0.000	0.037	0.1487	0.1233	0.0000	1.56E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.89E-05
66	*	*	0.00	0.000	0.013	0.1487	0.1228	0.0000	1.55E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.88E-05
67	*	*	0.00	0.000	0.022	0.1487	0.1223	0.0000	1.55E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.87E-05
68	*	*	0.03	0.000	0.000	0.1487	0.1218	0.0000	1.54E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.87E-05

69		*	0.00	0.300	0.007	0.1487	0.1213	0.0000	1.54E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.86E-05
70		*	0.00	1.027	0.000	0.1487	0.1209	0.0000	1.54E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.86E-05
71		*	0.00	0.000	0.000	0.1487	0.1204	0.0000	1.53E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.85E-05
72		*	0.00	0.000	0.000	0.1487	0.1199	0.0000	1.53E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.84E-05
73	*	*	0.00	0.000	0.000	0.1487	0.1194	0.0000	1.52E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.84E-05
74		*	0.32	0.312	0.004	0.1487	0.1190	0.0000	1.52E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.83E-05
75		*	0.10	0.000	0.004	0.1541	0.1185	0.0000	1.51E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.83E-05
76		*	0.01	0.000	0.003	0.1542	0.1180	0.0000	1.51E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.82E-05
77		*	0.16	0.153	0.004	0.1542	0.1176	0.0000	1.50E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.82E-05
78		*	0.00	0.000	0.000	0.1542	0.1171	0.0000	1.50E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.81E-05
79		*	0.00	0.000	0.000	0.1542	0.1166	0.0000	1.49E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.80E-05
80		*	0.00	0.000	0.000	0.1542	0.1162	0.0000	1.49E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.80E-05
81		*	0.00	0.000	0.000	0.1542	0.1157	0.0000	1.48E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.79E-05
82		*	0.16	0.158	0.004	0.1542	0.1152	0.0000	1.48E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	6.79E-05
83		*	0.62	0.614	0.004	0.1542	0.1148	0.0000	1.48E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.78E-05
84			0.13	0.000	0.078	0.1569	0.1143	0.0000	1.47E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.77E-05
85			0.00	0.000	0.143	0.1490	0.1140	0.0000	1.47E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.77E-05
86			0.00	0.000	0.115	0.1427	0.1137	0.0000	1.46E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.76E-05
87			0.00	0.000	0.195	0.1318	0.1132	0.0000	1.46E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.76E-05
88			0.00	0.000	0.043	0.1294	0.1127	0.0000	1.46E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.75E-05
89			0.00	0.000	0.008	0.1287	0.1224	0.0000	1.55E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.75E-05
90			0.00	0.000	0.000	0.1287	0.1280	0.0000	1.60E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.74E-05
91			0.00	0.000	0.000	0.1287	0.1276	0.0000	1.60E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.73E-05
92			0.00	0.000	0.000	0.1287	0.1271	0.0000	1.60E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.73E-05
93	*		0.00	0.000	0.003	0.1287	0.1266	0.0000	1.59E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.72E-05
94			0.02	0.000	0.007	0.1294	0.1261	0.0000	1.59E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.72E-05
95			0.10	0.000	0.006	0.1345	0.1256	0.0000	1.58E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.71E-05
96			0.00	0.000	0.012	0.1339	0.1252	0.0000	1.58E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.71E-05
97			0.35	0.166	0.030	0.1422	0.1247	0.0000	1.57E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.70E-05
98			0.05	0.000	0.014	0.1444	0.1242	0.0000	1.57E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.69E-05
99			0.00	0.000	0.010	0.1438	0.1237	0.0000	1.56E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.69E-05
100	*		0.00	0.000	0.000	0.1438	0.1232	0.0000	1.56E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.68E-05
101			0.00	0.000	0.010	0.1433	0.1227	0.0000	1.55E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.68E-05
102			0.63	0.452	0.025	0.1520	0.1223	0.0000	1.55E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.67E-05
103			1.34	1.038	0.187	0.1584	0.1218	0.0000	1.54E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.67E-05
104	*		0.05	0.000	0.090	0.1564	0.1213	0.0000	1.54E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.66E-05
105			0.00	0.000	0.098	0.1510	0.1208	0.0000	1.54E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.65E-05
106			0.00	0.000	0.121	0.1443	0.1203	0.0000	1.53E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.65E-05

107		0.17	0.011	0.104	0.1475	0.1199	0.0000	1.53E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.64E-05
108	*	0.00	0.000	0.101	0.1419	0.1194	0.0000	1.52E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.64E-05
109		0.00	0.000	0.123	0.1348	0.1208	0.0000	1.53E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.63E-05
110		0.00	0.000	0.091	0.1296	0.1361	0.0000	1.68E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.63E-05
111		0.00	0.000	0.014	0.1288	0.1370	0.0000	1.69E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.62E-05
112		0.00	0.000	0.002	0.1287	0.1391	0.0000	1.71E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.61E-05
113		0.00	0.000	0.000	0.1287	0.1401	0.0000	1.72E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.61E-05
114		0.30	0.121	0.020	0.1375	0.1395	0.0000	1.71E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.60E-05
115		0.31	0.154	0.038	0.1439	0.1390	0.0000	1.71E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.60E-05
116	*	0.43	0.000	0.038	0.1450	0.1385	0.0000	1.70E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.59E-05
117	*	0.00	0.000	0.023	0.1461	0.1379	0.0000	1.70E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.59E-05
118	*	0.15	0.000	0.016	0.1472	0.1374	0.0000	1.69E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.58E-05
119	*	0.19	0.000	0.000	0.1483	0.1369	0.0000	1.69E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.58E-05
120	*	0.04	0.000	0.026	0.1494	0.1364	0.0000	1.68E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.57E-05
121	*	0.00	0.000	0.000	0.1505	0.1358	0.0000	1.68E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.57E-05
122		0.00	0.382	0.064	0.1579	0.1353	0.0000	1.67E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.56E-05
123		0.00	0.000	0.066	0.1543	0.1348	0.0000	1.67E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.55E-05
124		0.00	0.000	0.207	0.1428	0.1343	0.0000	1.66E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.55E-05
125		0.00	0.000	0.196	0.1319	0.1337	0.0000	1.66E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.54E-05
126		0.03	0.000	0.060	0.1302	0.1338	0.0000	1.66E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.54E-05
127		0.09	0.000	0.016	0.1337	0.1462	0.0000	1.77E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.53E-05
128		0.00	0.000	0.019	0.1326	0.1523	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.53E-05
129		0.35	0.154	0.043	0.1411	0.1517	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.52E-05
130		0.40	0.120	0.226	0.1441	0.1511	0.0000	1.82E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.52E-05
131		0.00	0.000	0.047	0.1417	0.1506	0.0000	1.82E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.51E-05
132		0.11	0.000	0.082	0.1434	0.1500	0.0000	1.81E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.51E-05
133		0.02	0.000	0.174	0.1345	0.1497	0.0000	1.81E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.50E-05
134		0.62	0.301	0.148	0.1440	0.1497	0.0000	1.81E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.49E-05
135		0.99	0.558	0.317	0.1504	0.1493	0.0000	1.80E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.49E-05
136		0.32	0.116	0.238	0.1484	0.1500	0.0000	1.81E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.48E-05
137		0.22	0.093	0.051	0.1526	0.1502	0.0000	1.81E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.48E-05
138	*	0.03	0.000	0.046	0.1517	0.1539	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.47E-05
139		0.03	0.000	0.051	0.1504	0.1558	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.47E-05
140	*	0.01	0.000	0.007	0.1504	0.1552	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.46E-05
141	*	0.00	0.000	0.090	0.1454	0.1546	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.46E-05
142		0.00	0.000	0.108	0.1394	0.1541	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.45E-05
143		0.00	0.000	0.153	0.1308	0.1536	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.45E-05
144		0.04	0.000	0.051	0.1303	0.1530	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.44E-05

145	0.00	0.000	0.015	0.1293	0.1573	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.44E-05
146	0.00	0.000	0.009	0.1288	0.1597	0.0000	1.90E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.43E-05
147	0.00	0.000	0.002	0.1287	0.1591	0.0000	1.89E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.43E-05
148	0.20	0.044	0.008	0.1367	0.1585	0.0000	1.89E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.42E-05
149	0.07	0.000	0.019	0.1396	0.1581	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.42E-05
150	0.00	0.000	0.013	0.1389	0.1576	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.41E-05
151	0.00	0.000	0.013	0.1381	0.1570	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.41E-05
152	0.00	0.000	0.016	0.1372	0.1564	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.40E-05
153	0.00	0.000	0.017	0.1363	0.1558	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.39E-05
154	0.03	0.000	0.021	0.1365	0.1552	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.39E-05
155	1.17	0.995	0.027	0.1448	0.1546	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.38E-05
156	1.27	1.030	0.129	0.1513	0.1541	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.38E-05
157	0.01	0.000	0.076	0.1477	0.1535	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.37E-05
158	0.00	0.000	0.111	0.1416	0.1530	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.37E-05
159	0.00	0.000	0.103	0.1358	0.1530	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.36E-05
160	0.00	0.000	0.109	0.1298	0.1525	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.36E-05
161	0.00	0.000	0.015	0.1290	0.1520	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.35E-05
162	0.61	0.379	0.065	0.1384	0.1518	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.35E-05
163	0.20	0.053	0.130	0.1391	0.1555	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.34E-05
164	0.01	0.000	0.133	0.1323	0.1570	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.34E-05
165	0.00	0.000	0.044	0.1298	0.1565	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.33E-05
166	0.00	0.000	0.015	0.1290	0.1559	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.33E-05
167	0.00	0.000	0.003	0.1287	0.1575	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.32E-05
168	0.00	0.000	0.001	0.1287	0.1582	0.0000	1.89E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.32E-05
169	0.00	0.000	0.000	0.1287	0.1578	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.31E-05
170	0.00	0.000	0.000	0.1287	0.1573	0.0000	1.88E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.31E-05
171	0.16	0.014	0.007	0.1366	0.1567	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.30E-05
172	1.24	1.096	0.032	0.1430	0.1561	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.30E-05
173	0.72	0.454	0.154	0.1494	0.1555	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.29E-05
174	0.59	0.118	0.359	0.1558	0.1549	0.0000	1.86E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.29E-05
175	0.60	0.199	0.283	0.1622	0.1544	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.28E-05
176	0.07	0.000	0.108	0.1602	0.1538	0.0000	1.85E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.28E-05
177	0.00	0.000	0.234	0.1474	0.1532	0.0000	1.84E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.27E-05
178	0.03	0.000	0.205	0.1375	0.1526	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.27E-05
179	0.07	0.000	0.133	0.1338	0.1521	0.0000	1.83E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.26E-05
180	0.06	0.000	0.055	0.1337	0.1566	0.0000	1.87E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.26E-05
181	0.45	0.256	0.064	0.1410	0.1652	0.0000	1.95E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.25E-05
182	0.00	0.000	0.129	0.1338	0.1646	0.0000	1.94E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.25E-05

183	0.39	0.184	0.050	0.1425	0.1640	0.0000	1.94E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.24E-05
184	0.70	0.351	0.229	0.1490	0.1634	0.0000	1.93E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.24E-05
185	0.51	0.228	0.163	0.1554	0.1628	0.0000	1.93E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.23E-05
186	0.53	0.239	0.172	0.1619	0.1622	0.0000	1.92E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.23E-05
187	0.04	0.000	0.110	0.1579	0.1616	0.0000	1.92E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.22E-05
188	0.11	0.000	0.108	0.1583	0.1610	0.0000	1.91E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.22E-05
189	0.00	0.000	0.126	0.1513	0.1604	0.0000	1.91E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.21E-05
190	0.00	0.000	0.140	0.1432	0.1694	0.0000	1.99E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.21E-05
191	0.18	0.023	0.113	0.1458	0.1745	0.0000	2.03E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.20E-05
192	0.00	0.000	0.213	0.1340	0.1739	0.0000	2.03E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.20E-05
193	0.41	0.155	0.148	0.1399	0.1732	0.0000	2.02E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.19E-05
194	0.03	0.000	0.148	0.1330	0.1801	0.0000	2.08E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.19E-05
195	0.26	0.110	0.053	0.1383	0.1851	0.0000	2.13E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.18E-05
196	0.00	0.000	0.118	0.1316	0.1882	0.0000	2.15E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.18E-05
197	0.00	0.000	0.031	0.1299	0.1897	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.17E-05
198	0.00	0.000	0.021	0.1288	0.1891	0.0000	2.16E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.17E-05
199	0.00	0.000	0.001	0.1287	0.1906	0.0000	2.18E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.16E-05
200	0.00	0.000	0.000	0.1287	0.1910	0.0000	2.18E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.16E-05
201	0.01	0.000	0.006	0.1288	0.1903	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.15E-05
202	0.07	0.000	0.006	0.1323	0.1897	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.15E-05
203	0.00	0.000	0.002	0.1322	0.1890	0.0000	2.16E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.14E-05
204	0.02	0.000	0.014	0.1326	0.1883	0.0000	2.15E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.14E-05
205	0.70	0.535	0.026	0.1402	0.1876	0.0000	2.15E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.13E-05
206	0.09	0.000	0.158	0.1366	0.1869	0.0000	2.14E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.13E-05
207	0.01	0.000	0.019	0.1362	0.1863	0.0000	2.14E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.13E-05
208	1.40	1.230	0.025	0.1441	0.1856	0.0000	2.13E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.12E-05
209	0.00	0.000	0.180	0.1341	0.1849	0.0000	2.12E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.12E-05
210	0.00	0.000	0.066	0.1304	0.1865	0.0000	2.14E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.11E-05
211	0.00	0.000	0.023	0.1291	0.1871	0.0000	2.14E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.11E-05
212	0.08	0.000	0.020	0.1319	0.1928	0.0000	2.19E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.10E-05
213	0.00	0.000	0.005	0.1317	0.1959	0.0000	2.22E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.10E-05
214	0.11	0.000	0.019	0.1370	0.1952	0.0000	2.21E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.09E-05
215	0.00	0.000	0.019	0.1360	0.1945	0.0000	2.21E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.09E-05
216	0.00	0.000	0.016	0.1351	0.1938	0.0000	2.20E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.08E-05
217	0.40	0.209	0.035	0.1439	0.1931	0.0000	2.20E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.08E-05
218	0.07	0.000	0.021	0.1468	0.1925	0.0000	2.19E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.07E-05
219	0.00	0.000	0.089	0.1419	0.1919	0.0000	2.19E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.07E-05
220	0.00	0.000	0.018	0.1409	0.1915	0.0000	2.18E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.06E-05

221	0.23	0.086	0.021	0.1479	0.1910	0.0000	2.18E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.06E-05
222	0.00	0.000	0.019	0.1468	0.1904	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.05E-05
223	0.00	0.000	0.018	0.1457	0.1903	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.05E-05
224	0.00	0.000	0.014	0.1449	0.1911	0.0000	2.18E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.05E-05
225	0.06	0.000	0.018	0.1474	0.1905	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.04E-05
226	0.81	0.658	0.024	0.1546	0.1898	0.0000	2.17E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	6.04E-05
227	0.37	0.125	0.163	0.1591	0.1891	0.0000	2.16E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.03E-05
228	0.00	0.000	0.106	0.1532	0.1884	0.0000	2.16E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.03E-05
229	0.00	0.000	0.092	0.1481	0.1883	0.0000	2.15E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.02E-05
230	0.14	0.000	0.187	0.1453	0.1879	0.0000	2.15E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.02E-05
231	0.01	0.000	0.188	0.1351	0.1872	0.0000	2.15E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.01E-05
232	0.00	0.000	0.083	0.1301	0.1987	0.0000	2.25E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.01E-05
233	0.00	0.000	0.019	0.1290	0.2053	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.00E-05
234	0.33	0.148	0.032	0.1371	0.2098	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	6.00E-05
235	0.00	0.000	0.019	0.1360	0.2122	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.99E-05
236	0.00	0.000	0.021	0.1348	0.2114	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.99E-05
237	0.24	0.097	0.027	0.1412	0.2107	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.99E-05
238	0.00	0.000	0.015	0.1403	0.2100	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.98E-05
239	0.15	0.023	0.019	0.1465	0.2096	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.98E-05
240	0.00	0.000	0.072	0.1426	0.2092	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.97E-05
241	0.00	0.000	0.018	0.1416	0.2087	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.97E-05
242	0.26	0.118	0.021	0.1483	0.2081	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.96E-05
243	0.00	0.000	0.120	0.1418	0.2074	0.0000	2.32E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.96E-05
244	0.15	0.003	0.025	0.1482	0.2088	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.95E-05
245	0.24	0.114	0.077	0.1512	0.2101	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.95E-05
246	0.04	0.000	0.124	0.1464	0.2122	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.94E-05
247	0.01	0.000	0.100	0.1413	0.2132	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.94E-05
248	0.00	0.000	0.042	0.1389	0.2124	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.94E-05
249	0.16	0.005	0.036	0.1452	0.2128	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.93E-05
250	0.82	0.659	0.043	0.1517	0.2127	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.93E-05
251	0.00	0.000	0.062	0.1482	0.2120	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.92E-05
252	0.00	0.000	0.130	0.1409	0.2148	0.0000	2.38E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.92E-05
253	0.00	0.000	0.095	0.1356	0.2162	0.0000	2.40E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.91E-05
254	0.00	0.000	0.089	0.1307	0.2155	0.0000	2.39E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.91E-05
255	0.00	0.000	0.032	0.1289	0.2147	0.0000	2.38E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.90E-05
256	0.00	0.000	0.002	0.1287	0.2178	0.0000	2.41E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.90E-05
257	0.00	0.000	0.000	0.1287	0.2193	0.0000	2.42E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.90E-05
258	0.00	0.000	0.000	0.1287	0.2185	0.0000	2.41E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.89E-05

259		0.00	0.000	0.000	0.1287	0.2178	0.0000	2.41E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.89E-05
260		0.00	0.000	0.000	0.1287	0.2170	0.0000	2.40E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.88E-05
261		0.00	0.000	0.000	0.1287	0.2162	0.0000	2.40E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.88E-05
262		0.00	0.000	0.000	0.1287	0.2155	0.0000	2.39E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.87E-05
263		0.00	0.000	0.000	0.1287	0.2147	0.0000	2.38E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.87E-05
264		0.00	0.000	0.000	0.1287	0.2140	0.0000	2.38E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.86E-05
265		0.00	0.000	0.000	0.1287	0.2132	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.86E-05
266		0.00	0.000	0.000	0.1287	0.2125	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.86E-05
267		0.18	0.032	0.006	0.1366	0.2117	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.85E-05
268		0.01	0.000	0.012	0.1363	0.2110	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.85E-05
269		0.14	0.014	0.013	0.1425	0.2102	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.84E-05
270		0.00	0.000	0.010	0.1419	0.2095	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.84E-05
271		0.10	0.000	0.012	0.1469	0.2089	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.83E-05
272		0.09	0.000	0.013	0.1509	0.2083	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.83E-05
273		0.01	0.000	0.011	0.1507	0.2077	0.0000	2.32E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.83E-05
274		0.00	0.000	0.011	0.1501	0.2071	0.0000	2.32E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.82E-05
275		0.00	0.000	0.011	0.1495	0.2064	0.0000	2.31E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.82E-05
276		0.00	0.000	0.011	0.1489	0.2056	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.81E-05
277	*	0.00	0.000	0.000	0.1489	0.2049	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.81E-05
278	*	0.00	0.000	0.010	0.1483	0.2042	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.80E-05
279	*	0.00	0.000	0.010	0.1478	0.2035	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.80E-05
280	*	0.00	0.000	0.000	0.1478	0.2027	0.0000	2.28E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.79E-05
281	*	0.00	0.000	0.004	0.1478	0.2020	0.0000	2.27E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.79E-05
282	*	0.00	0.000	0.002	0.1478	0.2013	0.0000	2.27E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.79E-05
283	*	0.00	0.000	0.000	0.1478	0.2006	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.78E-05
284	*	0.00	0.000	0.000	0.1478	0.1999	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.78E-05
285		0.00	0.000	0.010	0.1472	0.1991	0.0000	2.25E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.77E-05
286		0.27	0.126	0.014	0.1546	0.1984	0.0000	2.24E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.77E-05
287	*	0.00	0.000	0.012	0.1540	0.1977	0.0000	2.24E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.77E-05
288	*	0.06	0.000	0.048	0.1546	0.1970	0.0000	2.23E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.76E-05
289		0.22	0.077	0.016	0.1617	0.1975	0.0000	2.23E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.76E-05
290	*	0.02	0.000	0.023	0.1617	0.1975	0.0000	2.23E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.75E-05
291		0.00	0.000	0.047	0.1591	0.1968	0.0000	2.23E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.75E-05
292	*	0.01	0.000	0.011	0.1591	0.1961	0.0000	2.22E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.74E-05
293	*	0.00	0.000	0.000	0.1591	0.1953	0.0000	2.22E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.74E-05
294	*	0.00	0.000	0.000	0.1591	0.1946	0.0000	2.21E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.74E-05
295	*	0.00	0.000	0.000	0.1591	0.1939	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.73E-05
296		0.00	0.000	0.048	0.1565	0.1938	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.73E-05

297		0.04	0.000	0.101	0.1533	0.1934	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.72E-05
298		0.00	0.000	0.047	0.1507	0.1927	0.0000	2.19E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.72E-05
299	*	0.01	0.000	0.046	0.1485	0.1920	0.0000	2.19E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.71E-05
300		1.10	0.891	0.043	0.1575	0.1913	0.0000	2.18E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.71E-05
301		0.00	0.000	0.096	0.1520	0.1932	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.71E-05
302		0.00	0.000	0.043	0.1496	0.1998	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.70E-05
303		0.00	0.000	0.050	0.1468	0.2009	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.70E-05
304		0.00	0.000	0.046	0.1443	0.2002	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.69E-05
305		0.00	0.000	0.053	0.1413	0.1995	0.0000	2.25E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.69E-05
306		0.00	0.000	0.102	0.1356	0.1988	0.0000	2.25E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.69E-05
307		0.00	0.000	0.109	0.1296	0.1980	0.0000	2.24E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.68E-05
308		0.00	0.000	0.008	0.1287	0.2110	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.68E-05
309		0.04	0.000	0.013	0.1301	0.2184	0.0000	2.41E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.67E-05
310		0.07	0.000	0.009	0.1334	0.2176	0.0000	2.41E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.67E-05
311		0.00	0.000	0.019	0.1323	0.2168	0.0000	2.40E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.66E-05
312		0.00	0.000	0.019	0.1312	0.2161	0.0000	2.39E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.66E-05
313	*	0.00	0.000	0.000	0.1312	0.2153	0.0000	2.39E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.66E-05
314	*	0.00	0.000	0.009	0.1307	0.2146	0.0000	2.38E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.65E-05
315	*	0.00	0.000	0.007	0.1303	0.2138	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.65E-05
316	*	0.28	0.000	0.031	0.1314	0.2131	0.0000	2.37E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.64E-05
317		0.00	0.044	0.061	0.1384	0.2123	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.64E-05
318		0.00	0.000	0.013	0.1376	0.2119	0.0000	2.36E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.64E-05
319		0.00	0.000	0.013	0.1369	0.2113	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.63E-05
320	*	0.00	0.000	0.000	0.1369	0.2106	0.0000	2.35E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.63E-05
321		0.00	0.000	0.015	0.1361	0.2099	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.62E-05
322		0.00	0.000	0.015	0.1353	0.2092	0.0000	2.34E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.62E-05
323		0.00	0.000	0.015	0.1344	0.2084	0.0000	2.33E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.62E-05
324		0.00	0.000	0.014	0.1337	0.2077	0.0000	2.32E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.61E-05
325		0.00	0.000	0.014	0.1329	0.2070	0.0000	2.32E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.61E-05
326		0.00	0.000	0.013	0.1322	0.2063	0.0000	2.31E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.60E-05
327		0.00	0.000	0.013	0.1315	0.2056	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.60E-05
328		0.73	0.524	0.023	0.1419	0.2049	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.60E-05
329		0.02	0.000	0.033	0.1414	0.2041	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.59E-05
330		0.00	0.000	0.034	0.1395	0.2035	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.59E-05
331		0.10	0.000	0.055	0.1421	0.2034	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.58E-05
332		0.03	0.000	0.071	0.1400	0.2031	0.0000	2.28E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.58E-05
333		0.00	0.000	0.047	0.1374	0.2030	0.0000	2.28E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.58E-05
334		0.00	0.000	0.042	0.1350	0.2027	0.0000	2.28E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.57E-05

335		0.00	0.000	0.062	0.1315	0.2038	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.57E-05
336		0.00	0.000	0.037	0.1294	0.2041	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.56E-05
337		0.00	0.000	0.010	0.1289	0.2034	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.56E-05
338		0.00	0.000	0.002	0.1287	0.2054	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.56E-05
339	*	0.00	0.000	0.000	0.1287	0.2064	0.0000	2.31E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.55E-05
340		0.00	0.000	0.000	0.1287	0.2057	0.0000	2.31E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.55E-05
341		0.00	0.000	0.000	0.1287	0.2050	0.0000	2.30E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.54E-05
342		0.00	0.000	0.000	0.1287	0.2042	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.54E-05
343		0.00	0.000	0.000	0.1287	0.2035	0.0000	2.29E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.54E-05
344		0.00	0.000	0.000	0.1287	0.2028	0.0000	2.28E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.53E-05
345		0.00	0.000	0.000	0.1287	0.2021	0.0000	2.27E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.53E-05
346	*	0.00	0.000	0.000	0.1287	0.2013	0.0000	2.27E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.52E-05
347	*	0.00	0.000	0.000	0.1287	0.2006	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.52E-05
348		0.00	0.000	0.000	0.1287	0.1999	0.0000	2.26E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.52E-05
349		0.07	0.000	0.006	0.1323	0.1992	0.0000	2.25E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.51E-05
350		0.02	0.000	0.006	0.1328	0.1985	0.0000	2.24E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.51E-05
351		0.00	0.000	0.008	0.1324	0.1978	0.0000	2.24E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.51E-05
352		0.00	0.000	0.008	0.1319	0.1971	0.0000	2.23E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.50E-05
353		0.00	0.000	0.009	0.1314	0.1964	0.0000	2.22E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.50E-05
354		0.08	0.000	0.015	0.1353	0.1956	0.0000	2.22E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.49E-05
355		0.25	0.114	0.012	0.1421	0.1949	0.0000	2.21E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.49E-05
356		0.00	0.000	0.007	0.1417	0.1945	0.0000	2.21E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.49E-05
357	*	0.00	0.000	0.007	0.1414	0.1939	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.48E-05
358		0.00	0.000	0.009	0.1409	0.1932	0.0000	2.20E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.48E-05
359	*	0.00	0.000	0.000	0.1409	0.1925	0.0000	2.19E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.47E-05
360	*	0.04	0.000	0.011	0.1420	0.1918	0.0000	2.19E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.47E-05
361	*	0.00	0.000	0.022	0.1415	0.1911	0.0000	2.18E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.47E-05
362		0.00	0.000	0.007	0.1411	0.1904	0.0000	2.17E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.46E-05
363		0.00	0.000	0.008	0.1406	0.1899	0.0000	2.17E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.46E-05
364	*	0.00	0.000	0.000	0.1406	0.1894	0.0000	2.16E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.46E-05
365	*	0.06	0.000	0.019	0.1417	0.1887	0.0000	2.16E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.45E-05

* = Frozen (air or soil)

Annual Totals for Year 3			
	inches	cubic feet	percent
Precipitation	33.46	121,472.2	100.00

Runoff	18.877	68,522.7	56.41
Evapotranspiration	14.575	52,907.7	43.56
Drainage Collected from Layer 3	0.0131	47.7	0.04
Percolation/Leakage through Layer 4	0.072322	262.5	0.22
Average Head on Top of Layer 4	0.1695	---	---
Drainage Collected from Layer 7	0.0000	0.0562	0.00
Percolation/Leakage through Layer 8	0.000002	0.0090	0.00
Average Head on Top of Layer 8	0.0000	---	---
Percolation/Leakage through Layer 10	0.022942	83.3	0.07
Change in Water Storage	-0.0246	-89.3	-0.07
Soil Water at Start of Year	72.5832	263,476.9	216.90
Soil Water at End of Year	72.5393	263,317.8	216.77
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0192	69.8	0.06
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 4

Column key: Head #1: drainage from Layer 4 | Head #2: drainage from Layer 8
Drain #1: drainage from Layer 3 | Drain #2: drainage from Layer 7
Leak #1: leakage thru Layer 4 | Leak #2: leakage thru Layer 8 | Leak #3: leakage thru Layer 10

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:19

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)	Head #3 (inches)	Drain #3 (inches)	Leak #3 (inches)
1	*		0.11	0.000	0.007	0.1428	0.1880	0.0000	2.15E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.45E-05
2	*		0.00	0.000	0.004	0.1439	0.1873	0.0000	2.15E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.44E-05
3	*		0.00	0.000	0.012	0.1450	0.1867	0.0000	2.14E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.44E-05
4	*		0.05	0.000	0.000	0.1461	0.1860	0.0000	2.13E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.44E-05
5	*		0.00	0.000	0.009	0.1472	0.1853	0.0000	2.13E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.43E-05
6	*	*	0.00	0.000	0.018	0.1472	0.1846	0.0000	2.12E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.43E-05
7	*	*	0.02	0.000	0.029	0.1472	0.1840	0.0000	2.12E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.43E-05
8		*	0.00	0.000	0.028	0.1472	0.1833	0.0000	2.11E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.42E-05
9		*	0.00	0.000	0.000	0.1472	0.1826	0.0000	2.10E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.42E-05
10		*	0.00	0.000	0.000	0.1472	0.1820	0.0000	2.10E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.41E-05
11	*	*	0.00	0.000	0.000	0.1472	0.1813	0.0000	2.09E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.41E-05
12		*	0.00	0.000	0.000	0.1472	0.1806	0.0000	2.09E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.41E-05
13		*	0.15	0.110	0.004	0.1492	0.1800	0.0000	2.08E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.40E-05
14	*	*	0.00	0.000	0.000	0.1492	0.1793	0.0000	2.08E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.40E-05
15		*	0.00	0.000	0.000	0.1492	0.1787	0.0000	2.07E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.40E-05
16		*	0.00	0.000	0.000	0.1492	0.1780	0.0000	2.06E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.39E-05
17		*	0.00	0.000	0.000	0.1492	0.1774	0.0000	2.06E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.39E-05
18	*	*	0.10	0.000	0.022	0.1492	0.1767	0.0000	2.05E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.38E-05
19	*	*	0.00	0.000	0.009	0.1492	0.1761	0.0000	2.05E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.38E-05
20	*	*	0.00	0.000	0.004	0.1492	0.1754	0.0000	2.04E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.38E-05
21	*	*	0.00	0.000	0.002	0.1492	0.1748	0.0000	2.04E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.37E-05
22	*	*	0.00	0.000	0.010	0.1492	0.1741	0.0000	2.03E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.37E-05
23	*	*	0.00	0.000	0.012	0.1492	0.1735	0.0000	2.02E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.37E-05
24	*	*	0.01	0.000	0.000	0.1492	0.1729	0.0000	2.02E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.36E-05
25	*	*	0.12	0.000	0.006	0.1492	0.1722	0.0000	2.01E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.36E-05
26	*	*	0.00	0.000	0.010	0.1492	0.1716	0.0000	2.01E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.35E-05
27	*	*	0.02	0.000	0.000	0.1492	0.1710	0.0000	2.00E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.35E-05
28	*	*	0.00	0.000	0.036	0.1492	0.1703	0.0000	2.00E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.35E-05
29	*	*	0.00	0.000	0.018	0.1492	0.1697	0.0000	1.99E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.34E-05
30	*	*	0.00	0.000	0.017	0.1492	0.1691	0.0000	1.98E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.34E-05

31	*	*	0.00	0.000	0.018	0.1492	0.1685	0.0000	1.98E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.34E-05
32	*	*	0.00	0.000	0.017	0.1492	0.1678	0.0000	1.97E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.33E-05
33	*	*	0.00	0.000	0.029	0.1492	0.1672	0.0000	1.97E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.33E-05
34	*	*	0.01	0.000	0.011	0.1492	0.1666	0.0000	1.96E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.33E-05
35	*	*	0.00	0.000	0.005	0.1492	0.1660	0.0000	1.96E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.32E-05
36	*	*	0.09	0.000	0.010	0.1492	0.1654	0.0000	1.95E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.32E-05
37	*	*	0.04	0.000	0.000	0.1492	0.1648	0.0000	1.95E-04	0.0000	0.0000	6.81E-09	0.0000	0.0000	5.31E-05
38	*	*	0.01	0.000	0.000	0.1492	0.1641	0.0000	1.94E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	5.31E-05
39	*	*	0.01	0.000	0.026	0.1492	0.1635	0.0000	1.93E-04	0.0000	0.0000	6.82E-09	0.0000	0.0000	5.31E-05
40	*	*	0.00	0.000	0.033	0.1492	0.1629	0.0000	1.93E-04	0.0001	0.0000	6.82E-09	0.0000	0.0000	5.30E-05
41	*	*	0.00	0.000	0.014	0.1492	0.1623	0.0000	1.92E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	5.30E-05
42	*	*	0.00	0.000	0.019	0.1492	0.1617	0.0000	1.92E-04	0.0001	0.0000	6.83E-09	0.0000	0.0000	5.30E-05
43	*	*	0.00	0.000	0.016	0.1492	0.1611	0.0000	1.91E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	5.29E-05
44	*	*	0.00	0.000	0.004	0.1492	0.1605	0.0000	1.91E-04	0.0001	0.0000	6.84E-09	0.0000	0.0000	5.29E-05
45	*	*	0.19	0.000	0.005	0.1492	0.1599	0.0000	1.90E-04	0.0001	0.0000	6.85E-09	0.0000	0.0000	5.29E-05
46	*	*	0.21	0.000	0.000	0.1492	0.1593	0.0000	1.90E-04	0.0002	0.0000	6.86E-09	0.0000	0.0000	5.28E-05
47	*	*	0.00	0.000	0.005	0.1492	0.1587	0.0000	1.89E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	5.28E-05
48	*	*	0.00	0.000	0.000	0.1492	0.1581	0.0000	1.89E-04	0.0002	0.0000	6.87E-09	0.0000	0.0000	5.27E-05
49	*	*	0.12	0.000	0.007	0.1492	0.1575	0.0000	1.88E-04	0.0003	0.0000	6.88E-09	0.0000	0.0000	5.27E-05
50	*	*	0.19	0.000	0.000	0.1492	0.1569	0.0000	1.87E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	5.27E-05
51	*	*	0.19	0.000	0.000	0.1492	0.1564	0.0000	1.87E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	5.26E-05
52	*	*	0.03	0.000	0.000	0.1492	0.1558	0.0000	1.86E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	5.26E-05
53		*	0.04	1.003	0.000	0.1492	0.1552	0.0000	1.86E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	5.26E-05
54		*	0.06	0.000	0.004	0.1521	0.1546	0.0000	1.85E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	5.25E-05
55		*	0.01	0.000	0.004	0.1525	0.1540	0.0000	1.85E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	5.25E-05
56		*	0.00	0.000	0.003	0.1526	0.1534	0.0000	1.84E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	5.25E-05
57		*	0.01	0.000	0.004	0.1530	0.1529	0.0000	1.84E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	5.24E-05
58		*	0.00	0.000	0.000	0.1530	0.1523	0.0000	1.83E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	5.24E-05
59		*	0.00	0.000	0.000	0.1530	0.1517	0.0000	1.83E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	5.24E-05
60		*	0.00	0.000	0.000	0.1530	0.1511	0.0000	1.82E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	5.23E-05
61	*	*	0.00	0.000	0.000	0.1530	0.1506	0.0000	1.82E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	5.23E-05
62		*	0.00	0.000	0.000	0.1530	0.1500	0.0000	1.81E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	5.23E-05
63		*	0.00	0.000	0.000	0.1530	0.1494	0.0000	1.81E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.22E-05
64		*	0.00	0.000	0.000	0.1530	0.1489	0.0000	1.80E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.22E-05
65		*	0.00	0.000	0.000	0.1530	0.1483	0.0000	1.80E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.21E-05
66	*	*	0.13	0.000	0.041	0.1530	0.1477	0.0000	1.79E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.21E-05
67	*	*	0.07	0.000	0.037	0.1530	0.1472	0.0000	1.78E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.21E-05
68		*	0.55	0.644	0.024	0.1530	0.1466	0.0000	1.78E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.20E-05

69		*	0.00	0.000	0.000	0.1530	0.1461	0.0000	1.77E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.20E-05
70		*	0.00	0.000	0.000	0.1530	0.1455	0.0000	1.77E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.20E-05
71		*	0.13	0.122	0.004	0.1530	0.1450	0.0000	1.76E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.19E-05
72			0.08	0.000	0.124	0.1505	0.1444	0.0000	1.76E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.19E-05
73			0.11	0.000	0.060	0.1534	0.1439	0.0000	1.75E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.19E-05
74			0.04	0.000	0.095	0.1505	0.1433	0.0000	1.75E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.18E-05
75			0.26	0.106	0.098	0.1532	0.1461	0.0000	1.77E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.18E-05
76	*		0.00	0.000	0.000	0.1532	0.1475	0.0000	1.79E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.18E-05
77	*		0.01	0.000	0.006	0.1532	0.1469	0.0000	1.78E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.17E-05
78	*		0.02	0.000	0.015	0.1538	0.1464	0.0000	1.78E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.17E-05
79	*		0.00	0.000	0.000	0.1538	0.1458	0.0000	1.77E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.17E-05
80	*		0.17	0.000	0.005	0.1549	0.1453	0.0000	1.77E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.16E-05
81	*		0.29	0.000	0.000	0.1560	0.1447	0.0000	1.76E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.16E-05
82	*		0.00	0.000	0.012	0.1571	0.1442	0.0000	1.76E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.16E-05
83	*	*	0.01	0.000	0.015	0.1571	0.1436	0.0000	1.75E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.15E-05
84	*	*	0.05	0.000	0.018	0.1571	0.1431	0.0000	1.75E-04	0.0007	0.0000	7.02E-09	0.0000	0.0000	5.15E-05
85		*	0.01	0.370	0.015	0.1581	0.1425	0.0000	1.74E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.15E-05
86		*	0.00	0.000	0.000	0.1581	0.1420	0.0000	1.74E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.14E-05
87		*	0.00	0.000	0.000	0.1581	0.1414	0.0000	1.73E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.14E-05
88		*	0.00	0.000	0.000	0.1581	0.1409	0.0000	1.73E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.14E-05
89		*	0.00	0.000	0.001	0.1581	0.1403	0.0000	1.72E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.13E-05
90		*	0.65	0.647	0.004	0.1581	0.1398	0.0000	1.72E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.13E-05
91		*	0.03	0.000	0.004	0.1598	0.1393	0.0000	1.71E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.13E-05
92		*	0.03	0.000	0.004	0.1613	0.1387	0.0000	1.71E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.12E-05
93		*	0.00	0.000	0.000	0.1613	0.1382	0.0000	1.70E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.12E-05
94		*	0.00	0.000	0.000	0.1613	0.1377	0.0000	1.70E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.12E-05
95		*	0.00	0.000	0.000	0.1613	0.1371	0.0000	1.69E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.11E-05
96		*	0.00	0.000	0.000	0.1613	0.1366	0.0000	1.69E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.11E-05
97	*	*	0.00	0.000	0.000	0.1613	0.1361	0.0000	1.68E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.11E-05
98		*	0.00	0.000	0.000	0.1613	0.1356	0.0000	1.68E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.10E-05
99		*	0.00	0.000	0.000	0.1613	0.1350	0.0000	1.67E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.10E-05
100			0.00	0.000	0.096	0.1562	0.1345	0.0000	1.67E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.10E-05
101			0.00	0.000	0.224	0.1437	0.1360	0.0000	1.68E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.09E-05
102			0.06	0.000	0.269	0.1323	0.1367	0.0000	1.69E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.09E-05
103			0.57	0.257	0.148	0.1414	0.1361	0.0000	1.68E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.09E-05
104			0.86	0.162	0.579	0.1479	0.1356	0.0000	1.68E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.08E-05
105			0.00	0.000	0.248	0.1336	0.1482	0.0000	1.79E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.08E-05
106			0.09	0.000	0.098	0.1332	0.1555	0.0000	1.86E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	5.08E-05

107		0.07	0.000	0.033	0.1353	0.1550	0.0000	1.86E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.07E-05
108		0.01	0.000	0.031	0.1339	0.1589	0.0000	1.89E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.07E-05
109		0.00	0.000	0.027	0.1324	0.1610	0.0000	1.91E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	5.07E-05
110		0.02	0.000	0.028	0.1318	0.1604	0.0000	1.91E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.06E-05
111		0.00	0.000	0.007	0.1314	0.1600	0.0000	1.90E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.06E-05
112		0.01	0.000	0.011	0.1312	0.1602	0.0000	1.90E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	5.06E-05
113	*	0.00	0.000	0.004	0.1310	0.1599	0.0000	1.90E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.05E-05
114		0.60	0.410	0.031	0.1400	0.1593	0.0000	1.90E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.05E-05
115		0.33	0.122	0.154	0.1429	0.1587	0.0000	1.89E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.05E-05
116	*	0.41	0.000	0.052	0.1440	0.1581	0.0000	1.89E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.04E-05
117		0.54	0.627	0.119	0.1515	0.1575	0.0000	1.88E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.04E-05
118		0.02	0.000	0.033	0.1509	0.1570	0.0000	1.88E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.04E-05
119		0.00	0.000	0.094	0.1457	0.1565	0.0000	1.87E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.03E-05
120		0.32	0.130	0.137	0.1485	0.1559	0.0000	1.86E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.03E-05
121		0.00	0.000	0.087	0.1437	0.1553	0.0000	1.86E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.03E-05
122		0.00	0.000	0.072	0.1396	0.1570	0.0000	1.88E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.02E-05
123		0.55	0.159	0.243	0.1476	0.1578	0.0000	1.88E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.02E-05
124		0.22	0.067	0.186	0.1456	0.1572	0.0000	1.88E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.02E-05
125		0.09	0.000	0.101	0.1451	0.1567	0.0000	1.87E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.01E-05
126		0.02	0.000	0.109	0.1398	0.1589	0.0000	1.89E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.01E-05
127		0.23	0.071	0.179	0.1386	0.1598	0.0000	1.90E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	5.01E-05
128		0.00	0.000	0.095	0.1333	0.1592	0.0000	1.89E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.00E-05
129		0.02	0.000	0.056	0.1315	0.1618	0.0000	1.92E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.00E-05
130		0.58	0.275	0.148	0.1402	0.1631	0.0000	1.93E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	5.00E-05
131		0.14	0.008	0.049	0.1446	0.1626	0.0000	1.93E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.99E-05
132		0.00	0.000	0.126	0.1376	0.1637	0.0000	1.94E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.99E-05
133		0.10	0.000	0.169	0.1338	0.1640	0.0000	1.94E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.99E-05
134		0.06	0.000	0.031	0.1356	0.1634	0.0000	1.93E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.98E-05
135		0.00	0.000	0.027	0.1340	0.1658	0.0000	1.95E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.98E-05
136		0.00	0.000	0.025	0.1326	0.1669	0.0000	1.97E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.98E-05
137		0.13	0.000	0.031	0.1379	0.1663	0.0000	1.96E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.97E-05
138		0.00	0.000	0.017	0.1370	0.1657	0.0000	1.95E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.97E-05
139	*	0.00	0.000	0.000	0.1370	0.1651	0.0000	1.95E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.97E-05
140	*	0.00	0.000	0.000	0.1370	0.1645	0.0000	1.94E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.97E-05
141		0.47	0.277	0.035	0.1456	0.1639	0.0000	1.94E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.96E-05
142	*	0.03	0.000	0.074	0.1429	0.1638	0.0000	1.94E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.96E-05
143		0.29	0.131	0.096	0.1466	0.1634	0.0000	1.93E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.96E-05
144		0.00	0.000	0.084	0.1419	0.1629	0.0000	1.93E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.95E-05

145	3.72	3.409	0.147	0.1509	0.1624	0.0000	1.92E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.95E-05
146	0.00	0.000	0.073	0.1468	0.1633	0.0000	1.93E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.95E-05
147	0.00	0.000	0.157	0.1381	0.1635	0.0000	1.93E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.94E-05
148	0.00	0.000	0.139	0.1303	0.1644	0.0000	1.94E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.94E-05
149	0.00	0.000	0.023	0.1291	0.1646	0.0000	1.94E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.94E-05
150	0.00	0.000	0.004	0.1287	0.1703	0.0000	1.99E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.93E-05
151	0.00	0.000	0.000	0.1287	0.1734	0.0000	2.02E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.93E-05
152	1.20	0.945	0.050	0.1398	0.1727	0.0000	2.02E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.93E-05
153	0.00	0.000	0.053	0.1368	0.1721	0.0000	2.01E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.92E-05
154	0.70	0.344	0.195	0.1459	0.1715	0.0000	2.01E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.92E-05
155	0.05	0.000	0.083	0.1441	0.1708	0.0000	2.00E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.92E-05
156	0.00	0.000	0.119	0.1374	0.1702	0.0000	1.99E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.92E-05
157	0.00	0.000	0.123	0.1305	0.1718	0.0000	2.01E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.91E-05
158	0.26	0.059	0.097	0.1365	0.1725	0.0000	2.01E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.91E-05
159	0.39	0.123	0.189	0.1409	0.1725	0.0000	2.01E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.91E-05
160	0.00	0.000	0.128	0.1338	0.1750	0.0000	2.04E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.90E-05
161	1.01	0.685	0.140	0.1440	0.1756	0.0000	2.04E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.90E-05
162	0.33	0.109	0.256	0.1421	0.1750	0.0000	2.04E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.90E-05
163	1.00	0.549	0.334	0.1484	0.1743	0.0000	2.03E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.89E-05
164	0.00	0.000	0.148	0.1401	0.1742	0.0000	2.03E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.89E-05
165	0.00	0.000	0.159	0.1312	0.1797	0.0000	2.08E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.89E-05
166	0.00	0.000	0.041	0.1289	0.1818	0.0000	2.10E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.88E-05
167	0.00	0.000	0.002	0.1287	0.1850	0.0000	2.13E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.88E-05
168	0.00	0.000	0.000	0.1287	0.1866	0.0000	2.14E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.88E-05
169	0.00	0.000	0.000	0.1287	0.1859	0.0000	2.13E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.88E-05
170	0.00	0.000	0.000	0.1287	0.1853	0.0000	2.13E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.87E-05
171	0.00	0.000	0.000	0.1287	0.1846	0.0000	2.12E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.87E-05
172	0.00	0.000	0.000	0.1287	0.1839	0.0000	2.12E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.87E-05
173	0.00	0.000	0.000	0.1287	0.1833	0.0000	2.11E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.86E-05
174	0.00	0.000	0.000	0.1287	0.1826	0.0000	2.10E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.86E-05
175	0.13	0.000	0.007	0.1357	0.1819	0.0000	2.10E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.86E-05
176	0.13	0.006	0.016	0.1420	0.1813	0.0000	2.09E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.85E-05
177	0.00	0.000	0.011	0.1414	0.1806	0.0000	2.09E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.85E-05
178	0.00	0.000	0.015	0.1408	0.1799	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.85E-05
179	0.92	0.735	0.026	0.1495	0.1793	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.84E-05
180	0.17	0.037	0.070	0.1530	0.1786	0.0000	2.07E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.84E-05
181	0.03	0.000	0.072	0.1507	0.1781	0.0000	2.06E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.84E-05
182	0.11	0.000	0.115	0.1503	0.1779	0.0000	2.06E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.84E-05

183	0.15	0.000	0.098	0.1532	0.1773	0.0000	2.06E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.83E-05
184	0.00	0.000	0.146	0.1449	0.1794	0.0000	2.08E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.83E-05
185	0.00	0.000	0.096	0.1396	0.1804	0.0000	2.09E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.83E-05
186	0.00	0.000	0.040	0.1374	0.1798	0.0000	2.08E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.82E-05
187	0.09	0.000	0.035	0.1404	0.1792	0.0000	2.07E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.82E-05
188	0.00	0.000	0.032	0.1386	0.1786	0.0000	2.07E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.82E-05
189	0.23	0.089	0.033	0.1449	0.1781	0.0000	2.07E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.81E-05
190	0.00	0.000	0.025	0.1435	0.1776	0.0000	2.06E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.81E-05
191	0.00	0.000	0.024	0.1422	0.1770	0.0000	2.05E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.81E-05
192	0.00	0.000	0.024	0.1408	0.1763	0.0000	2.05E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.81E-05
193	0.02	0.000	0.027	0.1404	0.1768	0.0000	2.05E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.80E-05
194	2.50	2.321	0.028	0.1488	0.1794	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.80E-05
195	0.08	0.000	0.193	0.1426	0.1790	0.0000	2.07E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.80E-05
196	0.00	0.000	0.184	0.1323	0.1789	0.0000	2.07E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.79E-05
197	0.04	0.000	0.080	0.1298	0.1805	0.0000	2.09E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.79E-05
198	2.50	2.160	0.148	0.1405	0.1801	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.79E-05
199	0.00	0.000	0.074	0.1362	0.1845	0.0000	2.12E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.79E-05
200	0.00	0.000	0.107	0.1302	0.1868	0.0000	2.14E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.78E-05
201	0.02	0.000	0.039	0.1289	0.1861	0.0000	2.14E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.78E-05
202	0.00	0.000	0.002	0.1287	0.1883	0.0000	2.15E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.78E-05
203	0.28	0.091	0.065	0.1355	0.1894	0.0000	2.16E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.77E-05
204	0.00	0.000	0.054	0.1327	0.1887	0.0000	2.16E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.77E-05
205	0.00	0.000	0.037	0.1306	0.1880	0.0000	2.15E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.77E-05
206	0.00	0.000	0.013	0.1299	0.1873	0.0000	2.15E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.76E-05
207	0.00	0.000	0.008	0.1294	0.1877	0.0000	2.15E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.76E-05
208	0.07	0.000	0.010	0.1330	0.1876	0.0000	2.15E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.76E-05
209	0.15	0.022	0.010	0.1397	0.1870	0.0000	2.14E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.76E-05
210	0.00	0.000	0.012	0.1390	0.1864	0.0000	2.14E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.75E-05
211	0.00	0.000	0.013	0.1383	0.1857	0.0000	2.13E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.75E-05
212	0.00	0.000	0.015	0.1375	0.1850	0.0000	2.13E-04	0.0014	0.0000	7.18E-09	0.0000	0.0000	4.75E-05
213	0.00	0.000	0.015	0.1366	0.1844	0.0000	2.12E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.74E-05
214	0.05	0.000	0.019	0.1383	0.1837	0.0000	2.11E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.74E-05
215	0.14	0.010	0.018	0.1448	0.1830	0.0000	2.11E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.74E-05
216	0.00	0.000	0.009	0.1443	0.1829	0.0000	2.11E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.74E-05
217	0.20	0.064	0.014	0.1510	0.1826	0.0000	2.10E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.73E-05
218	0.00	0.000	0.097	0.1456	0.1820	0.0000	2.10E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.73E-05
219	0.00	0.000	0.013	0.1449	0.1814	0.0000	2.09E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.73E-05
220	0.00	0.000	0.013	0.1442	0.1808	0.0000	2.09E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.72E-05

221	0.00	0.000	0.012	0.1435	0.1803	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.72E-05
222	0.00	0.000	0.012	0.1428	0.1797	0.0000	2.08E-04	0.0014	0.0000	7.17E-09	0.0000	0.0000	4.72E-05
223	0.00	0.000	0.011	0.1422	0.1791	0.0000	2.07E-04	0.0014	0.0000	7.16E-09	0.0000	0.0000	4.72E-05
224	0.09	0.000	0.016	0.1461	0.1784	0.0000	2.07E-04	0.0014	0.0000	7.16E-09	0.0000	0.0000	4.71E-05
225	0.25	0.118	0.017	0.1528	0.1778	0.0000	2.06E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.71E-05
226	0.71	0.454	0.143	0.1592	0.1771	0.0000	2.06E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.71E-05
227	0.00	0.000	0.164	0.1501	0.1765	0.0000	2.05E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.70E-05
228	0.28	0.114	0.199	0.1483	0.1766	0.0000	2.05E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.70E-05
229	0.00	0.000	0.159	0.1395	0.1765	0.0000	2.05E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.70E-05
230	0.24	0.060	0.170	0.1397	0.1867	0.0000	2.14E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.70E-05
231	0.00	0.000	0.133	0.1323	0.1924	0.0000	2.19E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.69E-05
232	0.28	0.106	0.099	0.1361	0.1946	0.0000	2.21E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.69E-05
233	0.00	0.000	0.033	0.1343	0.1956	0.0000	2.22E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.69E-05
234	0.10	0.000	0.033	0.1379	0.1972	0.0000	2.23E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.68E-05
235	0.00	0.000	0.019	0.1368	0.1979	0.0000	2.24E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.68E-05
236	0.00	0.000	0.016	0.1359	0.1977	0.0000	2.24E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.68E-05
237	0.00	0.000	0.019	0.1349	0.1973	0.0000	2.23E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.68E-05
238	0.00	0.000	0.019	0.1338	0.1966	0.0000	2.23E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.67E-05
239	0.00	0.000	0.018	0.1328	0.1959	0.0000	2.22E-04	0.0013	0.0000	7.16E-09	0.0000	0.0000	4.67E-05
240	0.24	0.089	0.021	0.1401	0.1952	0.0000	2.22E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.67E-05
241	0.37	0.226	0.028	0.1466	0.1945	0.0000	2.21E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.66E-05
242	0.10	0.000	0.136	0.1447	0.1939	0.0000	2.20E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.66E-05
243	0.00	0.000	0.135	0.1372	0.1936	0.0000	2.20E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.66E-05
244	0.00	0.000	0.091	0.1322	0.1930	0.0000	2.20E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.66E-05
245	0.00	0.000	0.048	0.1295	0.1923	0.0000	2.19E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.65E-05
246	0.00	0.000	0.015	0.1287	0.1964	0.0000	2.23E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.65E-05
247	0.00	0.000	0.005	0.1287	0.1986	0.0000	2.24E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.65E-05
248	0.08	0.000	0.008	0.1327	0.1979	0.0000	2.24E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.64E-05
249	0.07	0.000	0.007	0.1363	0.1972	0.0000	2.23E-04	0.0013	0.0000	7.15E-09	0.0000	0.0000	4.64E-05
250	0.00	0.000	0.012	0.1357	0.1965	0.0000	2.23E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.64E-05
251	0.03	0.000	0.016	0.1366	0.1958	0.0000	2.22E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.64E-05
252	0.00	0.000	0.014	0.1358	0.1951	0.0000	2.21E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.63E-05
253	0.09	0.000	0.015	0.1399	0.1944	0.0000	2.21E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.63E-05
254	1.06	0.903	0.027	0.1472	0.1939	0.0000	2.20E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.63E-05
255	0.00	0.000	0.059	0.1440	0.1935	0.0000	2.20E-04	0.0013	0.0000	7.14E-09	0.0000	0.0000	4.63E-05
256	0.63	0.313	0.163	0.1527	0.1930	0.0000	2.20E-04	0.0012	0.0000	7.14E-09	0.0000	0.0000	4.62E-05
257	0.00	0.000	0.113	0.1464	0.1923	0.0000	2.19E-04	0.0012	0.0000	7.14E-09	0.0000	0.0000	4.62E-05
258	0.00	0.000	0.140	0.1386	0.1918	0.0000	2.19E-04	0.0012	0.0000	7.14E-09	0.0000	0.0000	4.62E-05

259		0.00	0.000	0.099	0.1330	0.1931	0.0000	2.20E-04	0.0012	0.0000	7.14E-09	0.0000	0.0000	4.61E-05
260		0.00	0.000	0.043	0.1306	0.1932	0.0000	2.20E-04	0.0012	0.0000	7.14E-09	0.0000	0.0000	4.61E-05
261		0.00	0.000	0.027	0.1292	0.1925	0.0000	2.19E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.61E-05
262		0.00	0.000	0.004	0.1287	0.1993	0.0000	2.25E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.61E-05
263		0.15	0.003	0.009	0.1366	0.2029	0.0000	2.28E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.60E-05
264		0.33	0.171	0.043	0.1430	0.2022	0.0000	2.28E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.60E-05
265		0.00	0.000	0.044	0.1406	0.2015	0.0000	2.27E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.60E-05
266		0.00	0.000	0.075	0.1364	0.2008	0.0000	2.26E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.60E-05
267		0.00	0.000	0.096	0.1310	0.2001	0.0000	2.26E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.59E-05
268		0.00	0.000	0.032	0.1292	0.1993	0.0000	2.25E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.59E-05
269		0.00	0.000	0.008	0.1287	0.2002	0.0000	2.26E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.59E-05
270		0.00	0.000	0.000	0.1287	0.2021	0.0000	2.27E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.58E-05
271		0.00	0.000	0.000	0.1287	0.2013	0.0000	2.27E-04	0.0012	0.0000	7.13E-09	0.0000	0.0000	4.58E-05
272		0.00	0.000	0.000	0.1287	0.2006	0.0000	2.26E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.58E-05
273		0.00	0.000	0.000	0.1287	0.1999	0.0000	2.26E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.58E-05
274		0.00	0.000	0.000	0.1287	0.1992	0.0000	2.25E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.57E-05
275		0.00	0.000	0.000	0.1287	0.1985	0.0000	2.24E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.57E-05
276		0.60	0.400	0.028	0.1385	0.1978	0.0000	2.24E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.57E-05
277		0.00	0.000	0.083	0.1339	0.1971	0.0000	2.23E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.57E-05
278		0.00	0.000	0.015	0.1330	0.1964	0.0000	2.23E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.56E-05
279		0.00	0.000	0.014	0.1322	0.1957	0.0000	2.22E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.56E-05
280	*	0.24	0.000	0.036	0.1333	0.1950	0.0000	2.21E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.56E-05
281		0.00	0.000	0.081	0.1394	0.1943	0.0000	2.21E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.55E-05
282		0.00	0.000	0.014	0.1386	0.1936	0.0000	2.20E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.55E-05
283		0.00	0.000	0.016	0.1377	0.1930	0.0000	2.20E-04	0.0012	0.0000	7.12E-09	0.0000	0.0000	4.55E-05
284		0.00	0.000	0.016	0.1368	0.1923	0.0000	2.19E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.55E-05
285		0.00	0.000	0.016	0.1359	0.1916	0.0000	2.18E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.54E-05
286		0.01	0.000	0.017	0.1357	0.1926	0.0000	2.19E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.54E-05
287		0.00	0.000	0.012	0.1351	0.1924	0.0000	2.19E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.54E-05
288		0.00	0.000	0.013	0.1344	0.1917	0.0000	2.18E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.54E-05
289		0.00	0.000	0.011	0.1337	0.1915	0.0000	2.18E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.53E-05
290		0.00	0.000	0.011	0.1331	0.1911	0.0000	2.18E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.53E-05
291		0.00	0.000	0.011	0.1325	0.1906	0.0000	2.17E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.53E-05
292	*	0.05	0.000	0.029	0.1336	0.1900	0.0000	2.17E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.53E-05
293	*	0.00	0.000	0.002	0.1336	0.1893	0.0000	2.16E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.52E-05
294	*	0.00	0.000	0.000	0.1336	0.1886	0.0000	2.16E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.52E-05
295		0.00	0.000	0.010	0.1330	0.1879	0.0000	2.15E-04	0.0011	0.0000	7.11E-09	0.0000	0.0000	4.52E-05
296	*	0.01	0.000	0.011	0.1330	0.1873	0.0000	2.15E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.51E-05

297	*		0.00	0.000	0.014	0.1324	0.1866	0.0000	2.14E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.51E-05
298	*		0.43	0.000	0.039	0.1335	0.1859	0.0000	2.13E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.51E-05
299			0.00	0.200	0.024	0.1416	0.1852	0.0000	2.13E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.51E-05
300			0.00	0.000	0.028	0.1400	0.1850	0.0000	2.13E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.50E-05
301			0.00	0.000	0.037	0.1380	0.1845	0.0000	2.12E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.50E-05
302			0.07	0.000	0.056	0.1388	0.1840	0.0000	2.12E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.50E-05
303			0.00	0.000	0.053	0.1358	0.1835	0.0000	2.11E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.50E-05
304			0.00	0.000	0.038	0.1337	0.1837	0.0000	2.11E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.49E-05
305	*		0.00	0.000	0.030	0.1320	0.1843	0.0000	2.12E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.49E-05
306			0.01	0.000	0.035	0.1306	0.1837	0.0000	2.11E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.49E-05
307			0.21	0.055	0.023	0.1378	0.1831	0.0000	2.11E-04	0.0011	0.0000	7.10E-09	0.0000	0.0000	4.49E-05
308	*		0.00	0.000	0.000	0.1378	0.1827	0.0000	2.11E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.48E-05
309	*		0.00	0.000	0.015	0.1370	0.1829	0.0000	2.11E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.48E-05
310	*		0.00	0.000	0.000	0.1370	0.1827	0.0000	2.11E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.48E-05
311	*		0.00	0.000	0.000	0.1370	0.1820	0.0000	2.10E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.48E-05
312	*		0.23	0.000	0.015	0.1381	0.1814	0.0000	2.09E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.47E-05
313	*		0.56	0.000	0.016	0.1392	0.1807	0.0000	2.09E-04	0.0011	0.0000	7.09E-09	0.0000	0.0000	4.47E-05
314	*		0.00	0.000	0.025	0.1403	0.1800	0.0000	2.08E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.47E-05
315	*	*	0.00	0.000	0.027	0.1403	0.1794	0.0000	2.08E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.47E-05
316	*	*	0.00	0.000	0.024	0.1403	0.1787	0.0000	2.07E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.46E-05
317	*	*	0.07	0.000	0.022	0.1403	0.1781	0.0000	2.06E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.46E-05
318	*	*	0.00	0.000	0.033	0.1403	0.1774	0.0000	2.06E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.46E-05
319		*	0.00	0.621	0.000	0.1413	0.1768	0.0000	2.05E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.46E-05
320		*	0.00	0.000	0.000	0.1413	0.1761	0.0000	2.05E-04	0.0010	0.0000	7.09E-09	0.0000	0.0000	4.45E-05
321		*	0.00	0.000	0.000	0.1413	0.1755	0.0000	2.04E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.45E-05
322		*	0.00	0.000	0.000	0.1413	0.1748	0.0000	2.04E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.45E-05
323		*	0.00	0.000	0.000	0.1413	0.1742	0.0000	2.03E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.44E-05
324	*	*	0.02	0.000	0.024	0.1413	0.1736	0.0000	2.02E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.44E-05
325		*	0.21	0.208	0.005	0.1413	0.1729	0.0000	2.02E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.44E-05
326		*	0.00	0.000	0.000	0.1413	0.1723	0.0000	2.01E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.44E-05
327		*	0.00	0.000	0.000	0.1413	0.1717	0.0000	2.01E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.43E-05
328		*	0.00	0.000	0.000	0.1413	0.1710	0.0000	2.00E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.43E-05
329		*	0.00	0.000	0.000	0.1413	0.1704	0.0000	2.00E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.43E-05
330	*	*	0.00	0.000	0.000	0.1413	0.1698	0.0000	1.99E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.43E-05
331	*	*	0.25	0.000	0.014	0.1413	0.1691	0.0000	1.98E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.42E-05
332		*	0.00	0.219	0.018	0.1413	0.1685	0.0000	1.98E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.42E-05
333		*	0.09	0.000	0.005	0.1463	0.1679	0.0000	1.97E-04	0.0010	0.0000	7.08E-09	0.0000	0.0000	4.42E-05
334		*	0.00	0.000	0.000	0.1463	0.1673	0.0000	1.97E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.42E-05

335	*	*	0.00	0.000	0.000	0.1463	0.1667	0.0000	1.96E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.41E-05
336		*	0.00	0.000	0.000	0.1463	0.1660	0.0000	1.96E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.41E-05
337		*	0.00	0.000	0.000	0.1463	0.1654	0.0000	1.95E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.41E-05
338		*	0.00	0.000	0.000	0.1463	0.1648	0.0000	1.95E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.41E-05
339		*	0.00	0.000	0.000	0.1463	0.1642	0.0000	1.94E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.40E-05
340			0.00	0.000	0.040	0.1440	0.1636	0.0000	1.93E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.40E-05
341	*		0.00	0.000	0.000	0.1440	0.1630	0.0000	1.93E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.40E-05
342			0.00	0.000	0.044	0.1416	0.1624	0.0000	1.92E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.40E-05
343	*		0.00	0.000	0.000	0.1416	0.1618	0.0000	1.92E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.39E-05
344	*		0.00	0.000	0.001	0.1416	0.1612	0.0000	1.91E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.39E-05
345	*		0.20	0.000	0.010	0.1427	0.1606	0.0000	1.91E-04	0.0010	0.0000	7.07E-09	0.0000	0.0000	4.39E-05
346	*		0.00	0.000	0.011	0.1437	0.1600	0.0000	1.90E-04	0.0009	0.0000	7.07E-09	0.0000	0.0000	4.39E-05
347	*		0.05	0.000	0.018	0.1448	0.1594	0.0000	1.90E-04	0.0009	0.0000	7.07E-09	0.0000	0.0000	4.38E-05
348	*		0.00	0.000	0.019	0.1459	0.1588	0.0000	1.89E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.38E-05
349			0.00	0.000	0.046	0.1501	0.1582	0.0000	1.89E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.38E-05
350	*		0.00	0.000	0.027	0.1486	0.1579	0.0000	1.88E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.38E-05
351	*		0.00	0.000	0.004	0.1486	0.1575	0.0000	1.88E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.37E-05
352			0.21	0.062	0.046	0.1542	0.1569	0.0000	1.87E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.37E-05
353			0.39	0.183	0.089	0.1606	0.1563	0.0000	1.87E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.37E-05
354			0.16	0.031	0.065	0.1640	0.1560	0.0000	1.87E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.37E-05
355			0.21	0.080	0.058	0.1678	0.1577	0.0000	1.88E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.36E-05
356			0.00	0.000	0.042	0.1655	0.1580	0.0000	1.88E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.36E-05
357			0.00	0.000	0.029	0.1639	0.1574	0.0000	1.88E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.36E-05
358			0.00	0.000	0.030	0.1622	0.1568	0.0000	1.87E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.36E-05
359			0.00	0.000	0.040	0.1600	0.1562	0.0000	1.87E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.35E-05
360	*		0.00	0.000	0.029	0.1584	0.1556	0.0000	1.86E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.35E-05
361	*		0.00	0.000	0.000	0.1584	0.1550	0.0000	1.86E-04	0.0009	0.0000	7.06E-09	0.0000	0.0000	4.35E-05
362	*		0.00	0.000	0.031	0.1566	0.1548	0.0000	1.85E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.35E-05
363	*		0.05	0.000	0.028	0.1577	0.1544	0.0000	1.85E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.35E-05
364	*	*	0.23	0.000	0.010	0.1577	0.1538	0.0000	1.85E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.34E-05
365	*	*	0.11	0.000	0.012	0.1577	0.1532	0.0000	1.84E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.34E-05

* = Frozen (air or soil)

Annual Totals for Year 4			
	inches	cubic feet	percent
Precipitation	37.76	137,058.7	100.00

Runoff	22.071	80,116.8	58.45
Evapotranspiration	15.042	54,600.8	39.84
Drainage Collected from Layer 3	0.0134	48.6	0.04
Percolation/Leakage through Layer 4	0.073547	267.0	0.19
Average Head on Top of Layer 4	0.1721	---	---
Drainage Collected from Layer 7	0.0004	1.3648	0.00
Percolation/Leakage through Layer 8	0.000003	0.0094	0.00
Average Head on Top of Layer 8	0.0009	---	---
Percolation/Leakage through Layer 10	0.017758	64.5	0.05
Change in Water Storage	0.6134	2,226.7	1.62
Soil Water at Start of Year	72.5393	263,317.8	192.12
Soil Water at End of Year	72.8696	264,516.5	193.00
Snow Water at Start of Year	0.0192	69.8	0.05
Snow Water at End of Year	0.3024	1,097.9	0.80
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 5

Column key: Head #1: drainage from Layer 4 | Head #2: drainage from Layer 8
Drain #1: drainage from Layer 3 | Drain #2: drainage from Layer 7
Leak #1: leakage thru Layer 4 | Leak #2: leakage thru Layer 8 | Leak #3: leakage thru Layer 10

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:19

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)	Head #3 (inches)	Drain #3 (inches)	Leak #3 (inches)
1	*	*	0.00	0.000	0.036	0.1577	0.1521	0.0000	1.83E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.34E-05
2		*	0.00	0.000	0.030	0.1639	0.1515	0.0000	1.82E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.33E-05
3		*	0.00	0.000	0.041	0.1686	0.1509	0.0000	1.82E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.33E-05
4		*	0.01	0.000	0.004	0.1691	0.1504	0.0000	1.81E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.33E-05
5	*	*	0.00	0.000	0.000	0.1691	0.1498	0.0000	1.81E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.33E-05
6	*	*	0.00	0.000	0.000	0.1691	0.1492	0.0000	1.80E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.32E-05
7	*	*	0.00	0.000	0.000	0.1691	0.1487	0.0000	1.80E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.32E-05
8	*	*	0.00	0.000	0.000	0.1691	0.1481	0.0000	1.79E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.32E-05
9	*	*	0.05	0.000	0.010	0.1691	0.1476	0.0000	1.79E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.32E-05
10	*	*	0.00	0.000	0.000	0.1691	0.1470	0.0000	1.78E-04	0.0009	0.0000	7.05E-09	0.0000	0.0000	4.31E-05
11		*	0.00	0.000	0.039	0.1691	0.1464	0.0000	1.78E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.31E-05
12		*	0.00	0.000	0.000	0.1691	0.1459	0.0000	1.77E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.31E-05
13	*	*	0.00	0.000	0.000	0.1691	0.1453	0.0000	1.77E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.31E-05
14		*	0.00	0.000	0.000	0.1691	0.1448	0.0000	1.76E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.30E-05
15	*	*	0.00	0.000	0.000	0.1691	0.1442	0.0000	1.76E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.30E-05
16	*	*	0.00	0.000	0.000	0.1691	0.1437	0.0000	1.75E-04	0.0009	0.0000	7.04E-09	0.0000	0.0000	4.30E-05
17	*	*	0.00	0.000	0.000	0.1691	0.1431	0.0000	1.75E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.30E-05
18	*	*	0.00	0.000	0.000	0.1691	0.1426	0.0000	1.74E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.29E-05
19	*	*	0.00	0.000	0.000	0.1691	0.1420	0.0000	1.74E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.29E-05
20		*	0.00	0.000	0.003	0.1692	0.1415	0.0000	1.73E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.29E-05
21		*	0.00	0.000	0.000	0.1692	0.1409	0.0000	1.73E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.29E-05
22	*	*	0.00	0.000	0.000	0.1692	0.1404	0.0000	1.72E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.28E-05
23		*	0.00	0.000	0.000	0.1692	0.1399	0.0000	1.72E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.28E-05
24		*	0.00	0.000	0.000	0.1692	0.1393	0.0000	1.71E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.28E-05
25		*	0.00	0.000	0.000	0.1692	0.1388	0.0000	1.71E-04	0.0008	0.0000	7.04E-09	0.0000	0.0000	4.28E-05
26		*	0.00	0.000	0.000	0.1692	0.1383	0.0000	1.70E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.28E-05
27		*	0.00	0.000	0.002	0.1693	0.1377	0.0000	1.70E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.27E-05
28		*	0.00	0.000	0.000	0.1693	0.1372	0.0000	1.69E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.27E-05
29		*	0.00	0.000	0.000	0.1693	0.1367	0.0000	1.69E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.27E-05
30		*	0.00	0.000	0.000	0.1693	0.1361	0.0000	1.68E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.27E-05

31	*	*	0.00	0.000	0.001	0.1693	0.1356	0.0000	1.68E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.26E-05
32		*	0.00	0.000	0.003	0.1694	0.1351	0.0000	1.67E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.26E-05
33	*	*	0.00	0.000	0.000	0.1694	0.1346	0.0000	1.67E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.26E-05
34	*	*	0.00	0.000	0.000	0.1694	0.1341	0.0000	1.66E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.26E-05
35	*	*	0.00	0.000	0.000	0.1694	0.1335	0.0000	1.66E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.25E-05
36	*	*	0.00	0.000	0.000	0.1694	0.1330	0.0000	1.65E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.25E-05
37	*	*	0.00	0.000	0.000	0.1694	0.1325	0.0000	1.65E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.25E-05
38	*	*	0.00	0.000	0.000	0.1694	0.1320	0.0000	1.64E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.25E-05
39	*	*	0.00	0.000	0.000	0.1694	0.1315	0.0000	1.64E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.24E-05
40	*	*	0.01	0.000	0.007	0.1694	0.1310	0.0000	1.63E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.24E-05
41	*	*	0.00	0.000	0.003	0.1694	0.1305	0.0000	1.63E-04	0.0008	0.0000	7.03E-09	0.0000	0.0000	4.24E-05
42	*	*	0.10	0.000	0.009	0.1694	0.1300	0.0000	1.62E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.24E-05
43	*	*	0.07	0.000	0.000	0.1694	0.1294	0.0000	1.62E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.24E-05
44	*	*	0.00	0.000	0.023	0.1694	0.1289	0.0000	1.61E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.23E-05
45	*	*	0.00	0.000	0.009	0.1694	0.1284	0.0000	1.61E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.23E-05
46	*	*	0.00	0.000	0.024	0.1694	0.1279	0.0000	1.60E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.23E-05
47	*	*	0.00	0.000	0.019	0.1694	0.1274	0.0000	1.60E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.23E-05
48	*	*	0.00	0.000	0.007	0.1694	0.1269	0.0000	1.59E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.22E-05
49	*	*	0.00	0.000	0.011	0.1694	0.1264	0.0000	1.59E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.22E-05
50	*	*	0.00	0.000	0.024	0.1694	0.1260	0.0000	1.58E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.22E-05
51		*	0.00	0.000	0.042	0.1694	0.1255	0.0000	1.58E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.22E-05
52		*	0.00	0.000	0.000	0.1694	0.1250	0.0000	1.58E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.21E-05
53	*	*	0.00	0.000	0.000	0.1694	0.1245	0.0000	1.57E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.21E-05
54		*	0.00	0.000	0.000	0.1694	0.1240	0.0000	1.57E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.21E-05
55		*	0.00	0.000	0.000	0.1694	0.1235	0.0000	1.56E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.21E-05
56		*	0.30	0.296	0.005	0.1694	0.1230	0.0000	1.56E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.21E-05
57	*	*	0.00	0.000	0.000	0.1694	0.1225	0.0000	1.55E-04	0.0008	0.0000	7.02E-09	0.0000	0.0000	4.20E-05
58	*	*	0.00	0.000	0.000	0.1694	0.1220	0.0000	1.55E-04	0.0007	0.0000	7.02E-09	0.0000	0.0000	4.20E-05
59	*	*	0.00	0.000	0.000	0.1694	0.1216	0.0000	1.54E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.20E-05
60	*	*	0.00	0.000	0.000	0.1694	0.1211	0.0000	1.54E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.20E-05
61	*	*	0.00	0.000	0.000	0.1694	0.1206	0.0000	1.53E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.19E-05
62	*	*	0.00	0.000	0.000	0.1694	0.1201	0.0000	1.53E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.19E-05
63	*	*	0.00	0.000	0.000	0.1694	0.1197	0.0000	1.52E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.19E-05
64	*	*	0.01	0.000	0.006	0.1694	0.1192	0.0000	1.52E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.19E-05
65	*	*	0.00	0.000	0.000	0.1694	0.1187	0.0000	1.51E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.19E-05
66	*	*	0.00	0.000	0.000	0.1694	0.1182	0.0000	1.51E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.18E-05
67		*	0.00	0.000	0.003	0.1694	0.1178	0.0000	1.51E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.18E-05
68	*	*	0.03	0.000	0.029	0.1694	0.1173	0.0000	1.50E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.18E-05

69	*	*	0.00	0.000	0.000	0.1694	0.1168	0.0000	1.50E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.18E-05
70	*	*	0.00	0.000	0.000	0.1694	0.1164	0.0000	1.49E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.17E-05
71	*	*	0.00	0.000	0.000	0.1694	0.1159	0.0000	1.49E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.17E-05
72	*	*	0.00	0.000	0.000	0.1694	0.1154	0.0000	1.48E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.17E-05
73	*	*	0.00	0.000	0.000	0.1694	0.1150	0.0000	1.48E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.17E-05
74		*	0.20	0.194	0.005	0.1694	0.1145	0.0000	1.47E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.16E-05
75		*	0.00	0.000	0.000	0.1694	0.1141	0.0000	1.47E-04	0.0007	0.0000	7.01E-09	0.0000	0.0000	4.16E-05
76		*	0.00	0.000	0.000	0.1694	0.1136	0.0000	1.46E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.16E-05
77		*	0.06	0.000	0.005	0.1723	0.1132	0.0000	1.46E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.16E-05
78		*	0.10	0.000	0.005	0.1777	0.1127	0.0000	1.46E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.16E-05
79	*	*	0.00	0.000	0.000	0.1777	0.1123	0.0000	1.45E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.15E-05
80	*	*	0.00	0.000	0.000	0.1777	0.1118	0.0000	1.45E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.15E-05
81	*	*	0.15	0.000	0.035	0.1777	0.1114	0.0000	1.44E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.15E-05
82	*	*	0.09	0.000	0.011	0.1777	0.1109	0.0000	1.44E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.15E-05
83	*	*	0.00	0.000	0.022	0.1777	0.1105	0.0000	1.43E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.14E-05
84		*	0.00	0.006	0.134	0.1797	0.1100	0.0000	1.43E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.14E-05
85		*	0.01	0.000	0.004	0.1800	0.1096	0.0000	1.42E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.14E-05
86		*	0.08	0.000	0.005	0.1842	0.1091	0.0000	1.42E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.14E-05
87		*	0.27	0.261	0.005	0.1842	0.1087	0.0000	1.42E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.14E-05
88		*	0.00	0.000	0.000	0.1842	0.1083	0.0000	1.41E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.13E-05
89		*	0.11	0.001	0.005	0.1902	0.1078	0.0000	1.41E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.13E-05
90		*	0.00	0.000	0.000	0.1902	0.1074	0.0000	1.40E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.13E-05
91		*	0.03	0.000	0.005	0.1913	0.1070	0.0000	1.40E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.13E-05
92		*	0.13	0.124	0.005	0.1913	0.1065	0.0000	1.39E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.12E-05
93		*	0.01	0.000	0.004	0.1915	0.1061	0.0000	1.39E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.12E-05
94		*	0.11	0.001	0.005	0.1971	0.1057	0.0000	1.39E-04	0.0007	0.0000	7.00E-09	0.0000	0.0000	4.12E-05
95		*	0.40	0.392	0.005	0.1971	0.1052	0.0000	1.38E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.12E-05
96		*	0.00	0.000	0.000	0.1971	0.1048	0.0000	1.38E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.12E-05
97			0.22	0.083	0.147	0.1964	0.1044	0.0000	1.37E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.11E-05
98			0.16	0.022	0.168	0.1947	0.1040	0.0000	1.37E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.11E-05
99			0.08	0.000	0.124	0.1924	0.1035	0.0000	1.36E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.11E-05
100			0.10	0.000	0.097	0.1922	0.1107	0.0000	1.44E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.11E-05
101			0.04	0.000	0.067	0.1906	0.1172	0.0000	1.50E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.10E-05
102			0.00	0.000	0.202	0.1792	0.1197	0.0000	1.52E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.10E-05
103			0.00	0.000	0.193	0.1685	0.1215	0.0000	1.54E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.10E-05
104			0.00	0.000	0.281	0.1529	0.1210	0.0000	1.54E-04	0.0007	0.0000	6.99E-09	0.0000	0.0000	4.10E-05
105			0.00	0.000	0.131	0.1454	0.1270	0.0000	1.59E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.10E-05
106			0.00	0.000	0.054	0.1424	0.1286	0.0000	1.61E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.09E-05

107		0.00	0.000	0.042	0.1401	0.1281	0.0000	1.61E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.09E-05
108		0.00	0.000	0.035	0.1382	0.1276	0.0000	1.60E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.09E-05
109		0.00	0.000	0.031	0.1363	0.1287	0.0000	1.61E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.09E-05
110		0.00	0.000	0.028	0.1347	0.1348	0.0000	1.67E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.09E-05
111		0.00	0.000	0.026	0.1331	0.1410	0.0000	1.73E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.08E-05
112		0.20	0.045	0.029	0.1400	0.1471	0.0000	1.78E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.08E-05
113		0.08	0.000	0.027	0.1427	0.1526	0.0000	1.84E-04	0.0006	0.0000	6.99E-09	0.0000	0.0000	4.08E-05
114		0.08	0.000	0.026	0.1451	0.1613	0.0000	1.91E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.08E-05
115		0.05	0.000	0.025	0.1457	0.1809	0.0000	2.09E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.07E-05
116		0.34	0.180	0.026	0.1530	0.1985	0.0000	2.24E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.07E-05
117		0.00	0.000	0.092	0.1478	0.1995	0.0000	2.25E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.07E-05
118		0.00	0.000	0.014	0.1471	0.1999	0.0000	2.26E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.07E-05
119		0.00	0.000	0.013	0.1463	0.1991	0.0000	2.25E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.07E-05
120		0.00	0.000	0.013	0.1456	0.1984	0.0000	2.24E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.06E-05
121		2.07	1.884	0.023	0.1546	0.1977	0.0000	2.24E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.06E-05
122	*	0.01	0.000	0.012	0.1546	0.1970	0.0000	2.23E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.06E-05
123	*	0.03	0.000	0.029	0.1549	0.1963	0.0000	2.22E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.06E-05
124	*	0.00	0.000	0.057	0.1520	0.1956	0.0000	2.22E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.06E-05
125		0.20	0.059	0.105	0.1542	0.1949	0.0000	2.21E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.05E-05
126		0.00	0.000	0.103	0.1485	0.1942	0.0000	2.21E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.05E-05
127		0.08	0.000	0.216	0.1406	0.2027	0.0000	2.28E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.05E-05
128		0.00	0.000	0.141	0.1327	0.2075	0.0000	2.32E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.05E-05
129		0.00	0.000	0.056	0.1296	0.2067	0.0000	2.31E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.04E-05
130		0.00	0.000	0.010	0.1287	0.2154	0.0000	2.39E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.04E-05
131		0.00	0.000	0.001	0.1287	0.2203	0.0000	2.43E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.04E-05
132		0.00	0.000	0.000	0.1287	0.2198	0.0000	2.43E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.04E-05
133		0.00	0.000	0.000	0.1287	0.2192	0.0000	2.42E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.04E-05
134		0.20	0.044	0.008	0.1368	0.2185	0.0000	2.41E-04	0.0006	0.0000	6.98E-09	0.0000	0.0000	4.03E-05
135		0.00	0.000	0.013	0.1360	0.2177	0.0000	2.41E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.03E-05
136	*	0.01	0.000	0.005	0.1360	0.2169	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.03E-05
137	*	0.01	0.000	0.024	0.1353	0.2162	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.03E-05
138	*	0.00	0.000	0.000	0.1353	0.2154	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.03E-05
139		0.51	0.315	0.031	0.1443	0.2147	0.0000	2.38E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.02E-05
140		0.02	0.000	0.086	0.1406	0.2139	0.0000	2.38E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.02E-05
141	*	0.04	0.000	0.061	0.1396	0.2132	0.0000	2.37E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.02E-05
142		0.28	0.131	0.023	0.1466	0.2124	0.0000	2.36E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.02E-05
143		0.00	0.000	0.090	0.1416	0.2117	0.0000	2.36E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.02E-05
144		0.13	0.000	0.146	0.1409	0.2134	0.0000	2.37E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.01E-05

145	0.30	0.126	0.119	0.1440	0.2142	0.0000	2.38E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.01E-05
146	0.04	0.000	0.109	0.1399	0.2159	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.01E-05
147	0.37	0.170	0.065	0.1476	0.2167	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.01E-05
148	0.00	0.000	0.091	0.1425	0.2159	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.00E-05
149	0.00	0.000	0.038	0.1404	0.2151	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.00E-05
150	0.00	0.000	0.028	0.1388	0.2171	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.00E-05
151	0.07	0.000	0.028	0.1411	0.2180	0.0000	2.41E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.00E-05
152	0.04	0.000	0.028	0.1417	0.2172	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	4.00E-05
153	1.55	1.388	0.034	0.1490	0.2165	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	3.99E-05
154	0.12	0.000	0.173	0.1461	0.2157	0.0000	2.39E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	3.99E-05
155	0.01	0.000	0.175	0.1368	0.2173	0.0000	2.40E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	3.99E-05
156	0.04	0.000	0.144	0.1311	0.2183	0.0000	2.41E-04	0.0006	0.0000	6.97E-09	0.0000	0.0000	3.99E-05
157	0.00	0.000	0.028	0.1295	0.2176	0.0000	2.41E-04	0.0006	0.0000	6.96E-09	0.0000	0.0000	3.99E-05
158	0.00	0.000	0.009	0.1288	0.2217	0.0000	2.44E-04	0.0006	0.0000	6.96E-09	0.0000	0.0000	3.98E-05
159	0.00	0.000	0.002	0.1287	0.2239	0.0000	2.46E-04	0.0006	0.0000	6.96E-09	0.0000	0.0000	3.98E-05
160	0.77	0.523	0.045	0.1398	0.2231	0.0000	2.45E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.98E-05
161	0.18	0.049	0.080	0.1429	0.2224	0.0000	2.45E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.98E-05
162	0.20	0.047	0.140	0.1434	0.2217	0.0000	2.44E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.98E-05
163	0.00	0.000	0.125	0.1365	0.2210	0.0000	2.44E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.97E-05
164	0.00	0.000	0.086	0.1317	0.2202	0.0000	2.43E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.97E-05
165	0.00	0.000	0.043	0.1293	0.2194	0.0000	2.42E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.97E-05
166	0.00	0.000	0.008	0.1287	0.2237	0.0000	2.46E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.97E-05
167	0.58	0.370	0.044	0.1381	0.2259	0.0000	2.48E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.97E-05
168	0.00	0.000	0.105	0.1323	0.2251	0.0000	2.47E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.96E-05
169	0.00	0.000	0.024	0.1310	0.2243	0.0000	2.46E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.96E-05
170	0.34	0.165	0.037	0.1386	0.2236	0.0000	2.46E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.96E-05
171	0.00	0.000	0.123	0.1317	0.2229	0.0000	2.45E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.96E-05
172	0.16	0.014	0.027	0.1382	0.2248	0.0000	2.47E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.96E-05
173	0.38	0.109	0.298	0.1368	0.2252	0.0000	2.47E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.95E-05
174	0.03	0.000	0.093	0.1332	0.2265	0.0000	2.48E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.95E-05
175	0.17	0.025	0.043	0.1387	0.2269	0.0000	2.49E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.95E-05
176	0.71	0.527	0.066	0.1451	0.2261	0.0000	2.48E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.95E-05
177	0.00	0.000	0.123	0.1382	0.2256	0.0000	2.47E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.95E-05
178	0.93	0.615	0.138	0.1479	0.2255	0.0000	2.47E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.94E-05
179	0.28	0.112	0.200	0.1460	0.2260	0.0000	2.48E-04	0.0005	0.0000	6.96E-09	0.0000	0.0000	3.94E-05
180	0.36	0.122	0.197	0.1481	0.2259	0.0000	2.48E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.94E-05
181	0.11	0.000	0.137	0.1467	0.2282	0.0000	2.50E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.94E-05
182	0.00	0.000	0.152	0.1383	0.2292	0.0000	2.51E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.94E-05

183	0.42	0.146	0.263	0.1388	0.2285	0.0000	2.50E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.93E-05
184	0.32	0.126	0.151	0.1411	0.2277	0.0000	2.49E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.93E-05
185	0.00	0.000	0.120	0.1341	0.2353	0.0000	2.56E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.93E-05
186	0.08	0.000	0.101	0.1328	0.2396	0.0001	2.59E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.93E-05
187	0.16	0.002	0.041	0.1393	0.2388	0.0001	2.58E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.93E-05
188	0.01	0.000	0.066	0.1363	0.2405	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.92E-05
189	0.21	0.073	0.045	0.1416	0.2412	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.92E-05
190	0.02	0.000	0.037	0.1404	0.2404	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.92E-05
191	0.00	0.000	0.025	0.1389	0.2411	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.92E-05
192	0.00	0.000	0.017	0.1380	0.2412	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.92E-05
193	0.00	0.000	0.020	0.1368	0.2411	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.91E-05
194	0.09	0.000	0.024	0.1403	0.2408	0.0001	2.60E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.91E-05
195	0.00	0.000	0.016	0.1394	0.2399	0.0001	2.59E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.91E-05
196	0.00	0.000	0.011	0.1388	0.2395	0.0001	2.59E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.91E-05
197	0.00	0.000	0.013	0.1381	0.2389	0.0001	2.59E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.91E-05
198	0.00	0.000	0.014	0.1373	0.2381	0.0001	2.58E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.90E-05
199	0.00	0.000	0.014	0.1365	0.2373	0.0001	2.57E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.90E-05
200	0.00	0.000	0.014	0.1358	0.2365	0.0001	2.57E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.90E-05
201	0.00	0.000	0.013	0.1350	0.2356	0.0001	2.56E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.90E-05
202	0.00	0.000	0.013	0.1343	0.2348	0.0000	2.55E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.90E-05
203	0.00	0.000	0.012	0.1337	0.2340	0.0000	2.55E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.89E-05
204	0.41	0.237	0.023	0.1422	0.2332	0.0000	2.54E-04	0.0005	0.0000	6.95E-09	0.0000	0.0000	3.89E-05
205	0.47	0.329	0.022	0.1487	0.2324	0.0000	2.53E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.89E-05
206	0.00	0.000	0.104	0.1429	0.2316	0.0000	2.53E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.89E-05
207	1.27	0.952	0.152	0.1519	0.2308	0.0000	2.52E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.89E-05
208	0.00	0.000	0.099	0.1464	0.2300	0.0000	2.51E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.88E-05
209	0.00	0.000	0.193	0.1356	0.2297	0.0000	2.51E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.88E-05
210	0.00	0.000	0.078	0.1313	0.2314	0.0000	2.52E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.88E-05
211	0.00	0.000	0.035	0.1293	0.2313	0.0000	2.52E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.88E-05
212	0.67	0.422	0.065	0.1395	0.2305	0.0000	2.52E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.88E-05
213	0.00	0.000	0.073	0.1351	0.2394	0.0001	2.59E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.87E-05
214	0.00	0.000	0.082	0.1306	0.2444	0.0001	2.63E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.87E-05
215	0.14	0.000	0.042	0.1358	0.2436	0.0001	2.62E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.87E-05
216	0.00	0.000	0.079	0.1313	0.2457	0.0001	2.64E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.87E-05
217	0.45	0.155	0.149	0.1394	0.2466	0.0001	2.65E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.87E-05
218	0.21	0.074	0.085	0.1422	0.2458	0.0001	2.64E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.86E-05
219	0.00	0.000	0.084	0.1375	0.2449	0.0001	2.64E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.86E-05
220	0.00	0.000	0.096	0.1322	0.2451	0.0001	2.64E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.86E-05

221	0.16	0.011	0.045	0.1379	0.2449	0.0001	2.64E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.86E-05
222	0.00	0.000	0.037	0.1358	0.2441	0.0001	2.63E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.86E-05
223	0.00	0.000	0.022	0.1345	0.2474	0.0001	2.66E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.85E-05
224	0.05	0.000	0.028	0.1360	0.2490	0.0001	2.67E-04	0.0005	0.0000	6.94E-09	0.0000	0.0000	3.85E-05
225	0.14	0.001	0.025	0.1423	0.2482	0.0001	2.66E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.85E-05
226	0.00	0.000	0.013	0.1415	0.2482	0.0001	2.66E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.85E-05
227	0.00	0.000	0.013	0.1408	0.2479	0.0001	2.66E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.85E-05
228	0.00	0.000	0.015	0.1399	0.2470	0.0001	2.65E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.84E-05
229	0.00	0.000	0.015	0.1391	0.2462	0.0001	2.65E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.84E-05
230	0.00	0.000	0.015	0.1383	0.2453	0.0001	2.64E-04	0.0004	0.0000	6.94E-09	0.0000	0.0000	3.84E-05
231	0.00	0.000	0.014	0.1375	0.2445	0.0001	2.63E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.84E-05
232	0.05	0.000	0.019	0.1393	0.2437	0.0001	2.62E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.84E-05
233	0.00	0.000	0.013	0.1385	0.2428	0.0001	2.62E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.84E-05
234	0.00	0.000	0.012	0.1379	0.2420	0.0001	2.61E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.83E-05
235	0.00	0.000	0.009	0.1373	0.2419	0.0001	2.61E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.83E-05
236	0.02	0.000	0.016	0.1379	0.2415	0.0001	2.61E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.83E-05
237	0.02	0.000	0.017	0.1381	0.2406	0.0001	2.60E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.83E-05
238	0.00	0.000	0.009	0.1376	0.2398	0.0001	2.59E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.83E-05
239	0.00	0.000	0.007	0.1372	0.2393	0.0001	2.59E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.82E-05
240	0.04	0.000	0.013	0.1387	0.2386	0.0001	2.58E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.82E-05
241	0.00	0.000	0.009	0.1382	0.2378	0.0001	2.58E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.82E-05
242	0.01	0.000	0.012	0.1383	0.2371	0.0001	2.57E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.82E-05
243	0.00	0.000	0.009	0.1378	0.2366	0.0001	2.57E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.82E-05
244	0.00	0.000	0.007	0.1374	0.2357	0.0001	2.56E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.81E-05
245	0.00	0.000	0.007	0.1370	0.2351	0.0000	2.55E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.81E-05
246	0.00	0.000	0.008	0.1366	0.2344	0.0000	2.55E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.81E-05
247	0.00	0.000	0.008	0.1361	0.2336	0.0000	2.54E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.81E-05
248	0.00	0.000	0.009	0.1356	0.2328	0.0000	2.53E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.81E-05
249	0.04	0.000	0.014	0.1372	0.2320	0.0000	2.53E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
250	0.00	0.000	0.008	0.1368	0.2312	0.0000	2.52E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
251	0.00	0.000	0.006	0.1364	0.2304	0.0000	2.51E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
252	0.00	0.000	0.007	0.1361	0.2299	0.0000	2.51E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
253	0.00	0.000	0.007	0.1357	0.2293	0.0000	2.51E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
254	0.00	0.000	0.007	0.1353	0.2285	0.0000	2.50E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.80E-05
255	0.00	0.000	0.007	0.1349	0.2277	0.0000	2.49E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.79E-05
256	0.00	0.000	0.007	0.1345	0.2269	0.0000	2.49E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.79E-05
257	0.00	0.000	0.008	0.1341	0.2261	0.0000	2.48E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.79E-05
258	0.10	0.000	0.013	0.1387	0.2253	0.0000	2.47E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.79E-05

259		0.21	0.074	0.012	0.1456	0.2245	0.0000	2.47E-04	0.0004	0.0000	6.93E-09	0.0000	0.0000	3.79E-05
260		0.00	0.000	0.005	0.1453	0.2239	0.0000	2.46E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.78E-05
261		0.00	0.000	0.006	0.1449	0.2233	0.0000	2.45E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.78E-05
262		0.00	0.000	0.007	0.1445	0.2225	0.0000	2.45E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.78E-05
263		0.00	0.000	0.007	0.1441	0.2217	0.0000	2.44E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.78E-05
264		0.00	0.000	0.007	0.1437	0.2209	0.0000	2.44E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.78E-05
265		0.00	0.000	0.007	0.1433	0.2201	0.0000	2.43E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
266		0.00	0.000	0.007	0.1429	0.2194	0.0000	2.42E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
267		0.00	0.000	0.007	0.1425	0.2186	0.0000	2.42E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
268		0.00	0.000	0.007	0.1421	0.2178	0.0000	2.41E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
269		0.00	0.000	0.007	0.1418	0.2171	0.0000	2.40E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
270		0.05	0.000	0.012	0.1440	0.2163	0.0000	2.40E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.77E-05
271		0.08	0.000	0.012	0.1475	0.2155	0.0000	2.39E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.76E-05
272		0.00	0.000	0.008	0.1471	0.2148	0.0000	2.38E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.76E-05
273		0.00	0.000	0.008	0.1466	0.2141	0.0000	2.38E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.76E-05
274		0.00	0.000	0.007	0.1462	0.2142	0.0000	2.38E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.76E-05
275		0.00	0.000	0.006	0.1458	0.2138	0.0000	2.37E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.76E-05
276		0.00	0.000	0.006	0.1454	0.2130	0.0000	2.37E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
277		0.00	0.000	0.006	0.1451	0.2122	0.0000	2.36E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
278	*	0.00	0.000	0.000	0.1451	0.2115	0.0000	2.36E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
279	*	0.00	0.000	0.006	0.1447	0.2107	0.0000	2.35E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
280	*	0.00	0.000	0.006	0.1444	0.2100	0.0000	2.34E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
281	*	0.00	0.000	0.000	0.1444	0.2093	0.0000	2.34E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.75E-05
282		0.00	0.000	0.006	0.1441	0.2085	0.0000	2.33E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.74E-05
283	*	0.00	0.000	0.000	0.1441	0.2078	0.0000	2.32E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.74E-05
284		0.00	0.000	0.006	0.1437	0.2070	0.0000	2.32E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.74E-05
285	*	0.00	0.000	0.006	0.1434	0.2063	0.0000	2.31E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.74E-05
286		0.00	0.000	0.006	0.1430	0.2056	0.0000	2.30E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.74E-05
287		0.00	0.000	0.006	0.1427	0.2049	0.0000	2.30E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.73E-05
288		0.00	0.000	0.006	0.1424	0.2041	0.0000	2.29E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.73E-05
289		0.00	0.000	0.006	0.1420	0.2034	0.0000	2.29E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.73E-05
290		0.04	0.000	0.011	0.1438	0.2027	0.0000	2.28E-04	0.0004	0.0000	6.92E-09	0.0000	0.0000	3.73E-05
291		0.00	0.000	0.006	0.1435	0.2020	0.0000	2.27E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.73E-05
292		0.02	0.000	0.012	0.1438	0.2012	0.0000	2.27E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.73E-05
293		0.83	0.674	0.014	0.1515	0.2005	0.0000	2.26E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.72E-05
294		0.00	0.000	0.110	0.1454	0.2001	0.0000	2.26E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.72E-05
295		0.01	0.000	0.108	0.1397	0.1999	0.0000	2.26E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.72E-05
296		0.00	0.000	0.135	0.1321	0.2018	0.0000	2.27E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.72E-05

297		0.00	0.000	0.049	0.1294	0.2018	0.0000	2.27E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.72E-05
298		0.03	0.000	0.020	0.1296	0.2071	0.0000	2.32E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
299		0.01	0.000	0.008	0.1296	0.2100	0.0000	2.34E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
300		0.05	0.000	0.008	0.1317	0.2092	0.0000	2.34E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
301		0.08	0.000	0.008	0.1357	0.2085	0.0000	2.33E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
302		0.18	0.042	0.018	0.1426	0.2078	0.0000	2.32E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
303		0.00	0.000	0.012	0.1419	0.2071	0.0000	2.32E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.71E-05
304		0.09	0.000	0.018	0.1458	0.2063	0.0000	2.31E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.70E-05
305		0.03	0.000	0.018	0.1466	0.2056	0.0000	2.30E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.70E-05
306		0.00	0.000	0.010	0.1460	0.2051	0.0000	2.30E-04	0.0004	0.0000	6.91E-09	0.0000	0.0000	3.70E-05
307		0.00	0.000	0.014	0.1453	0.2045	0.0000	2.30E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.70E-05
308		0.00	0.000	0.014	0.1445	0.2038	0.0000	2.29E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.70E-05
309		0.00	0.000	0.014	0.1437	0.2031	0.0000	2.28E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
310		0.00	0.000	0.013	0.1430	0.2023	0.0000	2.28E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
311		0.00	0.000	0.013	0.1423	0.2016	0.0000	2.27E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
312		0.00	0.000	0.012	0.1416	0.2009	0.0000	2.26E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
313		0.10	0.000	0.017	0.1459	0.2002	0.0000	2.26E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
314		1.00	0.844	0.022	0.1534	0.1995	0.0000	2.25E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.69E-05
315		0.01	0.000	0.050	0.1514	0.1988	0.0000	2.25E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
316	*	0.17	0.000	0.025	0.1525	0.1980	0.0000	2.24E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
317	*	0.03	0.000	0.000	0.1536	0.1973	0.0000	2.23E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
318	*	0.43	0.000	0.016	0.1547	0.1966	0.0000	2.23E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
319	*	0.00	0.000	0.033	0.1557	0.1959	0.0000	2.22E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
320	*	0.33	0.000	0.000	0.1568	0.1952	0.0000	2.22E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.68E-05
321		0.00	0.657	0.000	0.1643	0.1945	0.0000	2.21E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.67E-05
322	*	0.00	0.000	0.000	0.1643	0.1938	0.0000	2.20E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.67E-05
323		0.00	0.000	0.034	0.1624	0.1942	0.0000	2.21E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.67E-05
324		0.00	0.000	0.039	0.1602	0.1942	0.0000	2.21E-04	0.0003	0.0000	6.91E-09	0.0000	0.0000	3.67E-05
325		0.00	0.000	0.036	0.1582	0.1935	0.0000	2.20E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.67E-05
326	*	0.00	0.000	0.026	0.1567	0.1928	0.0000	2.19E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
327	*	0.00	0.000	0.000	0.1567	0.1921	0.0000	2.19E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
328	*	0.02	0.000	0.044	0.1553	0.1914	0.0000	2.18E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
329	*	0.00	0.000	0.000	0.1553	0.1907	0.0000	2.18E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
330	*	0.00	0.000	0.000	0.1553	0.1900	0.0000	2.17E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
331		0.00	0.000	0.055	0.1522	0.1894	0.0000	2.16E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.66E-05
332		0.00	0.000	0.091	0.1471	0.1887	0.0000	2.16E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05
333		0.00	0.000	0.073	0.1430	0.1880	0.0000	2.15E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05
334		0.00	0.000	0.073	0.1390	0.1873	0.0000	2.15E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05

335			0.00	0.000	0.059	0.1357	0.1866	0.0000	2.14E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05
336			0.00	0.000	0.068	0.1319	0.1864	0.0000	2.14E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05
337			0.01	0.000	0.058	0.1291	0.1896	0.0000	2.17E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.65E-05
338			0.04	0.000	0.014	0.1301	0.2000	0.0000	2.26E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
339			0.03	0.000	0.010	0.1314	0.2013	0.0000	2.27E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
340			0.00	0.000	0.004	0.1312	0.2006	0.0000	2.26E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
341			0.10	0.000	0.014	0.1358	0.1999	0.0000	2.26E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
342			0.01	0.000	0.020	0.1352	0.1992	0.0000	2.25E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
343			0.43	0.246	0.036	0.1433	0.1985	0.0000	2.24E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.64E-05
344			0.00	0.000	0.035	0.1413	0.1978	0.0000	2.24E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
345			0.10	0.000	0.040	0.1446	0.1972	0.0000	2.23E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
346	*		0.00	0.000	0.000	0.1446	0.1965	0.0000	2.23E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
347	*		0.00	0.000	0.000	0.1446	0.1958	0.0000	2.22E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
348	*		0.02	0.000	0.011	0.1449	0.1951	0.0000	2.21E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
349	*		0.00	0.000	0.000	0.1449	0.1944	0.0000	2.21E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.63E-05
350	*		0.00	0.000	0.000	0.1449	0.1937	0.0000	2.20E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.62E-05
351	*		0.00	0.000	0.000	0.1449	0.1930	0.0000	2.20E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.62E-05
352	*		0.09	0.000	0.006	0.1460	0.1923	0.0000	2.19E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.62E-05
353	*		0.06	0.000	0.013	0.1471	0.1917	0.0000	2.18E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.62E-05
354	*	*	0.00	0.000	0.014	0.1471	0.1910	0.0000	2.18E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.62E-05
355	*	*	0.11	0.000	0.006	0.1471	0.1903	0.0000	2.17E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
356	*	*	0.00	0.000	0.008	0.1471	0.1896	0.0000	2.17E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
357	*	*	0.00	0.000	0.004	0.1471	0.1889	0.0000	2.16E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
358	*	*	0.00	0.000	0.007	0.1471	0.1882	0.0000	2.15E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
359	*	*	0.00	0.000	0.000	0.1471	0.1875	0.0000	2.15E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
360	*	*	0.00	0.000	0.034	0.1471	0.1869	0.0000	2.14E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.61E-05
361	*	*	0.01	0.000	0.037	0.1471	0.1862	0.0000	2.14E-04	0.0003	0.0000	6.90E-09	0.0000	0.0000	3.60E-05
362	*	*	0.10	0.000	0.016	0.1471	0.1855	0.0000	2.13E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	3.60E-05
363	*	*	0.00	0.000	0.007	0.1471	0.1848	0.0000	2.12E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	3.60E-05
364	*	*	0.00	0.000	0.010	0.1471	0.1842	0.0000	2.12E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	3.60E-05
365	*	*	0.00	0.000	0.017	0.1471	0.1835	0.0000	2.11E-04	0.0003	0.0000	6.89E-09	0.0000	0.0000	3.60E-05

* = Frozen (air or soil)

Annual Totals for Year 5			
	inches	cubic feet	percent
Precipitation	25.46	92,408.5	100.00

Runoff	13.468	48,887.5	52.90
Evapotranspiration	12.214	44,338.0	47.98
Drainage Collected from Layer 3	0.0146	53.0	0.06
Percolation/Leakage through Layer 4	0.078251	284.1	0.31
Average Head on Top of Layer 4	0.1884	---	---
Drainage Collected from Layer 7	0.0002	0.8079	0.00
Percolation/Leakage through Layer 8	0.000003	0.0092	0.00
Average Head on Top of Layer 8	0.0005	---	---
Percolation/Leakage through Layer 10	0.014397	52.3	0.06
Change in Water Storage	-0.2543	-923.1	-1.00
Soil Water at Start of Year	72.8696	264,516.5	286.25
Soil Water at End of Year	72.7536	264,095.6	285.79
Snow Water at Start of Year	0.3024	1,097.9	1.19
Snow Water at End of Year	0.1641	595.7	0.64
Annual Water Budget Balance	0.0000	0.0000	0.00

Average Annual Totals Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:19

	Average Annual Totals for Years 1 - 5*			
	(inches)	[std dev]	(cubic feet)	(percent)
Precipitation	31.43	[5.36]	114,107.4	100.00
Runoff	17.183	[3.919]	62,375.8	54.66
Evapotranspiration	14.116	[1.33]	51,239.5	44.90
Subprofile1				
Lateral drainage collected from Layer 3	0.0120	[0.0027]	43.4	0.04
Percolation/leakage through Layer 4	0.066883	[0.012174]	242.8	0.21
Average Head on Top of Layer 4	0.1542	[0.0351]	---	---
Subprofile2				
Lateral drainage collected from Layer 7	0.0002	[0.0001]	0.6002	0.00
Percolation/leakage through Layer 8	0.000003	[0]	0.0092	0.00
Average Head on Top of Layer 8	0.0004	[0.0003]	---	---
Subprofile3				
Percolation/leakage through Layer 10	0.028542	[0.016374]	103.6	0.09
Water storage				
Change in water storage	0.0949	[0.3225]	344.4	0.30

* Note: Average inches are converted to volume based on the user-specified area.

Peak Values Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:19

	Peak Values for Years 1 - 5*		
	(inches)		(cubic feet)
Precipitation	3.72		13,503.6
Runoff	3.409		12,375.5
Subprofile1			
Drainage collected from Layer 3	0.0001		0.1920
Percolation/leakage through Layer 4	0.000267		0.9689
Average head on Layer 4	0.2490		---
Maximum head on Layer 4	0.4935		---
Location of maximum head in Layer 3	6.70	(feet from drain)	
Subprofile2			
Drainage collected from Layer 7	0.0000		0.0058
Percolation/leakage through Layer 8	0.000000		0.0000
Average head on Layer 8	0.0014		---
Maximum head on Layer 8	0.0028		---
Location of maximum head in Layer 7	0.05	(feet from drain)	
Subprofile3			
Percolation/leakage through Layer 10	0.000216		0.7835
Other Parameters			
Snow water	1.4979		5,437.3
Maximum vegetation soil water	0.1971	(vol/vol)	
Minimum vegetation soil water	0.1287	(vol/vol)	

Final Water Storage in Landfill Profile at End of Simulation Period

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:20
Simulation period: 5 years

	Final Water Storage	
Layer	(inches)	(vol/vol)
1	1.9911	0.3318
2	0.3691	0.0615
3	0.8006	0.0667
4	0.0000	0.0000
5	1.1400	0.1900
6	64.1991	0.0764
7	0.7441	0.0620
8	0.0000	0.0000
9	0.1459	0.5836
10	2.1089	0.3515
Snow water	0.1641	---

HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
HELP MODEL VERSION 4.0 BETA (2018)
DEVELOPED BY USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY

Title: Pilgrim Landfill **Simulated On:** 9/17/2026 9:21

Layer 1
Type 1 - Vertical Percolation Layer (Cover Soil)
SiCL - Silty Clay Loam
Material Texture Number 12

Thickness	=	6	inches
Porosity	=	0.471	vol/vol
Field Capacity	=	0.342	vol/vol
Wilting Point	=	0.21	vol/vol
Initial Soil Water Content	=	0.3175	vol/vol
Effective Sat. Hyd. Conductivity	=	4.20E-05	cm/sec

Layer 2
Type 1 - Vertical Percolation Layer (Waste)
Industrial Waste
Material Texture Number 83

Thickness	=	24	inches
Porosity	=	0.578	vol/vol
Field Capacity	=	0.076	vol/vol
Wilting Point	=	0.025	vol/vol
Initial Soil Water Content	=	0.1127	vol/vol
Effective Sat. Hyd. Conductivity	=	4.10E-03	cm/sec

Layer 3
Type 2 - Lateral Drainage Layer
Sand
Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.1576	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	2	%
Drainage Length	=	100	ft

Layer 4
Type 4 - Flexible Membrane Liner

HDPE Membrane
Material Texture Number 35

Thickness	=	0.06	inches
Effective Sat. Hyd. Conductivity	=	2.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 5
Type 1 - Vertical Percolation Layer
GCL
Material Texture Number 43

Thickness	=	0.25	inches
Porosity	=	0.75	vol/vol
Field Capacity	=	0.747	vol/vol
Wilting Point	=	0.4	vol/vol
Initial Soil Water Content	=	0.6559	vol/vol
Effective Sat. Hyd. Conductivity	=	3.00E-09	cm/sec

Layer 6
Type 1 - Vertical Percolation Layer
SiC - Silty Clay (Moderate)
Material Texture Number 28

Thickness	=	6	inches
Porosity	=	0.452	vol/vol
Field Capacity	=	0.411	vol/vol
Wilting Point	=	0.311	vol/vol
Initial Soil Water Content	=	0.3723	vol/vol
Effective Sat. Hyd. Conductivity	=	1.20E-06	cm/sec

Note: Initial moisture content of the layers and snow water were computed as nearly steady-state values by HELP.

General Design and Evaporative Zone Data

SCS Runoff Curve Number	=	95.4	
Fraction of Area Allowing Runoff	=	0	%
Area projected on a horizontal plane	=	1	acres
Evaporative Zone Depth	=	24	inches
Initial Water in Evaporative Zone	=	3.867	inches
Upper Limit of Evaporative Storage	=	13.23	inches
Lower Limit of Evaporative Storage	=	1.71	inches
Initial Snow Water	=	0	inches
Initial Water in Layer Materials	=	8.898	inches
Total Initial Water	=	8.898	inches

Total Subsurface Inflow	=	0	inches/year

Note: SCS Runoff Curve Number was calculated by HELP.

Evapotranspiration and Weather Data

Station Latitude	=	44.13	Degrees
Maximum Leaf Area Index	=	0	
Start of Growing Season (Julian Date)	=	124	days
End of Growing Season (Julian Date)	=	182	days
Average Wind Speed	=	11	mph
Average 1st Quarter Relative Humidity	=	65	%
Average 2nd Quarter Relative Humidity	=	65	%
Average 3rd Quarter Relative Humidity	=	62	%
Average 4th Quarter Relative Humidity	=	65	%

Note: Evapotranspiration data was obtained for Mankato, Minnesota

Normal Mean Monthly Precipitation (inches)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
0.683107	0.60023	1.856155	3.092133	4.531518	6.501913
4.867874	3.191535	2.613059	1.132846	1.140449	1.223736

Note: Precipitation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Normal Mean Monthly Temperature (Degrees Fahrenheit)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
20.6	20.2	36	56.7	62.8	76.6
82.4	78.5	81.4	49.6	38.6	32.4

Note: Temperature was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98
Solar radiation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Daily Output for Year 1

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:22

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.004	0.1611	3.0584	0.0035	1.11E-06	0.0000	0.0000	2.16E-04
2	*	*	0.00	0.000	0.000	0.1611	3.0543	0.0035	1.10E-06	0.0000	0.0000	2.15E-04
3	*	*	0.00	0.000	0.000	0.1611	3.0501	0.0035	1.10E-06	0.0000	0.0000	2.15E-04
4	*	*	0.00	0.000	0.000	0.1611	3.0458	0.0035	1.10E-06	0.0000	0.0000	2.14E-04
5	*	*	0.00	0.000	0.000	0.1611	3.0414	0.0034	1.10E-06	0.0000	0.0000	2.14E-04
6	*	*	0.00	0.000	0.000	0.1611	3.0370	0.0034	1.10E-06	0.0000	0.0000	2.13E-04
7	*	*	0.00	0.000	0.000	0.1611	3.0324	0.0034	1.09E-06	0.0000	0.0000	2.13E-04
8	*	*	0.00	0.000	0.000	0.1611	3.0278	0.0034	1.09E-06	0.0000	0.0000	2.12E-04
9	*	*	0.13	0.000	0.003	0.1611	3.0231	0.0034	1.09E-06	0.0000	0.0000	2.12E-04
10	*	*	0.01	0.000	0.006	0.1611	3.0184	0.0034	1.09E-06	0.0000	0.0000	2.11E-04
11	*	*	0.03	0.000	0.003	0.1611	3.0136	0.0034	1.08E-06	0.0000	0.0000	2.10E-04
12	*	*	0.00	0.000	0.005	0.1611	3.0087	0.0034	1.08E-06	0.0000	0.0000	2.10E-04
13	*	*	0.00	0.000	0.026	0.1611	3.0038	0.0034	1.08E-06	0.0000	0.0000	2.09E-04
14	*	*	0.00	0.000	0.034	0.1611	2.9988	0.0034	1.08E-06	0.0000	0.0000	2.09E-04
15	*	*	0.00	0.000	0.016	0.1611	2.9937	0.0034	1.08E-06	0.0000	0.0000	2.08E-04
16	*	*	0.00	0.000	0.008	0.1611	2.9886	0.0034	1.07E-06	0.0000	0.0000	2.08E-04
17	*	*	0.00	0.000	0.004	0.1611	2.9835	0.0034	1.07E-06	0.0000	0.0000	2.07E-04
18	*	*	0.00	0.000	0.003	0.1611	2.9782	0.0034	1.07E-06	0.0000	0.0000	2.07E-04
19	*	*	0.00	0.000	0.004	0.1611	2.9730	0.0034	1.07E-06	0.0000	0.0000	2.06E-04
20	*	*	0.00	0.000	0.023	0.1611	2.9677	0.0034	1.06E-06	0.0000	0.0000	2.06E-04
21	*	*	0.00	0.000	0.009	0.1611	2.9624	0.0034	1.06E-06	0.0000	0.0000	2.05E-04
22	*	*	0.06	0.000	0.019	0.1611	2.9570	0.0034	1.06E-06	0.0000	0.0000	2.05E-04
23	*	*	0.03	0.000	0.020	0.1611	2.9516	0.0033	1.06E-06	0.0000	0.0000	2.04E-04

24	*	*	0.02	0.000	0.000	0.1611	2.9461	0.0033	1.05E-06	0.0000	0.0000	2.04E-04
25	*	*	0.00	0.000	0.025	0.1611	2.9406	0.0033	1.05E-06	0.0000	0.0000	2.03E-04
26	*	*	0.00	0.000	0.023	0.1611	2.9351	0.0033	1.05E-06	0.0000	0.0000	2.03E-04
27	*	*	0.13	0.000	0.022	0.1611	2.9296	0.0033	1.05E-06	0.0000	0.0000	2.02E-04
28	*	*	0.02	0.000	0.010	0.1611	2.9240	0.0033	1.04E-06	0.0000	0.0000	2.02E-04
29	*	*	0.00	0.000	0.020	0.1611	2.9183	0.0033	1.04E-06	0.0000	0.0000	2.01E-04
30	*	*	0.00	0.000	0.018	0.1611	2.9127	0.0033	1.04E-06	0.0000	0.0000	2.01E-04
31	*	*	0.05	0.000	0.000	0.1611	2.9070	0.0033	1.04E-06	0.0000	0.0000	2.00E-04
32	*	*	0.00	0.000	0.013	0.1611	2.9013	0.0033	1.03E-06	0.0000	0.0000	2.00E-04
33	*	*	0.00	0.000	0.024	0.1611	2.8956	0.0033	1.03E-06	0.0000	0.0000	1.99E-04
34		*	0.00	0.000	0.045	0.1650	2.8899	0.0033	1.03E-06	0.0000	0.0000	1.99E-04
35		*	0.00	0.000	0.000	0.1650	2.8841	0.0033	1.03E-06	0.0000	0.0000	1.98E-04
36	*	*	0.00	0.000	0.000	0.1650	2.8783	0.0033	1.02E-06	0.0000	0.0000	1.98E-04
37	*	*	0.01	0.000	0.014	0.1650	2.8725	0.0033	1.02E-06	0.0000	0.0000	1.97E-04
38		*	0.00	0.000	0.000	0.1650	2.8667	0.0032	1.02E-06	0.0000	0.0000	1.97E-04
39		*	0.00	0.000	0.000	0.1650	2.8608	0.0032	1.02E-06	0.0000	0.0000	1.96E-04
40		*	0.00	0.000	0.000	0.1650	2.8550	0.0032	1.01E-06	0.0000	0.0000	1.96E-04
41	*	*	0.00	0.000	0.000	0.1650	2.8491	0.0032	1.01E-06	0.0000	0.0000	1.95E-04
42	*	*	0.00	0.000	0.000	0.1650	2.8432	0.0032	1.01E-06	0.0000	0.0000	1.95E-04
43		*	0.00	0.000	0.000	0.1650	2.8373	0.0032	1.01E-06	0.0000	0.0000	1.94E-04
44	*	*	0.00	0.000	0.000	0.1650	2.8313	0.0032	1.00E-06	0.0000	0.0000	1.94E-04
45	*	*	0.00	0.000	0.000	0.1650	2.8254	0.0032	1.00E-06	0.0000	0.0000	1.93E-04
46	*	*	0.00	0.000	0.000	0.1650	2.8194	0.0032	9.99E-07	0.0000	0.0000	1.93E-04
47	*	*	0.00	0.000	0.000	0.1650	2.8135	0.0032	9.96E-07	0.0000	0.0000	1.92E-04
48	*	*	0.00	0.000	0.000	0.1650	2.8075	0.0032	9.94E-07	0.0000	0.0000	1.92E-04
49	*	*	0.00	0.000	0.000	0.1650	2.8015	0.0032	9.91E-07	0.0000	0.0000	1.92E-04
50	*	*	0.00	0.000	0.000	0.1650	2.7955	0.0032	9.88E-07	0.0000	0.0000	1.91E-04
51		*	0.00	0.000	0.000	0.1650	2.7895	0.0032	9.86E-07	0.0000	0.0000	1.91E-04
52		*	0.00	0.000	0.000	0.1650	2.7835	0.0032	9.83E-07	0.0000	0.0000	1.90E-04
53		*	0.17	0.000	0.000	0.1721	2.7774	0.0031	9.80E-07	0.0000	0.0000	1.90E-04
54		*	0.00	0.000	0.000	0.1721	2.7714	0.0031	9.78E-07	0.0000	0.0000	1.89E-04

55		*	0.00	0.000	0.000	0.1721	2.7654	0.0031	9.75E-07	0.0000	0.0000	1.89E-04
56		*	0.00	0.000	0.000	0.1721	2.7593	0.0031	9.73E-07	0.0000	0.0000	1.88E-04
57		*	0.00	0.000	0.000	0.1721	2.7533	0.0031	9.70E-07	0.0000	0.0000	1.88E-04
58		*	0.00	0.000	0.000	0.1722	2.7472	0.0031	9.67E-07	0.0000	0.0000	1.88E-04
59	*	*	0.10	0.000	0.056	0.1722	2.7411	0.0031	9.65E-07	0.0000	0.0000	1.87E-04
60		*	0.00	0.000	0.047	0.1722	2.7351	0.0031	9.62E-07	0.0000	0.0000	1.87E-04
61	*	*	0.00	0.000	0.005	0.1722	2.7290	0.0031	9.59E-07	0.0000	0.0000	1.86E-04
62		*	0.45	0.000	0.000	0.1909	2.7229	0.0031	9.57E-07	0.0000	0.0000	1.86E-04
63	*	*	0.00	0.000	0.000	0.1909	2.7168	0.0031	9.54E-07	0.0000	0.0000	1.85E-04
64	*	*	0.00	0.000	0.004	0.1909	2.7108	0.0031	9.52E-07	0.0000	0.0000	1.85E-04
65	*	*	0.02	0.000	0.007	0.1909	2.7047	0.0031	9.49E-07	0.0000	0.0000	1.85E-04
66	*	*	0.17	0.000	0.006	0.1909	2.6986	0.0031	9.46E-07	0.0000	0.0000	1.84E-04
67	*	*	0.00	0.000	0.046	0.1909	2.6925	0.0031	9.44E-07	0.0000	0.0000	1.84E-04
68	*	*	0.01	0.000	0.010	0.1909	2.6864	0.0030	9.41E-07	0.0000	0.0000	1.83E-04
69	*	*	0.00	0.000	0.030	0.1909	2.6803	0.0030	9.38E-07	0.0000	0.0000	1.83E-04
70		*	0.00	0.000	0.096	0.1909	2.6742	0.0030	9.36E-07	0.0000	0.0000	1.82E-04
71		*	0.00	0.000	0.000	0.1909	2.6681	0.0030	9.33E-07	0.0000	0.0000	1.82E-04
72	*	*	0.00	0.000	0.000	0.1909	2.6620	0.0030	9.31E-07	0.0000	0.0000	1.82E-04
73	*	*	0.00	0.000	0.000	0.1909	2.6559	0.0030	9.28E-07	0.0000	0.0000	1.81E-04
74	*	*	0.00	0.000	0.000	0.1909	2.6498	0.0030	9.25E-07	0.0000	0.0000	1.81E-04
75	*	*	0.00	0.000	0.000	0.1909	2.6437	0.0030	9.23E-07	0.0000	0.0000	1.80E-04
76	*	*	0.00	0.000	0.000	0.1909	2.6376	0.0030	9.20E-07	0.0000	0.0000	1.80E-04
77	*	*	0.00	0.000	0.000	0.1909	2.6316	0.0030	9.18E-07	0.0000	0.0000	1.80E-04
78	*	*	0.00	0.000	0.000	0.1909	2.6255	0.0030	9.15E-07	0.0000	0.0000	1.79E-04
79	*	*	0.00	0.000	0.000	0.1909	2.6194	0.0030	9.12E-07	0.0000	0.0000	1.79E-04
80	*	*	0.07	0.000	0.008	0.1909	2.6133	0.0030	9.10E-07	0.0000	0.0000	1.78E-04
81		*	0.00	0.000	0.062	0.1909	2.6072	0.0030	9.07E-07	0.0000	0.0000	1.78E-04
82	*	*	0.00	0.000	0.000	0.1909	2.6011	0.0029	9.05E-07	0.0000	0.0000	1.78E-04
83	*	*	0.00	0.000	0.000	0.1909	2.5951	0.0029	9.02E-07	0.0000	0.0000	1.77E-04
84		*	0.00	0.000	0.000	0.1909	2.5890	0.0029	8.99E-07	0.0000	0.0000	1.77E-04
85		*	0.00	0.000	0.000	0.1909	2.5829	0.0029	8.97E-07	0.0000	0.0000	1.77E-04

86		*	0.00	0.000	0.000	0.1909	2.5768	0.0029	8.94E-07	0.0000	0.0000	1.76E-04
87		*	0.00	0.000	0.000	0.1909	2.5708	0.0029	8.92E-07	0.0000	0.0000	1.76E-04
88		*	0.00	0.000	0.000	0.1909	2.5647	0.0029	8.89E-07	0.0000	0.0000	1.75E-04
89		*	0.00	0.000	0.000	0.1909	2.5587	0.0029	8.87E-07	0.0000	0.0000	1.75E-04
90		*	0.00	0.000	0.000	0.1909	2.5526	0.0029	8.84E-07	0.0000	0.0000	1.75E-04
91		*	0.00	0.000	0.000	0.1909	2.5466	0.0029	8.82E-07	0.0000	0.0000	1.74E-04
92		*	0.00	0.000	0.000	0.1909	2.5405	0.0029	8.79E-07	0.0000	0.0000	1.74E-04
93		*	0.41	0.000	0.000	0.2079	2.5345	0.0029	8.76E-07	0.0000	0.0000	1.73E-04
94		*	0.11	0.000	0.000	0.2123	2.5285	0.0029	8.74E-07	0.0000	0.0000	1.73E-04
95		*	0.00	0.000	0.000	0.2123	2.5225	0.0029	8.71E-07	0.0000	0.0000	1.73E-04
96		*	0.04	0.000	0.000	0.2137	2.5164	0.0029	8.69E-07	0.0000	0.0000	1.72E-04
97			0.21	0.000	0.195	0.2144	2.5101	0.0028	8.66E-07	0.0000	0.0000	1.72E-04
98			0.34	0.000	0.197	0.2203	2.5040	0.0028	8.64E-07	0.0000	0.0000	1.72E-04
99			0.00	0.000	0.370	0.2047	2.4972	0.0028	8.61E-07	0.0000	0.0000	1.71E-04
100			0.00	0.000	0.338	0.1906	2.4909	0.0028	8.58E-07	0.0000	0.0000	1.71E-04
101			0.00	0.000	0.152	0.1840	2.4844	0.0028	8.55E-07	0.0000	0.0000	1.71E-04
102			0.00	0.000	0.185	0.1760	2.4769	0.0028	8.52E-07	0.0000	0.0000	1.70E-04
103			0.00	0.000	0.454	0.1569	2.4694	0.0028	8.49E-07	0.0000	0.0000	1.70E-04
104			0.00	0.000	0.167	0.1498	2.4624	0.0028	8.46E-07	0.0000	0.0000	1.69E-04
105			0.00	0.000	0.073	0.1466	2.4552	0.0028	8.43E-07	0.0000	0.0000	1.69E-04
106	*		0.00	0.000	0.000	0.1466	2.4492	0.0028	8.41E-07	0.0000	0.0000	1.69E-04
107			0.00	0.000	0.056	0.1442	2.4441	0.0028	8.39E-07	0.0000	0.0000	1.68E-04
108			0.00	0.000	0.047	0.1423	2.4389	0.0028	8.36E-07	0.0000	0.0000	1.68E-04
109			0.00	0.000	0.042	0.1405	2.4334	0.0028	8.34E-07	0.0000	0.0000	1.68E-04
110			0.00	0.000	0.038	0.1389	2.4281	0.0028	8.32E-07	0.0000	0.0000	1.67E-04
111			0.08	0.000	0.035	0.1406	2.4226	0.0027	8.30E-07	0.0000	0.0000	1.67E-04
112			0.00	0.000	0.032	0.1383	2.4154	0.0027	8.27E-07	0.0000	0.0000	1.67E-04
113			0.00	0.000	0.030	0.1360	2.4081	0.0027	8.24E-07	0.0000	0.0000	1.66E-04
114			0.00	0.000	0.028	0.1331	2.4009	0.0027	8.21E-07	0.0000	0.0000	1.66E-04
115			0.00	0.000	0.027	0.1304	2.3936	0.0027	8.18E-07	0.0000	0.0000	1.66E-04
116			0.07	0.000	0.026	0.1307	2.3864	0.0027	8.15E-07	0.0000	0.0000	1.65E-04

117		0.15	0.000	0.025	0.1348	2.3792	0.0027	8.12E-07	0.0000	0.0000	1.65E-04
118	*	0.00	0.000	0.003	0.1337	2.3720	0.0027	8.09E-07	0.0000	0.0000	1.65E-04
119	*	0.44	0.000	0.021	0.1335	2.3648	0.0027	8.06E-07	0.0000	0.0000	1.64E-04
120	*	0.02	0.000	0.033	0.1334	2.3577	0.0027	8.03E-07	0.0000	0.0000	1.64E-04
121		0.00	0.000	0.074	0.1448	2.3506	0.0027	8.00E-07	0.0000	0.0000	1.64E-04
122		0.00	0.000	0.024	0.1431	2.3435	0.0027	7.97E-07	0.0000	0.0000	1.63E-04
123		0.00	0.000	0.023	0.1415	2.3401	0.0027	7.96E-07	0.0000	0.0000	1.63E-04
124		0.00	0.000	0.022	0.1400	2.3442	0.0027	7.97E-07	0.0000	0.0000	1.63E-04
125		0.25	0.000	0.022	0.1490	2.3537	0.0027	8.01E-07	0.0000	0.0000	1.62E-04
126		0.14	0.000	0.021	0.1534	2.3704	0.0027	8.08E-07	0.0000	0.0000	1.62E-04
127		0.00	0.000	0.021	0.1521	2.3908	0.0027	8.17E-07	0.0000	0.0000	1.62E-04
128		0.14	0.000	0.020	0.1568	2.4133	0.0027	8.26E-07	0.0000	0.0000	1.61E-04
129		0.08	0.000	0.020	0.1588	2.4370	0.0028	8.36E-07	0.0000	0.0000	1.61E-04
130		0.31	0.000	0.162	0.1645	2.4635	0.0028	8.47E-07	0.0000	0.0000	1.61E-04
131		0.00	0.000	0.267	0.1530	2.4897	0.0028	8.58E-07	0.0000	0.0000	1.60E-04
132		0.00	0.000	0.177	0.1456	2.5242	0.0029	8.72E-07	0.0000	0.0000	1.60E-04
133		0.00	0.000	0.073	0.1422	2.5534	0.0029	8.84E-07	0.0000	0.0000	1.60E-04
134		0.61	0.000	0.056	0.1647	2.5668	0.0029	8.90E-07	0.0000	0.0000	1.60E-04
135		0.00	0.000	0.412	0.1472	2.5732	0.0029	8.93E-07	0.0000	0.0000	1.59E-04
136		0.00	0.000	0.048	0.1448	2.5932	0.0029	9.01E-07	0.0000	0.0000	1.59E-04
137		1.02	0.000	0.042	0.1849	2.6018	0.0029	9.05E-07	0.0000	0.0000	1.59E-04
138		0.15	0.000	0.254	0.1807	2.6235	0.0030	9.14E-07	0.0000	0.0000	1.58E-04
139		0.27	0.000	0.303	0.1788	2.6555	0.0030	9.28E-07	0.0000	0.0000	1.58E-04
140		0.18	0.000	0.284	0.1740	2.6695	0.0030	9.34E-07	0.0000	0.0000	1.58E-04
141		0.00	0.000	0.250	0.1630	2.6804	0.0030	9.39E-07	0.0000	0.0000	1.57E-04
142		0.10	0.000	0.182	0.1591	2.6885	0.0030	9.42E-07	0.0000	0.0000	1.57E-04
143		0.00	0.000	0.382	0.1426	2.6931	0.0031	9.44E-07	0.0000	0.0000	1.57E-04
144		0.00	0.000	0.158	0.1355	2.7053	0.0031	9.49E-07	0.0000	0.0000	1.57E-04
145		0.42	0.000	0.074	0.1494	2.7185	0.0031	9.55E-07	0.0000	0.0000	1.56E-04
146		0.00	0.000	0.057	0.1467	2.7366	0.0031	9.63E-07	0.0000	0.0000	1.56E-04
147		0.05	0.000	0.048	0.1464	2.7591	0.0031	9.73E-07	0.0000	0.0000	1.56E-04

148	0.07	0.000	0.042	0.1473	2.7843	0.0032	9.83E-07	0.0000	0.0000	1.55E-04
149	0.09	0.000	0.038	0.1491	2.8093	0.0032	9.94E-07	0.0000	0.0000	1.55E-04
150	0.03	0.000	0.035	0.1486	2.8342	0.0032	1.01E-06	0.0000	0.0000	1.55E-04
151	0.00	0.000	0.032	0.1470	2.8590	0.0032	1.02E-06	0.0000	0.0000	1.54E-04
152	0.00	0.000	0.030	0.1455	2.8843	0.0033	1.03E-06	0.0000	0.0000	1.54E-04
153	0.19	0.000	0.029	0.1520	2.9054	0.0033	1.04E-06	0.0000	0.0000	1.54E-04
154	0.00	0.000	0.193	0.1438	2.9278	0.0033	1.05E-06	0.0000	0.0000	1.54E-04
155	0.05	0.000	0.028	0.1444	2.9463	0.0033	1.05E-06	0.0000	0.0000	1.53E-04
156	0.00	0.000	0.026	0.1431	2.9632	0.0034	1.06E-06	0.0000	0.0000	1.53E-04
157	0.00	0.000	0.025	0.1419	2.9827	0.0034	1.07E-06	0.0000	0.0000	1.53E-04
158	0.47	0.000	0.025	0.1601	2.9982	0.0034	1.08E-06	0.0000	0.0000	1.53E-04
159	0.22	0.000	0.199	0.1607	3.0127	0.0034	1.08E-06	0.0000	0.0000	1.52E-04
160	0.08	0.000	0.227	0.1544	3.0293	0.0034	1.09E-06	0.0000	0.0000	1.52E-04
161	0.00	0.000	0.306	0.1416	3.0467	0.0035	1.10E-06	0.0000	0.0000	1.52E-04
162	0.73	0.000	0.171	0.1647	3.0545	0.0035	1.10E-06	0.0000	0.0000	1.51E-04
163	1.39	0.000	0.188	0.2147	3.0627	0.0035	1.11E-06	0.0000	0.0000	1.51E-04
164	0.04	0.000	0.159	0.2096	3.0796	0.0035	1.11E-06	0.0000	0.0000	1.51E-04
165	0.15	0.000	0.141	0.2095	3.0811	0.0035	1.12E-06	0.0000	0.0000	1.51E-04
166	0.02	0.000	0.325	0.1963	3.0770	0.0035	1.11E-06	0.0000	0.0000	1.50E-04
167	0.02	0.000	0.177	0.1894	3.0762	0.0035	1.11E-06	0.0000	0.0000	1.50E-04
168	0.00	0.000	0.284	0.1774	3.0777	0.0035	1.11E-06	0.0000	0.0000	1.50E-04
169	0.01	0.000	0.339	0.1637	3.0835	0.0035	1.12E-06	0.0000	0.0000	1.49E-04
170	0.37	0.000	0.178	0.1715	3.0879	0.0035	1.12E-06	0.0000	0.0000	1.49E-04
171	0.82	0.000	0.327	0.1917	3.0924	0.0035	1.12E-06	0.0000	0.0000	1.49E-04
172	0.00	0.000	0.390	0.1754	3.1023	0.0035	1.13E-06	0.0000	0.0000	1.49E-04
173	0.00	0.000	0.399	0.1586	3.1102	0.0035	1.13E-06	0.0000	0.0000	1.48E-04
174	0.78	0.000	0.178	0.1836	3.1137	0.0035	1.13E-06	0.0000	0.0000	1.48E-04
175	1.15	0.000	0.302	0.2190	3.1246	0.0035	1.14E-06	0.0000	0.0000	1.48E-04
176	0.13	0.000	0.391	0.2081	3.1379	0.0036	1.14E-06	0.0000	0.0000	1.48E-04
177	0.00	0.000	0.233	0.1984	3.1501	0.0036	1.15E-06	0.0000	0.0000	1.47E-04
178	0.01	0.000	0.330	0.1851	3.1614	0.0036	1.15E-06	0.0000	0.0000	1.47E-04

179	0.43	0.000	0.347	0.1882	3.1654	0.0036	1.15E-06	0.0000	0.0000	1.47E-04
180	0.00	0.000	0.300	0.1757	3.1719	0.0036	1.16E-06	0.0000	0.0000	1.47E-04
181	0.00	0.000	0.335	0.1615	3.1765	0.0036	1.16E-06	0.0000	0.0000	1.46E-04
182	0.00	0.000	0.177	0.1538	3.1741	0.0036	1.16E-06	0.0000	0.0000	1.46E-04
183	0.00	0.000	0.073	0.1502	3.1645	0.0036	1.15E-06	0.0000	0.0000	1.46E-04
184	0.05	0.000	0.057	0.1491	3.1549	0.0036	1.15E-06	0.0000	0.0000	1.45E-04
185	0.00	0.000	0.047	0.1466	3.1454	0.0036	1.14E-06	0.0000	0.0000	1.45E-04
186	0.00	0.000	0.042	0.1443	3.1360	0.0036	1.14E-06	0.0000	0.0000	1.45E-04
187	0.11	0.000	0.038	0.1472	3.1366	0.0036	1.14E-06	0.0000	0.0000	1.45E-04
188	1.26	0.000	0.035	0.1983	3.1524	0.0036	1.15E-06	0.0000	0.0000	1.44E-04
189	0.59	0.000	0.348	0.2082	3.1617	0.0036	1.15E-06	0.0000	0.0000	1.44E-04
190	0.12	0.000	0.205	0.2047	3.1710	0.0036	1.16E-06	0.0000	0.0000	1.44E-04
191	0.30	0.000	0.373	0.2013	3.1854	0.0036	1.16E-06	0.0000	0.0000	1.44E-04
192	0.06	0.000	0.232	0.1938	3.1917	0.0036	1.17E-06	0.0000	0.0000	1.43E-04
193	0.05	0.000	0.182	0.1878	3.1875	0.0036	1.16E-06	0.0000	0.0000	1.43E-04
194	0.02	0.000	0.189	0.1804	3.1859	0.0036	1.16E-06	0.0000	0.0000	1.43E-04
195	0.04	0.000	0.351	0.1668	3.1950	0.0036	1.17E-06	0.0000	0.0000	1.43E-04
196	0.00	0.000	0.177	0.1588	3.1903	0.0036	1.17E-06	0.0000	0.0000	1.42E-04
197	0.25	0.000	0.074	0.1655	3.1832	0.0036	1.16E-06	0.0000	0.0000	1.42E-04
198	0.00	0.000	0.056	0.1624	3.1737	0.0036	1.16E-06	0.0000	0.0000	1.42E-04
199	0.00	0.000	0.047	0.1598	3.1677	0.0036	1.15E-06	0.0000	0.0000	1.42E-04
200	0.00	0.000	0.042	0.1574	3.1732	0.0036	1.16E-06	0.0000	0.0000	1.41E-04
201	0.08	0.000	0.038	0.1586	3.1835	0.0036	1.16E-06	0.0000	0.0000	1.41E-04
202	0.00	0.000	0.035	0.1566	3.1980	0.0036	1.17E-06	0.0000	0.0000	1.41E-04
203	0.00	0.000	0.033	0.1547	3.2123	0.0036	1.18E-06	0.0000	0.0000	1.41E-04
204	0.20	0.000	0.031	0.1614	3.2343	0.0037	1.19E-06	0.0000	0.0000	1.40E-04
205	0.00	0.000	0.029	0.1598	3.2597	0.0037	1.20E-06	0.0000	0.0000	1.40E-04
206	0.00	0.000	0.027	0.1582	3.2811	0.0037	1.21E-06	0.0000	0.0000	1.40E-04
207	0.45	0.000	0.027	0.1754	3.3061	0.0037	1.22E-06	0.0000	0.0000	1.40E-04
208	0.13	0.000	0.167	0.1737	3.3333	0.0038	1.23E-06	0.0000	0.0000	1.39E-04
209	0.00	0.000	0.183	0.1656	3.3536	0.0038	1.24E-06	0.0000	0.0000	1.39E-04

210	0.00	0.000	0.160	0.1585	3.3694	0.0038	1.25E-06	0.0000	0.0000	1.39E-04
211	0.11	0.000	0.172	0.1554	3.3887	0.0038	1.26E-06	0.0000	0.0000	1.39E-04
212	0.01	0.000	0.074	0.1524	3.4130	0.0039	1.27E-06	0.0000	0.0000	1.39E-04
213	0.00	0.000	0.056	0.1499	3.4455	0.0039	1.28E-06	0.0000	0.0000	1.38E-04
214	0.00	0.000	0.047	0.1478	3.4720	0.0039	1.30E-06	0.0000	0.0000	1.38E-04
215	0.00	0.000	0.042	0.1459	3.4927	0.0040	1.31E-06	0.0000	0.0000	1.38E-04
216	0.06	0.000	0.038	0.1466	3.5070	0.0040	1.31E-06	0.0000	0.0000	1.38E-04
217	0.09	0.000	0.035	0.1485	3.5167	0.0040	1.32E-06	0.0000	0.0000	1.37E-04
218	0.00	0.000	0.032	0.1469	3.5297	0.0040	1.32E-06	0.0000	0.0000	1.37E-04
219	0.11	0.000	0.031	0.1499	3.5409	0.0040	1.33E-06	0.0000	0.0000	1.37E-04
220	0.00	0.000	0.029	0.1485	3.5511	0.0040	1.33E-06	0.0000	0.0000	1.37E-04
221	0.00	0.000	0.027	0.1471	3.5616	0.0040	1.34E-06	0.0000	0.0000	1.36E-04
222	0.29	0.000	0.026	0.1579	3.5727	0.0040	1.35E-06	0.0000	0.0000	1.36E-04
223	0.58	0.000	0.025	0.1809	3.5823	0.0041	1.35E-06	0.0000	0.0000	1.36E-04
224	0.17	0.000	0.169	0.1807	3.5895	0.0041	1.35E-06	0.0000	0.0000	1.36E-04
225	0.00	0.000	0.212	0.1716	3.5942	0.0041	1.36E-06	0.0000	0.0000	1.36E-04
226	0.00	0.000	0.164	0.1648	3.6090	0.0041	1.36E-06	0.0000	0.0000	1.35E-04
227	0.01	0.000	0.166	0.1581	3.6269	0.0041	1.37E-06	0.0000	0.0000	1.35E-04
228	0.00	0.000	0.177	0.1507	3.6409	0.0041	1.38E-06	0.0000	0.0000	1.35E-04
229	0.00	0.000	0.073	0.1475	3.6490	0.0041	1.38E-06	0.0000	0.0000	1.35E-04
230	0.00	0.000	0.055	0.1450	3.6518	0.0041	1.38E-06	0.0000	0.0000	1.34E-04
231	0.00	0.000	0.047	0.1429	3.6533	0.0041	1.38E-06	0.0000	0.0000	1.34E-04
232	0.00	0.000	0.042	0.1409	3.6543	0.0041	1.38E-06	0.0000	0.0000	1.34E-04
233	0.00	0.000	0.038	0.1392	3.6551	0.0041	1.39E-06	0.0000	0.0000	1.34E-04
234	0.00	0.000	0.035	0.1375	3.6556	0.0041	1.39E-06	0.0000	0.0000	1.34E-04
235	0.00	0.000	0.032	0.1359	3.6524	0.0041	1.38E-06	0.0000	0.0000	1.33E-04
236	0.00	0.000	0.030	0.1344	3.6507	0.0041	1.38E-06	0.0000	0.0000	1.33E-04
237	0.32	0.000	0.029	0.1464	3.6538	0.0041	1.38E-06	0.0000	0.0000	1.33E-04
238	0.00	0.000	0.027	0.1451	3.6586	0.0041	1.39E-06	0.0000	0.0000	1.33E-04
239	0.00	0.000	0.026	0.1439	3.6613	0.0041	1.39E-06	0.0000	0.0000	1.32E-04
240	0.00	0.000	0.025	0.1427	3.6652	0.0042	1.39E-06	0.0000	0.0000	1.32E-04

241	0.00	0.000	0.024	0.1416	3.6691	0.0042	1.39E-06	0.0000	0.0000	1.32E-04
242	0.00	0.000	0.024	0.1405	3.6725	0.0042	1.39E-06	0.0000	0.0000	1.32E-04
243	0.00	0.000	0.022	0.1395	3.6756	0.0042	1.39E-06	0.0000	0.0000	1.32E-04
244	0.00	0.000	0.022	0.1384	3.6782	0.0042	1.40E-06	0.0000	0.0000	1.31E-04
245	0.00	0.000	0.021	0.1374	3.6806	0.0042	1.40E-06	0.0000	0.0000	1.31E-04
246	0.00	0.000	0.021	0.1364	3.6827	0.0042	1.40E-06	0.0000	0.0000	1.31E-04
247	0.08	0.000	0.020	0.1389	3.6845	0.0042	1.40E-06	0.0000	0.0000	1.31E-04
248	0.02	0.000	0.020	0.1389	3.6862	0.0042	1.40E-06	0.0000	0.0000	1.31E-04
249	0.78	0.000	0.019	0.1705	3.6876	0.0042	1.40E-06	0.0000	0.0000	1.30E-04
250	0.64	0.000	0.207	0.1885	3.6918	0.0042	1.40E-06	0.0000	0.0000	1.30E-04
251	0.45	0.000	0.147	0.2009	3.6987	0.0042	1.41E-06	0.0000	0.0000	1.30E-04
252	0.99	0.000	0.259	0.2314	3.7036	0.0042	1.41E-06	0.0000	0.0000	1.30E-04
253	0.03	0.000	0.325	0.2191	3.7089	0.0042	1.41E-06	0.0000	0.0000	1.30E-04
254	0.00	0.000	0.276	0.2074	3.7026	0.0042	1.41E-06	0.0000	0.0000	1.29E-04
255	0.00	0.000	0.146	0.2012	3.6951	0.0042	1.40E-06	0.0000	0.0000	1.29E-04
256	0.00	0.000	0.251	0.1906	3.6892	0.0042	1.40E-06	0.0000	0.0000	1.29E-04
257	1.56	0.000	0.178	0.2427	3.6918	0.0042	1.40E-06	0.0000	0.0000	1.29E-04
258	0.00	0.000	0.305	0.2353	3.6981	0.0042	1.41E-06	0.0000	0.0000	1.28E-04
259	0.00	0.000	0.372	0.2194	3.7034	0.0042	1.41E-06	0.0000	0.0000	1.28E-04
260	0.00	0.000	0.188	0.2101	3.6982	0.0042	1.41E-06	0.0000	0.0000	1.28E-04
261	0.00	0.000	0.251	0.1997	3.6957	0.0042	1.40E-06	0.0000	0.0000	1.28E-04
262	0.11	0.000	0.319	0.1897	3.7027	0.0042	1.41E-06	0.0000	0.0000	1.28E-04
263	0.00	0.000	0.177	0.1794	3.6929	0.0042	1.40E-06	0.0000	0.0000	1.27E-04
264	0.04	0.000	0.073	0.1749	3.6818	0.0042	1.40E-06	0.0000	0.0000	1.27E-04
265	0.00	0.000	0.056	0.1700	3.6706	0.0042	1.39E-06	0.0000	0.0000	1.27E-04
266	0.00	0.000	0.047	0.1657	3.6634	0.0042	1.39E-06	0.0000	0.0000	1.27E-04
267	0.00	0.000	0.042	0.1617	3.6816	0.0042	1.40E-06	0.0000	0.0000	1.27E-04
268	0.33	0.000	0.038	0.1720	3.7639	0.0043	1.44E-06	0.0000	0.0000	1.26E-04
269	0.00	0.000	0.035	0.1693	3.8840	0.0044	1.50E-06	0.0000	0.0000	1.26E-04
270	0.00	0.000	0.032	0.1672	4.0084	0.0045	1.56E-06	0.0000	0.0000	1.26E-04
271	0.00	0.000	0.030	0.1650	4.1074	0.0047	1.61E-06	0.0000	0.0000	1.26E-04

272		0.00	0.000	0.029	0.1627	4.1790	0.0047	1.65E-06	0.0000	0.0000	1.26E-04
273		0.00	0.000	0.027	0.1604	4.2388	0.0048	1.68E-06	0.0000	0.0000	1.26E-04
274		0.00	0.000	0.026	0.1582	4.2971	0.0049	1.71E-06	0.0000	0.0000	1.26E-04
275		0.03	0.000	0.025	0.1572	4.3575	0.0049	1.74E-06	0.0000	0.0000	1.25E-04
276		0.01	0.000	0.024	0.1556	4.4197	0.0050	1.77E-06	0.0000	0.0000	1.25E-04
277		0.00	0.000	0.023	0.1537	4.4837	0.0051	1.81E-06	0.0000	0.0000	1.25E-04
278		0.00	0.000	0.022	0.1518	4.5427	0.0051	1.84E-06	0.0000	0.0000	1.25E-04
279		0.00	0.000	0.022	0.1501	4.6009	0.0052	1.87E-06	0.0000	0.0000	1.25E-04
280		0.00	0.000	0.021	0.1484	4.6583	0.0053	1.90E-06	0.0000	0.0000	1.25E-04
281		0.00	0.000	0.021	0.1469	4.7129	0.0053	1.93E-06	0.0000	0.0000	1.24E-04
282		0.00	0.000	0.020	0.1454	4.7639	0.0054	1.96E-06	0.0000	0.0000	1.24E-04
283		0.07	0.000	0.020	0.1467	4.8113	0.0055	1.98E-06	0.0000	0.0000	1.24E-04
284		0.25	0.000	0.019	0.1558	4.8551	0.0055	2.01E-06	0.0000	0.0000	1.24E-04
285		0.00	0.000	0.019	0.1545	4.8957	0.0055	2.03E-06	0.0000	0.0000	1.24E-04
286		0.00	0.000	0.018	0.1532	4.9333	0.0056	2.05E-06	0.0000	0.0000	1.24E-04
287		0.00	0.000	0.018	0.1520	4.9683	0.0056	2.07E-06	0.0000	0.0000	1.23E-04
288		0.05	0.000	0.018	0.1527	5.0009	0.0057	2.09E-06	0.0000	0.0000	1.23E-04
289		0.06	0.000	0.017	0.1541	5.0300	0.0057	2.11E-06	0.0000	0.0000	1.23E-04
290		0.00	0.000	0.017	0.1529	5.0576	0.0057	2.12E-06	0.0000	0.0000	1.23E-04
291		0.19	0.000	0.017	0.1596	5.0835	0.0058	2.14E-06	0.0000	0.0000	1.23E-04
292		0.05	0.000	0.016	0.1605	5.1077	0.0058	2.15E-06	0.0000	0.0000	1.22E-04
293		0.00	0.000	0.016	0.1594	5.1304	0.0058	2.16E-06	0.0000	0.0000	1.22E-04
294		0.00	0.000	0.016	0.1584	5.1515	0.0058	2.17E-06	0.0000	0.0000	1.22E-04
295		0.00	0.000	0.016	0.1574	5.1711	0.0059	2.19E-06	0.0000	0.0000	1.22E-04
296		0.00	0.000	0.015	0.1565	5.1893	0.0059	2.20E-06	0.0000	0.0000	1.22E-04
297		0.00	0.000	0.015	0.1555	5.2063	0.0059	2.21E-06	0.0000	0.0000	1.22E-04
298		0.00	0.000	0.015	0.1546	5.2221	0.0059	2.22E-06	0.0000	0.0000	1.21E-04
299		0.00	0.000	0.015	0.1537	5.2367	0.0059	2.22E-06	0.0000	0.0000	1.21E-04
300		0.00	0.000	0.014	0.1528	5.2502	0.0060	2.23E-06	0.0000	0.0000	1.21E-04
301	*	0.00	0.000	0.000	0.1526	5.2633	0.0060	2.24E-06	0.0000	0.0000	1.21E-04
302	*	0.00	0.000	0.000	0.1523	5.2757	0.0060	2.25E-06	0.0000	0.0000	1.21E-04

303	*		0.00	0.000	0.000	0.1521	5.2865	0.0060	2.25E-06	0.0000	0.0000	1.21E-04
304	*		0.00	0.000	0.000	0.1518	5.2959	0.0060	2.26E-06	0.0000	0.0000	1.20E-04
305	*		0.00	0.000	0.000	0.1516	5.3043	0.0060	2.26E-06	0.0000	0.0000	1.20E-04
306			0.00	0.000	0.014	0.1507	5.3113	0.0060	2.27E-06	0.0000	0.0000	1.20E-04
307			0.00	0.000	0.014	0.1499	5.3173	0.0060	2.27E-06	0.0000	0.0000	1.20E-04
308			0.01	0.000	0.014	0.1497	5.3234	0.0060	2.27E-06	0.0000	0.0000	1.20E-04
309			0.00	0.000	0.014	0.1489	5.3294	0.0060	2.28E-06	0.0000	0.0000	1.19E-04
310			0.00	0.000	0.014	0.1481	5.3362	0.0061	2.28E-06	0.0000	0.0000	1.19E-04
311			0.00	0.000	0.013	0.1474	5.3438	0.0061	2.29E-06	0.0000	0.0000	1.19E-04
312			0.00	0.000	0.013	0.1466	5.3481	0.0061	2.29E-06	0.0000	0.0000	1.19E-04
313			0.00	0.000	0.013	0.1458	5.3508	0.0061	2.29E-06	0.0000	0.0000	1.19E-04
314			0.04	0.000	0.013	0.1467	5.3537	0.0061	2.29E-06	0.0000	0.0000	1.19E-04
315	*		0.00	0.000	0.013	0.1460	5.3565	0.0061	2.29E-06	0.0000	0.0000	1.18E-04
316			0.04	0.000	0.013	0.1469	5.3593	0.0061	2.29E-06	0.0000	0.0000	1.18E-04
317	*		0.00	0.000	0.000	0.1468	5.3624	0.0061	2.30E-06	0.0000	0.0000	1.18E-04
318			0.00	0.000	0.013	0.1461	5.3652	0.0061	2.30E-06	0.0000	0.0000	1.18E-04
319	*		0.00	0.000	0.000	0.1459	5.3671	0.0061	2.30E-06	0.0000	0.0000	1.18E-04
320	*		0.00	0.000	0.000	0.1458	5.3693	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
321			0.00	0.000	0.012	0.1451	5.3709	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
322	*		0.00	0.000	0.000	0.1450	5.3722	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
323	*		0.00	0.000	0.000	0.1448	5.3720	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
324	*		0.00	0.000	0.000	0.1447	5.3713	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
325	*		0.00	0.000	0.000	0.1445	5.3703	0.0061	2.30E-06	0.0000	0.0000	1.17E-04
326	*		0.00	0.000	0.012	0.1438	5.3685	0.0061	2.30E-06	0.0000	0.0000	1.16E-04
327	*	*	0.00	0.000	0.000	0.1438	5.3695	0.0061	2.30E-06	0.0000	0.0000	1.16E-04
328	*	*	0.00	0.000	0.000	0.1438	5.3759	0.0061	2.30E-06	0.0000	0.0000	1.16E-04
329	*	*	0.00	0.000	0.000	0.1438	5.3806	0.0061	2.31E-06	0.0000	0.0000	1.16E-04
330	*	*	0.00	0.000	0.000	0.1438	5.3838	0.0061	2.31E-06	0.0000	0.0000	1.16E-04
331	*	*	0.00	0.000	0.000	0.1438	5.3858	0.0061	2.31E-06	0.0000	0.0000	1.16E-04
332	*	*	0.00	0.000	0.000	0.1438	5.3867	0.0061	2.31E-06	0.0000	0.0000	1.15E-04
333	*	*	0.00	0.000	0.000	0.1438	5.3866	0.0061	2.31E-06	0.0000	0.0000	1.15E-04

334	*	*	0.00	0.000	0.000	0.1438	5.3857	0.0061	2.31E-06	0.0000	0.0000	1.15E-04
335	*	*	0.17	0.000	0.044	0.1438	5.3839	0.0061	2.31E-06	0.0000	0.0000	1.15E-04
336		*	0.00	0.000	0.082	0.1458	5.3814	0.0061	2.31E-06	0.0000	0.0000	1.15E-04
337		*	0.00	0.000	0.000	0.1458	5.3782	0.0061	2.31E-06	0.0000	0.0000	1.15E-04
338		*	0.00	0.000	0.000	0.1458	5.3745	0.0061	2.30E-06	0.0000	0.0000	1.14E-04
339		*	0.00	0.000	0.000	0.1458	5.3702	0.0061	2.30E-06	0.0000	0.0000	1.14E-04
340		*	0.00	0.000	0.000	0.1458	5.3654	0.0061	2.30E-06	0.0000	0.0000	1.14E-04
341		*	0.00	0.000	0.000	0.1458	5.3601	0.0061	2.29E-06	0.0000	0.0000	1.14E-04
342		*	0.02	0.000	0.000	0.1468	5.3545	0.0061	2.29E-06	0.0000	0.0000	1.14E-04
343		*	0.00	0.000	0.000	0.1468	5.3484	0.0061	2.29E-06	0.0000	0.0000	1.14E-04
344		*	0.00	0.000	0.000	0.1468	5.3420	0.0061	2.28E-06	0.0000	0.0000	1.13E-04
345		*	0.00	0.000	0.000	0.1468	5.3352	0.0061	2.28E-06	0.0000	0.0000	1.13E-04
346		*	0.00	0.000	0.000	0.1468	5.3282	0.0060	2.28E-06	0.0000	0.0000	1.13E-04
347		*	0.00	0.000	0.000	0.1468	5.3209	0.0060	2.27E-06	0.0000	0.0000	1.13E-04
348	*	*	0.00	0.000	0.000	0.1468	5.3132	0.0060	2.27E-06	0.0000	0.0000	1.13E-04
349		*	0.01	0.000	0.000	0.1474	5.3054	0.0060	2.26E-06	0.0000	0.0000	1.13E-04
350	*	*	0.00	0.000	0.000	0.1474	5.2973	0.0060	2.26E-06	0.0000	0.0000	1.12E-04
351		*	0.12	0.000	0.000	0.1522	5.2890	0.0060	2.25E-06	0.0000	0.0000	1.12E-04
352	*	*	0.00	0.000	0.000	0.1522	5.2805	0.0060	2.25E-06	0.0000	0.0000	1.12E-04
353	*	*	0.03	0.000	0.018	0.1522	5.2718	0.0060	2.24E-06	0.0000	0.0000	1.12E-04
354	*	*	0.02	0.000	0.007	0.1522	5.2629	0.0060	2.24E-06	0.0000	0.0000	1.12E-04
355	*	*	0.24	0.000	0.003	0.1522	5.2539	0.0060	2.23E-06	0.0000	0.0000	1.12E-04
356	*	*	0.04	0.000	0.002	0.1522	5.2447	0.0060	2.23E-06	0.0000	0.0000	1.11E-04
357	*	*	0.00	0.000	0.004	0.1522	5.2354	0.0059	2.22E-06	0.0000	0.0000	1.11E-04
358	*	*	0.00	0.000	0.006	0.1522	5.2259	0.0059	2.22E-06	0.0000	0.0000	1.11E-04
359	*	*	0.00	0.000	0.000	0.1522	5.2163	0.0059	2.21E-06	0.0000	0.0000	1.11E-04
360	*	*	0.00	0.000	0.042	0.1522	5.2065	0.0059	2.21E-06	0.0000	0.0000	1.11E-04
361		*	0.00	0.000	0.048	0.1603	5.1967	0.0059	2.20E-06	0.0000	0.0000	1.11E-04
362		*	0.00	0.000	0.000	0.1603	5.1867	0.0059	2.19E-06	0.0000	0.0000	1.10E-04
363		*	0.00	0.000	0.000	0.1603	5.1767	0.0059	2.19E-06	0.0000	0.0000	1.10E-04
364		*	0.02	0.000	0.000	0.1611	5.1665	0.0059	2.18E-06	0.0000	0.0000	1.10E-04

365	*	0.00	0.000	0.000	0.1611	5.1563	0.0058	2.18E-06	0.0000	0.0000	1.10E-04

* = Frozen (air or soil)

Annual Totals for Year 1			
	inches	cubic feet	percent
Precipitation	26.23	95,214.0	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.970	87,011.6	91.39
Drainage Collected from Layer 3	1.4754	5,355.6	5.62
Percolation/Leakage through Layer 4	0.000500	1.8167	0.00
Average Head on Top of Layer 4	3.5649	---	---
Percolation/Leakage through Layer 6	0.055220	200.4	0.21
Change in Water Storage	0.7290	2,646.3	2.78
Soil Water at Start of Year	9.0844	32,976.4	34.63
Soil Water at End of Year	9.8134	35,622.8	37.41
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 2

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:22

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.1611	5.1459	0.0058	2.17E-06	0.0000	0.0000	1.10E-04
2	*	*	0.00	0.000	0.000	0.1611	5.1355	0.0058	2.17E-06	0.0000	0.0000	1.10E-04
3	*	*	0.00	0.000	0.000	0.1611	5.1250	0.0058	2.16E-06	0.0000	0.0000	1.09E-04
4	*	*	0.00	0.000	0.000	0.1611	5.1145	0.0058	2.15E-06	0.0000	0.0000	1.09E-04
5	*	*	0.53	0.000	0.027	0.1611	5.1038	0.0058	2.15E-06	0.0000	0.0000	1.09E-04
6		*	0.00	0.000	0.000	0.1820	5.0932	0.0058	2.14E-06	0.0000	0.0000	1.09E-04
7		*	0.00	0.000	0.000	0.1820	5.0824	0.0058	2.14E-06	0.0000	0.0000	1.09E-04
8		*	0.26	0.000	0.000	0.1930	5.0716	0.0058	2.13E-06	0.0000	0.0000	1.09E-04
9		*	0.41	0.000	0.000	0.2100	5.0607	0.0057	2.12E-06	0.0000	0.0000	1.09E-04
10		*	0.00	0.000	0.000	0.2100	5.0498	0.0057	2.12E-06	0.0000	0.0000	1.08E-04
11		*	0.00	0.000	0.000	0.2100	5.0389	0.0057	2.11E-06	0.0000	0.0000	1.08E-04
12		*	0.00	0.000	0.000	0.2100	5.0279	0.0057	2.10E-06	0.0000	0.0000	1.08E-04
13	*	*	0.00	0.000	0.000	0.2100	5.0168	0.0057	2.10E-06	0.0000	0.0000	1.08E-04
14	*	*	0.00	0.000	0.000	0.2100	5.0057	0.0057	2.09E-06	0.0000	0.0000	1.08E-04
15		*	0.00	0.000	0.000	0.2100	4.9946	0.0057	2.09E-06	0.0000	0.0000	1.08E-04
16		*	0.00	0.000	0.000	0.2100	4.9835	0.0056	2.08E-06	0.0000	0.0000	1.07E-04
17		*	0.00	0.000	0.000	0.2100	4.9723	0.0056	2.07E-06	0.0000	0.0000	1.07E-04
18		*	0.00	0.000	0.000	0.2100	4.9611	0.0056	2.07E-06	0.0000	0.0000	1.07E-04
19		*	0.05	0.000	0.000	0.2122	4.9498	0.0056	2.06E-06	0.0000	0.0000	1.07E-04
20	*	*	0.00	0.000	0.000	0.2122	4.9386	0.0056	2.05E-06	0.0000	0.0000	1.07E-04
21	*	*	0.00	0.000	0.000	0.2122	4.9273	0.0056	2.05E-06	0.0000	0.0000	1.07E-04
22	*	*	0.16	0.000	0.039	0.2122	4.9160	0.0056	2.04E-06	0.0000	0.0000	1.07E-04
23		*	0.00	0.000	0.044	0.2131	4.9046	0.0056	2.04E-06	0.0000	0.0000	1.06E-04

24		*	0.00	0.000	0.054	0.2131	4.8933	0.0055	2.03E-06	0.0000	0.0000	1.06E-04
25	*	*	0.00	0.000	0.000	0.2131	4.8819	0.0055	2.02E-06	0.0000	0.0000	1.06E-04
26	*	*	0.00	0.000	0.000	0.2131	4.8705	0.0055	2.02E-06	0.0000	0.0000	1.06E-04
27		*	0.00	0.000	0.000	0.2131	4.8591	0.0055	2.01E-06	0.0000	0.0000	1.06E-04
28		*	0.00	0.000	0.000	0.2131	4.8477	0.0055	2.00E-06	0.0000	0.0000	1.06E-04
29	*	*	0.00	0.000	0.000	0.2131	4.8363	0.0055	2.00E-06	0.0000	0.0000	1.05E-04
30	*	*	0.00	0.000	0.000	0.2131	4.8248	0.0055	1.99E-06	0.0000	0.0000	1.05E-04
31		*	0.10	0.000	0.000	0.2175	4.8134	0.0055	1.99E-06	0.0000	0.0000	1.05E-04
32	*	*	0.01	0.000	0.012	0.2175	4.8019	0.0054	1.98E-06	0.0000	0.0000	1.05E-04
33	*	*	0.00	0.000	0.000	0.2175	4.7905	0.0054	1.97E-06	0.0000	0.0000	1.05E-04
34	*	*	0.00	0.000	0.000	0.2175	4.7790	0.0054	1.97E-06	0.0000	0.0000	1.05E-04
35	*	*	0.00	0.000	0.000	0.2175	4.7675	0.0054	1.96E-06	0.0000	0.0000	1.05E-04
36	*	*	0.00	0.000	0.000	0.2175	4.7561	0.0054	1.95E-06	0.0000	0.0000	1.04E-04
37	*	*	0.00	0.000	0.000	0.2175	4.7446	0.0054	1.95E-06	0.0000	0.0000	1.04E-04
38	*	*	0.00	0.000	0.000	0.2175	4.7331	0.0054	1.94E-06	0.0000	0.0000	1.04E-04
39	*	*	0.00	0.000	0.000	0.2175	4.7216	0.0054	1.94E-06	0.0000	0.0000	1.04E-04
40		*	0.00	0.000	0.000	0.2175	4.7101	0.0053	1.93E-06	0.0000	0.0000	1.04E-04
41		*	0.00	0.000	0.000	0.2175	4.6986	0.0053	1.92E-06	0.0000	0.0000	1.04E-04
42		*	0.06	0.000	0.000	0.2199	4.6872	0.0053	1.92E-06	0.0000	0.0000	1.04E-04
43		*	0.06	0.000	0.000	0.2226	4.6757	0.0053	1.91E-06	0.0000	0.0000	1.03E-04
44		*	0.00	0.000	0.000	0.2226	4.6642	0.0053	1.90E-06	0.0000	0.0000	1.03E-04
45	*	*	0.09	0.000	0.036	0.2226	4.6527	0.0053	1.90E-06	0.0000	0.0000	1.03E-04
46	*	*	0.00	0.000	0.012	0.2226	4.6412	0.0053	1.89E-06	0.0000	0.0000	1.03E-04
47	*	*	0.00	0.000	0.008	0.2226	4.6298	0.0052	1.89E-06	0.0000	0.0000	1.03E-04
48	*	*	0.00	0.000	0.008	0.2226	4.6183	0.0052	1.88E-06	0.0000	0.0000	1.03E-04
49	*	*	0.03	0.000	0.000	0.2226	4.6068	0.0052	1.87E-06	0.0000	0.0000	1.03E-04
50		*	0.05	0.000	0.099	0.2226	4.5954	0.0052	1.87E-06	0.0000	0.0000	1.02E-04
51		*	0.00	0.000	0.000	0.2226	4.5840	0.0052	1.86E-06	0.0000	0.0000	1.02E-04
52	*	*	0.00	0.000	0.000	0.2226	4.5725	0.0052	1.85E-06	0.0000	0.0000	1.02E-04
53	*	*	0.03	0.000	0.025	0.2226	4.5611	0.0052	1.85E-06	0.0000	0.0000	1.02E-04
54	*	*	0.01	0.000	0.010	0.2226	4.5497	0.0052	1.84E-06	0.0000	0.0000	1.02E-04

55	*	*	0.00	0.000	0.000	0.2226	4.5383	0.0051	1.84E-06	0.0000	0.0000	1.02E-04
56		*	0.00	0.000	0.000	0.2226	4.5268	0.0051	1.83E-06	0.0000	0.0000	1.02E-04
57		*	0.00	0.000	0.000	0.2226	4.5155	0.0051	1.82E-06	0.0000	0.0000	1.02E-04
58		*	0.03	0.000	0.000	0.2239	4.5041	0.0051	1.82E-06	0.0000	0.0000	1.01E-04
59		*	0.04	0.000	0.000	0.2256	4.4927	0.0051	1.81E-06	0.0000	0.0000	1.01E-04
60		*	0.68	0.000	0.000	0.2539	4.4813	0.0051	1.81E-06	0.0000	0.0000	1.01E-04
61		*	0.00	0.000	0.000	0.2539	4.4700	0.0051	1.80E-06	0.0000	0.0000	1.01E-04
62		*	0.24	0.000	0.000	0.2640	4.4587	0.0051	1.79E-06	0.0000	0.0000	1.01E-04
63	*	*	0.07	0.000	0.043	0.2640	4.4473	0.0050	1.79E-06	0.0000	0.0000	1.01E-04
64		*	0.19	0.000	0.110	0.2686	4.4360	0.0050	1.78E-06	0.0000	0.0000	1.01E-04
65	*	*	0.00	0.000	0.000	0.2686	4.4247	0.0050	1.78E-06	0.0000	0.0000	1.00E-04
66	*	*	0.00	0.000	0.000	0.2686	4.4134	0.0050	1.77E-06	0.0000	0.0000	1.00E-04
67	*	*	0.23	0.000	0.023	0.2686	4.4022	0.0050	1.76E-06	0.0000	0.0000	1.00E-04
68	*	*	0.10	0.000	0.011	0.2686	4.3909	0.0050	1.76E-06	0.0000	0.0000	1.00E-04
69	*	*	0.01	0.000	0.015	0.2686	4.3797	0.0050	1.75E-06	0.0000	0.0000	9.99E-05
70		*	0.00	0.000	0.029	0.2795	4.3684	0.0050	1.75E-06	0.0000	0.0000	9.98E-05
71		*	0.00	0.000	0.000	0.2795	4.3572	0.0049	1.74E-06	0.0000	0.0000	9.96E-05
72		*	0.01	0.000	0.000	0.2799	4.3460	0.0049	1.73E-06	0.0000	0.0000	9.95E-05
73		*	0.03	0.000	0.000	0.2813	4.3349	0.0049	1.73E-06	0.0000	0.0000	9.94E-05
74		*	0.00	0.000	0.000	0.2813	4.3237	0.0049	1.72E-06	0.0000	0.0000	9.93E-05
75	*	*	0.00	0.000	0.000	0.2813	4.3125	0.0049	1.72E-06	0.0000	0.0000	9.91E-05
76	*	*	0.00	0.000	0.000	0.2813	4.3014	0.0049	1.71E-06	0.0000	0.0000	9.90E-05
77		*	0.00	0.000	0.000	0.2813	4.2903	0.0049	1.71E-06	0.0000	0.0000	9.89E-05
78		*	0.00	0.000	0.000	0.2813	4.2792	0.0048	1.70E-06	0.0000	0.0000	9.87E-05
79	*	*	0.22	0.000	0.019	0.2813	4.2681	0.0048	1.69E-06	0.0000	0.0000	9.86E-05
80	*	*	0.00	0.000	0.062	0.2813	4.2571	0.0048	1.69E-06	0.0000	0.0000	9.85E-05
81		*	0.00	0.000	0.135	0.2813	4.2460	0.0048	1.68E-06	0.0000	0.0000	9.83E-05
82	*	*	0.00	0.000	0.000	0.2813	4.2350	0.0048	1.68E-06	0.0000	0.0000	9.82E-05
83	*	*	0.00	0.000	0.000	0.2813	4.2240	0.0048	1.67E-06	0.0000	0.0000	9.81E-05
84		*	0.00	0.000	0.000	0.2813	4.2130	0.0048	1.66E-06	0.0000	0.0000	9.80E-05
85		*	0.00	0.000	0.000	0.2813	4.2020	0.0048	1.66E-06	0.0000	0.0000	9.78E-05

86		*	0.00	0.000	0.000	0.2813	4.1910	0.0048	1.65E-06	0.0000	0.0000	9.77E-05
87		*	0.00	0.000	0.000	0.2813	4.1801	0.0047	1.65E-06	0.0000	0.0000	9.76E-05
88		*	0.17	0.000	0.000	0.2886	4.1692	0.0047	1.64E-06	0.0000	0.0000	9.75E-05
89		*	0.00	0.000	0.000	0.2886	4.1583	0.0047	1.64E-06	0.0000	0.0000	9.73E-05
90		*	0.00	0.000	0.000	0.2886	4.1474	0.0047	1.63E-06	0.0000	0.0000	9.72E-05
91	*	*	0.71	0.000	0.040	0.2886	4.1365	0.0047	1.63E-06	0.0000	0.0000	9.71E-05
92	*	*	0.00	0.000	0.017	0.2886	4.1257	0.0047	1.62E-06	0.0000	0.0000	9.70E-05
93	*	*	0.63	0.000	0.000	0.2886	4.1149	0.0047	1.61E-06	0.0000	0.0000	9.68E-05
94		*	0.23	0.000	0.000	0.3198	4.1041	0.0047	1.61E-06	0.0000	0.0000	9.67E-05
95	*	*	0.00	0.000	0.034	0.3198	4.0933	0.0046	1.60E-06	0.0000	0.0000	9.66E-05
96	*	*	0.00	0.000	0.018	0.3198	4.0825	0.0046	1.60E-06	0.0000	0.0000	9.65E-05
97	*	*	0.01	0.000	0.000	0.3198	4.0718	0.0046	1.59E-06	0.0000	0.0000	9.64E-05
98		*	0.04	0.000	0.004	0.3515	4.0611	0.0046	1.59E-06	0.0000	0.0000	9.62E-05
99		*	0.15	0.000	0.000	0.3578	4.0504	0.0046	1.58E-06	0.0000	0.0000	9.61E-05
100	*	*	0.31	0.000	0.034	0.3578	4.0397	0.0046	1.58E-06	0.0000	0.0000	9.60E-05
101	*	*	0.00	0.000	0.042	0.3578	4.0290	0.0046	1.57E-06	0.0000	0.0000	9.59E-05
102		*	0.00	0.000	0.056	0.3578	4.0184	0.0046	1.57E-06	0.0000	0.0000	9.57E-05
103	*	*	0.00	0.000	0.064	0.3578	4.0078	0.0045	1.56E-06	0.0000	0.0000	9.56E-05
104		*	0.00	0.000	0.111	0.3578	3.9972	0.0045	1.55E-06	0.0000	0.0000	9.55E-05
105		*	0.00	0.000	0.000	0.3578	3.9866	0.0045	1.55E-06	0.0000	0.0000	9.54E-05
106		*	0.00	0.000	0.000	0.3578	3.9760	0.0045	1.54E-06	0.0000	0.0000	9.53E-05
107		*	0.00	0.000	0.000	0.3578	3.9655	0.0045	1.54E-06	0.0000	0.0000	9.51E-05
108		*	0.00	0.000	0.000	0.3578	3.9550	0.0045	1.53E-06	0.0000	0.0000	9.50E-05
109		*	0.00	0.000	0.000	0.3578	3.9445	0.0045	1.53E-06	0.0000	0.0000	9.49E-05
110	*	*	0.13	0.000	0.057	0.3578	3.9340	0.0045	1.52E-06	0.0000	0.0000	9.48E-05
111		*	0.03	0.000	0.097	0.3580	3.9236	0.0044	1.52E-06	0.0000	0.0000	9.47E-05
112			0.00	0.000	0.180	0.2807	3.9129	0.0044	1.51E-06	0.0000	0.0000	9.46E-05
113			0.00	0.000	0.144	0.2385	6.6235	0.0076	3.10E-06	0.0000	0.0000	9.60E-05
114	*		0.01	0.000	0.056	0.2289	8.6266	0.0103	4.47E-06	0.0000	0.0000	9.73E-05
115	*		0.06	0.000	0.061	0.2236	9.2483	0.0111	4.95E-06	0.0000	0.0000	9.76E-05
116	*		0.44	0.000	0.022	0.2202	9.6431	0.0117	5.26E-06	0.0000	0.0000	9.78E-05

117		0.03	0.000	0.030	0.2330	9.9454	0.0122	5.51E-06	0.0000	0.0000	9.79E-05
118	*	0.65	0.000	0.034	0.2308	10.1943	0.0125	5.71E-06	0.0000	0.0000	9.80E-05
119	*	0.00	0.000	0.027	0.2293	10.4079	0.0128	5.89E-06	0.0000	0.0000	9.80E-05
120	*	0.06	0.000	0.028	0.2280	10.5868	0.0131	6.04E-06	0.0000	0.0000	9.80E-05
121		0.00	0.000	0.142	0.2427	10.7218	0.0133	6.16E-06	0.0000	0.0000	9.80E-05
122		0.08	0.000	0.340	0.2302	10.8371	0.0135	6.26E-06	0.0000	0.0000	9.80E-05
123		0.15	0.000	0.291	0.2225	10.9923	0.0137	6.39E-06	0.0000	0.0000	9.80E-05
124		0.46	0.000	0.254	0.2294	11.0689	0.0139	6.46E-06	0.0000	0.0000	9.79E-05
125	*	0.00	0.000	0.132	0.2227	11.1738	0.0140	6.55E-06	0.0000	0.0000	9.79E-05
126		0.00	0.000	0.275	0.2110	11.2968	0.0142	6.66E-06	0.0000	0.0000	9.78E-05
127		0.00	0.000	0.288	0.1980	11.3918	0.0144	6.74E-06	0.0000	0.0000	9.78E-05
128		0.00	0.000	0.297	0.1835	11.3818	0.0143	6.73E-06	0.0000	0.0000	9.76E-05
129		1.28	0.000	0.177	0.2275	11.3897	0.0144	6.74E-06	0.0000	0.0000	9.75E-05
130		0.30	0.000	0.300	0.2262	11.4429	0.0144	6.79E-06	0.0000	0.0000	9.74E-05
131		0.07	0.000	0.134	0.2222	11.5168	0.0146	6.85E-06	0.0000	0.0000	9.74E-05
132		0.28	0.000	0.122	0.2276	11.5810	0.0147	6.91E-06	0.0000	0.0000	9.73E-05
133		0.00	0.000	0.278	0.2142	11.6302	0.0148	6.96E-06	0.0000	0.0000	9.72E-05
134		0.24	0.000	0.402	0.2063	11.6742	0.0149	6.99E-06	0.0000	0.0000	9.71E-05
135		0.00	0.000	0.400	0.1885	11.7531	0.0150	7.07E-06	0.0000	0.0000	9.70E-05
136		0.39	0.000	0.274	0.1918	11.7865	0.0150	7.10E-06	0.0000	0.0000	9.69E-05
137		0.00	0.000	0.136	0.1845	11.8168	0.0151	7.12E-06	0.0000	0.0000	9.68E-05
138		0.00	0.000	0.210	0.1747	11.8710	0.0152	7.17E-06	0.0000	0.0000	9.67E-05
139		0.00	0.000	0.177	0.1664	11.9333	0.0153	7.23E-06	0.0000	0.0000	9.67E-05
140		0.00	0.000	0.073	0.1625	12.3144	0.0173	7.59E-06	0.0000	0.0000	9.69E-05
141		0.09	0.000	0.057	0.1634	13.3092	0.0229	8.53E-06	0.0000	0.0000	9.77E-05
142		0.04	0.000	0.048	0.1629	13.2866	0.0228	8.51E-06	0.0000	0.0000	9.75E-05
143		0.67	0.000	0.042	0.1887	13.2579	0.0226	8.48E-06	0.0000	0.0000	9.74E-05
144		0.16	0.000	0.143	0.1892	13.2233	0.0224	8.45E-06	0.0000	0.0000	9.72E-05
145		0.00	0.000	0.241	0.1783	12.2959	0.0171	7.57E-06	0.0000	0.0000	9.62E-05
146		0.00	0.000	0.256	0.1672	12.8982	0.0206	8.14E-06	0.0000	0.0000	9.66E-05
147		0.00	0.000	0.177	0.1597	13.1706	0.0221	8.40E-06	0.0000	0.0000	9.67E-05

148	0.00	0.000	0.073	0.1565	12.8529	0.0203	8.10E-06	0.0000	0.0000	9.63E-05
149	0.00	0.000	0.056	0.1538	12.2766	0.0170	7.55E-06	0.0000	0.0000	9.56E-05
150	0.00	0.000	0.047	0.1513	11.9924	0.0154	7.28E-06	0.0000	0.0000	9.52E-05
151	0.00	0.000	0.042	0.1490	11.9798	0.0153	7.27E-06	0.0000	0.0000	9.51E-05
152	0.00	0.000	0.038	0.1468	11.9653	0.0153	7.26E-06	0.0000	0.0000	9.49E-05
153	0.00	0.000	0.035	0.1447	11.9521	0.0153	7.25E-06	0.0000	0.0000	9.48E-05
154	0.00	0.000	0.032	0.1428	11.9415	0.0153	7.24E-06	0.0000	0.0000	9.46E-05
155	0.00	0.000	0.030	0.1409	11.9336	0.0153	7.23E-06	0.0000	0.0000	9.45E-05
156	0.00	0.000	0.029	0.1392	11.9280	0.0153	7.23E-06	0.0000	0.0000	9.44E-05
157	0.00	0.000	0.027	0.1375	11.9241	0.0153	7.22E-06	0.0000	0.0000	9.42E-05
158	0.00	0.000	0.026	0.1360	11.9212	0.0153	7.22E-06	0.0000	0.0000	9.41E-05
159	0.00	0.000	0.025	0.1344	11.9189	0.0152	7.22E-06	0.0000	0.0000	9.40E-05
160	0.00	0.000	0.024	0.1330	11.9165	0.0152	7.21E-06	0.0000	0.0000	9.38E-05
161	0.00	0.000	0.023	0.1316	11.9138	0.0152	7.21E-06	0.0000	0.0000	9.37E-05
162	0.00	0.000	0.022	0.1303	11.9105	0.0152	7.21E-06	0.0000	0.0000	9.36E-05
163	0.00	0.000	0.022	0.1290	11.9065	0.0152	7.21E-06	0.0000	0.0000	9.34E-05
164	0.39	0.000	0.022	0.1441	11.9016	0.0152	7.20E-06	0.0000	0.0000	9.33E-05
165	0.13	0.000	0.021	0.1482	11.8958	0.0152	7.20E-06	0.0000	0.0000	9.32E-05
166	0.16	0.000	0.021	0.1537	11.8890	0.0152	7.19E-06	0.0000	0.0000	9.31E-05
167	0.28	0.000	0.020	0.1643	11.8812	0.0152	7.18E-06	0.0000	0.0000	9.29E-05
168	0.10	0.000	0.358	0.1530	11.8736	0.0152	7.18E-06	0.0000	0.0000	9.28E-05
169	0.00	0.000	0.020	0.1522	11.8628	0.0152	7.17E-06	0.0000	0.0000	9.27E-05
170	0.00	0.000	0.019	0.1511	11.8572	0.0151	7.16E-06	0.0000	0.0000	9.25E-05
171	0.37	0.000	0.019	0.1656	11.8450	0.0151	7.15E-06	0.0000	0.0000	9.24E-05
172	0.00	0.000	0.296	0.1531	11.8291	0.0151	7.14E-06	0.0000	0.0000	9.23E-05
173	0.00	0.000	0.018	0.1521	11.8193	0.0151	7.13E-06	0.0000	0.0000	9.21E-05
174	0.00	0.000	0.018	0.1512	11.8055	0.0151	7.11E-06	0.0000	0.0000	9.20E-05
175	0.00	0.000	0.017	0.1502	11.7915	0.0150	7.10E-06	0.0000	0.0000	9.19E-05
176	0.68	0.000	0.018	0.1777	11.7740	0.0150	7.09E-06	0.0000	0.0000	9.17E-05
177	0.00	0.000	0.227	0.1681	11.7575	0.0150	7.07E-06	0.0000	0.0000	9.16E-05
178	0.95	0.000	0.296	0.1953	11.7429	0.0150	7.06E-06	0.0000	0.0000	9.14E-05

179	0.87	0.000	0.298	0.2190	11.7243	0.0149	7.04E-06	0.0000	0.0000	9.13E-05
180	0.93	0.000	0.329	0.2439	11.7021	0.0149	7.02E-06	0.0000	0.0000	9.12E-05
181	0.00	0.000	0.327	0.2299	11.6768	0.0149	7.00E-06	0.0000	0.0000	9.10E-05
182	0.00	0.000	0.312	0.2164	11.6432	0.0148	6.97E-06	0.0000	0.0000	9.09E-05
183	0.00	0.000	0.297	0.2040	11.6196	0.0148	6.95E-06	0.0000	0.0000	9.07E-05
184	0.00	0.000	0.250	0.1936	11.6146	0.0148	6.94E-06	0.0000	0.0000	9.06E-05
185	0.00	0.000	0.177	0.1845	11.5981	0.0147	6.93E-06	0.0000	0.0000	9.05E-05
186	0.00	0.000	0.073	0.1783	11.5600	0.0146	6.89E-06	0.0000	0.0000	9.03E-05
187	0.00	0.000	0.056	0.1730	11.5211	0.0146	6.86E-06	0.0000	0.0000	9.02E-05
188	0.01	0.000	0.048	0.1687	11.4833	0.0145	6.82E-06	0.0000	0.0000	9.00E-05
189	0.03	0.000	0.042	0.1658	11.4869	0.0145	6.83E-06	0.0000	0.0000	8.99E-05
190	0.82	0.000	0.038	0.1961	11.5243	0.0146	6.86E-06	0.0000	0.0000	8.98E-05
191	0.00	0.000	0.375	0.1787	11.6158	0.0147	6.94E-06	0.0000	0.0000	8.98E-05
192	0.04	0.000	0.035	0.1782	11.7208	0.0149	7.04E-06	0.0000	0.0000	8.98E-05
193	0.54	0.000	0.033	0.1983	11.8195	0.0151	7.13E-06	0.0000	0.0000	8.98E-05
194	0.02	0.000	0.372	0.1823	11.8710	0.0152	7.17E-06	0.0000	0.0000	8.97E-05
195	0.35	0.000	0.308	0.1831	11.9226	0.0153	7.22E-06	0.0000	0.0000	8.96E-05
196	0.00	0.000	0.352	0.1674	11.9717	0.0153	7.27E-06	0.0000	0.0000	8.95E-05
197	0.16	0.000	0.178	0.1655	12.6516	0.0192	7.91E-06	0.0000	0.0000	9.01E-05
198	0.04	0.000	0.074	0.1629	13.3148	0.0230	8.54E-06	0.0000	0.0000	9.06E-05
199	0.41	0.000	0.057	0.1763	13.3217	0.0230	8.55E-06	0.0000	0.0000	9.05E-05
200	0.00	0.000	0.373	0.1594	13.0042	0.0212	8.25E-06	0.0000	0.0000	9.00E-05
201	0.00	0.000	0.047	0.1568	13.3428	0.0231	8.57E-06	0.0000	0.0000	9.02E-05
202	0.00	0.000	0.042	0.1543	13.3278	0.0231	8.55E-06	0.0000	0.0000	9.01E-05
203	0.00	0.000	0.038	0.1521	13.3191	0.0230	8.54E-06	0.0000	0.0000	9.00E-05
204	0.09	0.000	0.035	0.1537	13.3116	0.0230	8.54E-06	0.0000	0.0000	8.99E-05
205	0.36	0.000	0.033	0.1665	13.3028	0.0229	8.53E-06	0.0000	0.0000	8.97E-05
206	0.07	0.000	0.031	0.1675	13.2920	0.0228	8.52E-06	0.0000	0.0000	8.96E-05
207	0.28	0.000	0.029	0.1774	13.2790	0.0228	8.51E-06	0.0000	0.0000	8.95E-05
208	0.35	0.000	0.348	0.1768	13.2688	0.0227	8.50E-06	0.0000	0.0000	8.93E-05
209	0.00	0.000	0.324	0.1631	13.2469	0.0226	8.47E-06	0.0000	0.0000	8.92E-05

210	0.00	0.000	0.177	0.1552	13.2168	0.0224	8.44E-06	0.0000	0.0000	8.90E-05
211	0.65	0.000	0.074	0.1785	12.8989	0.0206	8.14E-06	0.0000	0.0000	8.86E-05
212	0.42	0.000	0.268	0.1846	12.5906	0.0188	7.85E-06	0.0000	0.0000	8.82E-05
213	0.00	0.000	0.344	0.1698	12.5821	0.0187	7.84E-06	0.0000	0.0000	8.81E-05
214	0.00	0.000	0.341	0.1552	12.5724	0.0187	7.83E-06	0.0000	0.0000	8.80E-05
215	0.01	0.000	0.174	0.1476	11.9948	0.0154	7.29E-06	0.0000	0.0000	8.73E-05
216	0.02	0.000	0.074	0.1448	11.9907	0.0154	7.28E-06	0.0000	0.0000	8.72E-05
217	0.02	0.000	0.057	0.1427	11.9875	0.0154	7.28E-06	0.0000	0.0000	8.71E-05
218	0.65	0.000	0.048	0.1672	11.9866	0.0154	7.28E-06	0.0000	0.0000	8.70E-05
219	0.57	0.000	0.188	0.1826	11.9887	0.0154	7.28E-06	0.0000	0.0000	8.69E-05
220	1.01	0.000	0.286	0.2125	11.9932	0.0154	7.29E-06	0.0000	0.0000	8.68E-05
221	0.86	0.000	0.255	0.2375	11.9944	0.0154	7.29E-06	0.0000	0.0000	8.67E-05
222	0.25	0.000	0.293	0.2353	11.9901	0.0154	7.28E-06	0.0000	0.0000	8.65E-05
223	0.21	0.000	0.256	0.2330	11.9744	0.0153	7.27E-06	0.0000	0.0000	8.64E-05
224	0.00	0.000	0.160	0.2260	11.9606	0.0153	7.26E-06	0.0000	0.0000	8.63E-05
225	0.01	0.000	0.153	0.2199	11.9630	0.0153	7.26E-06	0.0000	0.0000	8.62E-05
226	0.00	0.000	0.245	0.2097	11.9684	0.0153	7.26E-06	0.0000	0.0000	8.61E-05
227	0.00	0.000	0.208	0.2000	11.9610	0.0153	7.26E-06	0.0000	0.0000	8.60E-05
228	0.81	0.000	0.160	0.2258	11.9226	0.0153	7.22E-06	0.0000	0.0000	8.58E-05
229	0.23	0.000	0.144	0.2281	11.8820	0.0152	7.18E-06	0.0000	0.0000	8.57E-05
230	0.25	0.000	0.304	0.2239	11.8492	0.0151	7.15E-06	0.0000	0.0000	8.56E-05
231	0.52	0.000	0.311	0.2305	11.8262	0.0151	7.13E-06	0.0000	0.0000	8.54E-05
232	0.05	0.000	0.188	0.2221	11.7949	0.0150	7.10E-06	0.0000	0.0000	8.53E-05
233	0.04	0.000	0.282	0.2108	11.8332	0.0151	7.14E-06	0.0000	0.0000	8.52E-05
234	0.40	0.000	0.281	0.2146	11.9112	0.0152	7.21E-06	0.0000	0.0000	8.52E-05
235	0.52	0.000	0.133	0.2292	11.9797	0.0153	7.27E-06	0.0000	0.0000	8.51E-05
236	0.00	0.000	0.170	0.2201	13.0498	0.0215	8.29E-06	0.0000	0.0000	8.61E-05
237	0.21	0.000	0.169	0.2211	13.4369	0.0237	8.66E-06	0.0000	0.0000	8.63E-05
238	0.00	0.000	0.350	0.2055	13.4337	0.0237	8.66E-06	0.0000	0.0000	8.62E-05
239	0.00	0.000	0.273	0.1932	13.4301	0.0237	8.65E-06	0.0000	0.0000	8.61E-05
240	0.15	0.000	0.142	0.1920	13.4398	0.0237	8.66E-06	0.0000	0.0000	8.60E-05

241	0.00	0.000	0.273	0.1796	13.4528	0.0238	8.68E-06	0.0000	0.0000	8.59E-05
242	0.00	0.000	0.290	0.1669	13.4477	0.0238	8.67E-06	0.0000	0.0000	8.58E-05
243	0.00	0.000	0.177	0.1590	13.4293	0.0237	8.65E-06	0.0000	0.0000	8.56E-05
244	0.00	0.000	0.073	0.1559	13.3944	0.0234	8.62E-06	0.0000	0.0000	8.55E-05
245	0.00	0.000	0.056	0.1529	13.3597	0.0232	8.58E-06	0.0000	0.0000	8.53E-05
246	0.00	0.000	0.047	0.1506	13.3452	0.0232	8.57E-06	0.0000	0.0000	8.52E-05
247	0.22	0.000	0.042	0.1582	13.3037	0.0229	8.53E-06	0.0000	0.0000	8.51E-05
248	0.00	0.000	0.038	0.1563	13.2640	0.0227	8.49E-06	0.0000	0.0000	8.49E-05
249	0.00	0.000	0.035	0.1542	13.2407	0.0225	8.47E-06	0.0000	0.0000	8.48E-05
250	0.13	0.000	0.033	0.1574	12.3080	0.0172	7.58E-06	0.0000	0.0000	8.38E-05
251	0.19	0.000	0.031	0.1630	12.6213	0.0190	7.88E-06	0.0000	0.0000	8.40E-05
252	1.28	0.000	0.029	0.2143	12.3130	0.0172	7.59E-06	0.0000	0.0000	8.36E-05
253	0.21	0.000	0.236	0.2119	12.3122	0.0172	7.59E-06	0.0000	0.0000	8.35E-05
254	0.00	0.000	0.214	0.2022	12.9563	0.0209	8.20E-06	0.0000	0.0000	8.40E-05
255	0.12	0.000	0.183	0.1987	13.2713	0.0227	8.50E-06	0.0000	0.0000	8.42E-05
256	0.14	0.000	0.186	0.1966	13.2558	0.0226	8.48E-06	0.0000	0.0000	8.41E-05
257	0.08	0.000	0.274	0.1879	12.9266	0.0207	8.17E-06	0.0000	0.0000	8.37E-05
258	0.04	0.000	0.155	0.1824	12.6154	0.0189	7.87E-06	0.0000	0.0000	8.33E-05
259	0.00	0.000	0.320	0.1683	12.6175	0.0189	7.88E-06	0.0000	0.0000	8.32E-05
260	0.00	0.000	0.194	0.1592	12.3090	0.0172	7.58E-06	0.0000	0.0000	8.28E-05
261	0.08	0.000	0.176	0.1546	13.2423	0.0225	8.47E-06	0.0000	0.0000	8.36E-05
262	0.00	0.000	0.073	0.1508	12.6165	0.0189	7.88E-06	0.0000	0.0000	8.29E-05
263	0.00	0.000	0.056	0.1476	12.6158	0.0189	7.88E-06	0.0000	0.0000	8.28E-05
264	0.00	0.000	0.047	0.1452	12.9184	0.0207	8.16E-06	0.0000	0.0000	8.29E-05
265	0.00	0.000	0.042	0.1430	13.2033	0.0223	8.43E-06	0.0000	0.0000	8.31E-05
266	0.00	0.000	0.037	0.1410	12.2965	0.0171	7.57E-06	0.0000	0.0000	8.21E-05
267	0.07	0.000	0.035	0.1419	12.5902	0.0188	7.85E-06	0.0000	0.0000	8.23E-05
268	0.28	0.000	0.032	0.1519	12.5833	0.0187	7.84E-06	0.0000	0.0000	8.22E-05
269	0.19	0.000	0.031	0.1585	12.5743	0.0187	7.83E-06	0.0000	0.0000	8.21E-05
270	0.11	0.000	0.029	0.1614	12.5628	0.0186	7.82E-06	0.0000	0.0000	8.20E-05
271	0.02	0.000	0.203	0.1536	12.2738	0.0170	7.55E-06	0.0000	0.0000	8.16E-05

272		0.00	0.000	0.027	0.1525	12.2678	0.0169	7.54E-06	0.0000	0.0000	8.15E-05
273		0.00	0.000	0.026	0.1513	12.2637	0.0169	7.54E-06	0.0000	0.0000	8.14E-05
274	*	0.01	0.000	0.033	0.1501	11.9976	0.0154	7.29E-06	0.0000	0.0000	8.11E-05
275		0.01	0.000	0.024	0.1495	11.9911	0.0154	7.28E-06	0.0000	0.0000	8.10E-05
276	*	0.02	0.000	0.041	0.1485	11.9816	0.0154	7.27E-06	0.0000	0.0000	8.09E-05
277	*	0.12	0.000	0.043	0.1491	11.9698	0.0153	7.26E-06	0.0000	0.0000	8.08E-05
278		0.00	0.000	0.081	0.1480	11.9517	0.0153	7.25E-06	0.0000	0.0000	8.07E-05
279		0.05	0.000	0.022	0.1490	11.9307	0.0153	7.23E-06	0.0000	0.0000	8.05E-05
280		0.00	0.000	0.021	0.1478	11.9094	0.0152	7.21E-06	0.0000	0.0000	8.04E-05
281		0.00	0.000	0.021	0.1467	11.8879	0.0152	7.19E-06	0.0000	0.0000	8.03E-05
282		0.00	0.000	0.020	0.1457	11.8675	0.0152	7.17E-06	0.0000	0.0000	8.02E-05
283		0.04	0.000	0.020	0.1465	11.8466	0.0151	7.15E-06	0.0000	0.0000	8.01E-05
284		0.00	0.000	0.019	0.1454	11.8227	0.0151	7.13E-06	0.0000	0.0000	8.00E-05
285		0.00	0.000	0.019	0.1444	11.7994	0.0151	7.11E-06	0.0000	0.0000	7.99E-05
286		0.00	0.000	0.018	0.1435	11.7766	0.0150	7.09E-06	0.0000	0.0000	7.98E-05
287		0.00	0.000	0.018	0.1426	11.7548	0.0150	7.07E-06	0.0000	0.0000	7.96E-05
288		0.00	0.000	0.016	0.1417	11.7341	0.0149	7.05E-06	0.0000	0.0000	7.95E-05
289		0.17	0.000	0.017	0.1478	11.7092	0.0149	7.03E-06	0.0000	0.0000	7.94E-05
290		0.00	0.000	0.017	0.1469	11.6861	0.0149	7.01E-06	0.0000	0.0000	7.93E-05
291		0.00	0.000	0.017	0.1459	11.6599	0.0148	6.98E-06	0.0000	0.0000	7.92E-05
292		0.00	0.000	0.016	0.1450	11.6347	0.0148	6.96E-06	0.0000	0.0000	7.91E-05
293		0.00	0.000	0.016	0.1441	11.6122	0.0147	6.94E-06	0.0000	0.0000	7.90E-05
294	*	0.00	0.000	0.000	0.1440	11.5938	0.0147	6.92E-06	0.0000	0.0000	7.89E-05
295	*	0.00	0.000	0.000	0.1439	11.5781	0.0147	6.91E-06	0.0000	0.0000	7.88E-05
296	*	0.04	0.000	0.015	0.1446	11.5600	0.0146	6.89E-06	0.0000	0.0000	7.87E-05
297	*	0.00	0.000	0.008	0.1445	11.5399	0.0146	6.87E-06	0.0000	0.0000	7.85E-05
298	*	0.00	0.000	0.000	0.1443	11.5184	0.0146	6.85E-06	0.0000	0.0000	7.84E-05
299	*	0.00	0.000	0.000	0.1442	11.4958	0.0145	6.83E-06	0.0000	0.0000	7.83E-05
300	*	0.00	0.000	0.000	0.1440	11.4724	0.0145	6.81E-06	0.0000	0.0000	7.82E-05
301	*	0.00	0.000	0.000	0.1438	11.4485	0.0144	6.79E-06	0.0000	0.0000	7.81E-05
302	*	0.00	0.000	0.000	0.1437	11.4242	0.0144	6.77E-06	0.0000	0.0000	7.80E-05

303	*		0.00	0.000	0.003	0.1435	11.3997	0.0144	6.75E-06	0.0000	0.0000	7.79E-05
304	*		0.00	0.000	0.000	0.1433	11.3751	0.0143	6.73E-06	0.0000	0.0000	7.78E-05
305	*		0.00	0.000	0.000	0.1431	11.3504	0.0143	6.71E-06	0.0000	0.0000	7.77E-05
306	*		0.00	0.000	0.000	0.1430	11.3257	0.0143	6.68E-06	0.0000	0.0000	7.76E-05
307			0.00	0.000	0.016	0.1420	11.2987	0.0142	6.66E-06	0.0000	0.0000	7.75E-05
308			0.00	0.000	0.016	0.1412	11.2693	0.0142	6.63E-06	0.0000	0.0000	7.73E-05
309			0.12	0.000	0.015	0.1454	11.2431	0.0141	6.61E-06	0.0000	0.0000	7.72E-05
310			0.00	0.000	0.015	0.1446	11.2213	0.0141	6.59E-06	0.0000	0.0000	7.71E-05
311			0.00	0.000	0.015	0.1438	11.1969	0.0141	6.57E-06	0.0000	0.0000	7.70E-05
312			0.00	0.000	0.015	0.1430	11.1729	0.0140	6.55E-06	0.0000	0.0000	7.69E-05
313			0.01	0.000	0.015	0.1424	11.1499	0.0140	6.53E-06	0.0000	0.0000	7.68E-05
314	*		0.00	0.000	0.014	0.1417	11.1283	0.0139	6.51E-06	0.0000	0.0000	7.67E-05
315	*		0.00	0.000	0.000	0.1417	11.1086	0.0139	6.49E-06	0.0000	0.0000	7.66E-05
316	*		0.00	0.000	0.000	0.1416	11.0910	0.0139	6.48E-06	0.0000	0.0000	7.65E-05
317	*		0.00	0.000	0.000	0.1416	11.0713	0.0139	6.46E-06	0.0000	0.0000	7.64E-05
318	*	*	0.00	0.000	0.000	0.1416	11.0518	0.0138	6.44E-06	0.0000	0.0000	7.63E-05
319	*	*	0.00	0.000	0.000	0.1416	11.0338	0.0138	6.43E-06	0.0000	0.0000	7.62E-05
320	*	*	0.00	0.000	0.000	0.1416	11.0148	0.0138	6.41E-06	0.0000	0.0000	7.61E-05
321	*	*	0.00	0.000	0.000	0.1416	10.9948	0.0137	6.39E-06	0.0000	0.0000	7.60E-05
322	*	*	0.00	0.000	0.000	0.1416	10.9740	0.0137	6.37E-06	0.0000	0.0000	7.59E-05
323	*	*	0.00	0.000	0.000	0.1416	10.9524	0.0137	6.36E-06	0.0000	0.0000	7.58E-05
324	*	*	0.00	0.000	0.000	0.1416	10.9301	0.0136	6.34E-06	0.0000	0.0000	7.57E-05
325	*	*	0.00	0.000	0.000	0.1416	10.9072	0.0136	6.32E-06	0.0000	0.0000	7.56E-05
326	*	*	0.00	0.000	0.000	0.1416	10.8838	0.0136	6.30E-06	0.0000	0.0000	7.55E-05
327	*	*	0.23	0.000	0.041	0.1416	10.8599	0.0135	6.28E-06	0.0000	0.0000	7.54E-05
328		*	0.00	0.000	0.032	0.1483	10.8355	0.0135	6.25E-06	0.0000	0.0000	7.53E-05
329		*	0.01	0.000	0.000	0.1488	10.8108	0.0135	6.23E-06	0.0000	0.0000	7.52E-05
330		*	0.17	0.000	0.000	0.1558	10.7857	0.0134	6.21E-06	0.0000	0.0000	7.51E-05
331		*	0.00	0.000	0.000	0.1560	10.7603	0.0134	6.19E-06	0.0000	0.0000	7.50E-05
332		*	0.00	0.000	0.000	0.1560	10.7346	0.0133	6.17E-06	0.0000	0.0000	7.49E-05
333		*	0.00	0.000	0.000	0.1560	10.7086	0.0133	6.15E-06	0.0000	0.0000	7.48E-05

334	*	*	0.00	0.000	0.000	0.1560	10.6825	0.0133	6.12E-06	0.0000	0.0000	7.47E-05
335		*	0.00	0.000	0.000	0.1560	10.6561	0.0132	6.10E-06	0.0000	0.0000	7.46E-05
336	*	*	0.01	0.000	0.008	0.1560	10.6295	0.0132	6.08E-06	0.0000	0.0000	7.45E-05
337	*	*	0.00	0.000	0.000	0.1560	10.6027	0.0131	6.06E-06	0.0000	0.0000	7.44E-05
338	*	*	0.05	0.000	0.028	0.1560	10.5758	0.0131	6.03E-06	0.0000	0.0000	7.43E-05
339	*	*	0.00	0.000	0.020	0.1560	10.5487	0.0131	6.01E-06	0.0000	0.0000	7.42E-05
340		*	0.00	0.000	0.000	0.1560	10.5215	0.0130	5.99E-06	0.0000	0.0000	7.41E-05
341		*	0.00	0.000	0.000	0.1560	10.4942	0.0130	5.96E-06	0.0000	0.0000	7.40E-05
342		*	0.13	0.000	0.000	0.1615	10.4669	0.0129	5.94E-06	0.0000	0.0000	7.39E-05
343		*	0.01	0.000	0.000	0.1619	10.4394	0.0129	5.92E-06	0.0000	0.0000	7.38E-05
344		*	0.02	0.000	0.000	0.1627	10.4118	0.0129	5.89E-06	0.0000	0.0000	7.37E-05
345		*	0.00	0.000	0.000	0.1628	10.3842	0.0128	5.87E-06	0.0000	0.0000	7.36E-05
346	*	*	0.57	0.000	0.040	0.1628	10.3565	0.0128	5.85E-06	0.0000	0.0000	7.35E-05
347	*	*	0.24	0.000	0.015	0.1628	10.3287	0.0127	5.82E-06	0.0000	0.0000	7.34E-05
348	*	*	0.73	0.000	0.025	0.1628	10.3009	0.0127	5.80E-06	0.0000	0.0000	7.33E-05
349	*	*	0.05	0.000	0.010	0.1628	10.2731	0.0126	5.78E-06	0.0000	0.0000	7.32E-05
350	*	*	0.00	0.000	0.022	0.1628	10.2452	0.0126	5.75E-06	0.0000	0.0000	7.31E-05
351	*	*	0.00	0.000	0.025	0.1628	10.2174	0.0126	5.73E-06	0.0000	0.0000	7.30E-05
352		*	0.03	0.000	0.000	0.1727	10.1895	0.0125	5.71E-06	0.0000	0.0000	7.29E-05
353	*	*	0.00	0.000	0.041	0.1727	10.1615	0.0125	5.69E-06	0.0000	0.0000	7.28E-05
354		*	0.09	0.000	0.000	0.1794	10.1336	0.0124	5.66E-06	0.0000	0.0000	7.27E-05
355		*	0.00	0.000	0.000	0.2263	10.1057	0.0124	5.64E-06	0.0000	0.0000	7.27E-05
356		*	0.00	0.000	0.000	0.2263	10.0778	0.0124	5.62E-06	0.0000	0.0000	7.26E-05
357	*	*	0.00	0.000	0.000	0.2263	10.0498	0.0123	5.59E-06	0.0000	0.0000	7.25E-05
358	*	*	0.00	0.000	0.000	0.2263	10.0219	0.0123	5.57E-06	0.0000	0.0000	7.24E-05
359	*	*	0.00	0.000	0.000	0.2263	9.9940	0.0122	5.55E-06	0.0000	0.0000	7.23E-05
360	*	*	0.00	0.000	0.000	0.2263	9.9661	0.0122	5.52E-06	0.0000	0.0000	7.22E-05
361		*	0.22	0.000	0.000	0.2356	9.9383	0.0121	5.50E-06	0.0000	0.0000	7.21E-05
362		*	0.00	0.000	0.000	0.2356	9.9104	0.0121	5.48E-06	0.0000	0.0000	7.20E-05
363	*	*	0.00	0.000	0.000	0.2356	9.8826	0.0121	5.46E-06	0.0000	0.0000	7.19E-05
364		*	0.00	0.000	0.000	0.2356	9.8548	0.0120	5.43E-06	0.0000	0.0000	7.18E-05

365	*	0.05	0.000	0.000	0.2378	9.8270	0.0120	5.41E-06	0.0000	0.0000	7.17E-05

* = Frozen (air or soil)

Annual Totals for Year 2			
	inches	cubic feet	percent
Precipitation	34.27	124,383.8	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	26.081	94,672.2	76.11
Drainage Collected from Layer 3	4.6152	16,753.1	13.47
Percolation/Leakage through Layer 4	0.001991	7.2282	0.01
Average Head on Top of Layer 4	9.5099	---	---
Percolation/Leakage through Layer 6	0.032955	119.6	0.10
Change in Water Storage	3.5369	12,838.9	10.32
Soil Water at Start of Year	9.8134	35,622.8	28.64
Soil Water at End of Year	13.3503	48,461.7	38.96
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 3

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:22

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.2378	9.7993	0.0119	5.39E-06	0.0000	0.0000	7.16E-05
2		*	0.00	0.000	0.000	0.2378	9.7716	0.0119	5.37E-06	0.0000	0.0000	7.15E-05
3	*	*	0.00	0.000	0.000	0.2378	9.7439	0.0119	5.34E-06	0.0000	0.0000	7.14E-05
4	*	*	0.00	0.000	0.000	0.2378	9.7163	0.0118	5.32E-06	0.0000	0.0000	7.13E-05
5	*	*	0.01	0.000	0.010	0.2378	9.6887	0.0118	5.30E-06	0.0000	0.0000	7.13E-05
6	*	*	0.00	0.000	0.000	0.2378	9.6612	0.0117	5.28E-06	0.0000	0.0000	7.12E-05
7		*	0.00	0.000	0.000	0.2378	9.6337	0.0117	5.26E-06	0.0000	0.0000	7.11E-05
8	*	*	0.00	0.000	0.000	0.2378	9.6062	0.0117	5.23E-06	0.0000	0.0000	7.10E-05
9	*	*	0.00	0.000	0.000	0.2378	9.5788	0.0116	5.21E-06	0.0000	0.0000	7.09E-05
10	*	*	0.19	0.000	0.007	0.2378	9.5515	0.0116	5.19E-06	0.0000	0.0000	7.08E-05
11	*	*	0.12	0.000	0.003	0.2378	9.5242	0.0115	5.17E-06	0.0000	0.0000	7.07E-05
12	*	*	0.00	0.000	0.021	0.2378	9.4969	0.0115	5.15E-06	0.0000	0.0000	7.06E-05
13	*	*	0.02	0.000	0.000	0.2378	9.4697	0.0115	5.12E-06	0.0000	0.0000	7.05E-05
14	*	*	0.02	0.000	0.000	0.2378	9.4426	0.0114	5.10E-06	0.0000	0.0000	7.05E-05
15	*	*	0.21	0.000	0.000	0.2378	9.4155	0.0114	5.08E-06	0.0000	0.0000	7.04E-05
16	*	*	0.03	0.000	0.000	0.2378	9.3884	0.0113	5.06E-06	0.0000	0.0000	7.03E-05
17	*	*	0.00	0.000	0.033	0.2378	9.3615	0.0113	5.04E-06	0.0000	0.0000	7.02E-05
18	*	*	0.00	0.000	0.023	0.2378	9.3345	0.0113	5.02E-06	0.0000	0.0000	7.01E-05
19		*	0.00	0.000	0.013	0.2505	9.3077	0.0112	5.00E-06	0.0000	0.0000	7.00E-05
20		*	0.00	0.000	0.032	0.2565	9.2809	0.0112	4.98E-06	0.0000	0.0000	6.99E-05
21	*	*	0.03	0.000	0.028	0.2565	9.2541	0.0112	4.95E-06	0.0000	0.0000	6.98E-05
22	*	*	0.15	0.000	0.030	0.2565	9.2274	0.0111	4.93E-06	0.0000	0.0000	6.98E-05
23	*	*	0.00	0.000	0.036	0.2565	9.2008	0.0111	4.91E-06	0.0000	0.0000	6.97E-05

24		*	0.00	0.000	0.065	0.2574	9.1742	0.0110	4.89E-06	0.0000	0.0000	6.96E-05
25	*	*	0.00	0.000	0.000	0.2574	9.1477	0.0110	4.87E-06	0.0000	0.0000	6.95E-05
26	*	*	0.00	0.000	0.000	0.2574	9.1213	0.0110	4.85E-06	0.0000	0.0000	6.94E-05
27	*	*	0.00	0.000	0.000	0.2574	9.0949	0.0109	4.83E-06	0.0000	0.0000	6.93E-05
28	*	*	0.00	0.000	0.000	0.2574	9.0686	0.0109	4.81E-06	0.0000	0.0000	6.92E-05
29	*	*	0.00	0.000	0.000	0.2574	9.0424	0.0108	4.79E-06	0.0000	0.0000	6.92E-05
30		*	0.00	0.000	0.000	0.2574	9.0162	0.0108	4.77E-06	0.0000	0.0000	6.91E-05
31		*	0.00	0.000	0.000	0.2574	8.9901	0.0108	4.75E-06	0.0000	0.0000	6.90E-05
32	*	*	0.00	0.000	0.000	0.2574	8.9640	0.0107	4.73E-06	0.0000	0.0000	6.89E-05
33	*	*	0.00	0.000	0.000	0.2574	8.9381	0.0107	4.71E-06	0.0000	0.0000	6.88E-05
34	*	*	0.13	0.000	0.027	0.2574	8.9121	0.0107	4.69E-06	0.0000	0.0000	6.88E-05
35	*	*	0.00	0.000	0.021	0.2574	8.8863	0.0106	4.67E-06	0.0000	0.0000	6.87E-05
36		*	0.19	0.000	0.015	0.2681	8.8605	0.0106	4.65E-06	0.0000	0.0000	6.86E-05
37		*	0.00	0.000	0.000	0.2681	8.8348	0.0106	4.63E-06	0.0000	0.0000	6.85E-05
38		*	0.00	0.000	0.000	0.2681	8.8091	0.0105	4.61E-06	0.0000	0.0000	6.84E-05
39		*	0.00	0.000	0.000	0.2681	8.7836	0.0105	4.59E-06	0.0000	0.0000	6.83E-05
40		*	0.00	0.000	0.000	0.2681	8.7580	0.0104	4.57E-06	0.0000	0.0000	6.83E-05
41		*	0.00	0.000	0.000	0.2681	8.7326	0.0104	4.55E-06	0.0000	0.0000	6.82E-05
42	*	*	0.02	0.000	0.021	0.2681	8.7072	0.0104	4.53E-06	0.0000	0.0000	6.81E-05
43	*	*	0.00	0.000	0.000	0.2681	8.6819	0.0103	4.51E-06	0.0000	0.0000	6.80E-05
44	*	*	0.00	0.000	0.000	0.2681	8.6567	0.0103	4.50E-06	0.0000	0.0000	6.79E-05
45	*	*	0.00	0.000	0.000	0.2681	8.6315	0.0103	4.48E-06	0.0000	0.0000	6.79E-05
46	*	*	0.00	0.000	0.000	0.2681	8.6064	0.0102	4.46E-06	0.0000	0.0000	6.78E-05
47	*	*	0.25	0.000	0.033	0.2681	8.5814	0.0102	4.44E-06	0.0000	0.0000	6.77E-05
48		*	0.01	0.000	0.000	0.2757	8.5564	0.0102	4.42E-06	0.0000	0.0000	6.76E-05
49		*	0.01	0.000	0.053	0.2757	8.5315	0.0101	4.40E-06	0.0000	0.0000	6.76E-05
50		*	0.00	0.000	0.000	0.2757	8.5067	0.0101	4.38E-06	0.0000	0.0000	6.75E-05
51	*	*	0.00	0.000	0.000	0.2757	8.4820	0.0101	4.36E-06	0.0000	0.0000	6.74E-05
52		*	0.00	0.000	0.000	0.2757	8.4573	0.0100	4.35E-06	0.0000	0.0000	6.73E-05
53	*	*	0.00	0.000	0.000	0.2757	8.4327	0.0100	4.33E-06	0.0000	0.0000	6.72E-05
54	*	*	0.00	0.000	0.000	0.2757	8.4081	0.0100	4.31E-06	0.0000	0.0000	6.72E-05

55	*	*	0.00	0.000	0.000	0.2757	8.3836	0.0099	4.29E-06	0.0000	0.0000	6.71E-05
56		*	0.00	0.000	0.000	0.2757	8.3592	0.0099	4.27E-06	0.0000	0.0000	6.70E-05
57		*	0.00	0.000	0.000	0.2757	8.3349	0.0099	4.26E-06	0.0000	0.0000	6.69E-05
58	*	*	0.00	0.000	0.000	0.2757	8.3106	0.0098	4.24E-06	0.0000	0.0000	6.69E-05
59		*	0.00	0.000	0.000	0.2757	8.2864	0.0098	4.22E-06	0.0000	0.0000	6.68E-05
60		*	0.00	0.000	0.000	0.2757	8.2623	0.0098	4.20E-06	0.0000	0.0000	6.67E-05
61	*	*	0.00	0.000	0.004	0.2757	8.2382	0.0097	4.18E-06	0.0000	0.0000	6.66E-05
62	*	*	0.03	0.000	0.030	0.2757	8.2143	0.0097	4.17E-06	0.0000	0.0000	6.66E-05
63	*	*	0.42	0.000	0.010	0.2757	8.1903	0.0097	4.15E-06	0.0000	0.0000	6.65E-05
64	*	*	0.96	0.000	0.000	0.2757	8.1665	0.0096	4.13E-06	0.0000	0.0000	6.64E-05
65	*	*	0.00	0.000	0.037	0.2757	8.1427	0.0096	4.12E-06	0.0000	0.0000	6.63E-05
66	*	*	0.00	0.000	0.013	0.2757	8.1190	0.0096	4.10E-06	0.0000	0.0000	6.63E-05
67	*	*	0.00	0.000	0.022	0.2757	8.0953	0.0095	4.08E-06	0.0000	0.0000	6.62E-05
68	*	*	0.03	0.000	0.000	0.2757	8.0718	0.0095	4.06E-06	0.0000	0.0000	6.61E-05
69		*	0.00	0.000	0.007	0.2881	8.0483	0.0095	4.05E-06	0.0000	0.0000	6.61E-05
70		*	0.00	0.000	0.000	0.3309	8.0248	0.0094	4.03E-06	0.0000	0.0000	6.60E-05
71		*	0.00	0.000	0.000	0.3309	8.0015	0.0094	4.01E-06	0.0000	0.0000	6.59E-05
72		*	0.00	0.000	0.000	0.3309	7.9782	0.0094	4.00E-06	0.0000	0.0000	6.58E-05
73	*	*	0.00	0.000	0.000	0.3309	7.9549	0.0093	3.98E-06	0.0000	0.0000	6.58E-05
74		*	0.32	0.000	0.000	0.3441	7.9318	0.0093	3.96E-06	0.0000	0.0000	6.57E-05
75		*	0.10	0.000	0.000	0.3483	7.9087	0.0093	3.95E-06	0.0000	0.0000	6.56E-05
76		*	0.01	0.000	0.000	0.3485	7.8856	0.0093	3.93E-06	0.0000	0.0000	6.56E-05
77		*	0.16	0.000	0.000	0.3551	7.8627	0.0092	3.91E-06	0.0000	0.0000	6.55E-05
78		*	0.00	0.000	0.000	0.3551	7.8398	0.0092	3.90E-06	0.0000	0.0000	6.54E-05
79		*	0.00	0.000	0.000	0.3551	7.8170	0.0092	3.88E-06	0.0000	0.0000	6.53E-05
80		*	0.00	0.000	0.000	0.3551	7.7942	0.0091	3.87E-06	0.0000	0.0000	6.53E-05
81		*	0.00	0.000	0.000	0.3551	7.7715	0.0091	3.85E-06	0.0000	0.0000	6.52E-05
82		*	0.16	0.000	0.000	0.3618	7.7489	0.0091	3.83E-06	0.0000	0.0000	6.51E-05
83		*	0.62	0.000	0.000	0.3875	7.7264	0.0090	3.82E-06	0.0000	0.0000	6.51E-05
84			0.13	0.000	0.185	0.2802	8.1745	0.0097	4.16E-06	0.0000	0.0000	6.53E-05
85			0.00	0.000	0.237	0.2399	14.0666	0.0290	9.37E-06	0.0000	0.0000	7.05E-05

86		0.00	0.000	0.187	0.2241	15.6910	0.0378	1.10E-05	0.0000	0.0000	7.21E-05
87		0.00	0.000	0.326	0.2058	15.9337	0.0395	1.13E-05	0.0000	0.0000	7.22E-05
88		0.00	0.000	0.132	0.1963	16.0628	0.0403	1.14E-05	0.0000	0.0000	7.23E-05
89		0.00	0.000	0.174	0.1852	16.1706	0.0410	1.15E-05	0.0000	0.0000	7.23E-05
90		0.00	0.000	0.177	0.1746	16.2619	0.0416	1.16E-05	0.0000	0.0000	7.23E-05
91		0.00	0.000	0.073	0.1689	16.3222	0.0421	1.17E-05	0.0000	0.0000	7.23E-05
92		0.00	0.000	0.056	0.1645	16.3472	0.0422	1.17E-05	0.0000	0.0000	7.22E-05
93	*	0.00	0.000	0.003	0.1623	16.3744	0.0424	1.18E-05	0.0000	0.0000	7.22E-05
94		0.02	0.000	0.047	0.1600	16.3642	0.0423	1.18E-05	0.0000	0.0000	7.21E-05
95		0.10	0.000	0.042	0.1603	16.3575	0.0423	1.17E-05	0.0000	0.0000	7.20E-05
96		0.00	0.000	0.038	0.1577	16.3548	0.0423	1.17E-05	0.0000	0.0000	7.19E-05
97		0.35	0.000	0.035	0.1700	16.3111	0.0420	1.17E-05	0.0000	0.0000	7.18E-05
98		0.05	0.000	0.032	0.1700	16.2640	0.0417	1.16E-05	0.0000	0.0000	7.16E-05
99		0.00	0.000	0.030	0.1677	16.2244	0.0414	1.16E-05	0.0000	0.0000	7.15E-05
100	*	0.00	0.000	0.000	0.1667	16.1897	0.0412	1.16E-05	0.0000	0.0000	7.14E-05
101		0.00	0.000	0.029	0.1644	16.1591	0.0410	1.15E-05	0.0000	0.0000	7.12E-05
102		0.63	0.000	0.027	0.1887	16.1279	0.0407	1.15E-05	0.0000	0.0000	7.11E-05
103		1.34	0.000	0.196	0.2353	16.0973	0.0405	1.15E-05	0.0000	0.0000	7.10E-05
104	*	0.05	0.000	0.108	0.2326	16.0548	0.0403	1.14E-05	0.0000	0.0000	7.09E-05
105		0.00	0.000	0.156	0.2252	16.0049	0.0399	1.14E-05	0.0000	0.0000	7.07E-05
106		0.00	0.000	0.194	0.2159	15.9788	0.0398	1.13E-05	0.0000	0.0000	7.06E-05
107		0.17	0.000	0.158	0.2156	15.9524	0.0396	1.13E-05	0.0000	0.0000	7.05E-05
108	*	0.00	0.000	0.131	0.2100	15.9041	0.0393	1.12E-05	0.0000	0.0000	7.04E-05
109		0.00	0.000	0.160	0.2033	15.8275	0.0387	1.12E-05	0.0000	0.0000	7.02E-05
110		0.00	0.000	0.305	0.1895	15.7638	0.0383	1.11E-05	0.0000	0.0000	7.00E-05
111		0.00	0.000	0.113	0.1824	15.7748	0.0384	1.11E-05	0.0000	0.0000	7.00E-05
112		0.00	0.000	0.159	0.1737	15.8028	0.0386	1.11E-05	0.0000	0.0000	6.99E-05
113		0.00	0.000	0.073	0.1685	15.8298	0.0388	1.12E-05	0.0000	0.0000	6.99E-05
114		0.30	0.000	0.056	0.1768	15.8454	0.0389	1.12E-05	0.0000	0.0000	6.98E-05
115		0.31	0.000	0.047	0.1862	15.8495	0.0389	1.12E-05	0.0000	0.0000	6.97E-05
116	*	0.43	0.000	0.038	0.1855	15.8454	0.0389	1.12E-05	0.0000	0.0000	6.96E-05

117	*	0.00	0.000	0.023	0.1850	15.8359	0.0388	1.12E-05	0.0000	0.0000	6.95E-05
118	*	0.15	0.000	0.016	0.1846	15.8193	0.0387	1.11E-05	0.0000	0.0000	6.94E-05
119	*	0.19	0.000	0.000	0.1843	15.7985	0.0386	1.11E-05	0.0000	0.0000	6.93E-05
120	*	0.04	0.000	0.026	0.1841	15.7740	0.0384	1.11E-05	0.0000	0.0000	6.92E-05
121	*	0.00	0.000	0.000	0.1839	15.7462	0.0382	1.11E-05	0.0000	0.0000	6.91E-05
122		0.00	0.000	0.064	0.2046	15.7153	0.0380	1.10E-05	0.0000	0.0000	6.90E-05
123		0.00	0.000	0.107	0.1993	15.6783	0.0378	1.10E-05	0.0000	0.0000	6.89E-05
124		0.00	0.000	0.327	0.1845	15.6538	0.0376	1.10E-05	0.0000	0.0000	6.88E-05
125		0.00	0.000	0.421	0.1669	15.6113	0.0373	1.09E-05	0.0000	0.0000	6.86E-05
126		0.03	0.000	0.442	0.1488	15.5527	0.0369	1.09E-05	0.0000	0.0000	6.85E-05
127		0.09	0.000	0.177	0.1441	15.5275	0.0368	1.08E-05	0.0000	0.0000	6.84E-05
128		0.00	0.000	0.073	0.1405	15.4893	0.0365	1.08E-05	0.0000	0.0000	6.83E-05
129		0.35	0.000	0.056	0.1522	15.4414	0.0362	1.07E-05	0.0000	0.0000	6.81E-05
130		0.40	0.000	0.048	0.1664	15.3934	0.0359	1.07E-05	0.0000	0.0000	6.80E-05
131		0.00	0.000	0.107	0.1615	15.3480	0.0356	1.06E-05	0.0000	0.0000	6.79E-05
132		0.11	0.000	0.042	0.1640	15.3019	0.0353	1.06E-05	0.0000	0.0000	6.78E-05
133		0.02	0.000	0.405	0.1470	15.2584	0.0350	1.05E-05	0.0000	0.0000	6.76E-05
134		0.62	0.000	0.038	0.1712	15.2102	0.0347	1.05E-05	0.0000	0.0000	6.75E-05
135		0.99	0.000	0.331	0.1984	15.1547	0.0344	1.04E-05	0.0000	0.0000	6.74E-05
136		0.32	0.000	0.283	0.1997	15.0923	0.0340	1.04E-05	0.0000	0.0000	6.72E-05
137		0.22	0.000	0.082	0.2049	15.0404	0.0336	1.03E-05	0.0000	0.0000	6.71E-05
138	*	0.03	0.000	0.059	0.2031	15.0010	0.0334	1.03E-05	0.0000	0.0000	6.70E-05
139		0.03	0.000	0.075	0.2005	14.9635	0.0331	1.02E-05	0.0000	0.0000	6.69E-05
140	*	0.01	0.000	0.007	0.1999	14.9260	0.0329	1.02E-05	0.0000	0.0000	6.68E-05
141	*	0.00	0.000	0.142	0.1935	14.8873	0.0326	1.01E-05	0.0000	0.0000	6.66E-05
142		0.00	0.000	0.170	0.1860	14.8454	0.0324	1.01E-05	0.0000	0.0000	6.65E-05
143		0.00	0.000	0.281	0.1739	14.8026	0.0321	1.01E-05	0.0000	0.0000	6.64E-05
144		0.04	0.000	0.177	0.1677	14.7603	0.0318	1.00E-05	0.0000	0.0000	6.63E-05
145		0.00	0.000	0.178	0.1599	14.7204	0.0316	9.97E-06	0.0000	0.0000	6.62E-05
146		0.00	0.000	0.293	0.1473	14.6809	0.0313	9.93E-06	0.0000	0.0000	6.61E-05
147		0.00	0.000	0.177	0.1394	14.6381	0.0311	9.88E-06	0.0000	0.0000	6.60E-05

148	0.20	0.000	0.074	0.1439	14.6037	0.0309	9.84E-06	0.0000	0.0000	6.58E-05
149	0.07	0.000	0.057	0.1440	14.5673	0.0306	9.81E-06	0.0000	0.0000	6.57E-05
150	0.00	0.000	0.047	0.1416	14.5278	0.0304	9.77E-06	0.0000	0.0000	6.56E-05
151	0.00	0.000	0.042	0.1395	14.4862	0.0301	9.72E-06	0.0000	0.0000	6.55E-05
152	0.00	0.000	0.038	0.1376	14.4430	0.0298	9.68E-06	0.0000	0.0000	6.54E-05
153	0.00	0.000	0.035	0.1359	14.3984	0.0296	9.63E-06	0.0000	0.0000	6.53E-05
154	0.03	0.000	0.033	0.1354	14.3515	0.0293	9.58E-06	0.0000	0.0000	6.52E-05
155	1.17	0.000	0.031	0.1827	14.3024	0.0290	9.53E-06	0.0000	0.0000	6.50E-05
156	1.27	0.000	0.135	0.2299	14.2543	0.0287	9.48E-06	0.0000	0.0000	6.49E-05
157	0.01	0.000	0.165	0.2235	14.2070	0.0284	9.44E-06	0.0000	0.0000	6.48E-05
158	0.00	0.000	0.167	0.2164	14.1538	0.0281	9.38E-06	0.0000	0.0000	6.47E-05
159	0.00	0.000	0.165	0.2092	14.1098	0.0278	9.34E-06	0.0000	0.0000	6.46E-05
160	0.00	0.000	0.389	0.1929	14.0658	0.0275	9.29E-06	0.0000	0.0000	6.45E-05
161	0.00	0.000	0.319	0.1796	14.0141	0.0272	9.24E-06	0.0000	0.0000	6.43E-05
162	0.61	0.000	0.151	0.1989	13.9602	0.0269	9.18E-06	0.0000	0.0000	6.42E-05
163	0.20	0.000	0.310	0.1941	13.9069	0.0265	9.13E-06	0.0000	0.0000	6.41E-05
164	0.01	0.000	0.332	0.1791	13.8908	0.0264	9.11E-06	0.0000	0.0000	6.40E-05
165	0.00	0.000	0.176	0.1696	13.9235	0.0266	9.15E-06	0.0000	0.0000	6.40E-05
166	0.00	0.000	0.073	0.1648	13.9670	0.0269	9.19E-06	0.0000	0.0000	6.40E-05
167	0.00	0.000	0.050	0.1613	13.9902	0.0270	9.21E-06	0.0000	0.0000	6.39E-05
168	0.00	0.000	0.047	0.1580	14.0015	0.0271	9.23E-06	0.0000	0.0000	6.39E-05
169	0.00	0.000	0.042	0.1550	14.0101	0.0272	9.23E-06	0.0000	0.0000	6.38E-05
170	0.00	0.000	0.038	0.1523	14.0125	0.0272	9.24E-06	0.0000	0.0000	6.38E-05
171	0.16	0.000	0.035	0.1566	14.0088	0.0272	9.23E-06	0.0000	0.0000	6.37E-05
172	1.24	0.000	0.033	0.2060	14.0036	0.0271	9.23E-06	0.0000	0.0000	6.36E-05
173	0.72	0.000	0.162	0.2284	13.9999	0.0271	9.22E-06	0.0000	0.0000	6.35E-05
174	0.59	0.000	0.374	0.2367	13.9882	0.0270	9.21E-06	0.0000	0.0000	6.35E-05
175	0.60	0.000	0.295	0.2487	13.9736	0.0269	9.20E-06	0.0000	0.0000	6.34E-05
176	0.07	0.000	0.167	0.2435	13.9541	0.0268	9.18E-06	0.0000	0.0000	6.33E-05
177	0.00	0.000	0.363	0.2277	13.9615	0.0269	9.19E-06	0.0000	0.0000	6.33E-05
178	0.03	0.000	0.342	0.2145	13.9289	0.0267	9.15E-06	0.0000	0.0000	6.32E-05

179	0.07	0.000	0.174	0.2075	13.9099	0.0266	9.13E-06	0.0000	0.0000	6.31E-05
180	0.06	0.000	0.183	0.1975	14.0259	0.0273	9.25E-06	0.0000	0.0000	6.31E-05
181	0.45	0.000	0.349	0.1985	14.1831	0.0282	9.41E-06	0.0000	0.0000	6.32E-05
182	0.00	0.000	0.326	0.1829	14.2567	0.0287	9.49E-06	0.0000	0.0000	6.32E-05
183	0.39	0.000	0.178	0.1900	14.2896	0.0289	9.52E-06	0.0000	0.0000	6.32E-05
184	0.70	0.000	0.242	0.2074	14.3076	0.0290	9.54E-06	0.0000	0.0000	6.32E-05
185	0.51	0.000	0.172	0.2195	14.3334	0.0292	9.56E-06	0.0000	0.0000	6.31E-05
186	0.53	0.000	0.183	0.2321	14.3615	0.0293	9.59E-06	0.0000	0.0000	6.31E-05
187	0.04	0.000	0.171	0.2254	14.3755	0.0294	9.61E-06	0.0000	0.0000	6.30E-05
188	0.11	0.000	0.168	0.2221	14.3692	0.0294	9.60E-06	0.0000	0.0000	6.30E-05
189	0.00	0.000	0.167	0.2136	14.3693	0.0294	9.60E-06	0.0000	0.0000	6.29E-05
190	0.00	0.000	0.207	0.2030	14.3915	0.0295	9.62E-06	0.0000	0.0000	6.29E-05
191	0.18	0.000	0.176	0.2019	14.4218	0.0297	9.66E-06	0.0000	0.0000	6.28E-05
192	0.00	0.000	0.339	0.1875	14.4035	0.0296	9.64E-06	0.0000	0.0000	6.27E-05
193	0.41	0.000	0.166	0.1965	14.3816	0.0295	9.61E-06	0.0000	0.0000	6.27E-05
194	0.03	0.000	0.355	0.1821	14.3668	0.0294	9.60E-06	0.0000	0.0000	6.26E-05
195	0.26	0.000	0.185	0.1842	14.3547	0.0293	9.59E-06	0.0000	0.0000	6.25E-05
196	0.00	0.000	0.363	0.1687	14.3291	0.0291	9.56E-06	0.0000	0.0000	6.24E-05
197	0.00	0.000	0.175	0.1604	14.3023	0.0290	9.53E-06	0.0000	0.0000	6.23E-05
198	0.00	0.000	0.073	0.1568	14.2852	0.0289	9.52E-06	0.0000	0.0000	6.22E-05
199	0.00	0.000	0.056	0.1543	14.2438	0.0286	9.47E-06	0.0000	0.0000	6.21E-05
200	0.00	0.000	0.047	0.1519	14.1993	0.0283	9.43E-06	0.0000	0.0000	6.20E-05
201	0.01	0.000	0.042	0.1499	14.1661	0.0281	9.39E-06	0.0000	0.0000	6.19E-05
202	0.07	0.000	0.038	0.1503	14.1440	0.0280	9.37E-06	0.0000	0.0000	6.18E-05
203	0.00	0.000	0.035	0.1480	14.1285	0.0279	9.35E-06	0.0000	0.0000	6.18E-05
204	0.02	0.000	0.033	0.1467	14.1156	0.0278	9.34E-06	0.0000	0.0000	6.17E-05
205	0.70	0.000	0.031	0.1736	14.1028	0.0277	9.33E-06	0.0000	0.0000	6.16E-05
206	0.09	0.000	0.382	0.1603	14.0973	0.0277	9.32E-06	0.0000	0.0000	6.15E-05
207	0.01	0.000	0.029	0.1595	14.0774	0.0276	9.30E-06	0.0000	0.0000	6.15E-05
208	1.40	0.000	0.028	0.2156	14.0352	0.0273	9.26E-06	0.0000	0.0000	6.14E-05
209	0.00	0.000	0.364	0.1994	14.0269	0.0273	9.25E-06	0.0000	0.0000	6.13E-05

210	0.00	0.000	0.374	0.1832	14.0226	0.0272	9.25E-06	0.0000	0.0000	6.12E-05
211	0.00	0.000	0.349	0.1677	14.0061	0.0271	9.23E-06	0.0000	0.0000	6.11E-05
212	0.08	0.000	0.177	0.1623	14.0034	0.0271	9.23E-06	0.0000	0.0000	6.11E-05
213	0.00	0.000	0.074	0.1582	14.0019	0.0271	9.23E-06	0.0000	0.0000	6.10E-05
214	0.11	0.000	0.057	0.1597	13.9950	0.0271	9.22E-06	0.0000	0.0000	6.10E-05
215	0.00	0.000	0.047	0.1569	13.9826	0.0270	9.21E-06	0.0000	0.0000	6.09E-05
216	0.00	0.000	0.042	0.1545	13.9645	0.0269	9.19E-06	0.0000	0.0000	6.08E-05
217	0.40	0.000	0.038	0.1691	13.9418	0.0268	9.17E-06	0.0000	0.0000	6.07E-05
218	0.07	0.000	0.333	0.1578	13.9131	0.0266	9.14E-06	0.0000	0.0000	6.06E-05
219	0.00	0.000	0.035	0.1558	13.8831	0.0264	9.11E-06	0.0000	0.0000	6.05E-05
220	0.00	0.000	0.032	0.1539	13.8606	0.0263	9.08E-06	0.0000	0.0000	6.05E-05
221	0.23	0.000	0.031	0.1618	13.8324	0.0261	9.05E-06	0.0000	0.0000	6.04E-05
222	0.00	0.000	0.370	0.1461	13.7971	0.0259	9.02E-06	0.0000	0.0000	6.03E-05
223	0.00	0.000	0.029	0.1444	13.7661	0.0257	8.99E-06	0.0000	0.0000	6.02E-05
224	0.00	0.000	0.027	0.1428	13.7380	0.0255	8.96E-06	0.0000	0.0000	6.01E-05
225	0.06	0.000	0.026	0.1439	13.7071	0.0253	8.93E-06	0.0000	0.0000	6.00E-05
226	0.81	0.000	0.025	0.1764	13.6741	0.0251	8.90E-06	0.0000	0.0000	5.99E-05
227	0.37	0.000	0.174	0.1842	13.6407	0.0249	8.86E-06	0.0000	0.0000	5.98E-05
228	0.00	0.000	0.168	0.1768	13.6078	0.0247	8.83E-06	0.0000	0.0000	5.98E-05
229	0.00	0.000	0.150	0.1703	13.5735	0.0245	8.80E-06	0.0000	0.0000	5.97E-05
230	0.14	0.000	0.290	0.1637	13.5375	0.0243	8.76E-06	0.0000	0.0000	5.96E-05
231	0.01	0.000	0.274	0.1525	13.4917	0.0240	8.71E-06	0.0000	0.0000	5.95E-05
232	0.00	0.000	0.177	0.1449	13.4473	0.0238	8.67E-06	0.0000	0.0000	5.94E-05
233	0.00	0.000	0.073	0.1416	13.4138	0.0236	8.64E-06	0.0000	0.0000	5.93E-05
234	0.33	0.000	0.057	0.1527	13.3791	0.0234	8.60E-06	0.0000	0.0000	5.92E-05
235	0.00	0.000	0.047	0.1506	13.3415	0.0231	8.57E-06	0.0000	0.0000	5.91E-05
236	0.00	0.000	0.042	0.1488	13.2996	0.0229	8.53E-06	0.0000	0.0000	5.90E-05
237	0.24	0.000	0.038	0.1569	13.2603	0.0226	8.49E-06	0.0000	0.0000	5.89E-05
238	0.00	0.000	0.321	0.1435	13.2224	0.0224	8.45E-06	0.0000	0.0000	5.88E-05
239	0.15	0.000	0.035	0.1483	13.1820	0.0222	8.41E-06	0.0000	0.0000	5.87E-05
240	0.00	0.000	0.032	0.1468	13.1448	0.0220	8.37E-06	0.0000	0.0000	5.86E-05

241	0.00	0.000	0.030	0.1454	12.5569	0.0186	7.82E-06	0.0000	0.0000	5.80E-05
242	0.26	0.000	0.029	0.1549	12.5406	0.0185	7.80E-06	0.0000	0.0000	5.80E-05
243	0.00	0.000	0.028	0.1536	11.9974	0.0154	7.29E-06	0.0000	0.0000	5.74E-05
244	0.15	0.000	0.026	0.1584	11.9961	0.0154	7.29E-06	0.0000	0.0000	5.74E-05
245	0.24	0.000	0.134	0.1629	11.9925	0.0154	7.28E-06	0.0000	0.0000	5.73E-05
246	0.04	0.000	0.297	0.1522	11.9895	0.0154	7.28E-06	0.0000	0.0000	5.73E-05
247	0.01	0.000	0.177	0.1450	11.9828	0.0154	7.28E-06	0.0000	0.0000	5.72E-05
248	0.00	0.000	0.073	0.1417	11.9667	0.0153	7.26E-06	0.0000	0.0000	5.71E-05
249	0.16	0.000	0.056	0.1456	11.9461	0.0153	7.24E-06	0.0000	0.0000	5.71E-05
250	0.82	0.000	0.048	0.1775	11.9249	0.0153	7.22E-06	0.0000	0.0000	5.70E-05
251	0.00	0.000	0.086	0.1737	11.9041	0.0152	7.20E-06	0.0000	0.0000	5.69E-05
252	0.00	0.000	0.206	0.1651	11.8859	0.0152	7.19E-06	0.0000	0.0000	5.69E-05
253	0.00	0.000	0.152	0.1586	11.8682	0.0152	7.17E-06	0.0000	0.0000	5.68E-05
254	0.00	0.000	0.175	0.1512	11.8476	0.0151	7.15E-06	0.0000	0.0000	5.68E-05
255	0.00	0.000	0.137	0.1453	11.8257	0.0151	7.13E-06	0.0000	0.0000	5.67E-05
256	0.00	0.000	0.073	0.1420	11.8010	0.0151	7.11E-06	0.0000	0.0000	5.66E-05
257	0.00	0.000	0.056	0.1395	11.7744	0.0150	7.09E-06	0.0000	0.0000	5.65E-05
258	0.00	0.000	0.047	0.1373	11.7481	0.0150	7.06E-06	0.0000	0.0000	5.65E-05
259	0.00	0.000	0.042	0.1353	11.7222	0.0149	7.04E-06	0.0000	0.0000	5.64E-05
260	0.00	0.000	0.038	0.1336	11.6968	0.0149	7.02E-06	0.0000	0.0000	5.63E-05
261	0.00	0.000	0.035	0.1319	11.6719	0.0148	6.99E-06	0.0000	0.0000	5.63E-05
262	0.00	0.000	0.032	0.1304	11.6473	0.0148	6.97E-06	0.0000	0.0000	5.62E-05
263	0.00	0.000	0.030	0.1290	11.6229	0.0148	6.95E-06	0.0000	0.0000	5.61E-05
264	0.00	0.000	0.029	0.1276	11.5988	0.0147	6.93E-06	0.0000	0.0000	5.61E-05
265	0.00	0.000	0.027	0.1263	11.5748	0.0146	6.91E-06	0.0000	0.0000	5.60E-05
266	0.00	0.000	0.026	0.1251	11.5509	0.0146	6.88E-06	0.0000	0.0000	5.59E-05
267	0.18	0.000	0.025	0.1314	11.5271	0.0146	6.86E-06	0.0000	0.0000	5.59E-05
268	0.01	0.000	0.024	0.1306	11.5032	0.0145	6.84E-06	0.0000	0.0000	5.58E-05
269	0.14	0.000	0.023	0.1352	11.4793	0.0145	6.82E-06	0.0000	0.0000	5.57E-05
270	0.00	0.000	0.023	0.1342	11.4553	0.0145	6.80E-06	0.0000	0.0000	5.57E-05
271	0.10	0.000	0.022	0.1374	11.4312	0.0144	6.78E-06	0.0000	0.0000	5.56E-05

272		0.09	0.000	0.021	0.1399	11.4070	0.0144	6.76E-06	0.0000	0.0000	5.56E-05
273		0.01	0.000	0.021	0.1393	11.3826	0.0143	6.73E-06	0.0000	0.0000	5.55E-05
274		0.00	0.000	0.020	0.1383	11.3582	0.0143	6.71E-06	0.0000	0.0000	5.54E-05
275		0.00	0.000	0.020	0.1374	11.3333	0.0143	6.69E-06	0.0000	0.0000	5.54E-05
276		0.00	0.000	0.019	0.1365	11.3086	0.0142	6.67E-06	0.0000	0.0000	5.53E-05
277	*	0.00	0.000	0.000	0.1364	11.2834	0.0142	6.65E-06	0.0000	0.0000	5.52E-05
278	*	0.00	0.000	0.019	0.1355	11.2581	0.0142	6.62E-06	0.0000	0.0000	5.52E-05
279	*	0.00	0.000	0.018	0.1346	11.2332	0.0141	6.60E-06	0.0000	0.0000	5.51E-05
280	*	0.00	0.000	0.000	0.1345	11.2078	0.0141	6.58E-06	0.0000	0.0000	5.50E-05
281	*	0.00	0.000	0.004	0.1344	11.1818	0.0140	6.56E-06	0.0000	0.0000	5.50E-05
282	*	0.00	0.000	0.002	0.1343	11.1559	0.0140	6.53E-06	0.0000	0.0000	5.49E-05
283	*	0.00	0.000	0.000	0.1343	11.1300	0.0140	6.51E-06	0.0000	0.0000	5.48E-05
284	*	0.00	0.000	0.000	0.1342	11.1041	0.0139	6.49E-06	0.0000	0.0000	5.48E-05
285		0.00	0.000	0.018	0.1333	11.0785	0.0139	6.47E-06	0.0000	0.0000	5.47E-05
286		0.27	0.000	0.018	0.1439	11.0532	0.0138	6.44E-06	0.0000	0.0000	5.47E-05
287	*	0.00	0.000	0.017	0.1431	11.0278	0.0138	6.42E-06	0.0000	0.0000	5.46E-05
288	*	0.06	0.000	0.048	0.1435	11.0018	0.0138	6.40E-06	0.0000	0.0000	5.45E-05
289		0.22	0.000	0.017	0.1519	10.9756	0.0137	6.38E-06	0.0000	0.0000	5.45E-05
290	*	0.02	0.000	0.023	0.1518	10.9495	0.0137	6.35E-06	0.0000	0.0000	5.44E-05
291		0.00	0.000	0.074	0.1487	10.9241	0.0136	6.33E-06	0.0000	0.0000	5.43E-05
292	*	0.01	0.000	0.011	0.1487	10.8993	0.0136	6.31E-06	0.0000	0.0000	5.43E-05
293	*	0.00	0.000	0.000	0.1486	10.8720	0.0136	6.29E-06	0.0000	0.0000	5.42E-05
294	*	0.00	0.000	0.000	0.1485	10.8448	0.0135	6.26E-06	0.0000	0.0000	5.42E-05
295	*	0.00	0.000	0.000	0.1484	10.8176	0.0135	6.24E-06	0.0000	0.0000	5.41E-05
296		0.00	0.000	0.017	0.1478	10.7908	0.0134	6.22E-06	0.0000	0.0000	5.40E-05
297		0.04	0.000	0.016	0.1488	10.7644	0.0134	6.19E-06	0.0000	0.0000	5.40E-05
298		0.00	0.000	0.016	0.1481	10.7379	0.0133	6.17E-06	0.0000	0.0000	5.39E-05
299	*	0.01	0.000	0.022	0.1474	10.7113	0.0133	6.15E-06	0.0000	0.0000	5.38E-05
300		1.10	0.000	0.016	0.1924	10.6846	0.0133	6.13E-06	0.0000	0.0000	5.38E-05
301		0.00	0.000	0.123	0.1873	10.6591	0.0132	6.10E-06	0.0000	0.0000	5.37E-05
302		0.00	0.000	0.065	0.1845	10.6349	0.0132	6.08E-06	0.0000	0.0000	5.37E-05

303		0.00	0.000	0.083	0.1811	10.6099	0.0132	6.06E-06	0.0000	0.0000	5.36E-05
304		0.00	0.000	0.075	0.1780	10.5848	0.0131	6.04E-06	0.0000	0.0000	5.35E-05
305		0.00	0.000	0.087	0.1743	10.5594	0.0131	6.02E-06	0.0000	0.0000	5.35E-05
306		0.00	0.000	0.138	0.1686	10.5342	0.0130	6.00E-06	0.0000	0.0000	5.34E-05
307		0.00	0.000	0.159	0.1619	10.5093	0.0130	5.98E-06	0.0000	0.0000	5.34E-05
308		0.00	0.000	0.160	0.1553	10.4841	0.0130	5.96E-06	0.0000	0.0000	5.33E-05
309		0.04	0.000	0.121	0.1518	10.4586	0.0129	5.93E-06	0.0000	0.0000	5.32E-05
310		0.07	0.000	0.108	0.1501	10.4309	0.0129	5.91E-06	0.0000	0.0000	5.32E-05
311		0.00	0.000	0.080	0.1467	10.3993	0.0128	5.88E-06	0.0000	0.0000	5.31E-05
312		0.00	0.000	0.065	0.1439	10.3678	0.0128	5.86E-06	0.0000	0.0000	5.31E-05
313	*	0.00	0.000	0.000	0.1438	10.3368	0.0127	5.83E-06	0.0000	0.0000	5.30E-05
314	*	0.00	0.000	0.052	0.1416	10.3063	0.0127	5.81E-06	0.0000	0.0000	5.29E-05
315	*	0.00	0.000	0.048	0.1395	10.2761	0.0126	5.78E-06	0.0000	0.0000	5.29E-05
316	*	0.28	0.000	0.031	0.1402	10.2463	0.0126	5.76E-06	0.0000	0.0000	5.28E-05
317		0.00	0.000	0.061	0.1472	10.2169	0.0126	5.73E-06	0.0000	0.0000	5.28E-05
318		0.00	0.000	0.047	0.1451	10.1878	0.0125	5.71E-06	0.0000	0.0000	5.27E-05
319		0.00	0.000	0.042	0.1433	10.1589	0.0125	5.68E-06	0.0000	0.0000	5.26E-05
320	*	0.00	0.000	0.000	0.1432	10.1304	0.0124	5.66E-06	0.0000	0.0000	5.26E-05
321		0.00	0.000	0.038	0.1416	10.1020	0.0124	5.64E-06	0.0000	0.0000	5.25E-05
322		0.00	0.000	0.035	0.1401	10.0740	0.0123	5.61E-06	0.0000	0.0000	5.25E-05
323		0.00	0.000	0.032	0.1386	10.0461	0.0123	5.59E-06	0.0000	0.0000	5.24E-05
324		0.00	0.000	0.030	0.1373	10.0184	0.0123	5.57E-06	0.0000	0.0000	5.23E-05
325		0.00	0.000	0.028	0.1361	9.9910	0.0122	5.54E-06	0.0000	0.0000	5.23E-05
326		0.00	0.000	0.027	0.1349	9.9637	0.0122	5.52E-06	0.0000	0.0000	5.22E-05
327		0.00	0.000	0.026	0.1337	9.9365	0.0121	5.50E-06	0.0000	0.0000	5.22E-05
328		0.73	0.000	0.025	0.1632	9.9096	0.0121	5.48E-06	0.0000	0.0000	5.21E-05
329		0.02	0.000	0.065	0.1615	9.8841	0.0121	5.46E-06	0.0000	0.0000	5.21E-05
330		0.00	0.000	0.070	0.1586	9.8594	0.0120	5.44E-06	0.0000	0.0000	5.20E-05
331		0.10	0.000	0.115	0.1580	9.8337	0.0120	5.42E-06	0.0000	0.0000	5.20E-05
332		0.03	0.000	0.158	0.1527	9.8089	0.0120	5.40E-06	0.0000	0.0000	5.19E-05
333		0.00	0.000	0.079	0.1494	9.7819	0.0119	5.37E-06	0.0000	0.0000	5.18E-05

334		0.00	0.000	0.076	0.1462	9.7555	0.0119	5.35E-06	0.0000	0.0000	5.18E-05
335		0.00	0.000	0.122	0.1410	9.7285	0.0118	5.33E-06	0.0000	0.0000	5.17E-05
336		0.00	0.000	0.073	0.1379	9.7016	0.0118	5.31E-06	0.0000	0.0000	5.17E-05
337		0.00	0.000	0.056	0.1355	9.6749	0.0118	5.29E-06	0.0000	0.0000	5.16E-05
338		0.00	0.000	0.047	0.1335	9.6484	0.0117	5.27E-06	0.0000	0.0000	5.16E-05
339	*	0.00	0.000	0.000	0.1334	9.6220	0.0117	5.25E-06	0.0000	0.0000	5.15E-05
340		0.00	0.000	0.042	0.1317	9.5957	0.0116	5.22E-06	0.0000	0.0000	5.15E-05
341		0.00	0.000	0.038	0.1300	9.5696	0.0116	5.20E-06	0.0000	0.0000	5.14E-05
342		0.00	0.000	0.033	0.1286	9.5435	0.0116	5.18E-06	0.0000	0.0000	5.14E-05
343		0.00	0.000	0.032	0.1272	9.5176	0.0115	5.16E-06	0.0000	0.0000	5.13E-05
344		0.00	0.000	0.030	0.1259	9.4918	0.0115	5.14E-06	0.0000	0.0000	5.12E-05
345		0.00	0.000	0.029	0.1247	9.4661	0.0115	5.12E-06	0.0000	0.0000	5.12E-05
346	*	0.00	0.000	0.027	0.1235	9.4404	0.0114	5.10E-06	0.0000	0.0000	5.11E-05
347	*	0.00	0.000	0.026	0.1224	9.4150	0.0114	5.08E-06	0.0000	0.0000	5.11E-05
348		0.00	0.000	0.025	0.1213	9.3900	0.0113	5.06E-06	0.0000	0.0000	5.10E-05
349		0.07	0.000	0.024	0.1232	9.3655	0.0113	5.04E-06	0.0000	0.0000	5.10E-05
350		0.02	0.000	0.023	0.1229	9.3413	0.0113	5.02E-06	0.0000	0.0000	5.09E-05
351		0.00	0.000	0.022	0.1219	9.3175	0.0112	5.00E-06	0.0000	0.0000	5.09E-05
352		0.00	0.000	0.022	0.1210	9.2938	0.0112	4.99E-06	0.0000	0.0000	5.08E-05
353		0.00	0.000	0.021	0.1201	9.2704	0.0112	4.97E-06	0.0000	0.0000	5.08E-05
354		0.08	0.000	0.021	0.1227	9.2471	0.0111	4.95E-06	0.0000	0.0000	5.07E-05
355		0.25	0.000	0.018	0.1324	9.2238	0.0111	4.93E-06	0.0000	0.0000	5.07E-05
356		0.00	0.000	0.017	0.1316	9.2004	0.0111	4.91E-06	0.0000	0.0000	5.06E-05
357	*	0.00	0.000	0.019	0.1308	9.1749	0.0110	4.89E-06	0.0000	0.0000	5.06E-05
358		0.00	0.000	0.019	0.1300	9.1489	0.0110	4.87E-06	0.0000	0.0000	5.05E-05
359	*	0.00	0.000	0.000	0.1300	9.1241	0.0110	4.85E-06	0.0000	0.0000	5.05E-05
360	*	0.04	0.000	0.011	0.1308	9.1011	0.0109	4.84E-06	0.0000	0.0000	5.04E-05
361	*	0.00	0.000	0.030	0.1301	9.0779	0.0109	4.82E-06	0.0000	0.0000	5.04E-05
362		0.00	0.000	0.018	0.1293	9.0522	0.0109	4.80E-06	0.0000	0.0000	5.03E-05
363		0.00	0.000	0.018	0.1285	9.0261	0.0108	4.78E-06	0.0000	0.0000	5.03E-05
364	*	0.00	0.000	0.000	0.1285	9.0013	0.0108	4.76E-06	0.0000	0.0000	5.02E-05

365	*	0.06	0.000	0.019	0.1293	8.9784	0.0108	4.74E-06	0.0000	0.0000	5.02E-05

* = Frozen (air or soil)

Annual Totals for Year 3			
	inches	cubic feet	percent
Precipitation	33.46	121,472.2	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.913	104,955.4	86.40
Drainage Collected from Layer 3	7.4215	26,939.9	22.18
Percolation/Leakage through Layer 4	0.002690	9.7662	0.01
Average Head on Top of Layer 4	11.9028	---	---
Percolation/Leakage through Layer 6	0.022605	82.1	0.07
Change in Water Storage	-2.8940	-10,505.2	-8.65
Soil Water at Start of Year	13.3503	48,461.7	39.90
Soil Water at End of Year	10.4371	37,886.7	31.19
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0192	69.8	0.06
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 4

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:22

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*		0.11	0.000	0.007	0.1301	8.9555	0.0107	4.72E-06	0.0000	0.0000	5.02E-05
2	*		0.00	0.000	0.004	0.1309	8.9325	0.0107	4.71E-06	0.0000	0.0000	5.01E-05
3	*		0.00	0.000	0.012	0.1318	8.9095	0.0107	4.69E-06	0.0000	0.0000	5.01E-05
4	*		0.05	0.000	0.000	0.1326	8.8864	0.0106	4.67E-06	0.0000	0.0000	5.00E-05
5	*		0.00	0.000	0.009	0.1334	8.8634	0.0106	4.65E-06	0.0000	0.0000	5.00E-05
6	*	*	0.00	0.000	0.018	0.1334	8.8403	0.0106	4.63E-06	0.0000	0.0000	4.99E-05
7	*	*	0.02	0.000	0.029	0.1334	8.8171	0.0105	4.62E-06	0.0000	0.0000	4.99E-05
8		*	0.00	0.000	0.028	0.1334	8.7940	0.0105	4.60E-06	0.0000	0.0000	4.98E-05
9		*	0.00	0.000	0.000	0.1334	8.7708	0.0105	4.58E-06	0.0000	0.0000	4.98E-05
10		*	0.00	0.000	0.000	0.1334	8.7477	0.0104	4.56E-06	0.0000	0.0000	4.97E-05
11	*	*	0.00	0.000	0.000	0.1334	8.7245	0.0104	4.55E-06	0.0000	0.0000	4.97E-05
12		*	0.00	0.000	0.000	0.1334	8.7013	0.0104	4.53E-06	0.0000	0.0000	4.96E-05
13		*	0.15	0.000	0.000	0.1397	8.6782	0.0103	4.51E-06	0.0000	0.0000	4.96E-05
14	*	*	0.00	0.000	0.000	0.1397	8.6550	0.0103	4.49E-06	0.0000	0.0000	4.96E-05
15		*	0.00	0.000	0.000	0.1397	8.6318	0.0103	4.48E-06	0.0000	0.0000	4.95E-05
16		*	0.00	0.000	0.000	0.1397	8.6087	0.0102	4.46E-06	0.0000	0.0000	4.95E-05
17		*	0.00	0.000	0.000	0.1397	8.5855	0.0102	4.44E-06	0.0000	0.0000	4.94E-05
18	*	*	0.10	0.000	0.022	0.1397	8.5624	0.0102	4.42E-06	0.0000	0.0000	4.94E-05
19	*	*	0.00	0.000	0.009	0.1397	8.5393	0.0101	4.41E-06	0.0000	0.0000	4.93E-05
20	*	*	0.00	0.000	0.004	0.1397	8.5162	0.0101	4.39E-06	0.0000	0.0000	4.93E-05
21	*	*	0.00	0.000	0.002	0.1397	8.4931	0.0101	4.37E-06	0.0000	0.0000	4.92E-05
22	*	*	0.00	0.000	0.010	0.1397	8.4700	0.0100	4.36E-06	0.0000	0.0000	4.92E-05
23	*	*	0.00	0.000	0.012	0.1397	8.4470	0.0100	4.34E-06	0.0000	0.0000	4.91E-05

24	*	*	0.01	0.000	0.000	0.1397	8.4240	0.0100	4.32E-06	0.0000	0.0000	4.91E-05
25	*	*	0.12	0.000	0.006	0.1397	8.4010	0.0100	4.30E-06	0.0000	0.0000	4.91E-05
26	*	*	0.00	0.000	0.010	0.1397	8.3781	0.0099	4.29E-06	0.0000	0.0000	4.90E-05
27	*	*	0.02	0.000	0.000	0.1397	8.3551	0.0099	4.27E-06	0.0000	0.0000	4.90E-05
28	*	*	0.00	0.000	0.036	0.1397	8.3322	0.0099	4.25E-06	0.0000	0.0000	4.89E-05
29	*	*	0.00	0.000	0.018	0.1397	8.3094	0.0098	4.24E-06	0.0000	0.0000	4.89E-05
30	*	*	0.00	0.000	0.017	0.1397	8.2865	0.0098	4.22E-06	0.0000	0.0000	4.88E-05
31	*	*	0.00	0.000	0.018	0.1397	8.2637	0.0098	4.20E-06	0.0000	0.0000	4.88E-05
32	*	*	0.00	0.000	0.017	0.1397	8.2410	0.0097	4.19E-06	0.0000	0.0000	4.88E-05
33	*	*	0.00	0.000	0.029	0.1397	8.2183	0.0097	4.17E-06	0.0000	0.0000	4.87E-05
34	*	*	0.01	0.000	0.011	0.1397	8.1956	0.0097	4.15E-06	0.0000	0.0000	4.87E-05
35	*	*	0.00	0.000	0.005	0.1397	8.1729	0.0096	4.14E-06	0.0000	0.0000	4.86E-05
36	*	*	0.09	0.000	0.010	0.1397	8.1503	0.0096	4.12E-06	0.0000	0.0000	4.86E-05
37	*	*	0.04	0.000	0.000	0.1397	8.1277	0.0096	4.10E-06	0.0000	0.0000	4.85E-05
38	*	*	0.01	0.000	0.000	0.1397	8.1052	0.0096	4.09E-06	0.0000	0.0000	4.85E-05
39	*	*	0.01	0.000	0.026	0.1397	8.0827	0.0095	4.07E-06	0.0000	0.0000	4.85E-05
40	*	*	0.00	0.000	0.033	0.1397	8.0603	0.0095	4.06E-06	0.0000	0.0000	4.84E-05
41	*	*	0.00	0.000	0.014	0.1397	8.0379	0.0095	4.04E-06	0.0000	0.0000	4.84E-05
42	*	*	0.00	0.000	0.019	0.1397	8.0155	0.0094	4.02E-06	0.0000	0.0000	4.83E-05
43	*	*	0.00	0.000	0.016	0.1397	7.9932	0.0094	4.01E-06	0.0000	0.0000	4.83E-05
44	*	*	0.00	0.000	0.004	0.1397	7.9709	0.0094	3.99E-06	0.0000	0.0000	4.83E-05
45	*	*	0.19	0.000	0.005	0.1397	7.9487	0.0093	3.98E-06	0.0000	0.0000	4.82E-05
46	*	*	0.21	0.000	0.000	0.1397	7.9265	0.0093	3.96E-06	0.0000	0.0000	4.82E-05
47	*	*	0.00	0.000	0.005	0.1397	7.9044	0.0093	3.94E-06	0.0000	0.0000	4.81E-05
48	*	*	0.00	0.000	0.000	0.1397	7.8823	0.0092	3.93E-06	0.0000	0.0000	4.81E-05
49	*	*	0.12	0.000	0.007	0.1397	7.8603	0.0092	3.91E-06	0.0000	0.0000	4.81E-05
50	*	*	0.19	0.000	0.000	0.1397	7.8383	0.0092	3.90E-06	0.0000	0.0000	4.80E-05
51	*	*	0.19	0.000	0.000	0.1397	7.8163	0.0092	3.88E-06	0.0000	0.0000	4.80E-05
52	*	*	0.03	0.000	0.000	0.1397	7.7944	0.0091	3.87E-06	0.0000	0.0000	4.79E-05
53		*	0.04	0.000	0.000	0.1815	7.7726	0.0091	3.85E-06	0.0000	0.0000	4.79E-05
54		*	0.06	0.000	0.000	0.1838	7.7508	0.0091	3.83E-06	0.0000	0.0000	4.79E-05

55		*	0.01	0.000	0.000	0.1842	7.7290	0.0090	3.82E-06	0.0000	0.0000	4.78E-05
56		*	0.00	0.000	0.000	0.1844	7.7073	0.0090	3.80E-06	0.0000	0.0000	4.78E-05
57		*	0.01	0.000	0.000	0.1849	7.6857	0.0090	3.79E-06	0.0000	0.0000	4.77E-05
58		*	0.00	0.000	0.000	0.1849	7.6641	0.0090	3.77E-06	0.0000	0.0000	4.77E-05
59		*	0.00	0.000	0.000	0.1849	7.6426	0.0089	3.76E-06	0.0000	0.0000	4.77E-05
60		*	0.00	0.000	0.000	0.1849	7.6211	0.0089	3.74E-06	0.0000	0.0000	4.76E-05
61	*	*	0.00	0.000	0.000	0.1849	7.5996	0.0089	3.73E-06	0.0000	0.0000	4.76E-05
62		*	0.00	0.000	0.000	0.1849	7.5782	0.0088	3.71E-06	0.0000	0.0000	4.75E-05
63		*	0.00	0.000	0.000	0.1849	7.5569	0.0088	3.70E-06	0.0000	0.0000	4.75E-05
64		*	0.00	0.000	0.000	0.1849	7.5356	0.0088	3.68E-06	0.0000	0.0000	4.75E-05
65		*	0.00	0.000	0.000	0.1849	7.5144	0.0088	3.67E-06	0.0000	0.0000	4.74E-05
66	*	*	0.13	0.000	0.041	0.1849	7.4932	0.0087	3.65E-06	0.0000	0.0000	4.74E-05
67	*	*	0.07	0.000	0.037	0.1849	7.4721	0.0087	3.64E-06	0.0000	0.0000	4.73E-05
68		*	0.55	0.000	0.024	0.2117	7.4510	0.0087	3.62E-06	0.0000	0.0000	4.73E-05
69		*	0.00	0.000	0.000	0.2117	7.4300	0.0087	3.61E-06	0.0000	0.0000	4.73E-05
70		*	0.00	0.000	0.000	0.2117	7.4090	0.0086	3.60E-06	0.0000	0.0000	4.72E-05
71		*	0.13	0.000	0.000	0.2170	7.3881	0.0086	3.58E-06	0.0000	0.0000	4.72E-05
72			0.08	0.000	0.299	0.2078	7.3668	0.0086	3.57E-06	0.0000	0.0000	4.72E-05
73			0.11	0.000	0.092	0.2086	7.3459	0.0085	3.55E-06	0.0000	0.0000	4.71E-05
74			0.04	0.000	0.149	0.2041	7.3239	0.0085	3.54E-06	0.0000	0.0000	4.71E-05
75			0.26	0.000	0.163	0.2078	7.3012	0.0085	3.52E-06	0.0000	0.0000	4.70E-05
76	*		0.00	0.000	0.000	0.2078	7.2786	0.0085	3.51E-06	0.0000	0.0000	4.70E-05
77	*		0.01	0.000	0.006	0.2077	7.2562	0.0084	3.49E-06	0.0000	0.0000	4.70E-05
78	*		0.02	0.000	0.015	0.2081	7.2356	0.0084	3.48E-06	0.0000	0.0000	4.69E-05
79	*		0.00	0.000	0.000	0.2081	7.2154	0.0084	3.46E-06	0.0000	0.0000	4.69E-05
80	*		0.17	0.000	0.005	0.2090	7.1952	0.0083	3.45E-06	0.0000	0.0000	4.69E-05
81	*		0.29	0.000	0.000	0.2098	7.1751	0.0083	3.44E-06	0.0000	0.0000	4.68E-05
82	*		0.00	0.000	0.012	0.2106	7.1550	0.0083	3.42E-06	0.0000	0.0000	4.68E-05
83	*	*	0.01	0.000	0.015	0.2106	7.1350	0.0083	3.41E-06	0.0000	0.0000	4.68E-05
84	*	*	0.05	0.000	0.018	0.2106	7.1151	0.0082	3.40E-06	0.0000	0.0000	4.67E-05
85		*	0.01	0.000	0.015	0.2268	7.0951	0.0082	3.38E-06	0.0000	0.0000	4.67E-05

86		*	0.00	0.000	0.000	0.2268	7.0753	0.0082	3.37E-06	0.0000	0.0000	4.66E-05
87		*	0.00	0.000	0.000	0.2268	7.0555	0.0082	3.36E-06	0.0000	0.0000	4.66E-05
88		*	0.00	0.000	0.000	0.2268	7.0357	0.0081	3.34E-06	0.0000	0.0000	4.66E-05
89		*	0.00	0.000	0.000	0.2269	7.0160	0.0081	3.33E-06	0.0000	0.0000	4.65E-05
90		*	0.65	0.000	0.000	0.2540	6.9963	0.0081	3.32E-06	0.0000	0.0000	4.65E-05
91		*	0.03	0.000	0.000	0.2554	6.9767	0.0081	3.30E-06	0.0000	0.0000	4.65E-05
92		*	0.03	0.000	0.000	0.2568	6.9571	0.0080	3.29E-06	0.0000	0.0000	4.64E-05
93		*	0.00	0.000	0.000	0.2568	6.9376	0.0080	3.28E-06	0.0000	0.0000	4.64E-05
94		*	0.00	0.000	0.000	0.2568	6.9181	0.0080	3.26E-06	0.0000	0.0000	4.64E-05
95		*	0.00	0.000	0.000	0.2568	6.8987	0.0080	3.25E-06	0.0000	0.0000	4.63E-05
96		*	0.00	0.000	0.000	0.2568	6.8793	0.0079	3.24E-06	0.0000	0.0000	4.63E-05
97	*	*	0.00	0.000	0.000	0.2568	6.8600	0.0079	3.23E-06	0.0000	0.0000	4.63E-05
98		*	0.00	0.000	0.000	0.2568	6.8407	0.0079	3.21E-06	0.0000	0.0000	4.62E-05
99		*	0.00	0.000	0.000	0.2568	6.8215	0.0079	3.20E-06	0.0000	0.0000	4.62E-05
100			0.00	0.000	0.141	0.2508	6.8022	0.0078	3.19E-06	0.0000	0.0000	4.62E-05
101			0.00	0.000	0.354	0.2346	6.7828	0.0078	3.17E-06	0.0000	0.0000	4.61E-05
102			0.06	0.000	0.416	0.2131	6.7627	0.0078	3.16E-06	0.0000	0.0000	4.61E-05
103			0.57	0.000	0.221	0.2220	6.7419	0.0078	3.15E-06	0.0000	0.0000	4.61E-05
104			0.86	0.000	0.609	0.2270	6.7213	0.0077	3.13E-06	0.0000	0.0000	4.60E-05
105			0.00	0.000	0.673	0.1954	6.7007	0.0077	3.12E-06	0.0000	0.0000	4.60E-05
106			0.09	0.000	0.365	0.1810	6.7452	0.0078	3.15E-06	0.0000	0.0000	4.60E-05
107			0.07	0.000	0.177	0.1744	6.8547	0.0079	3.22E-06	0.0000	0.0000	4.61E-05
108			0.01	0.000	0.073	0.1693	6.9680	0.0081	3.30E-06	0.0000	0.0000	4.61E-05
109			0.00	0.000	0.056	0.1648	7.0942	0.0082	3.38E-06	0.0000	0.0000	4.62E-05
110			0.02	0.000	0.047	0.1616	7.2286	0.0084	3.47E-06	0.0000	0.0000	4.62E-05
111			0.00	0.000	0.042	0.1583	7.3626	0.0086	3.56E-06	0.0000	0.0000	4.63E-05
112			0.01	0.000	0.038	0.1557	7.4816	0.0087	3.65E-06	0.0000	0.0000	4.64E-05
113	*		0.00	0.000	0.035	0.1531	7.5850	0.0089	3.72E-06	0.0000	0.0000	4.64E-05
114			0.60	0.000	0.032	0.1758	7.6772	0.0090	3.78E-06	0.0000	0.0000	4.65E-05
115			0.33	0.000	0.205	0.1799	7.7531	0.0091	3.84E-06	0.0000	0.0000	4.65E-05
116	*		0.41	0.000	0.052	0.1801	7.8296	0.0092	3.89E-06	0.0000	0.0000	4.65E-05

117		0.54	0.000	0.119	0.2111	7.8971	0.0093	3.94E-06	0.0000	0.0000	4.65E-05
118		0.02	0.000	0.076	0.2081	7.9436	0.0093	3.97E-06	0.0000	0.0000	4.66E-05
119		0.00	0.000	0.156	0.2008	7.9819	0.0094	4.00E-06	0.0000	0.0000	4.66E-05
120		0.32	0.000	0.184	0.2057	8.0233	0.0094	4.03E-06	0.0000	0.0000	4.66E-05
121		0.00	0.000	0.203	0.1968	8.0731	0.0095	4.06E-06	0.0000	0.0000	4.66E-05
122		0.00	0.000	0.115	0.1914	8.1009	0.0095	4.08E-06	0.0000	0.0000	4.66E-05
123		0.55	0.000	0.255	0.2033	8.1324	0.0096	4.11E-06	0.0000	0.0000	4.66E-05
124		0.22	0.000	0.365	0.1966	8.1640	0.0096	4.13E-06	0.0000	0.0000	4.66E-05
125		0.09	0.000	0.222	0.1905	8.1812	0.0097	4.14E-06	0.0000	0.0000	4.66E-05
126		0.02	0.000	0.251	0.1803	8.1940	0.0097	4.15E-06	0.0000	0.0000	4.65E-05
127		0.23	0.000	0.289	0.1772	8.2117	0.0097	4.17E-06	0.0000	0.0000	4.65E-05
128		0.00	0.000	0.194	0.1686	8.2259	0.0097	4.18E-06	0.0000	0.0000	4.65E-05
129		0.02	0.000	0.101	0.1649	8.2395	0.0097	4.19E-06	0.0000	0.0000	4.65E-05
130		0.58	0.000	0.314	0.1757	8.2539	0.0098	4.20E-06	0.0000	0.0000	4.65E-05
131		0.14	0.000	0.103	0.1764	8.2617	0.0098	4.20E-06	0.0000	0.0000	4.65E-05
132		0.00	0.000	0.319	0.1625	8.2623	0.0098	4.20E-06	0.0000	0.0000	4.64E-05
133		0.10	0.000	0.400	0.1496	8.2714	0.0098	4.21E-06	0.0000	0.0000	4.64E-05
134		0.06	0.000	0.177	0.1445	8.2862	0.0098	4.22E-06	0.0000	0.0000	4.64E-05
135		0.00	0.000	0.073	0.1413	8.3085	0.0098	4.24E-06	0.0000	0.0000	4.64E-05
136		0.00	0.000	0.056	0.1388	8.3314	0.0099	4.25E-06	0.0000	0.0000	4.64E-05
137		0.13	0.000	0.048	0.1418	8.3429	0.0099	4.26E-06	0.0000	0.0000	4.64E-05
138		0.00	0.000	0.042	0.1398	8.3491	0.0099	4.27E-06	0.0000	0.0000	4.64E-05
139	*	0.00	0.000	0.000	0.1396	8.3541	0.0099	4.27E-06	0.0000	0.0000	4.63E-05
140	*	0.00	0.000	0.000	0.1394	8.3589	0.0099	4.27E-06	0.0000	0.0000	4.63E-05
141		0.47	0.000	0.038	0.1570	8.3588	0.0099	4.27E-06	0.0000	0.0000	4.63E-05
142	*	0.03	0.000	0.061	0.1552	8.3556	0.0099	4.27E-06	0.0000	0.0000	4.63E-05
143		0.29	0.000	0.033	0.1658	8.3531	0.0099	4.27E-06	0.0000	0.0000	4.62E-05
144		0.00	0.000	0.203	0.1570	8.3477	0.0099	4.27E-06	0.0000	0.0000	4.62E-05
145		3.72	0.000	0.031	0.2219	8.3445	0.0099	4.26E-06	0.0000	0.0000	4.62E-05
146		0.00	0.000	0.119	0.2812	8.3483	0.0099	4.27E-06	0.0000	0.0000	4.62E-05
147		0.00	0.000	0.286	0.2933	8.3423	0.0099	4.26E-06	0.0000	0.0000	4.61E-05

148	0.00	0.000	0.376	0.2482	8.3870	0.0099	4.29E-06	0.0000	0.0000	4.61E-05
149	0.00	0.000	0.329	0.2264	9.0237	0.0108	4.78E-06	0.0000	0.0000	4.66E-05
150	0.00	0.000	0.185	0.2134	9.6115	0.0117	5.24E-06	0.0000	0.0000	4.70E-05
151	0.00	0.000	0.131	0.2027	9.9980	0.0122	5.55E-06	0.0000	0.0000	4.73E-05
152	1.20	0.000	0.123	0.2428	10.3085	0.0127	5.81E-06	0.0000	0.0000	4.75E-05
153	0.00	0.000	0.136	0.2335	10.6099	0.0132	6.06E-06	0.0000	0.0000	4.78E-05
154	0.70	0.000	0.203	0.2515	10.8782	0.0136	6.29E-06	0.0000	0.0000	4.80E-05
155	0.05	0.000	0.149	0.2449	11.0693	0.0139	6.46E-06	0.0000	0.0000	4.81E-05
156	0.00	0.000	0.272	0.2306	11.2364	0.0141	6.60E-06	0.0000	0.0000	4.82E-05
157	0.00	0.000	0.274	0.2185	11.4106	0.0144	6.76E-06	0.0000	0.0000	4.83E-05
158	0.26	0.000	0.346	0.2139	11.5703	0.0147	6.90E-06	0.0000	0.0000	4.84E-05
159	0.39	0.000	0.198	0.2183	11.6052	0.0147	6.93E-06	0.0000	0.0000	4.84E-05
160	0.00	0.000	0.318	0.2012	11.6285	0.0148	6.95E-06	0.0000	0.0000	4.84E-05
161	1.01	0.000	0.148	0.2339	11.7657	0.0150	7.08E-06	0.0000	0.0000	4.85E-05
162	0.33	0.000	0.376	0.2298	12.3513	0.0176	7.63E-06	0.0000	0.0000	4.90E-05
163	1.00	0.000	0.348	0.2542	13.6384	0.0249	8.86E-06	0.0000	0.0000	5.02E-05
164	0.00	0.000	0.322	0.2384	13.7009	0.0253	8.92E-06	0.0000	0.0000	5.02E-05
165	0.00	0.000	0.386	0.2208	13.7722	0.0257	8.99E-06	0.0000	0.0000	5.03E-05
166	0.00	0.000	0.320	0.2074	13.7561	0.0256	8.98E-06	0.0000	0.0000	5.02E-05
167	0.00	0.000	0.285	0.1914	13.7681	0.0257	8.99E-06	0.0000	0.0000	5.02E-05
168	0.00	0.000	0.177	0.1795	13.9360	0.0267	9.16E-06	0.0000	0.0000	5.03E-05
169	0.00	0.000	0.073	0.1727	14.0833	0.0276	9.31E-06	0.0000	0.0000	5.04E-05
170	0.00	0.000	0.056	0.1672	14.1924	0.0283	9.42E-06	0.0000	0.0000	5.05E-05
171	0.00	0.000	0.047	0.1626	14.2793	0.0288	9.51E-06	0.0000	0.0000	5.05E-05
172	0.00	0.000	0.042	0.1597	14.3259	0.0291	9.56E-06	0.0000	0.0000	5.05E-05
173	0.00	0.000	0.038	0.1568	14.3172	0.0291	9.55E-06	0.0000	0.0000	5.05E-05
174	0.00	0.000	0.035	0.1536	14.3318	0.0292	9.56E-06	0.0000	0.0000	5.04E-05
175	0.13	0.000	0.033	0.1559	14.3631	0.0293	9.60E-06	0.0000	0.0000	5.04E-05
176	0.13	0.000	0.031	0.1585	14.3926	0.0295	9.63E-06	0.0000	0.0000	5.04E-05
177	0.00	0.000	0.029	0.1557	14.4140	0.0297	9.65E-06	0.0000	0.0000	5.04E-05
178	0.00	0.000	0.028	0.1533	14.4263	0.0297	9.66E-06	0.0000	0.0000	5.03E-05

179	0.92	0.000	0.025	0.1892	14.4296	0.0298	9.66E-06	0.0000	0.0000	5.03E-05
180	0.17	0.000	0.160	0.1885	14.4326	0.0298	9.67E-06	0.0000	0.0000	5.03E-05
181	0.03	0.000	0.171	0.1815	14.4314	0.0298	9.67E-06	0.0000	0.0000	5.02E-05
182	0.11	0.000	0.179	0.1776	14.4185	0.0297	9.65E-06	0.0000	0.0000	5.02E-05
183	0.15	0.000	0.194	0.1756	14.3844	0.0295	9.62E-06	0.0000	0.0000	5.01E-05
184	0.00	0.000	0.368	0.1595	14.3442	0.0292	9.58E-06	0.0000	0.0000	5.00E-05
185	0.00	0.000	0.169	0.1516	14.3259	0.0291	9.56E-06	0.0000	0.0000	4.99E-05
186	0.00	0.000	0.066	0.1484	14.3030	0.0290	9.53E-06	0.0000	0.0000	4.99E-05
187	0.09	0.000	0.057	0.1487	14.2780	0.0288	9.51E-06	0.0000	0.0000	4.98E-05
188	0.00	0.000	0.047	0.1459	14.2686	0.0288	9.50E-06	0.0000	0.0000	4.97E-05
189	0.23	0.000	0.042	0.1530	14.2543	0.0287	9.48E-06	0.0000	0.0000	4.97E-05
190	0.00	0.000	0.038	0.1503	14.2444	0.0286	9.47E-06	0.0000	0.0000	4.96E-05
191	0.00	0.000	0.035	0.1481	14.2326	0.0285	9.46E-06	0.0000	0.0000	4.96E-05
192	0.00	0.000	0.032	0.1461	14.2106	0.0284	9.44E-06	0.0000	0.0000	4.95E-05
193	0.02	0.000	0.031	0.1454	14.1792	0.0282	9.41E-06	0.0000	0.0000	4.94E-05
194	2.50	0.000	0.029	0.2094	14.1431	0.0280	9.37E-06	0.0000	0.0000	4.93E-05
195	0.08	0.000	0.367	0.2354	14.1109	0.0278	9.34E-06	0.0000	0.0000	4.93E-05
196	0.00	0.000	0.380	0.2193	14.0750	0.0276	9.30E-06	0.0000	0.0000	4.92E-05
197	0.04	0.000	0.350	0.2054	14.0448	0.0274	9.27E-06	0.0000	0.0000	4.91E-05
198	2.50	0.000	0.250	0.2677	14.0242	0.0273	9.25E-06	0.0000	0.0000	4.91E-05
199	0.00	0.000	0.174	0.2912	13.9892	0.0270	9.21E-06	0.0000	0.0000	4.90E-05
200	0.00	0.000	0.345	0.2555	14.2768	0.0288	9.51E-06	0.0000	0.0000	4.92E-05
201	0.02	0.000	0.168	0.2398	15.0721	0.0338	1.03E-05	0.0000	0.0000	5.00E-05
202	0.00	0.000	0.224	0.2216	15.4374	0.0362	1.07E-05	0.0000	0.0000	5.04E-05
203	0.28	0.000	0.170	0.2199	15.7468	0.0382	1.11E-05	0.0000	0.0000	5.06E-05
204	0.00	0.000	0.166	0.2096	15.9070	0.0393	1.12E-05	0.0000	0.0000	5.08E-05
205	0.00	0.000	0.329	0.1925	15.9905	0.0398	1.13E-05	0.0000	0.0000	5.08E-05
206	0.00	0.000	0.177	0.1820	16.0756	0.0404	1.14E-05	0.0000	0.0000	5.09E-05
207	0.00	0.000	0.073	0.1764	16.1306	0.0408	1.15E-05	0.0000	0.0000	5.09E-05
208	0.07	0.000	0.057	0.1748	16.1662	0.0410	1.15E-05	0.0000	0.0000	5.09E-05
209	0.15	0.000	0.048	0.1771	16.1914	0.0412	1.16E-05	0.0000	0.0000	5.08E-05

210	0.00	0.000	0.042	0.1734	16.2067	0.0413	1.16E-05	0.0000	0.0000	5.08E-05
211	0.00	0.000	0.038	0.1702	16.2079	0.0413	1.16E-05	0.0000	0.0000	5.07E-05
212	0.00	0.000	0.035	0.1673	16.2013	0.0412	1.16E-05	0.0000	0.0000	5.07E-05
213	0.00	0.000	0.032	0.1646	16.1881	0.0411	1.16E-05	0.0000	0.0000	5.06E-05
214	0.05	0.000	0.031	0.1642	16.1680	0.0410	1.15E-05	0.0000	0.0000	5.06E-05
215	0.14	0.000	0.029	0.1679	16.1418	0.0408	1.15E-05	0.0000	0.0000	5.05E-05
216	0.00	0.000	0.027	0.1658	16.1104	0.0406	1.15E-05	0.0000	0.0000	5.04E-05
217	0.20	0.000	0.027	0.1721	16.0750	0.0404	1.14E-05	0.0000	0.0000	5.03E-05
218	0.00	0.000	0.025	0.1702	16.0361	0.0401	1.14E-05	0.0000	0.0000	5.02E-05
219	0.00	0.000	0.024	0.1684	15.9968	0.0399	1.13E-05	0.0000	0.0000	5.01E-05
220	0.00	0.000	0.023	0.1668	15.9511	0.0396	1.13E-05	0.0000	0.0000	5.00E-05
221	0.00	0.000	0.022	0.1652	15.9029	0.0392	1.12E-05	0.0000	0.0000	4.99E-05
222	0.00	0.000	0.022	0.1637	15.8551	0.0389	1.12E-05	0.0000	0.0000	4.98E-05
223	0.00	0.000	0.021	0.1622	15.8069	0.0386	1.11E-05	0.0000	0.0000	4.97E-05
224	0.09	0.000	0.021	0.1644	15.7582	0.0383	1.11E-05	0.0000	0.0000	4.96E-05
225	0.25	0.000	0.020	0.1736	15.7087	0.0380	1.10E-05	0.0000	0.0000	4.95E-05
226	0.71	0.000	0.153	0.1965	15.6548	0.0376	1.10E-05	0.0000	0.0000	4.94E-05
227	0.00	0.000	0.257	0.1851	15.6090	0.0373	1.09E-05	0.0000	0.0000	4.93E-05
228	0.28	0.000	0.310	0.1834	15.5641	0.0370	1.09E-05	0.0000	0.0000	4.92E-05
229	0.00	0.000	0.312	0.1700	15.5089	0.0367	1.08E-05	0.0000	0.0000	4.91E-05
230	0.24	0.000	0.273	0.1681	15.4597	0.0363	1.08E-05	0.0000	0.0000	4.90E-05
231	0.00	0.000	0.296	0.1554	15.4120	0.0360	1.07E-05	0.0000	0.0000	4.89E-05
232	0.28	0.000	0.177	0.1592	15.3573	0.0357	1.06E-05	0.0000	0.0000	4.88E-05
233	0.00	0.000	0.073	0.1562	15.2921	0.0352	1.06E-05	0.0000	0.0000	4.87E-05
234	0.10	0.000	0.057	0.1578	15.2258	0.0348	1.05E-05	0.0000	0.0000	4.86E-05
235	0.00	0.000	0.047	0.1556	15.1655	0.0344	1.04E-05	0.0000	0.0000	4.85E-05
236	0.00	0.000	0.042	0.1536	15.1090	0.0341	1.04E-05	0.0000	0.0000	4.84E-05
237	0.00	0.000	0.038	0.1516	15.0566	0.0337	1.03E-05	0.0000	0.0000	4.83E-05
238	0.00	0.000	0.035	0.1497	15.0114	0.0334	1.03E-05	0.0000	0.0000	4.82E-05
239	0.00	0.000	0.032	0.1479	14.9670	0.0332	1.02E-05	0.0000	0.0000	4.81E-05
240	0.24	0.000	0.031	0.1562	14.9223	0.0329	1.02E-05	0.0000	0.0000	4.80E-05

241	0.37	0.000	0.029	0.1700	14.8771	0.0326	1.01E-05	0.0000	0.0000	4.79E-05
242	0.10	0.000	0.335	0.1601	14.8337	0.0323	1.01E-05	0.0000	0.0000	4.78E-05
243	0.00	0.000	0.027	0.1585	14.7816	0.0320	1.00E-05	0.0000	0.0000	4.77E-05
244	0.00	0.000	0.026	0.1570	14.7396	0.0317	9.99E-06	0.0000	0.0000	4.76E-05
245	0.00	0.000	0.025	0.1555	14.6984	0.0314	9.94E-06	0.0000	0.0000	4.75E-05
246	0.00	0.000	0.024	0.1543	14.6526	0.0312	9.90E-06	0.0000	0.0000	4.74E-05
247	0.00	0.000	0.024	0.1533	14.6048	0.0309	9.85E-06	0.0000	0.0000	4.74E-05
248	0.08	0.000	0.023	0.1555	14.5556	0.0306	9.79E-06	0.0000	0.0000	4.73E-05
249	0.07	0.000	0.022	0.1574	14.5039	0.0302	9.74E-06	0.0000	0.0000	4.72E-05
250	0.00	0.000	0.021	0.1562	14.4547	0.0299	9.69E-06	0.0000	0.0000	4.71E-05
251	0.03	0.000	0.021	0.1564	14.4112	0.0296	9.65E-06	0.0000	0.0000	4.70E-05
252	0.00	0.000	0.020	0.1553	14.3640	0.0294	9.60E-06	0.0000	0.0000	4.69E-05
253	0.09	0.000	0.020	0.1579	14.3200	0.0291	9.55E-06	0.0000	0.0000	4.68E-05
254	1.06	0.000	0.019	0.2010	14.2746	0.0288	9.50E-06	0.0000	0.0000	4.67E-05
255	0.00	0.000	0.151	0.1945	14.2329	0.0285	9.46E-06	0.0000	0.0000	4.67E-05
256	0.63	0.000	0.177	0.2134	14.1823	0.0282	9.41E-06	0.0000	0.0000	4.66E-05
257	0.00	0.000	0.210	0.2045	14.1344	0.0279	9.36E-06	0.0000	0.0000	4.65E-05
258	0.00	0.000	0.229	0.1949	14.0834	0.0276	9.31E-06	0.0000	0.0000	4.64E-05
259	0.00	0.000	0.158	0.1881	14.0342	0.0273	9.26E-06	0.0000	0.0000	4.63E-05
260	0.00	0.000	0.241	0.1779	13.9879	0.0270	9.21E-06	0.0000	0.0000	4.62E-05
261	0.00	0.000	0.235	0.1678	13.9435	0.0268	9.17E-06	0.0000	0.0000	4.61E-05
262	0.00	0.000	0.177	0.1600	13.9091	0.0266	9.13E-06	0.0000	0.0000	4.61E-05
263	0.15	0.000	0.073	0.1630	13.8745	0.0263	9.10E-06	0.0000	0.0000	4.60E-05
264	0.33	0.000	0.056	0.1740	13.8384	0.0261	9.06E-06	0.0000	0.0000	4.59E-05
265	0.00	0.000	0.114	0.1690	13.8011	0.0259	9.02E-06	0.0000	0.0000	4.58E-05
266	0.00	0.000	0.151	0.1625	13.7629	0.0257	8.98E-06	0.0000	0.0000	4.58E-05
267	0.00	0.000	0.177	0.1549	13.7230	0.0254	8.95E-06	0.0000	0.0000	4.57E-05
268	0.00	0.000	0.073	0.1516	13.6822	0.0252	8.90E-06	0.0000	0.0000	4.56E-05
269	0.00	0.000	0.055	0.1491	13.6429	0.0249	8.86E-06	0.0000	0.0000	4.55E-05
270	0.00	0.000	0.047	0.1470	13.6018	0.0247	8.82E-06	0.0000	0.0000	4.55E-05
271	0.00	0.000	0.042	0.1453	13.5565	0.0244	8.78E-06	0.0000	0.0000	4.54E-05

272		0.00	0.000	0.038	0.1437	13.5084	0.0241	8.73E-06	0.0000	0.0000	4.53E-05
273		0.00	0.000	0.035	0.1421	13.4628	0.0239	8.69E-06	0.0000	0.0000	4.52E-05
274		0.00	0.000	0.032	0.1406	13.4232	0.0236	8.65E-06	0.0000	0.0000	4.51E-05
275		0.00	0.000	0.030	0.1394	13.3780	0.0233	8.60E-06	0.0000	0.0000	4.51E-05
276		0.60	0.000	0.029	0.1633	13.3317	0.0231	8.56E-06	0.0000	0.0000	4.50E-05
277		0.00	0.000	0.027	0.1622	13.2859	0.0228	8.51E-06	0.0000	0.0000	4.49E-05
278		0.00	0.000	0.026	0.1611	13.2407	0.0225	8.47E-06	0.0000	0.0000	4.48E-05
279		0.00	0.000	0.025	0.1600	13.1963	0.0223	8.42E-06	0.0000	0.0000	4.48E-05
280	*	0.24	0.000	0.036	0.1608	13.1539	0.0220	8.38E-06	0.0000	0.0000	4.47E-05
281		0.00	0.000	0.081	0.1652	12.8381	0.0202	8.08E-06	0.0000	0.0000	4.43E-05
282		0.00	0.000	0.193	0.1566	11.9938	0.0154	7.29E-06	0.0000	0.0000	4.35E-05
283		0.00	0.000	0.024	0.1555	11.9952	0.0154	7.29E-06	0.0000	0.0000	4.35E-05
284		0.00	0.000	0.023	0.1544	12.2618	0.0169	7.54E-06	0.0000	0.0000	4.37E-05
285		0.00	0.000	0.022	0.1532	11.9902	0.0154	7.28E-06	0.0000	0.0000	4.34E-05
286		0.01	0.000	0.022	0.1525	11.9789	0.0153	7.27E-06	0.0000	0.0000	4.34E-05
287		0.00	0.000	0.021	0.1514	11.9652	0.0153	7.26E-06	0.0000	0.0000	4.33E-05
288		0.00	0.000	0.021	0.1502	11.9509	0.0153	7.25E-06	0.0000	0.0000	4.33E-05
289		0.00	0.000	0.020	0.1489	11.9304	0.0153	7.23E-06	0.0000	0.0000	4.33E-05
290		0.00	0.000	0.020	0.1477	11.9093	0.0152	7.21E-06	0.0000	0.0000	4.32E-05
291		0.00	0.000	0.019	0.1466	11.8903	0.0152	7.19E-06	0.0000	0.0000	4.32E-05
292	*	0.05	0.000	0.029	0.1470	11.8735	0.0152	7.18E-06	0.0000	0.0000	4.31E-05
293	*	0.00	0.000	0.002	0.1467	11.8579	0.0151	7.16E-06	0.0000	0.0000	4.31E-05
294	*	0.00	0.000	0.000	0.1464	11.8419	0.0151	7.15E-06	0.0000	0.0000	4.30E-05
295		0.00	0.000	0.019	0.1453	11.8266	0.0151	7.13E-06	0.0000	0.0000	4.30E-05
296	*	0.01	0.000	0.011	0.1450	11.8110	0.0151	7.12E-06	0.0000	0.0000	4.30E-05
297	*	0.00	0.000	0.021	0.1439	11.7927	0.0150	7.10E-06	0.0000	0.0000	4.29E-05
298	*	0.43	0.000	0.039	0.1444	11.7755	0.0150	7.09E-06	0.0000	0.0000	4.29E-05
299		0.00	0.000	0.024	0.1585	11.7602	0.0150	7.07E-06	0.0000	0.0000	4.28E-05
300		0.00	0.000	0.018	0.1575	11.7439	0.0150	7.06E-06	0.0000	0.0000	4.28E-05
301		0.00	0.000	0.018	0.1565	11.7271	0.0149	7.04E-06	0.0000	0.0000	4.28E-05
302		0.07	0.000	0.017	0.1584	11.7110	0.0149	7.03E-06	0.0000	0.0000	4.27E-05

303			0.00	0.000	0.086	0.1545	11.6926	0.0149	7.01E-06	0.0000	0.0000	4.27E-05
304			0.00	0.000	0.017	0.1536	11.6751	0.0149	7.00E-06	0.0000	0.0000	4.26E-05
305	*		0.00	0.000	0.017	0.1527	11.6628	0.0148	6.98E-06	0.0000	0.0000	4.26E-05
306			0.01	0.000	0.016	0.1522	11.6489	0.0148	6.97E-06	0.0000	0.0000	4.25E-05
307			0.21	0.000	0.016	0.1601	11.6340	0.0148	6.96E-06	0.0000	0.0000	4.25E-05
308	*		0.00	0.000	0.000	0.1599	11.6180	0.0148	6.94E-06	0.0000	0.0000	4.25E-05
309	*		0.00	0.000	0.057	0.1572	11.5978	0.0147	6.93E-06	0.0000	0.0000	4.24E-05
310	*		0.00	0.000	0.000	0.1571	11.5776	0.0147	6.91E-06	0.0000	0.0000	4.24E-05
311	*		0.00	0.000	0.000	0.1570	11.5633	0.0146	6.89E-06	0.0000	0.0000	4.23E-05
312	*		0.23	0.000	0.015	0.1577	11.5465	0.0146	6.88E-06	0.0000	0.0000	4.23E-05
313	*		0.56	0.000	0.016	0.1583	11.5277	0.0146	6.86E-06	0.0000	0.0000	4.23E-05
314	*		0.00	0.000	0.025	0.1590	11.5082	0.0145	6.85E-06	0.0000	0.0000	4.22E-05
315	*	*	0.00	0.000	0.027	0.1590	11.4910	0.0145	6.83E-06	0.0000	0.0000	4.22E-05
316	*	*	0.00	0.000	0.024	0.1590	11.4777	0.0145	6.82E-06	0.0000	0.0000	4.21E-05
317	*	*	0.07	0.000	0.022	0.1590	11.4623	0.0145	6.80E-06	0.0000	0.0000	4.21E-05
318	*	*	0.00	0.000	0.033	0.1590	11.4454	0.0144	6.79E-06	0.0000	0.0000	4.21E-05
319		*	0.00	0.000	0.000	0.1857	11.4270	0.0144	6.77E-06	0.0000	0.0000	4.20E-05
320		*	0.00	0.000	0.000	0.1857	11.4074	0.0144	6.76E-06	0.0000	0.0000	4.20E-05
321		*	0.00	0.000	0.000	0.1857	11.3867	0.0144	6.74E-06	0.0000	0.0000	4.19E-05
322		*	0.00	0.000	0.000	0.1857	11.3650	0.0143	6.72E-06	0.0000	0.0000	4.19E-05
323		*	0.00	0.000	0.000	0.1857	11.3425	0.0143	6.70E-06	0.0000	0.0000	4.18E-05
324	*	*	0.02	0.000	0.024	0.1857	11.3193	0.0142	6.68E-06	0.0000	0.0000	4.18E-05
325		*	0.21	0.000	0.000	0.1945	11.2954	0.0142	6.66E-06	0.0000	0.0000	4.18E-05
326		*	0.00	0.000	0.000	0.1945	11.2710	0.0142	6.63E-06	0.0000	0.0000	4.17E-05
327		*	0.00	0.000	0.000	0.1945	11.2460	0.0141	6.61E-06	0.0000	0.0000	4.17E-05
328		*	0.00	0.000	0.000	0.1945	11.2205	0.0141	6.59E-06	0.0000	0.0000	4.16E-05
329		*	0.00	0.000	0.000	0.1945	11.1946	0.0141	6.57E-06	0.0000	0.0000	4.16E-05
330	*	*	0.00	0.000	0.000	0.1945	11.1684	0.0140	6.54E-06	0.0000	0.0000	4.15E-05
331	*	*	0.25	0.000	0.014	0.1945	11.1418	0.0140	6.52E-06	0.0000	0.0000	4.15E-05
332		*	0.00	0.000	0.018	0.2036	11.1148	0.0139	6.50E-06	0.0000	0.0000	4.14E-05
333		*	0.09	0.000	0.000	0.2075	11.0876	0.0139	6.47E-06	0.0000	0.0000	4.14E-05

334		*	0.00	0.000	0.000	0.2075	11.0602	0.0138	6.45E-06	0.0000	0.0000	4.13E-05
335	*	*	0.00	0.000	0.000	0.2075	11.0325	0.0138	6.43E-06	0.0000	0.0000	4.13E-05
336		*	0.00	0.000	0.000	0.2075	11.0047	0.0138	6.40E-06	0.0000	0.0000	4.12E-05
337		*	0.00	0.000	0.000	0.2075	10.9766	0.0137	6.38E-06	0.0000	0.0000	4.12E-05
338		*	0.00	0.000	0.000	0.2075	10.9484	0.0137	6.35E-06	0.0000	0.0000	4.11E-05
339		*	0.00	0.000	0.000	0.2075	10.9201	0.0136	6.33E-06	0.0000	0.0000	4.11E-05
340			0.00	0.000	0.094	0.2034	10.8887	0.0136	6.30E-06	0.0000	0.0000	4.10E-05
341	*		0.00	0.000	0.000	0.2033	10.8548	0.0135	6.27E-06	0.0000	0.0000	4.10E-05
342			0.00	0.000	0.073	0.2002	10.8207	0.0135	6.24E-06	0.0000	0.0000	4.09E-05
343	*		0.00	0.000	0.000	0.2000	10.7867	0.0134	6.21E-06	0.0000	0.0000	4.09E-05
344	*		0.00	0.000	0.001	0.1998	10.7509	0.0134	6.18E-06	0.0000	0.0000	4.08E-05
345	*		0.20	0.000	0.010	0.2004	10.7153	0.0133	6.15E-06	0.0000	0.0000	4.08E-05
346	*		0.00	0.000	0.011	0.2010	10.6799	0.0133	6.12E-06	0.0000	0.0000	4.07E-05
347	*		0.05	0.000	0.018	0.2015	10.6445	0.0132	6.09E-06	0.0000	0.0000	4.07E-05
348	*		0.00	0.000	0.019	0.2021	10.6094	0.0132	6.06E-06	0.0000	0.0000	4.06E-05
349			0.00	0.000	0.046	0.2050	10.5743	0.0131	6.03E-06	0.0000	0.0000	4.06E-05
350	*		0.00	0.000	0.044	0.2030	10.5394	0.0130	6.00E-06	0.0000	0.0000	4.05E-05
351	*		0.00	0.000	0.004	0.2028	10.5049	0.0130	5.97E-06	0.0000	0.0000	4.05E-05
352			0.21	0.000	0.067	0.2086	10.4739	0.0129	5.95E-06	0.0000	0.0000	4.04E-05
353			0.39	0.000	0.097	0.2207	10.4459	0.0129	5.92E-06	0.0000	0.0000	4.04E-05
354			0.16	0.000	0.092	0.2234	10.4211	0.0129	5.90E-06	0.0000	0.0000	4.04E-05
355			0.21	0.000	0.089	0.2282	10.3957	0.0128	5.88E-06	0.0000	0.0000	4.03E-05
356			0.00	0.000	0.071	0.2252	10.3707	0.0128	5.86E-06	0.0000	0.0000	4.03E-05
357			0.00	0.000	0.050	0.2231	10.3476	0.0128	5.84E-06	0.0000	0.0000	4.02E-05
358			0.00	0.000	0.051	0.2204	10.3214	0.0127	5.82E-06	0.0000	0.0000	4.02E-05
359			0.00	0.000	0.056	0.2176	10.2875	0.0127	5.79E-06	0.0000	0.0000	4.01E-05
360	*		0.00	0.000	0.041	0.2159	10.2595	0.0126	5.77E-06	0.0000	0.0000	4.01E-05
361	*		0.00	0.000	0.000	0.2159	10.2406	0.0126	5.75E-06	0.0000	0.0000	4.01E-05
362	*		0.00	0.000	0.043	0.2140	10.2211	0.0126	5.73E-06	0.0000	0.0000	4.00E-05
363	*		0.05	0.000	0.028	0.2136	10.1927	0.0125	5.71E-06	0.0000	0.0000	4.00E-05
364	*	*	0.23	0.000	0.010	0.2136	10.1660	0.0125	5.69E-06	0.0000	0.0000	3.99E-05

365	*	*	0.11	0.000	0.012	0.2136	10.1499	0.0125	5.68E-06	0.0000	0.0000	3.99E-05

* = Frozen (air or soil)

Annual Totals for Year 4			
	inches	cubic feet	percent
Precipitation	37.76	137,058.7	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.461	103,312.0	75.38
Drainage Collected from Layer 3	6.4572	23,439.6	17.10
Percolation/Leakage through Layer 4	0.002405	8.7296	0.01
Average Head on Top of Layer 4	10.9514	---	---
Percolation/Leakage through Layer 6	0.017030	61.8	0.05
Change in Water Storage	2.8224	10,245.3	7.48
Soil Water at Start of Year	10.4371	37,886.7	27.64
Soil Water at End of Year	12.9763	47,103.9	34.37
Snow Water at Start of Year	0.0192	69.8	0.05
Snow Water at End of Year	0.3024	1,097.9	0.80
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 5

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:22

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.036	0.2136	10.1151	0.0124	5.65E-06	0.0000	0.0000	3.98E-05
2		*	0.00	0.000	0.030	0.2183	10.0966	0.0124	5.63E-06	0.0000	0.0000	3.98E-05
3		*	0.00	0.000	0.041	0.2218	10.0774	0.0124	5.62E-06	0.0000	0.0000	3.98E-05
4		*	0.01	0.000	0.000	0.2224	10.0576	0.0123	5.60E-06	0.0000	0.0000	3.97E-05
5	*	*	0.00	0.000	0.000	0.2224	10.0373	0.0123	5.58E-06	0.0000	0.0000	3.97E-05
6	*	*	0.00	0.000	0.000	0.2224	10.0165	0.0123	5.57E-06	0.0000	0.0000	3.97E-05
7	*	*	0.00	0.000	0.000	0.2224	9.9953	0.0122	5.55E-06	0.0000	0.0000	3.96E-05
8	*	*	0.00	0.000	0.000	0.2224	9.9736	0.0122	5.53E-06	0.0000	0.0000	3.96E-05
9	*	*	0.05	0.000	0.010	0.2224	9.9517	0.0122	5.51E-06	0.0000	0.0000	3.96E-05
10	*	*	0.00	0.000	0.000	0.2224	9.9294	0.0121	5.49E-06	0.0000	0.0000	3.95E-05
11		*	0.00	0.000	0.039	0.2224	9.9069	0.0121	5.48E-06	0.0000	0.0000	3.95E-05
12		*	0.00	0.000	0.000	0.2224	9.8840	0.0121	5.46E-06	0.0000	0.0000	3.94E-05
13	*	*	0.00	0.000	0.000	0.2224	9.8610	0.0120	5.44E-06	0.0000	0.0000	3.94E-05
14		*	0.00	0.000	0.000	0.2224	9.8377	0.0120	5.42E-06	0.0000	0.0000	3.94E-05
15	*	*	0.00	0.000	0.000	0.2224	9.8142	0.0120	5.40E-06	0.0000	0.0000	3.93E-05
16	*	*	0.00	0.000	0.000	0.2224	9.7906	0.0119	5.38E-06	0.0000	0.0000	3.93E-05
17	*	*	0.00	0.000	0.000	0.2224	9.7667	0.0119	5.36E-06	0.0000	0.0000	3.93E-05
18	*	*	0.00	0.000	0.000	0.2224	9.7428	0.0119	5.34E-06	0.0000	0.0000	3.92E-05
19	*	*	0.00	0.000	0.000	0.2224	9.7187	0.0118	5.32E-06	0.0000	0.0000	3.92E-05
20		*	0.00	0.000	0.000	0.2226	9.6944	0.0118	5.30E-06	0.0000	0.0000	3.92E-05
21		*	0.00	0.000	0.000	0.2226	9.6701	0.0118	5.28E-06	0.0000	0.0000	3.91E-05
22	*	*	0.00	0.000	0.000	0.2226	9.6457	0.0117	5.26E-06	0.0000	0.0000	3.91E-05
23		*	0.00	0.000	0.000	0.2226	9.6211	0.0117	5.25E-06	0.0000	0.0000	3.90E-05

24		*	0.00	0.000	0.000	0.2226	9.5965	0.0116	5.23E-06	0.0000	0.0000	3.90E-05
25		*	0.00	0.000	0.000	0.2226	9.5718	0.0116	5.21E-06	0.0000	0.0000	3.90E-05
26		*	0.00	0.000	0.000	0.2226	9.5471	0.0116	5.19E-06	0.0000	0.0000	3.89E-05
27		*	0.00	0.000	0.000	0.2227	9.5223	0.0115	5.17E-06	0.0000	0.0000	3.89E-05
28		*	0.00	0.000	0.000	0.2227	9.4975	0.0115	5.15E-06	0.0000	0.0000	3.89E-05
29		*	0.00	0.000	0.000	0.2227	9.4726	0.0115	5.13E-06	0.0000	0.0000	3.88E-05
30		*	0.00	0.000	0.000	0.2227	9.4476	0.0114	5.11E-06	0.0000	0.0000	3.88E-05
31	*	*	0.00	0.000	0.001	0.2227	9.4227	0.0114	5.09E-06	0.0000	0.0000	3.87E-05
32		*	0.00	0.000	0.000	0.2228	9.3977	0.0114	5.07E-06	0.0000	0.0000	3.87E-05
33	*	*	0.00	0.000	0.000	0.2228	9.3727	0.0113	5.05E-06	0.0000	0.0000	3.87E-05
34	*	*	0.00	0.000	0.000	0.2228	9.3477	0.0113	5.03E-06	0.0000	0.0000	3.86E-05
35	*	*	0.00	0.000	0.000	0.2228	9.3226	0.0112	5.01E-06	0.0000	0.0000	3.86E-05
36	*	*	0.00	0.000	0.000	0.2228	9.2976	0.0112	4.99E-06	0.0000	0.0000	3.86E-05
37	*	*	0.00	0.000	0.000	0.2228	9.2726	0.0112	4.97E-06	0.0000	0.0000	3.85E-05
38	*	*	0.00	0.000	0.000	0.2228	9.2475	0.0111	4.95E-06	0.0000	0.0000	3.85E-05
39	*	*	0.00	0.000	0.000	0.2228	9.2225	0.0111	4.93E-06	0.0000	0.0000	3.85E-05
40	*	*	0.01	0.000	0.007	0.2228	9.1974	0.0111	4.91E-06	0.0000	0.0000	3.84E-05
41	*	*	0.00	0.000	0.003	0.2228	9.1724	0.0110	4.89E-06	0.0000	0.0000	3.84E-05
42	*	*	0.10	0.000	0.009	0.2228	9.1474	0.0110	4.87E-06	0.0000	0.0000	3.84E-05
43	*	*	0.07	0.000	0.000	0.2228	9.1224	0.0110	4.85E-06	0.0000	0.0000	3.83E-05
44	*	*	0.00	0.000	0.023	0.2228	9.0974	0.0109	4.83E-06	0.0000	0.0000	3.83E-05
45	*	*	0.00	0.000	0.009	0.2228	9.0724	0.0109	4.81E-06	0.0000	0.0000	3.83E-05
46	*	*	0.00	0.000	0.024	0.2228	9.0475	0.0109	4.79E-06	0.0000	0.0000	3.82E-05
47	*	*	0.00	0.000	0.019	0.2228	9.0226	0.0108	4.77E-06	0.0000	0.0000	3.82E-05
48	*	*	0.00	0.000	0.007	0.2228	8.9977	0.0108	4.76E-06	0.0000	0.0000	3.81E-05
49	*	*	0.00	0.000	0.011	0.2228	8.9728	0.0108	4.74E-06	0.0000	0.0000	3.81E-05
50	*	*	0.00	0.000	0.024	0.2228	8.9480	0.0107	4.72E-06	0.0000	0.0000	3.81E-05
51		*	0.00	0.000	0.042	0.2228	8.9232	0.0107	4.70E-06	0.0000	0.0000	3.80E-05
52		*	0.00	0.000	0.000	0.2228	8.8984	0.0106	4.68E-06	0.0000	0.0000	3.80E-05
53	*	*	0.00	0.000	0.000	0.2228	8.8737	0.0106	4.66E-06	0.0000	0.0000	3.80E-05
54		*	0.00	0.000	0.000	0.2228	8.8490	0.0106	4.64E-06	0.0000	0.0000	3.79E-05

55		*	0.00	0.000	0.000	0.2228	8.8243	0.0105	4.62E-06	0.0000	0.0000	3.79E-05
56		*	0.30	0.000	0.000	0.2354	8.7997	0.0105	4.60E-06	0.0000	0.0000	3.79E-05
57	*	*	0.00	0.000	0.000	0.2354	8.7751	0.0105	4.59E-06	0.0000	0.0000	3.78E-05
58	*	*	0.00	0.000	0.000	0.2354	8.7505	0.0104	4.57E-06	0.0000	0.0000	3.78E-05
59	*	*	0.00	0.000	0.000	0.2354	8.7260	0.0104	4.55E-06	0.0000	0.0000	3.78E-05
60	*	*	0.00	0.000	0.000	0.2354	8.7016	0.0104	4.53E-06	0.0000	0.0000	3.78E-05
61	*	*	0.00	0.000	0.000	0.2354	8.6772	0.0103	4.51E-06	0.0000	0.0000	3.77E-05
62	*	*	0.00	0.000	0.000	0.2354	8.6528	0.0103	4.49E-06	0.0000	0.0000	3.77E-05
63	*	*	0.00	0.000	0.000	0.2354	8.6285	0.0103	4.47E-06	0.0000	0.0000	3.77E-05
64	*	*	0.01	0.000	0.006	0.2354	8.6042	0.0102	4.46E-06	0.0000	0.0000	3.76E-05
65	*	*	0.00	0.000	0.000	0.2354	8.5800	0.0102	4.44E-06	0.0000	0.0000	3.76E-05
66	*	*	0.00	0.000	0.000	0.2354	8.5558	0.0102	4.42E-06	0.0000	0.0000	3.76E-05
67		*	0.00	0.000	0.000	0.2355	8.5317	0.0101	4.40E-06	0.0000	0.0000	3.75E-05
68	*	*	0.03	0.000	0.029	0.2355	8.5076	0.0101	4.38E-06	0.0000	0.0000	3.75E-05
69	*	*	0.00	0.000	0.000	0.2355	8.4836	0.0101	4.37E-06	0.0000	0.0000	3.75E-05
70	*	*	0.00	0.000	0.000	0.2355	8.4596	0.0100	4.35E-06	0.0000	0.0000	3.74E-05
71	*	*	0.00	0.000	0.000	0.2355	8.4357	0.0100	4.33E-06	0.0000	0.0000	3.74E-05
72	*	*	0.00	0.000	0.000	0.2355	8.4118	0.0100	4.31E-06	0.0000	0.0000	3.74E-05
73	*	*	0.00	0.000	0.000	0.2355	8.3880	0.0099	4.30E-06	0.0000	0.0000	3.73E-05
74		*	0.20	0.000	0.000	0.2438	8.3642	0.0099	4.28E-06	0.0000	0.0000	3.73E-05
75		*	0.00	0.000	0.000	0.2438	8.3405	0.0099	4.26E-06	0.0000	0.0000	3.73E-05
76		*	0.00	0.000	0.000	0.2438	8.3168	0.0098	4.24E-06	0.0000	0.0000	3.72E-05
77		*	0.06	0.000	0.000	0.2461	8.2932	0.0098	4.23E-06	0.0000	0.0000	3.72E-05
78		*	0.10	0.000	0.000	0.2504	8.2697	0.0098	4.21E-06	0.0000	0.0000	3.72E-05
79	*	*	0.00	0.000	0.000	0.2504	8.2462	0.0097	4.19E-06	0.0000	0.0000	3.72E-05
80	*	*	0.00	0.000	0.000	0.2504	8.2227	0.0097	4.17E-06	0.0000	0.0000	3.71E-05
81	*	*	0.15	0.000	0.035	0.2504	8.1994	0.0097	4.16E-06	0.0000	0.0000	3.71E-05
82	*	*	0.09	0.000	0.011	0.2504	8.1760	0.0096	4.14E-06	0.0000	0.0000	3.71E-05
83	*	*	0.00	0.000	0.022	0.2504	8.1528	0.0096	4.12E-06	0.0000	0.0000	3.70E-05
84		*	0.00	0.000	0.134	0.2522	8.1296	0.0096	4.11E-06	0.0000	0.0000	3.70E-05
85		*	0.01	0.000	0.000	0.2525	8.1064	0.0096	4.09E-06	0.0000	0.0000	3.70E-05

86	*	0.08	0.000	0.000	0.2559	8.0833	0.0095	4.07E-06	0.0000	0.0000	3.70E-05
87	*	0.27	0.000	0.000	0.2669	8.0603	0.0095	4.06E-06	0.0000	0.0000	3.69E-05
88	*	0.00	0.000	0.000	0.2669	8.0373	0.0095	4.04E-06	0.0000	0.0000	3.69E-05
89	*	0.11	0.000	0.000	0.2716	8.0144	0.0094	4.02E-06	0.0000	0.0000	3.69E-05
90	*	0.00	0.000	0.000	0.2716	7.9915	0.0094	4.01E-06	0.0000	0.0000	3.68E-05
91	*	0.03	0.000	0.000	0.2727	7.9687	0.0094	3.99E-06	0.0000	0.0000	3.68E-05
92	*	0.13	0.000	0.000	0.2780	7.9460	0.0093	3.97E-06	0.0000	0.0000	3.68E-05
93	*	0.01	0.000	0.000	0.2783	7.9233	0.0093	3.96E-06	0.0000	0.0000	3.68E-05
94	*	0.11	0.000	0.000	0.2828	7.9007	0.0093	3.94E-06	0.0000	0.0000	3.67E-05
95	*	0.40	0.000	0.000	0.2993	7.8781	0.0092	3.92E-06	0.0000	0.0000	3.67E-05
96	*	0.00	0.000	0.000	0.2993	7.8556	0.0092	3.91E-06	0.0000	0.0000	3.67E-05
97		0.22	0.000	0.189	0.2854	7.8327	0.0092	3.89E-06	0.0000	0.0000	3.66E-05
98		0.16	0.000	0.215	0.2511	7.9026	0.0093	3.94E-06	0.0000	0.0000	3.67E-05
99		0.08	0.000	0.160	0.2390	8.8407	0.0106	4.64E-06	0.0000	0.0000	3.74E-05
100		0.10	0.000	0.113	0.2329	9.5064	0.0115	5.15E-06	0.0000	0.0000	3.79E-05
101		0.04	0.000	0.084	0.2263	9.9117	0.0121	5.48E-06	0.0000	0.0000	3.82E-05
102		0.00	0.000	0.257	0.2130	10.2515	0.0126	5.76E-06	0.0000	0.0000	3.84E-05
103		0.00	0.000	0.234	0.2005	10.5201	0.0130	5.99E-06	0.0000	0.0000	3.86E-05
104		0.00	0.000	0.332	0.1848	10.6923	0.0133	6.13E-06	0.0000	0.0000	3.88E-05
105		0.00	0.000	0.443	0.1647	10.8560	0.0135	6.27E-06	0.0000	0.0000	3.89E-05
106		0.00	0.000	0.176	0.1555	10.9496	0.0137	6.35E-06	0.0000	0.0000	3.90E-05
107		0.00	0.000	0.073	0.1519	11.0873	0.0139	6.47E-06	0.0000	0.0000	3.90E-05
108		0.00	0.000	0.056	0.1482	11.1703	0.0140	6.55E-06	0.0000	0.0000	3.91E-05
109		0.00	0.000	0.047	0.1449	11.2307	0.0141	6.60E-06	0.0000	0.0000	3.91E-05
110		0.00	0.000	0.042	0.1415	11.2761	0.0142	6.64E-06	0.0000	0.0000	3.91E-05
111		0.00	0.000	0.038	0.1380	11.3068	0.0142	6.67E-06	0.0000	0.0000	3.92E-05
112		0.20	0.000	0.035	0.1431	11.3565	0.0143	6.71E-06	0.0000	0.0000	3.92E-05
113		0.08	0.000	0.032	0.1424	11.4062	0.0144	6.75E-06	0.0000	0.0000	3.92E-05
114		0.08	0.000	0.028	0.1425	11.4767	0.0145	6.82E-06	0.0000	0.0000	3.92E-05
115		0.05	0.000	0.029	0.1416	11.5806	0.0147	6.91E-06	0.0000	0.0000	3.93E-05
116		0.34	0.000	0.027	0.1531	11.6800	0.0149	7.00E-06	0.0000	0.0000	3.94E-05

117		0.00	0.000	0.026	0.1508	11.7695	0.0150	7.08E-06	0.0000	0.0000	3.94E-05
118		0.00	0.000	0.025	0.1488	11.8469	0.0151	7.15E-06	0.0000	0.0000	3.95E-05
119		0.00	0.000	0.024	0.1469	11.9124	0.0152	7.21E-06	0.0000	0.0000	3.95E-05
120		0.00	0.000	0.023	0.1451	11.9672	0.0153	7.26E-06	0.0000	0.0000	3.95E-05
121		2.07	0.000	0.023	0.2064	12.9696	0.0210	8.21E-06	0.0000	0.0000	4.05E-05
122	*	0.01	0.000	0.067	0.2267	13.2825	0.0228	8.51E-06	0.0000	0.0000	4.07E-05
123	*	0.03	0.000	0.029	0.2263	13.2665	0.0227	8.49E-06	0.0000	0.0000	4.07E-05
124	*	0.00	0.000	0.086	0.2224	13.2471	0.0226	8.47E-06	0.0000	0.0000	4.06E-05
125		0.20	0.000	0.160	0.2236	12.9234	0.0207	8.17E-06	0.0000	0.0000	4.03E-05
126		0.00	0.000	0.139	0.2172	13.2185	0.0224	8.45E-06	0.0000	0.0000	4.06E-05
127		0.08	0.000	0.372	0.2048	13.1978	0.0223	8.43E-06	0.0000	0.0000	4.05E-05
128		0.00	0.000	0.314	0.1916	12.8711	0.0204	8.12E-06	0.0000	0.0000	4.02E-05
129		0.00	0.000	0.211	0.1828	13.1228	0.0218	8.35E-06	0.0000	0.0000	4.04E-05
130		0.00	0.000	0.257	0.1720	12.8141	0.0201	8.06E-06	0.0000	0.0000	4.01E-05
131		0.00	0.000	0.158	0.1646	12.2548	0.0169	7.53E-06	0.0000	0.0000	3.95E-05
132		0.00	0.000	0.073	0.1598	11.9538	0.0153	7.25E-06	0.0000	0.0000	3.92E-05
133		0.00	0.000	0.056	0.1563	11.9190	0.0152	7.22E-06	0.0000	0.0000	3.91E-05
134		0.20	0.000	0.048	0.1619	11.9232	0.0153	7.22E-06	0.0000	0.0000	3.91E-05
135		0.00	0.000	0.042	0.1589	11.9181	0.0152	7.22E-06	0.0000	0.0000	3.91E-05
136	*	0.01	0.000	0.005	0.1574	11.8990	0.0152	7.20E-06	0.0000	0.0000	3.91E-05
137	*	0.01	0.000	0.048	0.1543	11.8893	0.0152	7.19E-06	0.0000	0.0000	3.90E-05
138	*	0.00	0.000	0.000	0.1529	11.9041	0.0152	7.20E-06	0.0000	0.0000	3.90E-05
139		0.51	0.000	0.035	0.1714	11.9358	0.0153	7.23E-06	0.0000	0.0000	3.90E-05
140		0.02	0.000	0.193	0.1628	11.9746	0.0153	7.27E-06	0.0000	0.0000	3.90E-05
141	*	0.04	0.000	0.075	0.1606	13.3541	0.0232	8.58E-06	0.0000	0.0000	4.03E-05
142		0.28	0.000	0.031	0.1703	13.3488	0.0232	8.57E-06	0.0000	0.0000	4.03E-05
143		0.00	0.000	0.161	0.1622	13.0161	0.0213	8.26E-06	0.0000	0.0000	3.99E-05
144		0.13	0.000	0.029	0.1664	13.3502	0.0232	8.58E-06	0.0000	0.0000	4.02E-05
145		0.30	0.000	0.288	0.1662	12.9914	0.0211	8.23E-06	0.0000	0.0000	3.99E-05
146		0.04	0.000	0.265	0.1557	12.6640	0.0192	7.92E-06	0.0000	0.0000	3.95E-05
147		0.37	0.000	0.125	0.1659	13.3196	0.0230	8.55E-06	0.0000	0.0000	4.01E-05

148	0.00	0.000	0.146	0.1591	12.9724	0.0210	8.21E-06	0.0000	0.0000	3.98E-05
149	0.00	0.000	0.073	0.1553	13.2832	0.0228	8.51E-06	0.0000	0.0000	4.00E-05
150	0.00	0.000	0.056	0.1521	13.2765	0.0227	8.50E-06	0.0000	0.0000	4.00E-05
151	0.07	0.000	0.048	0.1521	13.2752	0.0227	8.50E-06	0.0000	0.0000	4.00E-05
152	0.04	0.000	0.042	0.1511	13.2730	0.0227	8.50E-06	0.0000	0.0000	3.99E-05
153	1.55	0.000	0.038	0.2075	13.2679	0.0227	8.49E-06	0.0000	0.0000	3.99E-05
154	0.12	0.000	0.358	0.2029	13.2576	0.0226	8.48E-06	0.0000	0.0000	3.99E-05
155	0.01	0.000	0.406	0.1858	13.2413	0.0225	8.47E-06	0.0000	0.0000	3.98E-05
156	0.04	0.000	0.316	0.1736	12.9201	0.0207	8.16E-06	0.0000	0.0000	3.95E-05
157	0.00	0.000	0.338	0.1590	12.9126	0.0206	8.16E-06	0.0000	0.0000	3.94E-05
158	0.00	0.000	0.177	0.1510	12.6023	0.0189	7.86E-06	0.0000	0.0000	3.91E-05
159	0.00	0.000	0.073	0.1473	12.5983	0.0188	7.86E-06	0.0000	0.0000	3.91E-05
160	0.77	0.000	0.057	0.1763	12.5943	0.0188	7.85E-06	0.0000	0.0000	3.91E-05
161	0.18	0.000	0.196	0.1754	12.8810	0.0205	8.13E-06	0.0000	0.0000	3.93E-05
162	0.20	0.000	0.343	0.1688	12.5750	0.0187	7.84E-06	0.0000	0.0000	3.90E-05
163	0.00	0.000	0.318	0.1550	11.9927	0.0154	7.28E-06	0.0000	0.0000	3.84E-05
164	0.00	0.000	0.177	0.1472	11.9922	0.0154	7.28E-06	0.0000	0.0000	3.84E-05
165	0.00	0.000	0.073	0.1437	11.9944	0.0154	7.29E-06	0.0000	0.0000	3.84E-05
166	0.00	0.000	0.056	0.1410	11.9969	0.0154	7.29E-06	0.0000	0.0000	3.84E-05
167	0.58	0.000	0.048	0.1631	11.9986	0.0154	7.29E-06	0.0000	0.0000	3.83E-05
168	0.00	0.000	0.269	0.1516	11.9989	0.0154	7.29E-06	0.0000	0.0000	3.83E-05
169	0.00	0.000	0.042	0.1496	11.9989	0.0154	7.29E-06	0.0000	0.0000	3.83E-05
170	0.34	0.000	0.038	0.1619	11.9989	0.0154	7.29E-06	0.0000	0.0000	3.83E-05
171	0.00	0.000	0.386	0.1456	11.9934	0.0154	7.29E-06	0.0000	0.0000	3.82E-05
172	0.16	0.000	0.035	0.1507	11.9865	0.0154	7.28E-06	0.0000	0.0000	3.82E-05
173	0.38	0.000	0.033	0.1652	11.9826	0.0154	7.28E-06	0.0000	0.0000	3.82E-05
174	0.03	0.000	0.342	0.1520	11.9713	0.0153	7.27E-06	0.0000	0.0000	3.81E-05
175	0.17	0.000	0.031	0.1576	11.9627	0.0153	7.26E-06	0.0000	0.0000	3.81E-05
176	0.71	0.000	0.304	0.1744	11.9534	0.0153	7.25E-06	0.0000	0.0000	3.81E-05
177	0.00	0.000	0.299	0.1619	11.9341	0.0153	7.23E-06	0.0000	0.0000	3.80E-05
178	0.93	0.000	0.147	0.1943	11.9174	0.0152	7.22E-06	0.0000	0.0000	3.80E-05

179	0.28	0.000	0.332	0.1921	11.8998	0.0152	7.20E-06	0.0000	0.0000	3.80E-05
180	0.36	0.000	0.217	0.1978	11.8796	0.0152	7.18E-06	0.0000	0.0000	3.79E-05
181	0.11	0.000	0.333	0.1885	11.8540	0.0151	7.16E-06	0.0000	0.0000	3.79E-05
182	0.00	0.000	0.353	0.1736	11.8277	0.0151	7.13E-06	0.0000	0.0000	3.78E-05
183	0.42	0.000	0.278	0.1792	11.7974	0.0151	7.11E-06	0.0000	0.0000	3.78E-05
184	0.32	0.000	0.162	0.1854	11.7649	0.0150	7.08E-06	0.0000	0.0000	3.77E-05
185	0.00	0.000	0.286	0.1732	11.7323	0.0149	7.05E-06	0.0000	0.0000	3.77E-05
186	0.08	0.000	0.370	0.1608	11.7002	0.0149	7.02E-06	0.0000	0.0000	3.76E-05
187	0.16	0.000	0.345	0.1529	11.6758	0.0149	7.00E-06	0.0000	0.0000	3.76E-05
188	0.01	0.000	0.167	0.1462	11.6470	0.0148	6.97E-06	0.0000	0.0000	3.75E-05
189	0.21	0.000	0.074	0.1516	11.6129	0.0147	6.94E-06	0.0000	0.0000	3.75E-05
190	0.02	0.000	0.057	0.1496	11.5797	0.0147	6.91E-06	0.0000	0.0000	3.74E-05
191	0.00	0.000	0.047	0.1472	11.5484	0.0146	6.88E-06	0.0000	0.0000	3.74E-05
192	0.00	0.000	0.042	0.1452	11.5209	0.0146	6.86E-06	0.0000	0.0000	3.74E-05
193	0.00	0.000	0.038	0.1434	11.4967	0.0145	6.84E-06	0.0000	0.0000	3.73E-05
194	0.09	0.000	0.035	0.1452	11.4740	0.0145	6.82E-06	0.0000	0.0000	3.73E-05
195	0.00	0.000	0.032	0.1437	11.4524	0.0145	6.80E-06	0.0000	0.0000	3.72E-05
196	0.00	0.000	0.030	0.1421	11.4300	0.0144	6.78E-06	0.0000	0.0000	3.72E-05
197	0.00	0.000	0.029	0.1407	11.4092	0.0144	6.76E-06	0.0000	0.0000	3.72E-05
198	0.00	0.000	0.027	0.1394	11.3903	0.0144	6.74E-06	0.0000	0.0000	3.71E-05
199	0.00	0.000	0.026	0.1381	11.3709	0.0143	6.72E-06	0.0000	0.0000	3.71E-05
200	0.00	0.000	0.025	0.1369	11.3499	0.0143	6.70E-06	0.0000	0.0000	3.70E-05
201	0.00	0.000	0.024	0.1357	11.3293	0.0143	6.69E-06	0.0000	0.0000	3.70E-05
202	0.00	0.000	0.023	0.1345	11.3091	0.0142	6.67E-06	0.0000	0.0000	3.70E-05
203	0.00	0.000	0.022	0.1334	11.2890	0.0142	6.65E-06	0.0000	0.0000	3.69E-05
204	0.41	0.000	0.022	0.1496	11.2690	0.0142	6.63E-06	0.0000	0.0000	3.69E-05
205	0.47	0.000	0.360	0.1540	11.2490	0.0141	6.62E-06	0.0000	0.0000	3.69E-05
206	0.00	0.000	0.257	0.1432	11.2325	0.0141	6.60E-06	0.0000	0.0000	3.68E-05
207	1.27	0.000	0.164	0.1891	11.2189	0.0141	6.59E-06	0.0000	0.0000	3.68E-05
208	0.00	0.000	0.162	0.1823	11.2034	0.0141	6.58E-06	0.0000	0.0000	3.68E-05
209	0.00	0.000	0.341	0.1682	11.1865	0.0140	6.56E-06	0.0000	0.0000	3.67E-05

210	0.00	0.000	0.325	0.1546	11.1690	0.0140	6.55E-06	0.0000	0.0000	3.67E-05
211	0.00	0.000	0.344	0.1403	11.1504	0.0140	6.53E-06	0.0000	0.0000	3.67E-05
212	0.67	0.000	0.178	0.1607	11.1286	0.0139	6.51E-06	0.0000	0.0000	3.66E-05
213	0.00	0.000	0.179	0.1532	11.1028	0.0139	6.49E-06	0.0000	0.0000	3.66E-05
214	0.00	0.000	0.169	0.1460	11.0763	0.0139	6.46E-06	0.0000	0.0000	3.65E-05
215	0.14	0.000	0.178	0.1443	11.0493	0.0138	6.44E-06	0.0000	0.0000	3.65E-05
216	0.00	0.000	0.073	0.1410	11.0193	0.0138	6.41E-06	0.0000	0.0000	3.64E-05
217	0.45	0.000	0.057	0.1572	10.9874	0.0137	6.39E-06	0.0000	0.0000	3.64E-05
218	0.21	0.000	0.173	0.1586	10.9588	0.0137	6.36E-06	0.0000	0.0000	3.64E-05
219	0.00	0.000	0.211	0.1496	10.9307	0.0136	6.34E-06	0.0000	0.0000	3.63E-05
220	0.00	0.000	0.219	0.1403	10.8982	0.0136	6.31E-06	0.0000	0.0000	3.63E-05
221	0.16	0.000	0.154	0.1404	10.8688	0.0135	6.28E-06	0.0000	0.0000	3.62E-05
222	0.00	0.000	0.073	0.1372	10.8442	0.0135	6.26E-06	0.0000	0.0000	3.62E-05
223	0.00	0.000	0.056	0.1347	10.8174	0.0135	6.24E-06	0.0000	0.0000	3.61E-05
224	0.05	0.000	0.048	0.1349	10.7903	0.0134	6.22E-06	0.0000	0.0000	3.61E-05
225	0.14	0.000	0.042	0.1388	10.7634	0.0134	6.19E-06	0.0000	0.0000	3.61E-05
226	0.00	0.000	0.038	0.1371	10.7367	0.0133	6.17E-06	0.0000	0.0000	3.60E-05
227	0.00	0.000	0.035	0.1355	10.7102	0.0133	6.15E-06	0.0000	0.0000	3.60E-05
228	0.00	0.000	0.032	0.1340	10.6840	0.0133	6.13E-06	0.0000	0.0000	3.59E-05
229	0.00	0.000	0.030	0.1326	10.6581	0.0132	6.10E-06	0.0000	0.0000	3.59E-05
230	0.00	0.000	0.029	0.1313	10.6325	0.0132	6.08E-06	0.0000	0.0000	3.59E-05
231	0.00	0.000	0.027	0.1301	10.6070	0.0131	6.06E-06	0.0000	0.0000	3.58E-05
232	0.05	0.000	0.026	0.1310	10.5817	0.0131	6.04E-06	0.0000	0.0000	3.58E-05
233	0.00	0.000	0.025	0.1298	10.5565	0.0131	6.02E-06	0.0000	0.0000	3.58E-05
234	0.00	0.000	0.024	0.1287	10.5316	0.0130	6.00E-06	0.0000	0.0000	3.57E-05
235	0.00	0.000	0.023	0.1276	10.5068	0.0130	5.97E-06	0.0000	0.0000	3.57E-05
236	0.02	0.000	0.023	0.1276	10.4822	0.0130	5.95E-06	0.0000	0.0000	3.56E-05
237	0.02	0.000	0.022	0.1275	10.4576	0.0129	5.93E-06	0.0000	0.0000	3.56E-05
238	0.00	0.000	0.021	0.1265	10.4329	0.0129	5.91E-06	0.0000	0.0000	3.56E-05
239	0.00	0.000	0.021	0.1255	10.4083	0.0128	5.89E-06	0.0000	0.0000	3.55E-05
240	0.04	0.000	0.020	0.1263	10.3835	0.0128	5.87E-06	0.0000	0.0000	3.55E-05

241	0.00	0.000	0.020	0.1254	10.3592	0.0128	5.85E-06	0.0000	0.0000	3.55E-05
242	0.01	0.000	0.019	0.1250	10.3349	0.0127	5.83E-06	0.0000	0.0000	3.54E-05
243	0.00	0.000	0.019	0.1242	10.3104	0.0127	5.81E-06	0.0000	0.0000	3.54E-05
244	0.00	0.000	0.018	0.1233	10.2859	0.0127	5.79E-06	0.0000	0.0000	3.54E-05
245	0.00	0.000	0.018	0.1225	10.2611	0.0126	5.77E-06	0.0000	0.0000	3.53E-05
246	0.00	0.000	0.018	0.1217	10.2367	0.0126	5.75E-06	0.0000	0.0000	3.53E-05
247	0.00	0.000	0.017	0.1209	10.2126	0.0126	5.73E-06	0.0000	0.0000	3.52E-05
248	0.00	0.000	0.017	0.1201	10.1885	0.0125	5.71E-06	0.0000	0.0000	3.52E-05
249	0.04	0.000	0.017	0.1211	10.1643	0.0125	5.69E-06	0.0000	0.0000	3.52E-05
250	0.00	0.000	0.016	0.1204	10.1401	0.0124	5.67E-06	0.0000	0.0000	3.51E-05
251	0.00	0.000	0.016	0.1196	10.1159	0.0124	5.65E-06	0.0000	0.0000	3.51E-05
252	0.00	0.000	0.016	0.1190	10.0915	0.0124	5.63E-06	0.0000	0.0000	3.51E-05
253	0.00	0.000	0.016	0.1183	10.0669	0.0123	5.61E-06	0.0000	0.0000	3.50E-05
254	0.00	0.000	0.015	0.1176	10.0425	0.0123	5.59E-06	0.0000	0.0000	3.50E-05
255	0.00	0.000	0.015	0.1169	10.0182	0.0123	5.57E-06	0.0000	0.0000	3.50E-05
256	0.00	0.000	0.015	0.1162	9.9938	0.0122	5.55E-06	0.0000	0.0000	3.49E-05
257	0.00	0.000	0.015	0.1155	9.9695	0.0122	5.53E-06	0.0000	0.0000	3.49E-05
258	0.10	0.000	0.015	0.1189	9.9451	0.0122	5.51E-06	0.0000	0.0000	3.49E-05
259	0.21	0.000	0.015	0.1269	9.9207	0.0121	5.49E-06	0.0000	0.0000	3.48E-05
260	0.00	0.000	0.014	0.1262	9.8962	0.0121	5.47E-06	0.0000	0.0000	3.48E-05
261	0.00	0.000	0.014	0.1256	9.8717	0.0120	5.45E-06	0.0000	0.0000	3.48E-05
262	0.00	0.000	0.014	0.1250	9.8470	0.0120	5.43E-06	0.0000	0.0000	3.47E-05
263	0.00	0.000	0.014	0.1244	9.8225	0.0120	5.41E-06	0.0000	0.0000	3.47E-05
264	0.00	0.000	0.013	0.1238	9.7980	0.0119	5.39E-06	0.0000	0.0000	3.47E-05
265	0.00	0.000	0.013	0.1231	9.7735	0.0119	5.37E-06	0.0000	0.0000	3.46E-05
266	0.00	0.000	0.013	0.1226	9.7490	0.0119	5.35E-06	0.0000	0.0000	3.46E-05
267	0.00	0.000	0.013	0.1220	9.7245	0.0118	5.33E-06	0.0000	0.0000	3.46E-05
268	0.00	0.000	0.013	0.1214	9.7000	0.0118	5.31E-06	0.0000	0.0000	3.45E-05
269	0.00	0.000	0.013	0.1208	9.6754	0.0118	5.29E-06	0.0000	0.0000	3.45E-05
270	0.05	0.000	0.013	0.1224	9.6509	0.0117	5.27E-06	0.0000	0.0000	3.45E-05
271	0.08	0.000	0.013	0.1250	9.6263	0.0117	5.25E-06	0.0000	0.0000	3.44E-05

272		0.00	0.000	0.012	0.1244	9.6018	0.0117	5.23E-06	0.0000	0.0000	3.44E-05
273		0.00	0.000	0.012	0.1239	9.5773	0.0116	5.21E-06	0.0000	0.0000	3.44E-05
274		0.00	0.000	0.012	0.1233	9.5527	0.0116	5.19E-06	0.0000	0.0000	3.43E-05
275		0.00	0.000	0.012	0.1228	9.5281	0.0115	5.17E-06	0.0000	0.0000	3.43E-05
276		0.00	0.000	0.012	0.1222	9.5036	0.0115	5.15E-06	0.0000	0.0000	3.43E-05
277		0.00	0.000	0.012	0.1217	9.4791	0.0115	5.13E-06	0.0000	0.0000	3.42E-05
278	*	0.00	0.000	0.000	0.1217	9.4545	0.0114	5.11E-06	0.0000	0.0000	3.42E-05
279	*	0.00	0.000	0.012	0.1211	9.4297	0.0114	5.09E-06	0.0000	0.0000	3.42E-05
280	*	0.00	0.000	0.012	0.1206	9.4053	0.0114	5.07E-06	0.0000	0.0000	3.41E-05
281	*	0.00	0.000	0.000	0.1206	9.3808	0.0113	5.05E-06	0.0000	0.0000	3.41E-05
282		0.00	0.000	0.011	0.1200	9.3561	0.0113	5.03E-06	0.0000	0.0000	3.41E-05
283	*	0.00	0.000	0.000	0.1200	9.3317	0.0113	5.02E-06	0.0000	0.0000	3.40E-05
284		0.00	0.000	0.011	0.1195	9.3071	0.0112	5.00E-06	0.0000	0.0000	3.40E-05
285	*	0.00	0.000	0.011	0.1190	9.2830	0.0112	4.98E-06	0.0000	0.0000	3.40E-05
286		0.00	0.000	0.011	0.1185	9.2588	0.0112	4.96E-06	0.0000	0.0000	3.40E-05
287		0.00	0.000	0.011	0.1180	9.2347	0.0111	4.94E-06	0.0000	0.0000	3.39E-05
288		0.00	0.000	0.011	0.1175	9.2106	0.0111	4.92E-06	0.0000	0.0000	3.39E-05
289		0.00	0.000	0.011	0.1170	9.1865	0.0111	4.90E-06	0.0000	0.0000	3.39E-05
290		0.04	0.000	0.011	0.1183	9.1624	0.0110	4.88E-06	0.0000	0.0000	3.38E-05
291		0.00	0.000	0.011	0.1178	9.1383	0.0110	4.86E-06	0.0000	0.0000	3.38E-05
292		0.02	0.000	0.011	0.1181	9.1143	0.0110	4.85E-06	0.0000	0.0000	3.38E-05
293		0.83	0.000	0.011	0.1520	9.0903	0.0109	4.83E-06	0.0000	0.0000	3.37E-05
294		0.00	0.000	0.185	0.1443	9.0671	0.0109	4.81E-06	0.0000	0.0000	3.37E-05
295		0.01	0.000	0.164	0.1377	9.0444	0.0109	4.79E-06	0.0000	0.0000	3.37E-05
296		0.00	0.000	0.177	0.1303	9.0224	0.0108	4.77E-06	0.0000	0.0000	3.37E-05
297		0.00	0.000	0.073	0.1272	8.9992	0.0108	4.76E-06	0.0000	0.0000	3.36E-05
298		0.03	0.000	0.056	0.1260	8.9740	0.0108	4.74E-06	0.0000	0.0000	3.36E-05
299		0.01	0.000	0.048	0.1243	8.9489	0.0107	4.72E-06	0.0000	0.0000	3.36E-05
300		0.05	0.000	0.042	0.1244	8.9239	0.0107	4.70E-06	0.0000	0.0000	3.35E-05
301		0.08	0.000	0.038	0.1261	8.8991	0.0106	4.68E-06	0.0000	0.0000	3.35E-05
302		0.18	0.000	0.035	0.1323	8.8744	0.0106	4.66E-06	0.0000	0.0000	3.35E-05

303		0.00	0.000	0.032	0.1309	8.8499	0.0106	4.64E-06	0.0000	0.0000	3.34E-05
304		0.09	0.000	0.030	0.1332	8.8254	0.0105	4.62E-06	0.0000	0.0000	3.34E-05
305		0.03	0.000	0.029	0.1333	8.8011	0.0105	4.60E-06	0.0000	0.0000	3.34E-05
306		0.00	0.000	0.027	0.1321	8.7769	0.0105	4.59E-06	0.0000	0.0000	3.34E-05
307		0.00	0.000	0.026	0.1310	8.7528	0.0104	4.57E-06	0.0000	0.0000	3.33E-05
308		0.00	0.000	0.025	0.1299	8.7288	0.0104	4.55E-06	0.0000	0.0000	3.33E-05
309		0.00	0.000	0.024	0.1289	8.7049	0.0104	4.53E-06	0.0000	0.0000	3.33E-05
310		0.00	0.000	0.023	0.1278	8.6811	0.0103	4.51E-06	0.0000	0.0000	3.33E-05
311		0.00	0.000	0.022	0.1269	8.6574	0.0103	4.50E-06	0.0000	0.0000	3.32E-05
312		0.00	0.000	0.022	0.1259	8.6338	0.0103	4.48E-06	0.0000	0.0000	3.32E-05
313		0.10	0.000	0.021	0.1290	8.6103	0.0102	4.46E-06	0.0000	0.0000	3.32E-05
314		1.00	0.000	0.021	0.1698	8.5869	0.0102	4.44E-06	0.0000	0.0000	3.31E-05
315		0.01	0.000	0.073	0.1672	8.5636	0.0102	4.43E-06	0.0000	0.0000	3.31E-05
316	*	0.17	0.000	0.025	0.1680	8.5403	0.0101	4.41E-06	0.0000	0.0000	3.31E-05
317	*	0.03	0.000	0.000	0.1688	8.5171	0.0101	4.39E-06	0.0000	0.0000	3.31E-05
318	*	0.43	0.000	0.016	0.1696	8.4940	0.0101	4.37E-06	0.0000	0.0000	3.30E-05
319	*	0.00	0.000	0.033	0.1704	8.4710	0.0101	4.36E-06	0.0000	0.0000	3.30E-05
320	*	0.33	0.000	0.000	0.1712	8.4481	0.0100	4.34E-06	0.0000	0.0000	3.30E-05
321		0.00	0.000	0.000	0.2041	8.4252	0.0100	4.32E-06	0.0000	0.0000	3.30E-05
322	*	0.00	0.000	0.000	0.2041	8.4024	0.0100	4.31E-06	0.0000	0.0000	3.29E-05
323		0.00	0.000	0.053	0.2019	8.3797	0.0099	4.29E-06	0.0000	0.0000	3.29E-05
324		0.00	0.000	0.067	0.1990	8.3571	0.0099	4.27E-06	0.0000	0.0000	3.29E-05
325		0.00	0.000	0.061	0.1964	8.3345	0.0099	4.26E-06	0.0000	0.0000	3.28E-05
326	*	0.00	0.000	0.045	0.1945	8.3120	0.0098	4.24E-06	0.0000	0.0000	3.28E-05
327	*	0.00	0.000	0.000	0.1945	8.2895	0.0098	4.22E-06	0.0000	0.0000	3.28E-05
328	*	0.02	0.000	0.052	0.1930	8.2672	0.0098	4.21E-06	0.0000	0.0000	3.28E-05
329	*	0.00	0.000	0.000	0.1930	8.2449	0.0097	4.19E-06	0.0000	0.0000	3.27E-05
330	*	0.00	0.000	0.000	0.1930	8.2226	0.0097	4.17E-06	0.0000	0.0000	3.27E-05
331		0.00	0.000	0.078	0.1897	8.2010	0.0097	4.16E-06	0.0000	0.0000	3.27E-05
332		0.00	0.000	0.127	0.1844	8.1806	0.0097	4.14E-06	0.0000	0.0000	3.27E-05
333		0.00	0.000	0.103	0.1801	8.1602	0.0096	4.13E-06	0.0000	0.0000	3.27E-05

334			0.00	0.000	0.102	0.1758	8.1397	0.0096	4.11E-06	0.0000	0.0000	3.26E-05
335			0.00	0.000	0.082	0.1724	8.1192	0.0096	4.10E-06	0.0000	0.0000	3.26E-05
336			0.00	0.000	0.087	0.1688	8.0987	0.0095	4.08E-06	0.0000	0.0000	3.26E-05
337			0.01	0.000	0.068	0.1664	8.0781	0.0095	4.07E-06	0.0000	0.0000	3.26E-05
338			0.04	0.000	0.067	0.1651	8.0575	0.0095	4.05E-06	0.0000	0.0000	3.25E-05
339			0.03	0.000	0.074	0.1634	8.0369	0.0095	4.04E-06	0.0000	0.0000	3.25E-05
340			0.00	0.000	0.057	0.1610	8.0163	0.0094	4.02E-06	0.0000	0.0000	3.25E-05
341			0.10	0.000	0.051	0.1629	7.9957	0.0094	4.01E-06	0.0000	0.0000	3.25E-05
342			0.01	0.000	0.096	0.1591	7.9750	0.0094	3.99E-06	0.0000	0.0000	3.24E-05
343			0.43	0.000	0.128	0.1715	7.9527	0.0093	3.98E-06	0.0000	0.0000	3.24E-05
344			0.00	0.000	0.092	0.1673	7.9286	0.0093	3.96E-06	0.0000	0.0000	3.24E-05
345			0.10	0.000	0.062	0.1683	7.9038	0.0093	3.94E-06	0.0000	0.0000	3.24E-05
346	*		0.00	0.000	0.000	0.1677	7.8791	0.0092	3.93E-06	0.0000	0.0000	3.23E-05
347	*		0.00	0.000	0.000	0.1672	7.8545	0.0092	3.91E-06	0.0000	0.0000	3.23E-05
348	*		0.02	0.000	0.011	0.1670	7.8299	0.0092	3.89E-06	0.0000	0.0000	3.23E-05
349	*		0.00	0.000	0.000	0.1667	7.8054	0.0091	3.87E-06	0.0000	0.0000	3.23E-05
350	*		0.00	0.000	0.000	0.1663	7.7811	0.0091	3.86E-06	0.0000	0.0000	3.22E-05
351	*		0.00	0.000	0.000	0.1658	7.7568	0.0091	3.84E-06	0.0000	0.0000	3.22E-05
352	*		0.09	0.000	0.006	0.1662	7.7326	0.0091	3.82E-06	0.0000	0.0000	3.22E-05
353	*		0.06	0.000	0.013	0.1666	7.7085	0.0090	3.80E-06	0.0000	0.0000	3.22E-05
354	*	*	0.00	0.000	0.014	0.1666	7.6897	0.0090	3.79E-06	0.0000	0.0000	3.21E-05
355	*	*	0.11	0.000	0.006	0.1666	7.6792	0.0090	3.78E-06	0.0000	0.0000	3.21E-05
356	*	*	0.00	0.000	0.008	0.1666	7.6682	0.0090	3.78E-06	0.0000	0.0000	3.21E-05
357	*	*	0.00	0.000	0.004	0.1666	7.6566	0.0089	3.77E-06	0.0000	0.0000	3.21E-05
358	*	*	0.00	0.000	0.007	0.1666	7.6445	0.0089	3.76E-06	0.0000	0.0000	3.21E-05
359	*	*	0.00	0.000	0.000	0.1666	7.6319	0.0089	3.75E-06	0.0000	0.0000	3.21E-05
360	*	*	0.00	0.000	0.034	0.1666	7.6190	0.0089	3.74E-06	0.0000	0.0000	3.21E-05
361	*	*	0.01	0.000	0.037	0.1666	7.6056	0.0089	3.73E-06	0.0000	0.0000	3.20E-05
362	*	*	0.10	0.000	0.016	0.1666	7.5919	0.0089	3.72E-06	0.0000	0.0000	3.20E-05
363	*	*	0.00	0.000	0.007	0.1666	7.5779	0.0088	3.71E-06	0.0000	0.0000	3.20E-05
364	*	*	0.00	0.000	0.010	0.1666	7.5636	0.0088	3.70E-06	0.0000	0.0000	3.20E-05

365	*	*	0.00	0.000	0.017	0.1666	7.5491	0.0088	3.69E-06	0.0000	0.0000	3.20E-05

* = Frozen (air or soil)

Annual Totals for Year 5			
	inches	cubic feet	percent
Precipitation	25.46	92,408.5	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.104	83,868.9	90.76
Drainage Collected from Layer 3	4.6425	16,852.5	18.24
Percolation/Leakage through Layer 4	0.002050	7.4430	0.01
Average Head on Top of Layer 4	10.0023	---	---
Percolation/Leakage through Layer 6	0.013344	48.4	0.05
Change in Water Storage	-2.3034	-8,361.3	-9.05
Soil Water at Start of Year	12.9763	47,103.9	50.97
Soil Water at End of Year	10.8112	39,244.8	42.47
Snow Water at Start of Year	0.3024	1,097.9	1.19
Snow Water at End of Year	0.1641	595.7	0.64
Annual Water Budget Balance	0.0000	0.0000	0.00

Average Annual Totals Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:22

	Average Annual Totals for Years 1 - 5*			
	(inches)	[std dev]	(cubic feet)	(percent)
Precipitation	31.43	[5.36]	114,107.4	100.00
Runoff	0.000	[0]	0.0000	0.00
Evapotranspiration	26.106	[2.598]	94,764.0	83.05
Subprofile1				
Lateral drainage collected from Layer 3	4.9223	[2.2724]	17,868.1	15.66
Percolation/leakage through Layer 4	0.001927	[0.000846]	6.9967	0.01
Average Head on Top of Layer 4	9.1863	[3.2736]	---	---
Subprofile2				
Percolation/leakage through Layer 6	0.028231	[0.016804]	102.5	0.09
Water storage				
Change in water storage	0.3782	[2.9143]	1,372.8	1.20

* Note: Average inches are converted to volume based on the user-specified area.

Peak Values Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:23

	Peak Values for Years 1 - 5*		
	(inches)		(cubic feet)
Precipitation	3.72		13,503.6
Runoff	0.000		0.0000
Subprofile1			
Drainage collected from Layer 3	0.0424		153.9
Percolation/leakage through Layer 4	0.000012		0.0427
Average head on Layer 4	16.3744		---
Maximum head on Layer 4	19.2428		---
Location of maximum head in Layer 3	52.97	(feet from drain)	
Subprofile2			
Percolation/leakage through Layer 6	0.000216		0.7843
Other Parameters			
Snow water	1.4979		5,437.3
Maximum vegetation soil water	0.3875	(vol/vol)	
Minimum vegetation soil water	0.1155	(vol/vol)	

Final Water Storage in Landfill Profile at End of Simulation Period

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:23
Simulation period: 5 years

	Final Water Storage	
Layer	(inches)	(vol/vol)
1	1.5866	0.2644
2	3.2005	0.1334
3	3.5714	0.2976
4	0.0000	0.0000
5	0.1561	0.6244
6	2.1099	0.3516
Snow water	0.1641	---

HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
HELP MODEL VERSION 4.0 BETA (2018)
DEVELOPED BY USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY

Title: Pilgrim Landfill **Simulated On:** 9/17/2026 9:26

Layer 1
Type 1 - Vertical Percolation Layer (Cover Soil)
SiCL - Silty Clay Loam
Material Texture Number 12

Thickness	=	6	inches
Porosity	=	0.471	vol/vol
Field Capacity	=	0.342	vol/vol
Wilting Point	=	0.21	vol/vol
Initial Soil Water Content	=	0.3175	vol/vol
Effective Sat. Hyd. Conductivity	=	4.20E-05	cm/sec

Layer 2
Type 1 - Vertical Percolation Layer (Waste)
Industrial Waste
Material Texture Number 83

Thickness	=	300	inches
Porosity	=	0.578	vol/vol
Field Capacity	=	0.076	vol/vol
Wilting Point	=	0.025	vol/vol
Initial Soil Water Content	=	0.0839	vol/vol
Effective Sat. Hyd. Conductivity	=	4.10E-03	cm/sec

Layer 3
Type 2 - Lateral Drainage Layer
Sand
Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.0622	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	2	%
Drainage Length	=	100	ft

Layer 4
Type 4 - Flexible Membrane Liner

HDPE Membrane

Material Texture Number 35

Thickness	=	0.06	inches
Effective Sat. Hyd. Conductivity	=	2.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 5

Type 1 - Vertical Percolation Layer

GCL

Material Texture Number 43

Thickness	=	0.25	inches
Porosity	=	0.75	vol/vol
Field Capacity	=	0.747	vol/vol
Wilting Point	=	0.4	vol/vol
Initial Soil Water Content	=	0.6552	vol/vol
Effective Sat. Hyd. Conductivity	=	3.00E-09	cm/sec

Layer 6

Type 1 - Vertical Percolation Layer

SiC - Silty Clay (Moderate)

Material Texture Number 28

Thickness	=	6	inches
Porosity	=	0.452	vol/vol
Field Capacity	=	0.411	vol/vol
Wilting Point	=	0.311	vol/vol
Initial Soil Water Content	=	0.3723	vol/vol
Effective Sat. Hyd. Conductivity	=	1.20E-06	cm/sec

Note: Initial moisture content of the layers and snow water were computed as nearly steady-state values by HELP.

General Design and Evaporative Zone Data

SCS Runoff Curve Number	=	95.4	
Fraction of Area Allowing Runoff	=	0	%
Area projected on a horizontal plane	=	1	acres
Evaporative Zone Depth	=	24	inches
Initial Water in Evaporative Zone	=	3.867	inches
Upper Limit of Evaporative Storage	=	13.23	inches
Lower Limit of Evaporative Storage	=	1.71	inches
Initial Snow Water	=	0	inches
Initial Water in Layer Materials	=	30.211	inches
Total Initial Water	=	30.211	inches

Total Subsurface Inflow	=	0	inches/year

Note: SCS Runoff Curve Number was calculated by HELP.

Evapotranspiration and Weather Data

Station Latitude	=	44.13	Degrees
Maximum Leaf Area Index	=	0	
Start of Growing Season (Julian Date)	=	124	days
End of Growing Season (Julian Date)	=	182	days
Average Wind Speed	=	11	mph
Average 1st Quarter Relative Humidity	=	65	%
Average 2nd Quarter Relative Humidity	=	65	%
Average 3rd Quarter Relative Humidity	=	62	%
Average 4th Quarter Relative Humidity	=	65	%

Note: Evapotranspiration data was obtained for Mankato, Minnesota

Normal Mean Monthly Precipitation (inches)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
0.683107	0.60023	1.856155	3.092133	4.531518	6.501913
4.867874	3.191535	2.613059	1.132846	1.140449	1.223736

Note: Precipitation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Normal Mean Monthly Temperature (Degrees Fahrenheit)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
20.6	20.2	36	56.7	62.8	76.6
82.4	78.5	81.4	49.6	38.6	32.4

Note: Temperature was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98
Solar radiation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Daily Output for Year 1

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:27

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.004	0.1611	0.0059	0.0000	8.18E-09	0.0000	0.0000	2.16E-04
2	*	*	0.00	0.000	0.000	0.1611	0.0059	0.0000	8.17E-09	0.0000	0.0000	2.15E-04
3	*	*	0.00	0.000	0.000	0.1611	0.0059	0.0000	8.17E-09	0.0000	0.0000	2.15E-04
4	*	*	0.00	0.000	0.000	0.1611	0.0059	0.0000	8.16E-09	0.0000	0.0000	2.14E-04
5	*	*	0.00	0.000	0.000	0.1611	0.0059	0.0000	8.16E-09	0.0000	0.0000	2.14E-04
6	*	*	0.00	0.000	0.000	0.1611	0.0059	0.0000	8.16E-09	0.0000	0.0000	2.13E-04
7	*	*	0.00	0.000	0.000	0.1611	0.0058	0.0000	8.15E-09	0.0000	0.0000	2.12E-04
8	*	*	0.00	0.000	0.000	0.1611	0.0058	0.0000	8.15E-09	0.0000	0.0000	2.12E-04
9	*	*	0.13	0.000	0.003	0.1611	0.0058	0.0000	8.15E-09	0.0000	0.0000	2.11E-04
10	*	*	0.01	0.000	0.006	0.1611	0.0058	0.0000	8.14E-09	0.0000	0.0000	2.11E-04
11	*	*	0.03	0.000	0.003	0.1611	0.0058	0.0000	8.14E-09	0.0000	0.0000	2.10E-04
12	*	*	0.00	0.000	0.005	0.1611	0.0058	0.0000	8.14E-09	0.0000	0.0000	2.10E-04
13	*	*	0.00	0.000	0.026	0.1611	0.0057	0.0000	8.13E-09	0.0000	0.0000	2.09E-04
14	*	*	0.00	0.000	0.034	0.1611	0.0057	0.0000	8.13E-09	0.0000	0.0000	2.09E-04
15	*	*	0.00	0.000	0.016	0.1611	0.0057	0.0000	8.12E-09	0.0000	0.0000	2.08E-04
16	*	*	0.00	0.000	0.008	0.1611	0.0057	0.0000	8.12E-09	0.0000	0.0000	2.08E-04
17	*	*	0.00	0.000	0.004	0.1611	0.0057	0.0000	8.12E-09	0.0000	0.0000	2.07E-04
18	*	*	0.00	0.000	0.003	0.1611	0.0057	0.0000	8.11E-09	0.0000	0.0000	2.07E-04
19	*	*	0.00	0.000	0.004	0.1611	0.0056	0.0000	8.11E-09	0.0000	0.0000	2.06E-04
20	*	*	0.00	0.000	0.023	0.1611	0.0056	0.0000	8.11E-09	0.0000	0.0000	2.06E-04
21	*	*	0.00	0.000	0.009	0.1611	0.0056	0.0000	8.10E-09	0.0000	0.0000	2.05E-04
22	*	*	0.06	0.000	0.019	0.1611	0.0056	0.0000	8.10E-09	0.0000	0.0000	2.05E-04
23	*	*	0.03	0.000	0.020	0.1611	0.0056	0.0000	8.10E-09	0.0000	0.0000	2.04E-04

24	*	*	0.02	0.000	0.000	0.1611	0.0055	0.0000	8.09E-09	0.0000	0.0000	2.04E-04
25	*	*	0.00	0.000	0.025	0.1611	0.0055	0.0000	8.09E-09	0.0000	0.0000	2.03E-04
26	*	*	0.00	0.000	0.023	0.1611	0.0055	0.0000	8.09E-09	0.0000	0.0000	2.03E-04
27	*	*	0.13	0.000	0.022	0.1611	0.0055	0.0000	8.08E-09	0.0000	0.0000	2.02E-04
28	*	*	0.02	0.000	0.010	0.1611	0.0055	0.0000	8.08E-09	0.0000	0.0000	2.02E-04
29	*	*	0.00	0.000	0.020	0.1611	0.0055	0.0000	8.07E-09	0.0000	0.0000	2.01E-04
30	*	*	0.00	0.000	0.018	0.1611	0.0054	0.0000	8.07E-09	0.0000	0.0000	2.01E-04
31	*	*	0.05	0.000	0.000	0.1611	0.0054	0.0000	8.07E-09	0.0000	0.0000	2.00E-04
32	*	*	0.00	0.000	0.013	0.1611	0.0054	0.0000	8.06E-09	0.0000	0.0000	2.00E-04
33	*	*	0.00	0.000	0.024	0.1611	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.99E-04
34		*	0.00	0.000	0.045	0.1650	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.99E-04
35		*	0.00	0.000	0.000	0.1650	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.98E-04
36	*	*	0.00	0.000	0.000	0.1650	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.98E-04
37	*	*	0.01	0.000	0.014	0.1650	0.0053	0.0000	8.05E-09	0.0000	0.0000	1.97E-04
38		*	0.00	0.000	0.000	0.1650	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.97E-04
39		*	0.00	0.000	0.000	0.1650	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.96E-04
40		*	0.00	0.000	0.000	0.1650	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.96E-04
41	*	*	0.00	0.000	0.000	0.1650	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.95E-04
42	*	*	0.00	0.000	0.000	0.1650	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.95E-04
43		*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.94E-04
44	*	*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.94E-04
45	*	*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.93E-04
46	*	*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.93E-04
47	*	*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.01E-09	0.0000	0.0000	1.93E-04
48	*	*	0.00	0.000	0.000	0.1650	0.0052	0.0000	8.01E-09	0.0000	0.0000	1.92E-04
49	*	*	0.00	0.000	0.000	0.1650	0.0051	0.0000	8.01E-09	0.0000	0.0000	1.92E-04
50	*	*	0.00	0.000	0.000	0.1650	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.91E-04
51		*	0.00	0.000	0.000	0.1650	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.91E-04
52		*	0.00	0.000	0.000	0.1650	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.90E-04
53		*	0.17	0.000	0.000	0.1721	0.0051	0.0000	7.99E-09	0.0000	0.0000	1.90E-04
54		*	0.00	0.000	0.000	0.1721	0.0051	0.0000	7.99E-09	0.0000	0.0000	1.89E-04

55		*	0.00	0.000	0.000	0.1721	0.0051	0.0000	7.99E-09	0.0000	0.0000	1.89E-04
56		*	0.00	0.000	0.000	0.1721	0.0050	0.0000	7.98E-09	0.0000	0.0000	1.89E-04
57		*	0.00	0.000	0.000	0.1721	0.0050	0.0000	7.98E-09	0.0000	0.0000	1.88E-04
58		*	0.00	0.000	0.000	0.1722	0.0050	0.0000	7.98E-09	0.0000	0.0000	1.88E-04
59	*	*	0.10	0.000	0.056	0.1722	0.0050	0.0000	7.97E-09	0.0000	0.0000	1.87E-04
60		*	0.00	0.000	0.047	0.1722	0.0050	0.0000	7.97E-09	0.0000	0.0000	1.87E-04
61	*	*	0.00	0.000	0.005	0.1722	0.0050	0.0000	7.97E-09	0.0000	0.0000	1.86E-04
62		*	0.45	0.000	0.000	0.1909	0.0049	0.0000	7.97E-09	0.0000	0.0000	1.86E-04
63	*	*	0.00	0.000	0.000	0.1909	0.0049	0.0000	7.96E-09	0.0000	0.0000	1.86E-04
64	*	*	0.00	0.000	0.004	0.1909	0.0049	0.0000	7.96E-09	0.0000	0.0000	1.85E-04
65	*	*	0.02	0.000	0.007	0.1909	0.0049	0.0000	7.96E-09	0.0000	0.0000	1.85E-04
66	*	*	0.17	0.000	0.006	0.1909	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.84E-04
67	*	*	0.00	0.000	0.046	0.1909	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.84E-04
68	*	*	0.01	0.000	0.010	0.1909	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.83E-04
69	*	*	0.00	0.000	0.030	0.1909	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.83E-04
70		*	0.00	0.000	0.096	0.1909	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.83E-04
71		*	0.00	0.000	0.000	0.1909	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.82E-04
72	*	*	0.00	0.000	0.000	0.1909	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.82E-04
73	*	*	0.00	0.000	0.000	0.1909	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.81E-04
74	*	*	0.00	0.000	0.000	0.1909	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.81E-04
75	*	*	0.00	0.000	0.000	0.1909	0.0048	0.0000	7.92E-09	0.0000	0.0000	1.81E-04
76	*	*	0.00	0.000	0.000	0.1909	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.80E-04
77	*	*	0.00	0.000	0.000	0.1909	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.80E-04
78	*	*	0.00	0.000	0.000	0.1909	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.79E-04
79	*	*	0.00	0.000	0.000	0.1909	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.79E-04
80	*	*	0.07	0.000	0.008	0.1909	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.79E-04
81		*	0.00	0.000	0.062	0.1909	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.78E-04
82	*	*	0.00	0.000	0.000	0.1909	0.0047	0.0000	7.90E-09	0.0000	0.0000	1.78E-04
83	*	*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.90E-09	0.0000	0.0000	1.77E-04
84		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.90E-09	0.0000	0.0000	1.77E-04
85		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.89E-09	0.0000	0.0000	1.77E-04

86		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.89E-09	0.0000	0.0000	1.76E-04
87		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.89E-09	0.0000	0.0000	1.76E-04
88		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.89E-09	0.0000	0.0000	1.76E-04
89		*	0.00	0.000	0.000	0.1909	0.0046	0.0000	7.88E-09	0.0000	0.0000	1.75E-04
90		*	0.00	0.000	0.000	0.1909	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.75E-04
91		*	0.00	0.000	0.000	0.1909	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.74E-04
92		*	0.00	0.000	0.000	0.1909	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.74E-04
93		*	0.41	0.000	0.000	0.2079	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.74E-04
94		*	0.11	0.000	0.000	0.2123	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.73E-04
95		*	0.00	0.000	0.000	0.2123	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.73E-04
96		*	0.04	0.000	0.000	0.2137	0.0045	0.0000	7.86E-09	0.0000	0.0000	1.73E-04
97			0.21	0.000	0.195	0.2144	0.0045	0.0000	7.86E-09	0.0000	0.0000	1.72E-04
98			0.34	0.000	0.197	0.2203	0.0045	0.0000	7.86E-09	0.0000	0.0000	1.72E-04
99			0.00	0.000	0.370	0.2047	0.0045	0.0000	7.86E-09	0.0000	0.0000	1.72E-04
100			0.00	0.000	0.338	0.1906	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.71E-04
101			0.00	0.000	0.152	0.1840	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.71E-04
102			0.00	0.000	0.185	0.1760	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.70E-04
103			0.00	0.000	0.454	0.1569	0.0045	0.0000	7.87E-09	0.0000	0.0000	1.70E-04
104			0.00	0.000	0.167	0.1498	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.70E-04
105			0.00	0.000	0.073	0.1466	0.0045	0.0000	7.88E-09	0.0000	0.0000	1.69E-04
106	*		0.00	0.000	0.000	0.1466	0.0046	0.0000	7.88E-09	0.0000	0.0000	1.69E-04
107			0.00	0.000	0.056	0.1442	0.0046	0.0000	7.90E-09	0.0000	0.0000	1.69E-04
108			0.00	0.000	0.047	0.1423	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.68E-04
109			0.00	0.000	0.042	0.1405	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.68E-04
110			0.00	0.000	0.038	0.1389	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.68E-04
111			0.08	0.000	0.035	0.1406	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.67E-04
112			0.00	0.000	0.032	0.1383	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.67E-04
113			0.00	0.000	0.030	0.1360	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.67E-04
114			0.00	0.000	0.028	0.1331	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.66E-04
115			0.00	0.000	0.027	0.1304	0.0048	0.0000	7.94E-09	0.0000	0.0000	1.66E-04
116			0.07	0.000	0.026	0.1307	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.66E-04

117		0.15	0.000	0.025	0.1348	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.65E-04
118	*	0.00	0.000	0.003	0.1337	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.65E-04
119	*	0.44	0.000	0.021	0.1335	0.0048	0.0000	7.92E-09	0.0000	0.0000	1.65E-04
120	*	0.02	0.000	0.033	0.1334	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.64E-04
121		0.00	0.000	0.074	0.1448	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.64E-04
122		0.00	0.000	0.024	0.1431	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.64E-04
123		0.00	0.000	0.023	0.1415	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.63E-04
124		0.00	0.000	0.022	0.1400	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.63E-04
125		0.25	0.000	0.022	0.1490	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.63E-04
126		0.14	0.000	0.021	0.1534	0.0047	0.0000	7.90E-09	0.0000	0.0000	1.62E-04
127		0.00	0.000	0.021	0.1521	0.0046	0.0000	7.90E-09	0.0000	0.0000	1.62E-04
128		0.14	0.000	0.020	0.1568	0.0046	0.0000	7.90E-09	0.0000	0.0000	1.62E-04
129		0.08	0.000	0.020	0.1588	0.0046	0.0000	7.89E-09	0.0000	0.0000	1.61E-04
130		0.31	0.000	0.162	0.1645	0.0047	0.0000	7.91E-09	0.0000	0.0000	1.61E-04
131		0.00	0.000	0.267	0.1530	0.0047	0.0000	7.92E-09	0.0000	0.0000	1.61E-04
132		0.00	0.000	0.177	0.1456	0.0048	0.0000	7.93E-09	0.0000	0.0000	1.60E-04
133		0.00	0.000	0.073	0.1422	0.0049	0.0000	7.95E-09	0.0000	0.0000	1.60E-04
134		0.61	0.000	0.056	0.1647	0.0049	0.0000	7.96E-09	0.0000	0.0000	1.60E-04
135		0.00	0.000	0.412	0.1472	0.0049	0.0000	7.96E-09	0.0000	0.0000	1.59E-04
136		0.00	0.000	0.048	0.1448	0.0050	0.0000	7.97E-09	0.0000	0.0000	1.59E-04
137		1.02	0.000	0.042	0.1849	0.0050	0.0000	7.97E-09	0.0000	0.0000	1.59E-04
138		0.15	0.000	0.254	0.1807	0.0050	0.0000	7.98E-09	0.0000	0.0000	1.58E-04
139		0.27	0.000	0.303	0.1788	0.0051	0.0000	7.99E-09	0.0000	0.0000	1.58E-04
140		0.18	0.000	0.284	0.1740	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.58E-04
141		0.00	0.000	0.250	0.1630	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.58E-04
142		0.10	0.000	0.182	0.1591	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.57E-04
143		0.00	0.000	0.382	0.1426	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.57E-04
144		0.00	0.000	0.158	0.1355	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.57E-04
145		0.42	0.000	0.074	0.1494	0.0052	0.0000	8.01E-09	0.0000	0.0000	1.56E-04
146		0.00	0.000	0.057	0.1467	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.56E-04
147		0.05	0.000	0.048	0.1464	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.56E-04

148	0.07	0.000	0.042	0.1473	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.55E-04
149	0.09	0.000	0.038	0.1491	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.55E-04
150	0.03	0.000	0.035	0.1486	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.55E-04
151	0.00	0.000	0.032	0.1470	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.55E-04
152	0.00	0.000	0.030	0.1455	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.54E-04
153	0.19	0.000	0.029	0.1520	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.54E-04
154	0.00	0.000	0.193	0.1438	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.54E-04
155	0.05	0.000	0.028	0.1444	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.53E-04
156	0.00	0.000	0.026	0.1431	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.53E-04
157	0.00	0.000	0.025	0.1419	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.53E-04
158	0.47	0.000	0.025	0.1601	0.0060	0.0000	8.19E-09	0.0000	0.0000	1.53E-04
159	0.22	0.000	0.199	0.1607	0.0061	0.0000	8.20E-09	0.0000	0.0000	1.52E-04
160	0.08	0.000	0.227	0.1544	0.0061	0.0000	8.22E-09	0.0000	0.0000	1.52E-04
161	0.00	0.000	0.306	0.1416	0.0062	0.0000	8.23E-09	0.0000	0.0000	1.52E-04
162	0.73	0.000	0.171	0.1647	0.0063	0.0000	8.24E-09	0.0000	0.0000	1.51E-04
163	1.39	0.000	0.188	0.2147	0.0063	0.0000	8.26E-09	0.0000	0.0000	1.51E-04
164	0.04	0.000	0.159	0.2096	0.0064	0.0000	8.27E-09	0.0000	0.0000	1.51E-04
165	0.15	0.000	0.141	0.2095	0.0065	0.0000	8.28E-09	0.0000	0.0000	1.51E-04
166	0.02	0.000	0.325	0.1963	0.0065	0.0000	8.30E-09	0.0000	0.0000	1.50E-04
167	0.02	0.000	0.177	0.1894	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.50E-04
168	0.00	0.000	0.284	0.1774	0.0066	0.0000	8.32E-09	0.0000	0.0000	1.50E-04
169	0.01	0.000	0.339	0.1637	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.49E-04
170	0.37	0.000	0.178	0.1715	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.49E-04
171	0.82	0.000	0.327	0.1917	0.0068	0.0000	8.36E-09	0.0000	0.0000	1.49E-04
172	0.00	0.000	0.390	0.1754	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.49E-04
173	0.00	0.000	0.399	0.1586	0.0070	0.0000	8.38E-09	0.0000	0.0000	1.48E-04
174	0.78	0.000	0.178	0.1836	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.48E-04
175	1.15	0.000	0.302	0.2190	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.48E-04
176	0.13	0.000	0.391	0.2081	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.48E-04
177	0.00	0.000	0.233	0.1984	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.47E-04
178	0.01	0.000	0.330	0.1851	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.47E-04

179	0.43	0.000	0.347	0.1882	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.47E-04
180	0.00	0.000	0.300	0.1757	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.46E-04
181	0.00	0.000	0.335	0.1615	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.46E-04
182	0.00	0.000	0.177	0.1538	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.46E-04
183	0.00	0.000	0.073	0.1502	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.46E-04
184	0.05	0.000	0.057	0.1491	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.45E-04
185	0.00	0.000	0.047	0.1466	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.45E-04
186	0.00	0.000	0.042	0.1443	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.45E-04
187	0.11	0.000	0.038	0.1472	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.45E-04
188	1.26	0.000	0.035	0.1983	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.44E-04
189	0.59	0.000	0.348	0.2082	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.44E-04
190	0.12	0.000	0.205	0.2047	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.44E-04
191	0.30	0.000	0.373	0.2013	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.44E-04
192	0.06	0.000	0.232	0.1938	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.43E-04
193	0.05	0.000	0.182	0.1878	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.43E-04
194	0.02	0.000	0.189	0.1804	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.43E-04
195	0.04	0.000	0.351	0.1668	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.43E-04
196	0.00	0.000	0.177	0.1588	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.42E-04
197	0.25	0.000	0.074	0.1655	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.42E-04
198	0.00	0.000	0.056	0.1624	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.42E-04
199	0.00	0.000	0.047	0.1598	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.42E-04
200	0.00	0.000	0.042	0.1574	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.41E-04
201	0.08	0.000	0.038	0.1586	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.41E-04
202	0.00	0.000	0.035	0.1566	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.41E-04
203	0.00	0.000	0.033	0.1547	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.41E-04
204	0.20	0.000	0.031	0.1614	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.40E-04
205	0.00	0.000	0.029	0.1598	0.0081	0.0000	8.62E-09	0.0000	0.0000	1.40E-04
206	0.00	0.000	0.027	0.1582	0.0081	0.0000	8.63E-09	0.0000	0.0000	1.40E-04
207	0.45	0.000	0.027	0.1754	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.40E-04
208	0.13	0.000	0.167	0.1737	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.39E-04
209	0.00	0.000	0.183	0.1656	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.39E-04

210	0.00	0.000	0.160	0.1585	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.39E-04
211	0.11	0.000	0.172	0.1554	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.39E-04
212	0.01	0.000	0.074	0.1524	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.38E-04
213	0.00	0.000	0.056	0.1499	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.38E-04
214	0.00	0.000	0.047	0.1478	0.0082	0.0000	8.63E-09	0.0000	0.0000	1.38E-04
215	0.00	0.000	0.042	0.1459	0.0082	0.0000	8.63E-09	0.0000	0.0000	1.38E-04
216	0.06	0.000	0.038	0.1466	0.0081	0.0000	8.62E-09	0.0000	0.0000	1.38E-04
217	0.09	0.000	0.035	0.1485	0.0081	0.0000	8.62E-09	0.0000	0.0000	1.37E-04
218	0.00	0.000	0.032	0.1469	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.37E-04
219	0.11	0.000	0.031	0.1499	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.37E-04
220	0.00	0.000	0.029	0.1485	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.37E-04
221	0.00	0.000	0.027	0.1471	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.36E-04
222	0.29	0.000	0.026	0.1579	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.36E-04
223	0.58	0.000	0.025	0.1809	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.36E-04
224	0.17	0.000	0.169	0.1807	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.36E-04
225	0.00	0.000	0.212	0.1716	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.35E-04
226	0.00	0.000	0.164	0.1648	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.35E-04
227	0.01	0.000	0.166	0.1581	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.35E-04
228	0.00	0.000	0.177	0.1507	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.35E-04
229	0.00	0.000	0.073	0.1475	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.35E-04
230	0.00	0.000	0.055	0.1450	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.34E-04
231	0.00	0.000	0.047	0.1429	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.34E-04
232	0.00	0.000	0.042	0.1409	0.0077	0.0000	8.55E-09	0.0000	0.0000	1.34E-04
233	0.00	0.000	0.038	0.1392	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.34E-04
234	0.00	0.000	0.035	0.1375	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.33E-04
235	0.00	0.000	0.032	0.1359	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.33E-04
236	0.00	0.000	0.030	0.1344	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.33E-04
237	0.32	0.000	0.029	0.1464	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.33E-04
238	0.00	0.000	0.027	0.1451	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.33E-04
239	0.00	0.000	0.026	0.1439	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.32E-04
240	0.00	0.000	0.025	0.1427	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.32E-04

241	0.00	0.000	0.024	0.1416	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.32E-04
242	0.00	0.000	0.024	0.1405	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.32E-04
243	0.00	0.000	0.022	0.1395	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.32E-04
244	0.00	0.000	0.022	0.1384	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.31E-04
245	0.00	0.000	0.021	0.1374	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.31E-04
246	0.00	0.000	0.021	0.1364	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.31E-04
247	0.08	0.000	0.020	0.1389	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.31E-04
248	0.02	0.000	0.020	0.1389	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.30E-04
249	0.78	0.000	0.019	0.1705	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.30E-04
250	0.64	0.000	0.207	0.1885	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.30E-04
251	0.45	0.000	0.147	0.2009	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.30E-04
252	0.99	0.000	0.259	0.2314	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.30E-04
253	0.03	0.000	0.325	0.2191	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.29E-04
254	0.00	0.000	0.276	0.2074	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.29E-04
255	0.00	0.000	0.146	0.2012	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.29E-04
256	0.00	0.000	0.251	0.1906	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.29E-04
257	1.56	0.000	0.178	0.2427	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.29E-04
258	0.00	0.000	0.305	0.2353	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.28E-04
259	0.00	0.000	0.372	0.2194	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.28E-04
260	0.00	0.000	0.188	0.2101	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.28E-04
261	0.00	0.000	0.251	0.1997	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.28E-04
262	0.11	0.000	0.319	0.1897	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.28E-04
263	0.00	0.000	0.177	0.1794	0.0072	0.0000	8.42E-09	0.0000	0.0000	1.27E-04
264	0.04	0.000	0.073	0.1749	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.27E-04
265	0.00	0.000	0.056	0.1700	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.27E-04
266	0.00	0.000	0.047	0.1657	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.27E-04
267	0.00	0.000	0.042	0.1617	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.27E-04
268	0.33	0.000	0.038	0.1720	0.0071	0.0000	8.40E-09	0.0000	0.0000	1.26E-04
269	0.00	0.000	0.035	0.1693	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.26E-04
270	0.00	0.000	0.032	0.1672	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.26E-04
271	0.00	0.000	0.030	0.1650	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.26E-04

272		0.00	0.000	0.029	0.1627	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.26E-04
273		0.00	0.000	0.027	0.1604	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.25E-04
274		0.00	0.000	0.026	0.1582	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.25E-04
275		0.03	0.000	0.025	0.1572	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.25E-04
276		0.01	0.000	0.024	0.1556	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.25E-04
277		0.00	0.000	0.023	0.1537	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.25E-04
278		0.00	0.000	0.022	0.1518	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.24E-04
279		0.00	0.000	0.022	0.1501	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.24E-04
280		0.00	0.000	0.021	0.1484	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.24E-04
281		0.00	0.000	0.021	0.1469	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.24E-04
282		0.00	0.000	0.020	0.1454	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.24E-04
283		0.07	0.000	0.020	0.1467	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.23E-04
284		0.25	0.000	0.019	0.1558	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.23E-04
285		0.00	0.000	0.019	0.1545	0.0080	0.0000	8.61E-09	0.0000	0.0000	1.23E-04
286		0.00	0.000	0.018	0.1532	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.23E-04
287		0.00	0.000	0.018	0.1520	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.23E-04
288		0.05	0.000	0.018	0.1527	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.23E-04
289		0.06	0.000	0.017	0.1541	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.22E-04
290		0.00	0.000	0.017	0.1529	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.22E-04
291		0.19	0.000	0.017	0.1596	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.22E-04
292		0.05	0.000	0.016	0.1605	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.22E-04
293		0.00	0.000	0.016	0.1594	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.22E-04
294		0.00	0.000	0.016	0.1584	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.21E-04
295		0.00	0.000	0.016	0.1574	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.21E-04
296		0.00	0.000	0.015	0.1565	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.21E-04
297		0.00	0.000	0.015	0.1555	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.21E-04
298		0.00	0.000	0.015	0.1546	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.21E-04
299		0.00	0.000	0.015	0.1537	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.21E-04
300		0.00	0.000	0.014	0.1528	0.0077	0.0000	8.55E-09	0.0000	0.0000	1.20E-04
301	*	0.00	0.000	0.000	0.1526	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.20E-04
302	*	0.00	0.000	0.000	0.1523	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.20E-04

303	*		0.00	0.000	0.000	0.1521	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.20E-04
304	*		0.00	0.000	0.000	0.1518	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.20E-04
305	*		0.00	0.000	0.000	0.1516	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.19E-04
306			0.00	0.000	0.014	0.1507	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.19E-04
307			0.00	0.000	0.014	0.1499	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.19E-04
308			0.01	0.000	0.014	0.1497	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.19E-04
309			0.00	0.000	0.014	0.1489	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.19E-04
310			0.00	0.000	0.014	0.1481	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.19E-04
311			0.00	0.000	0.013	0.1474	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.18E-04
312			0.00	0.000	0.013	0.1466	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.18E-04
313			0.00	0.000	0.013	0.1458	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.18E-04
314			0.04	0.000	0.013	0.1467	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.18E-04
315	*		0.00	0.000	0.013	0.1460	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.18E-04
316			0.04	0.000	0.013	0.1469	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.18E-04
317	*		0.00	0.000	0.000	0.1468	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.17E-04
318			0.00	0.000	0.013	0.1461	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.17E-04
319	*		0.00	0.000	0.000	0.1459	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.17E-04
320	*		0.00	0.000	0.000	0.1458	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.17E-04
321			0.00	0.000	0.012	0.1451	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.17E-04
322	*		0.00	0.000	0.000	0.1450	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.17E-04
323	*		0.00	0.000	0.000	0.1448	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.16E-04
324	*		0.00	0.000	0.000	0.1447	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.16E-04
325	*		0.00	0.000	0.000	0.1445	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.16E-04
326	*		0.00	0.000	0.012	0.1438	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.16E-04
327	*	*	0.00	0.000	0.000	0.1438	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.16E-04
328	*	*	0.00	0.000	0.000	0.1438	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.16E-04
329	*	*	0.00	0.000	0.000	0.1438	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.15E-04
330	*	*	0.00	0.000	0.000	0.1438	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.15E-04
331	*	*	0.00	0.000	0.000	0.1438	0.0071	0.0000	8.40E-09	0.0000	0.0000	1.15E-04
332	*	*	0.00	0.000	0.000	0.1438	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.15E-04
333	*	*	0.00	0.000	0.000	0.1438	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.15E-04

334	*	*	0.00	0.000	0.000	0.1438	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.15E-04
335	*	*	0.17	0.000	0.044	0.1438	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.14E-04
336		*	0.00	0.000	0.082	0.1458	0.0069	0.0000	8.38E-09	0.0000	0.0000	1.14E-04
337		*	0.00	0.000	0.000	0.1458	0.0069	0.0000	8.38E-09	0.0000	0.0000	1.14E-04
338		*	0.00	0.000	0.000	0.1458	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.14E-04
339		*	0.00	0.000	0.000	0.1458	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.14E-04
340		*	0.00	0.000	0.000	0.1458	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.14E-04
341		*	0.00	0.000	0.000	0.1458	0.0068	0.0000	8.36E-09	0.0000	0.0000	1.13E-04
342		*	0.02	0.000	0.000	0.1468	0.0068	0.0000	8.36E-09	0.0000	0.0000	1.13E-04
343		*	0.00	0.000	0.000	0.1468	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.13E-04
344		*	0.00	0.000	0.000	0.1468	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.13E-04
345		*	0.00	0.000	0.000	0.1468	0.0068	0.0000	8.34E-09	0.0000	0.0000	1.13E-04
346		*	0.00	0.000	0.000	0.1468	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.13E-04
347		*	0.00	0.000	0.000	0.1468	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.12E-04
348	*	*	0.00	0.000	0.000	0.1468	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.12E-04
349		*	0.01	0.000	0.000	0.1474	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.12E-04
350	*	*	0.00	0.000	0.000	0.1474	0.0067	0.0000	8.32E-09	0.0000	0.0000	1.12E-04
351		*	0.12	0.000	0.000	0.1522	0.0066	0.0000	8.32E-09	0.0000	0.0000	1.12E-04
352	*	*	0.00	0.000	0.000	0.1522	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.12E-04
353	*	*	0.03	0.000	0.018	0.1522	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.12E-04
354	*	*	0.02	0.000	0.007	0.1522	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.11E-04
355	*	*	0.24	0.000	0.003	0.1522	0.0066	0.0000	8.30E-09	0.0000	0.0000	1.11E-04
356	*	*	0.04	0.000	0.002	0.1522	0.0065	0.0000	8.30E-09	0.0000	0.0000	1.11E-04
357	*	*	0.00	0.000	0.004	0.1522	0.0065	0.0000	8.29E-09	0.0000	0.0000	1.11E-04
358	*	*	0.00	0.000	0.006	0.1522	0.0065	0.0000	8.29E-09	0.0000	0.0000	1.11E-04
359	*	*	0.00	0.000	0.000	0.1522	0.0065	0.0000	8.29E-09	0.0000	0.0000	1.11E-04
360	*	*	0.00	0.000	0.042	0.1522	0.0065	0.0000	8.28E-09	0.0000	0.0000	1.10E-04
361		*	0.00	0.000	0.048	0.1603	0.0064	0.0000	8.28E-09	0.0000	0.0000	1.10E-04
362		*	0.00	0.000	0.000	0.1603	0.0064	0.0000	8.27E-09	0.0000	0.0000	1.10E-04
363		*	0.00	0.000	0.000	0.1603	0.0064	0.0000	8.27E-09	0.0000	0.0000	1.10E-04
364		*	0.02	0.000	0.000	0.1611	0.0064	0.0000	8.27E-09	0.0000	0.0000	1.10E-04

365	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.26E-09	0.0000	0.0000	1.10E-04

* = Frozen (air or soil)

Annual Totals for Year 1			
	inches	cubic feet	percent
Precipitation	26.23	95,214.0	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.970	87,011.6	91.39
Drainage Collected from Layer 3	0.0026	9.5777	0.01
Percolation/Leakage through Layer 4	0.000003	0.0109	0.00
Average Head on Top of Layer 4	0.0064	---	---
Percolation/Leakage through Layer 6	0.055179	200.3	0.21
Change in Water Storage	2.2018	7,992.5	8.39
Soil Water at Start of Year	30.3980	110,344.7	115.89
Soil Water at End of Year	32.5998	118,337.3	124.29
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 2

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:27

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.1611	0.0063	0.0000	8.26E-09	0.0000	0.0000	1.10E-04
2	*	*	0.00	0.000	0.000	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	1.09E-04
3	*	*	0.00	0.000	0.000	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	1.09E-04
4	*	*	0.00	0.000	0.000	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	1.09E-04
5	*	*	0.53	0.000	0.027	0.1611	0.0063	0.0000	8.24E-09	0.0000	0.0000	1.09E-04
6		*	0.00	0.000	0.000	0.1820	0.0062	0.0000	8.24E-09	0.0000	0.0000	1.09E-04
7		*	0.00	0.000	0.000	0.1820	0.0062	0.0000	8.23E-09	0.0000	0.0000	1.09E-04
8		*	0.26	0.000	0.000	0.1930	0.0062	0.0000	8.23E-09	0.0000	0.0000	1.08E-04
9		*	0.41	0.000	0.000	0.2100	0.0062	0.0000	8.23E-09	0.0000	0.0000	1.08E-04
10		*	0.00	0.000	0.000	0.2100	0.0062	0.0000	8.22E-09	0.0000	0.0000	1.08E-04
11		*	0.00	0.000	0.000	0.2100	0.0062	0.0000	8.22E-09	0.0000	0.0000	1.08E-04
12		*	0.00	0.000	0.000	0.2100	0.0061	0.0000	8.21E-09	0.0000	0.0000	1.08E-04
13	*	*	0.00	0.000	0.000	0.2100	0.0061	0.0000	8.21E-09	0.0000	0.0000	1.08E-04
14	*	*	0.00	0.000	0.000	0.2100	0.0061	0.0000	8.21E-09	0.0000	0.0000	1.08E-04
15		*	0.00	0.000	0.000	0.2100	0.0061	0.0000	8.20E-09	0.0000	0.0000	1.07E-04
16		*	0.00	0.000	0.000	0.2100	0.0061	0.0000	8.20E-09	0.0000	0.0000	1.07E-04
17		*	0.00	0.000	0.000	0.2100	0.0060	0.0000	8.20E-09	0.0000	0.0000	1.07E-04
18		*	0.00	0.000	0.000	0.2100	0.0060	0.0000	8.19E-09	0.0000	0.0000	1.07E-04
19		*	0.05	0.000	0.000	0.2122	0.0060	0.0000	8.19E-09	0.0000	0.0000	1.07E-04
20	*	*	0.00	0.000	0.000	0.2122	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.07E-04
21	*	*	0.00	0.000	0.000	0.2122	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.07E-04
22	*	*	0.16	0.000	0.039	0.2122	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.06E-04
23		*	0.00	0.000	0.044	0.2131	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.06E-04

24		*	0.00	0.000	0.054	0.2131	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.06E-04
25	*	*	0.00	0.000	0.000	0.2131	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.06E-04
26	*	*	0.00	0.000	0.000	0.2131	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.06E-04
27		*	0.00	0.000	0.000	0.2131	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.06E-04
28		*	0.00	0.000	0.000	0.2131	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.06E-04
29	*	*	0.00	0.000	0.000	0.2131	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.05E-04
30	*	*	0.00	0.000	0.000	0.2131	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.05E-04
31		*	0.10	0.000	0.000	0.2175	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.05E-04
32	*	*	0.01	0.000	0.012	0.2175	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.05E-04
33	*	*	0.00	0.000	0.000	0.2175	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.05E-04
34	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.05E-04
35	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.05E-04
36	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.05E-04
37	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.04E-04
38	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.04E-04
39	*	*	0.00	0.000	0.000	0.2175	0.0057	0.0000	8.11E-09	0.0000	0.0000	1.04E-04
40		*	0.00	0.000	0.000	0.2175	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.04E-04
41		*	0.00	0.000	0.000	0.2175	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.04E-04
42		*	0.06	0.000	0.000	0.2199	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.04E-04
43		*	0.06	0.000	0.000	0.2226	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.04E-04
44		*	0.00	0.000	0.000	0.2226	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.03E-04
45	*	*	0.09	0.000	0.036	0.2226	0.0056	0.0000	8.09E-09	0.0000	0.0000	1.03E-04
46	*	*	0.00	0.000	0.012	0.2226	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.03E-04
47	*	*	0.00	0.000	0.008	0.2226	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.03E-04
48	*	*	0.00	0.000	0.008	0.2226	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.03E-04
49	*	*	0.03	0.000	0.000	0.2226	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.03E-04
50		*	0.05	0.000	0.099	0.2226	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.03E-04
51		*	0.00	0.000	0.000	0.2226	0.0055	0.0000	8.07E-09	0.0000	0.0000	1.03E-04
52	*	*	0.00	0.000	0.000	0.2226	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.02E-04
53	*	*	0.03	0.000	0.025	0.2226	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.02E-04
54	*	*	0.01	0.000	0.010	0.2226	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.02E-04

55	*	*	0.00	0.000	0.000	0.2226	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.02E-04
56		*	0.00	0.000	0.000	0.2226	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.02E-04
57		*	0.00	0.000	0.000	0.2226	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.02E-04
58		*	0.03	0.000	0.000	0.2239	0.0053	0.0000	8.05E-09	0.0000	0.0000	1.02E-04
59		*	0.04	0.000	0.000	0.2256	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.01E-04
60		*	0.68	0.000	0.000	0.2539	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.01E-04
61		*	0.00	0.000	0.000	0.2539	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.01E-04
62		*	0.24	0.000	0.000	0.2640	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.01E-04
63	*	*	0.07	0.000	0.043	0.2640	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.01E-04
64		*	0.19	0.000	0.110	0.2686	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.01E-04
65	*	*	0.00	0.000	0.000	0.2686	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.01E-04
66	*	*	0.00	0.000	0.000	0.2686	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.01E-04
67	*	*	0.23	0.000	0.023	0.2686	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.00E-04
68	*	*	0.10	0.000	0.011	0.2686	0.0052	0.0000	8.01E-09	0.0000	0.0000	1.00E-04
69	*	*	0.01	0.000	0.015	0.2686	0.0052	0.0000	8.01E-09	0.0000	0.0000	1.00E-04
70		*	0.00	0.000	0.029	0.2795	0.0051	0.0000	8.01E-09	0.0000	0.0000	1.00E-04
71		*	0.00	0.000	0.000	0.2795	0.0051	0.0000	8.00E-09	0.0000	0.0000	1.00E-04
72		*	0.01	0.000	0.000	0.2799	0.0051	0.0000	8.00E-09	0.0000	0.0000	9.98E-05
73		*	0.03	0.000	0.000	0.2813	0.0051	0.0000	8.00E-09	0.0000	0.0000	9.97E-05
74		*	0.00	0.000	0.000	0.2813	0.0051	0.0000	7.99E-09	0.0000	0.0000	9.96E-05
75	*	*	0.00	0.000	0.000	0.2813	0.0051	0.0000	7.99E-09	0.0000	0.0000	9.95E-05
76	*	*	0.00	0.000	0.000	0.2813	0.0051	0.0000	7.99E-09	0.0000	0.0000	9.94E-05
77		*	0.00	0.000	0.000	0.2813	0.0050	0.0000	7.99E-09	0.0000	0.0000	9.92E-05
78		*	0.00	0.000	0.000	0.2813	0.0050	0.0000	7.98E-09	0.0000	0.0000	9.91E-05
79	*	*	0.22	0.000	0.019	0.2813	0.0050	0.0000	7.98E-09	0.0000	0.0000	9.90E-05
80	*	*	0.00	0.000	0.062	0.2813	0.0050	0.0000	7.98E-09	0.0000	0.0000	9.89E-05
81		*	0.00	0.000	0.135	0.2813	0.0050	0.0000	7.97E-09	0.0000	0.0000	9.87E-05
82	*	*	0.00	0.000	0.000	0.2813	0.0050	0.0000	7.97E-09	0.0000	0.0000	9.86E-05
83	*	*	0.00	0.000	0.000	0.2813	0.0049	0.0000	7.97E-09	0.0000	0.0000	9.85E-05
84		*	0.00	0.000	0.000	0.2813	0.0049	0.0000	7.96E-09	0.0000	0.0000	9.84E-05
85		*	0.00	0.000	0.000	0.2813	0.0049	0.0000	7.96E-09	0.0000	0.0000	9.83E-05

86		*	0.00	0.000	0.000	0.2813	0.0049	0.0000	7.96E-09	0.0000	0.0000	9.81E-05
87		*	0.00	0.000	0.000	0.2813	0.0049	0.0000	7.95E-09	0.0000	0.0000	9.80E-05
88		*	0.17	0.000	0.000	0.2886	0.0049	0.0000	7.95E-09	0.0000	0.0000	9.79E-05
89		*	0.00	0.000	0.000	0.2886	0.0049	0.0000	7.95E-09	0.0000	0.0000	9.78E-05
90		*	0.00	0.000	0.000	0.2886	0.0048	0.0000	7.94E-09	0.0000	0.0000	9.77E-05
91	*	*	0.71	0.000	0.040	0.2886	0.0048	0.0000	7.94E-09	0.0000	0.0000	9.75E-05
92	*	*	0.00	0.000	0.017	0.2886	0.0048	0.0000	7.94E-09	0.0000	0.0000	9.74E-05
93	*	*	0.63	0.000	0.000	0.2886	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.73E-05
94		*	0.23	0.000	0.000	0.3198	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.72E-05
95	*	*	0.00	0.000	0.034	0.3198	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.71E-05
96	*	*	0.00	0.000	0.018	0.3198	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.69E-05
97	*	*	0.01	0.000	0.000	0.3198	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.68E-05
98		*	0.04	0.000	0.004	0.3515	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.67E-05
99		*	0.15	0.000	0.000	0.3578	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.66E-05
100	*	*	0.31	0.000	0.034	0.3578	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.65E-05
101	*	*	0.00	0.000	0.042	0.3578	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.64E-05
102		*	0.00	0.000	0.056	0.3578	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.62E-05
103	*	*	0.00	0.000	0.064	0.3578	0.0047	0.0000	7.90E-09	0.0000	0.0000	9.61E-05
104		*	0.00	0.000	0.111	0.3578	0.0046	0.0000	7.90E-09	0.0000	0.0000	9.60E-05
105		*	0.00	0.000	0.000	0.3578	0.0046	0.0000	7.90E-09	0.0000	0.0000	9.59E-05
106		*	0.00	0.000	0.000	0.3578	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.58E-05
107		*	0.00	0.000	0.000	0.3578	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.57E-05
108		*	0.00	0.000	0.000	0.3578	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.56E-05
109		*	0.00	0.000	0.000	0.3578	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.54E-05
110	*	*	0.13	0.000	0.057	0.3578	0.0046	0.0000	7.88E-09	0.0000	0.0000	9.53E-05
111		*	0.03	0.000	0.097	0.3580	0.0045	0.0000	7.88E-09	0.0000	0.0000	9.52E-05
112			0.00	0.000	0.180	0.2807	0.0045	0.0000	7.88E-09	0.0000	0.0000	9.51E-05
113			0.00	0.000	0.144	0.2385	0.0045	0.0000	7.88E-09	0.0000	0.0000	9.50E-05
114	*		0.01	0.000	0.056	0.2289	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.49E-05
115	*		0.06	0.000	0.061	0.2236	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.48E-05
116	*		0.44	0.000	0.022	0.2202	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.46E-05

117		0.03	0.000	0.030	0.2330	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.45E-05
118	*	0.65	0.000	0.034	0.2308	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.44E-05
119	*	0.00	0.000	0.027	0.2293	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.43E-05
120	*	0.06	0.000	0.028	0.2280	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.42E-05
121		0.00	0.000	0.142	0.2427	0.0048	0.0000	7.93E-09	0.0000	0.0000	9.41E-05
122		0.08	0.000	0.340	0.2302	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.40E-05
123		0.15	0.000	0.291	0.2225	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.39E-05
124		0.46	0.000	0.254	0.2294	0.0047	0.0000	7.92E-09	0.0000	0.0000	9.38E-05
125	*	0.00	0.000	0.132	0.2227	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.37E-05
126		0.00	0.000	0.275	0.2110	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.35E-05
127		0.00	0.000	0.288	0.1980	0.0047	0.0000	7.91E-09	0.0000	0.0000	9.34E-05
128		0.00	0.000	0.297	0.1835	0.0047	0.0000	7.90E-09	0.0000	0.0000	9.33E-05
129		1.28	0.000	0.177	0.2275	0.0046	0.0000	7.90E-09	0.0000	0.0000	9.32E-05
130		0.30	0.000	0.300	0.2262	0.0046	0.0000	7.90E-09	0.0000	0.0000	9.31E-05
131		0.07	0.000	0.134	0.2222	0.0046	0.0000	7.90E-09	0.0000	0.0000	9.30E-05
132		0.28	0.000	0.122	0.2276	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.29E-05
133		0.00	0.000	0.278	0.2142	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.28E-05
134		0.24	0.000	0.402	0.2063	0.0046	0.0000	7.89E-09	0.0000	0.0000	9.27E-05
135		0.00	0.000	0.400	0.1885	0.0046	0.0000	7.88E-09	0.0000	0.0000	9.26E-05
136		0.39	0.000	0.274	0.1918	0.0045	0.0000	7.88E-09	0.0000	0.0000	9.25E-05
137		0.00	0.000	0.136	0.1845	0.0045	0.0000	7.88E-09	0.0000	0.0000	9.24E-05
138		0.00	0.000	0.210	0.1747	0.0045	0.0000	7.87E-09	0.0000	0.0000	9.22E-05
139		0.00	0.000	0.177	0.1664	0.0045	0.0000	7.87E-09	0.0000	0.0000	9.21E-05
140		0.00	0.000	0.073	0.1625	0.0045	0.0000	7.87E-09	0.0000	0.0000	9.20E-05
141		0.09	0.000	0.057	0.1634	0.0045	0.0000	7.87E-09	0.0000	0.0000	9.19E-05
142		0.04	0.000	0.048	0.1629	0.0045	0.0000	7.86E-09	0.0000	0.0000	9.18E-05
143		0.67	0.000	0.042	0.1887	0.0045	0.0000	7.86E-09	0.0000	0.0000	9.17E-05
144		0.16	0.000	0.143	0.1892	0.0044	0.0000	7.86E-09	0.0000	0.0000	9.16E-05
145		0.00	0.000	0.241	0.1783	0.0044	0.0000	7.85E-09	0.0000	0.0000	9.15E-05
146		0.00	0.000	0.256	0.1672	0.0044	0.0000	7.85E-09	0.0000	0.0000	9.14E-05
147		0.00	0.000	0.177	0.1597	0.0044	0.0000	7.85E-09	0.0000	0.0000	9.13E-05

148	0.00	0.000	0.073	0.1565	0.0044	0.0000	7.85E-09	0.0000	0.0000	9.12E-05
149	0.00	0.000	0.056	0.1538	0.0044	0.0000	7.84E-09	0.0000	0.0000	9.11E-05
150	0.00	0.000	0.047	0.1513	0.0044	0.0000	7.84E-09	0.0000	0.0000	9.10E-05
151	0.00	0.000	0.042	0.1490	0.0043	0.0000	7.84E-09	0.0000	0.0000	9.09E-05
152	0.00	0.000	0.038	0.1468	0.0043	0.0000	7.83E-09	0.0000	0.0000	9.08E-05
153	0.00	0.000	0.035	0.1447	0.0043	0.0000	7.83E-09	0.0000	0.0000	9.07E-05
154	0.00	0.000	0.032	0.1428	0.0043	0.0000	7.83E-09	0.0000	0.0000	9.06E-05
155	0.00	0.000	0.030	0.1409	0.0043	0.0000	7.83E-09	0.0000	0.0000	9.05E-05
156	0.00	0.000	0.029	0.1392	0.0043	0.0000	7.82E-09	0.0000	0.0000	9.04E-05
157	0.00	0.000	0.027	0.1375	0.0043	0.0000	7.82E-09	0.0000	0.0000	9.03E-05
158	0.00	0.000	0.026	0.1360	0.0043	0.0000	7.82E-09	0.0000	0.0000	9.02E-05
159	0.00	0.000	0.025	0.1344	0.0042	0.0000	7.81E-09	0.0000	0.0000	9.01E-05
160	0.00	0.000	0.024	0.1330	0.0042	0.0000	7.81E-09	0.0000	0.0000	9.00E-05
161	0.00	0.000	0.023	0.1316	0.0042	0.0000	7.81E-09	0.0000	0.0000	8.99E-05
162	0.00	0.000	0.022	0.1303	0.0042	0.0000	7.81E-09	0.0000	0.0000	8.98E-05
163	0.00	0.000	0.022	0.1290	0.0042	0.0000	7.80E-09	0.0000	0.0000	8.97E-05
164	0.39	0.000	0.022	0.1441	0.0042	0.0000	7.80E-09	0.0000	0.0000	8.96E-05
165	0.13	0.000	0.021	0.1482	0.0042	0.0000	7.80E-09	0.0000	0.0000	8.95E-05
166	0.16	0.000	0.021	0.1537	0.0042	0.0000	7.80E-09	0.0000	0.0000	8.94E-05
167	0.28	0.000	0.020	0.1643	0.0041	0.0000	7.79E-09	0.0000	0.0000	8.93E-05
168	0.10	0.000	0.358	0.1530	0.0041	0.0000	7.79E-09	0.0000	0.0000	8.92E-05
169	0.00	0.000	0.020	0.1522	0.0041	0.0000	7.79E-09	0.0000	0.0000	8.91E-05
170	0.00	0.000	0.019	0.1511	0.0041	0.0000	7.78E-09	0.0000	0.0000	8.90E-05
171	0.37	0.000	0.019	0.1656	0.0041	0.0000	7.78E-09	0.0000	0.0000	8.89E-05
172	0.00	0.000	0.296	0.1531	0.0041	0.0000	7.78E-09	0.0000	0.0000	8.88E-05
173	0.00	0.000	0.018	0.1521	0.0041	0.0000	7.78E-09	0.0000	0.0000	8.87E-05
174	0.00	0.000	0.018	0.1512	0.0041	0.0000	7.77E-09	0.0000	0.0000	8.86E-05
175	0.00	0.000	0.017	0.1502	0.0040	0.0000	7.77E-09	0.0000	0.0000	8.85E-05
176	0.68	0.000	0.018	0.1777	0.0040	0.0000	7.77E-09	0.0000	0.0000	8.84E-05
177	0.00	0.000	0.227	0.1681	0.0040	0.0000	7.77E-09	0.0000	0.0000	8.83E-05
178	0.95	0.000	0.296	0.1953	0.0040	0.0000	7.76E-09	0.0000	0.0000	8.82E-05

179	0.87	0.000	0.298	0.2190	0.0040	0.0000	7.76E-09	0.0000	0.0000	8.81E-05
180	0.93	0.000	0.329	0.2439	0.0040	0.0000	7.76E-09	0.0000	0.0000	8.80E-05
181	0.00	0.000	0.327	0.2299	0.0040	0.0000	7.76E-09	0.0000	0.0000	8.79E-05
182	0.00	0.000	0.312	0.2164	0.0040	0.0000	7.75E-09	0.0000	0.0000	8.78E-05
183	0.00	0.000	0.297	0.2040	0.0039	0.0000	7.75E-09	0.0000	0.0000	8.77E-05
184	0.00	0.000	0.250	0.1936	0.0039	0.0000	7.75E-09	0.0000	0.0000	8.76E-05
185	0.00	0.000	0.177	0.1845	0.0039	0.0000	7.75E-09	0.0000	0.0000	8.75E-05
186	0.00	0.000	0.073	0.1783	0.0039	0.0000	7.74E-09	0.0000	0.0000	8.74E-05
187	0.00	0.000	0.056	0.1730	0.0039	0.0000	7.74E-09	0.0000	0.0000	8.73E-05
188	0.01	0.000	0.048	0.1687	0.0039	0.0000	7.74E-09	0.0000	0.0000	8.72E-05
189	0.03	0.000	0.042	0.1658	0.0039	0.0000	7.74E-09	0.0000	0.0000	8.71E-05
190	0.82	0.000	0.038	0.1961	0.0039	0.0000	7.73E-09	0.0000	0.0000	8.70E-05
191	0.00	0.000	0.375	0.1787	0.0039	0.0000	7.74E-09	0.0000	0.0000	8.69E-05
192	0.04	0.000	0.035	0.1782	0.0040	0.0000	7.76E-09	0.0000	0.0000	8.68E-05
193	0.54	0.000	0.033	0.1983	0.0040	0.0000	7.77E-09	0.0000	0.0000	8.67E-05
194	0.02	0.000	0.372	0.1823	0.0041	0.0000	7.79E-09	0.0000	0.0000	8.66E-05
195	0.35	0.000	0.308	0.1831	0.0042	0.0000	7.80E-09	0.0000	0.0000	8.65E-05
196	0.00	0.000	0.352	0.1674	0.0043	0.0000	7.82E-09	0.0000	0.0000	8.64E-05
197	0.16	0.000	0.178	0.1655	0.0043	0.0000	7.83E-09	0.0000	0.0000	8.63E-05
198	0.04	0.000	0.074	0.1629	0.0044	0.0000	7.85E-09	0.0000	0.0000	8.63E-05
199	0.41	0.000	0.057	0.1763	0.0045	0.0000	7.86E-09	0.0000	0.0000	8.62E-05
200	0.00	0.000	0.373	0.1594	0.0045	0.0000	7.88E-09	0.0000	0.0000	8.61E-05
201	0.00	0.000	0.047	0.1568	0.0046	0.0000	7.89E-09	0.0000	0.0000	8.60E-05
202	0.00	0.000	0.042	0.1543	0.0047	0.0000	7.91E-09	0.0000	0.0000	8.59E-05
203	0.00	0.000	0.038	0.1521	0.0048	0.0000	7.92E-09	0.0000	0.0000	8.58E-05
204	0.09	0.000	0.035	0.1537	0.0048	0.0000	7.94E-09	0.0000	0.0000	8.57E-05
205	0.36	0.000	0.033	0.1665	0.0049	0.0000	7.95E-09	0.0000	0.0000	8.56E-05
206	0.07	0.000	0.031	0.1675	0.0050	0.0000	7.97E-09	0.0000	0.0000	8.55E-05
207	0.28	0.000	0.029	0.1774	0.0050	0.0000	7.98E-09	0.0000	0.0000	8.54E-05
208	0.35	0.000	0.348	0.1768	0.0051	0.0000	8.00E-09	0.0000	0.0000	8.53E-05
209	0.00	0.000	0.324	0.1631	0.0052	0.0000	8.01E-09	0.0000	0.0000	8.52E-05

210	0.00	0.000	0.177	0.1552	0.0052	0.0000	8.03E-09	0.0000	0.0000	8.51E-05
211	0.65	0.000	0.074	0.1785	0.0053	0.0000	8.04E-09	0.0000	0.0000	8.51E-05
212	0.42	0.000	0.268	0.1846	0.0054	0.0000	8.05E-09	0.0000	0.0000	8.50E-05
213	0.00	0.000	0.344	0.1698	0.0054	0.0000	8.07E-09	0.0000	0.0000	8.49E-05
214	0.00	0.000	0.341	0.1552	0.0055	0.0000	8.08E-09	0.0000	0.0000	8.48E-05
215	0.01	0.000	0.174	0.1476	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.47E-05
216	0.02	0.000	0.074	0.1448	0.0056	0.0000	8.11E-09	0.0000	0.0000	8.46E-05
217	0.02	0.000	0.057	0.1427	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.45E-05
218	0.65	0.000	0.048	0.1672	0.0058	0.0000	8.14E-09	0.0000	0.0000	8.44E-05
219	0.57	0.000	0.188	0.1826	0.0058	0.0000	8.15E-09	0.0000	0.0000	8.43E-05
220	1.01	0.000	0.286	0.2125	0.0059	0.0000	8.16E-09	0.0000	0.0000	8.42E-05
221	0.86	0.000	0.255	0.2375	0.0060	0.0000	8.18E-09	0.0000	0.0000	8.42E-05
222	0.25	0.000	0.293	0.2353	0.0060	0.0000	8.19E-09	0.0000	0.0000	8.41E-05
223	0.21	0.000	0.256	0.2330	0.0061	0.0000	8.21E-09	0.0000	0.0000	8.40E-05
224	0.00	0.000	0.160	0.2260	0.0062	0.0000	8.22E-09	0.0000	0.0000	8.39E-05
225	0.01	0.000	0.153	0.2199	0.0062	0.0000	8.23E-09	0.0000	0.0000	8.38E-05
226	0.00	0.000	0.245	0.2097	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.37E-05
227	0.00	0.000	0.208	0.2000	0.0063	0.0000	8.26E-09	0.0000	0.0000	8.36E-05
228	0.81	0.000	0.160	0.2258	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.35E-05
229	0.23	0.000	0.144	0.2281	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.35E-05
230	0.25	0.000	0.304	0.2239	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.34E-05
231	0.52	0.000	0.311	0.2305	0.0063	0.0000	8.26E-09	0.0000	0.0000	8.33E-05
232	0.05	0.000	0.188	0.2221	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.32E-05
233	0.04	0.000	0.282	0.2108	0.0064	0.0000	8.26E-09	0.0000	0.0000	8.31E-05
234	0.40	0.000	0.281	0.2146	0.0064	0.0000	8.27E-09	0.0000	0.0000	8.30E-05
235	0.52	0.000	0.133	0.2292	0.0065	0.0000	8.29E-09	0.0000	0.0000	8.29E-05
236	0.00	0.000	0.170	0.2201	0.0065	0.0000	8.30E-09	0.0000	0.0000	8.28E-05
237	0.21	0.000	0.169	0.2211	0.0066	0.0000	8.31E-09	0.0000	0.0000	8.28E-05
238	0.00	0.000	0.350	0.2055	0.0067	0.0000	8.32E-09	0.0000	0.0000	8.27E-05
239	0.00	0.000	0.273	0.1932	0.0067	0.0000	8.34E-09	0.0000	0.0000	8.26E-05
240	0.15	0.000	0.142	0.1920	0.0068	0.0000	8.35E-09	0.0000	0.0000	8.25E-05

241	0.00	0.000	0.273	0.1796	0.0069	0.0000	8.36E-09	0.0000	0.0000	8.24E-05
242	0.00	0.000	0.290	0.1669	0.0069	0.0000	8.38E-09	0.0000	0.0000	8.23E-05
243	0.00	0.000	0.177	0.1590	0.0070	0.0000	8.39E-09	0.0000	0.0000	8.22E-05
244	0.00	0.000	0.073	0.1559	0.0071	0.0000	8.40E-09	0.0000	0.0000	8.22E-05
245	0.00	0.000	0.056	0.1529	0.0071	0.0000	8.42E-09	0.0000	0.0000	8.21E-05
246	0.00	0.000	0.047	0.1506	0.0072	0.0000	8.43E-09	0.0000	0.0000	8.20E-05
247	0.22	0.000	0.042	0.1582	0.0072	0.0000	8.44E-09	0.0000	0.0000	8.19E-05
248	0.00	0.000	0.038	0.1563	0.0073	0.0000	8.46E-09	0.0000	0.0000	8.18E-05
249	0.00	0.000	0.035	0.1542	0.0074	0.0000	8.47E-09	0.0000	0.0000	8.17E-05
250	0.13	0.000	0.033	0.1574	0.0074	0.0000	8.48E-09	0.0000	0.0000	8.17E-05
251	0.19	0.000	0.031	0.1630	0.0075	0.0000	8.49E-09	0.0000	0.0000	8.16E-05
252	1.28	0.000	0.029	0.2143	0.0076	0.0000	8.51E-09	0.0000	0.0000	8.15E-05
253	0.21	0.000	0.236	0.2119	0.0076	0.0000	8.52E-09	0.0000	0.0000	8.14E-05
254	0.00	0.000	0.214	0.2022	0.0077	0.0000	8.53E-09	0.0000	0.0000	8.13E-05
255	0.12	0.000	0.183	0.1987	0.0077	0.0000	8.54E-09	0.0000	0.0000	8.12E-05
256	0.14	0.000	0.186	0.1966	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.12E-05
257	0.08	0.000	0.274	0.1879	0.0079	0.0000	8.57E-09	0.0000	0.0000	8.11E-05
258	0.04	0.000	0.155	0.1824	0.0079	0.0000	8.58E-09	0.0000	0.0000	8.10E-05
259	0.00	0.000	0.320	0.1683	0.0080	0.0000	8.59E-09	0.0000	0.0000	8.09E-05
260	0.00	0.000	0.194	0.1592	0.0080	0.0000	8.61E-09	0.0000	0.0000	8.08E-05
261	0.08	0.000	0.176	0.1546	0.0081	0.0000	8.62E-09	0.0000	0.0000	8.07E-05
262	0.00	0.000	0.073	0.1508	0.0082	0.0000	8.63E-09	0.0000	0.0000	8.07E-05
263	0.00	0.000	0.056	0.1476	0.0082	0.0000	8.64E-09	0.0000	0.0000	8.06E-05
264	0.00	0.000	0.047	0.1452	0.0083	0.0000	8.65E-09	0.0000	0.0000	8.05E-05
265	0.00	0.000	0.042	0.1430	0.0083	0.0000	8.67E-09	0.0000	0.0000	8.04E-05
266	0.00	0.000	0.037	0.1410	0.0084	0.0000	8.68E-09	0.0000	0.0000	8.03E-05
267	0.07	0.000	0.035	0.1419	0.0085	0.0000	8.69E-09	0.0000	0.0000	8.02E-05
268	0.28	0.000	0.032	0.1519	0.0085	0.0000	8.70E-09	0.0000	0.0000	8.02E-05
269	0.19	0.000	0.031	0.1585	0.0086	0.0000	8.71E-09	0.0000	0.0000	8.01E-05
270	0.11	0.000	0.029	0.1614	0.0086	0.0000	8.73E-09	0.0000	0.0000	8.00E-05
271	0.02	0.000	0.203	0.1536	0.0087	0.0000	8.74E-09	0.0000	0.0000	7.99E-05

272		0.00	0.000	0.027	0.1525	0.0088	0.0000	8.75E-09	0.0000	0.0000	7.98E-05
273		0.00	0.000	0.026	0.1513	0.0088	0.0000	8.76E-09	0.0000	0.0000	7.98E-05
274	*	0.01	0.000	0.033	0.1501	0.0089	0.0000	8.77E-09	0.0000	0.0000	7.97E-05
275		0.01	0.000	0.024	0.1495	0.0089	0.0000	8.78E-09	0.0000	0.0000	7.96E-05
276	*	0.02	0.000	0.041	0.1485	0.0090	0.0000	8.80E-09	0.0000	0.0000	7.95E-05
277	*	0.12	0.000	0.043	0.1491	0.0090	0.0000	8.81E-09	0.0000	0.0000	7.94E-05
278		0.00	0.000	0.081	0.1480	0.0091	0.0000	8.82E-09	0.0000	0.0000	7.94E-05
279		0.05	0.000	0.022	0.1490	0.0092	0.0000	8.83E-09	0.0000	0.0000	7.93E-05
280		0.00	0.000	0.021	0.1478	0.0092	0.0000	8.84E-09	0.0000	0.0000	7.92E-05
281		0.00	0.000	0.021	0.1467	0.0093	0.0000	8.85E-09	0.0000	0.0000	7.91E-05
282		0.00	0.000	0.020	0.1457	0.0093	0.0000	8.86E-09	0.0000	0.0000	7.91E-05
283		0.04	0.000	0.020	0.1465	0.0094	0.0000	8.87E-09	0.0000	0.0000	7.90E-05
284		0.00	0.000	0.019	0.1454	0.0094	0.0000	8.89E-09	0.0000	0.0000	7.89E-05
285		0.00	0.000	0.019	0.1444	0.0095	0.0000	8.90E-09	0.0000	0.0000	7.88E-05
286		0.00	0.000	0.018	0.1435	0.0095	0.0000	8.91E-09	0.0000	0.0000	7.87E-05
287		0.00	0.000	0.018	0.1426	0.0096	0.0000	8.92E-09	0.0000	0.0000	7.87E-05
288		0.00	0.000	0.016	0.1417	0.0097	0.0000	8.93E-09	0.0000	0.0000	7.86E-05
289		0.17	0.000	0.017	0.1478	0.0097	0.0000	8.94E-09	0.0000	0.0000	7.85E-05
290		0.00	0.000	0.017	0.1469	0.0098	0.0000	8.95E-09	0.0000	0.0000	7.84E-05
291		0.00	0.000	0.017	0.1459	0.0098	0.0000	8.96E-09	0.0000	0.0000	7.83E-05
292		0.00	0.000	0.016	0.1450	0.0099	0.0000	8.97E-09	0.0000	0.0000	7.83E-05
293		0.00	0.000	0.016	0.1441	0.0099	0.0000	8.98E-09	0.0000	0.0000	7.82E-05
294	*	0.00	0.000	0.000	0.1440	0.0100	0.0000	8.99E-09	0.0000	0.0000	7.81E-05
295	*	0.00	0.000	0.000	0.1439	0.0100	0.0000	9.01E-09	0.0000	0.0000	7.80E-05
296	*	0.04	0.000	0.015	0.1446	0.0101	0.0000	9.02E-09	0.0000	0.0000	7.80E-05
297	*	0.00	0.000	0.008	0.1445	0.0101	0.0000	9.03E-09	0.0000	0.0000	7.79E-05
298	*	0.00	0.000	0.000	0.1443	0.0102	0.0000	9.04E-09	0.0000	0.0000	7.78E-05
299	*	0.00	0.000	0.000	0.1442	0.0102	0.0000	9.05E-09	0.0000	0.0000	7.77E-05
300	*	0.00	0.000	0.000	0.1440	0.0103	0.0000	9.06E-09	0.0000	0.0000	7.77E-05
301	*	0.00	0.000	0.000	0.1438	0.0103	0.0000	9.07E-09	0.0000	0.0000	7.76E-05
302	*	0.00	0.000	0.000	0.1437	0.0104	0.0000	9.08E-09	0.0000	0.0000	7.75E-05

303	*		0.00	0.000	0.003	0.1435	0.0105	0.0000	9.09E-09	0.0000	0.0000	7.74E-05
304	*		0.00	0.000	0.000	0.1433	0.0105	0.0000	9.10E-09	0.0000	0.0000	7.74E-05
305	*		0.00	0.000	0.000	0.1431	0.0106	0.0000	9.11E-09	0.0000	0.0000	7.73E-05
306	*		0.00	0.000	0.000	0.1430	0.0106	0.0000	9.12E-09	0.0000	0.0000	7.72E-05
307			0.00	0.000	0.016	0.1420	0.0107	0.0000	9.13E-09	0.0000	0.0000	7.71E-05
308			0.00	0.000	0.016	0.1412	0.0107	0.0000	9.14E-09	0.0000	0.0000	7.71E-05
309			0.12	0.000	0.015	0.1454	0.0108	0.0000	9.15E-09	0.0000	0.0000	7.70E-05
310			0.00	0.000	0.015	0.1446	0.0108	0.0000	9.16E-09	0.0000	0.0000	7.69E-05
311			0.00	0.000	0.015	0.1438	0.0109	0.0000	9.17E-09	0.0000	0.0000	7.68E-05
312			0.00	0.000	0.015	0.1430	0.0109	0.0000	9.18E-09	0.0000	0.0000	7.68E-05
313			0.01	0.000	0.015	0.1424	0.0110	0.0000	9.19E-09	0.0000	0.0000	7.67E-05
314	*		0.00	0.000	0.014	0.1417	0.0110	0.0000	9.20E-09	0.0000	0.0000	7.66E-05
315	*		0.00	0.000	0.000	0.1417	0.0111	0.0000	9.21E-09	0.0000	0.0000	7.65E-05
316	*		0.00	0.000	0.000	0.1416	0.0111	0.0000	9.22E-09	0.0000	0.0000	7.65E-05
317	*		0.00	0.000	0.000	0.1416	0.0112	0.0000	9.23E-09	0.0000	0.0000	7.64E-05
318	*	*	0.00	0.000	0.000	0.1416	0.0112	0.0000	9.24E-09	0.0000	0.0000	7.63E-05
319	*	*	0.00	0.000	0.000	0.1416	0.0113	0.0000	9.25E-09	0.0000	0.0000	7.62E-05
320	*	*	0.00	0.000	0.000	0.1416	0.0113	0.0000	9.26E-09	0.0000	0.0000	7.62E-05
321	*	*	0.00	0.000	0.000	0.1416	0.0114	0.0000	9.27E-09	0.0000	0.0000	7.61E-05
322	*	*	0.00	0.000	0.000	0.1416	0.0114	0.0000	9.28E-09	0.0000	0.0000	7.60E-05
323	*	*	0.00	0.000	0.000	0.1416	0.0115	0.0000	9.29E-09	0.0000	0.0000	7.59E-05
324	*	*	0.00	0.000	0.000	0.1416	0.0115	0.0000	9.30E-09	0.0000	0.0000	7.59E-05
325	*	*	0.00	0.000	0.000	0.1416	0.0116	0.0000	9.31E-09	0.0000	0.0000	7.58E-05
326	*	*	0.00	0.000	0.000	0.1416	0.0116	0.0000	9.31E-09	0.0000	0.0000	7.57E-05
327	*	*	0.23	0.000	0.041	0.1416	0.0116	0.0000	9.32E-09	0.0000	0.0000	7.57E-05
328		*	0.00	0.000	0.032	0.1483	0.0117	0.0000	9.33E-09	0.0000	0.0000	7.56E-05
329		*	0.01	0.000	0.000	0.1488	0.0117	0.0000	9.34E-09	0.0000	0.0000	7.55E-05
330		*	0.17	0.000	0.000	0.1558	0.0118	0.0000	9.35E-09	0.0000	0.0000	7.54E-05
331		*	0.00	0.000	0.000	0.1560	0.0118	0.0000	9.36E-09	0.0000	0.0000	7.54E-05
332		*	0.00	0.000	0.000	0.1560	0.0119	0.0000	9.37E-09	0.0000	0.0000	7.53E-05
333		*	0.00	0.000	0.000	0.1560	0.0119	0.0000	9.38E-09	0.0000	0.0000	7.52E-05

334	*	*	0.00	0.000	0.000	0.1560	0.0120	0.0000	9.39E-09	0.0000	0.0000	7.52E-05
335		*	0.00	0.000	0.000	0.1560	0.0120	0.0000	9.40E-09	0.0000	0.0000	7.51E-05
336	*	*	0.01	0.000	0.008	0.1560	0.0121	0.0000	9.41E-09	0.0000	0.0000	7.50E-05
337	*	*	0.00	0.000	0.000	0.1560	0.0121	0.0000	9.42E-09	0.0000	0.0000	7.49E-05
338	*	*	0.05	0.000	0.028	0.1560	0.0122	0.0000	9.42E-09	0.0000	0.0000	7.49E-05
339	*	*	0.00	0.000	0.020	0.1560	0.0122	0.0000	9.43E-09	0.0000	0.0000	7.48E-05
340		*	0.00	0.000	0.000	0.1560	0.0123	0.0000	9.44E-09	0.0000	0.0000	7.47E-05
341		*	0.00	0.000	0.000	0.1560	0.0123	0.0000	9.45E-09	0.0000	0.0000	7.47E-05
342		*	0.13	0.000	0.000	0.1615	0.0123	0.0000	9.46E-09	0.0000	0.0000	7.46E-05
343		*	0.01	0.000	0.000	0.1619	0.0124	0.0000	9.47E-09	0.0000	0.0000	7.45E-05
344		*	0.02	0.000	0.000	0.1627	0.0124	0.0000	9.48E-09	0.0000	0.0000	7.44E-05
345		*	0.00	0.000	0.000	0.1628	0.0125	0.0000	9.49E-09	0.0000	0.0000	7.44E-05
346	*	*	0.57	0.000	0.040	0.1628	0.0125	0.0000	9.50E-09	0.0000	0.0000	7.43E-05
347	*	*	0.24	0.000	0.015	0.1628	0.0126	0.0000	9.50E-09	0.0000	0.0000	7.42E-05
348	*	*	0.73	0.000	0.025	0.1628	0.0126	0.0000	9.51E-09	0.0000	0.0000	7.42E-05
349	*	*	0.05	0.000	0.010	0.1628	0.0127	0.0000	9.52E-09	0.0000	0.0000	7.41E-05
350	*	*	0.00	0.000	0.022	0.1628	0.0127	0.0000	9.53E-09	0.0000	0.0000	7.40E-05
351	*	*	0.00	0.000	0.025	0.1628	0.0127	0.0000	9.54E-09	0.0000	0.0000	7.40E-05
352		*	0.03	0.000	0.000	0.1727	0.0128	0.0000	9.55E-09	0.0000	0.0000	7.39E-05
353	*	*	0.00	0.000	0.041	0.1727	0.0128	0.0000	9.56E-09	0.0000	0.0000	7.38E-05
354		*	0.09	0.000	0.000	0.1794	0.0129	0.0000	9.56E-09	0.0000	0.0000	7.38E-05
355		*	0.00	0.000	0.000	0.2263	0.0129	0.0000	9.57E-09	0.0000	0.0000	7.37E-05
356		*	0.00	0.000	0.000	0.2263	0.0130	0.0000	9.58E-09	0.0000	0.0000	7.36E-05
357	*	*	0.00	0.000	0.000	0.2263	0.0130	0.0000	9.59E-09	0.0000	0.0000	7.35E-05
358	*	*	0.00	0.000	0.000	0.2263	0.0130	0.0000	9.60E-09	0.0000	0.0000	7.35E-05
359	*	*	0.00	0.000	0.000	0.2263	0.0131	0.0000	9.61E-09	0.0000	0.0000	7.34E-05
360	*	*	0.00	0.000	0.000	0.2263	0.0131	0.0000	9.61E-09	0.0000	0.0000	7.33E-05
361		*	0.22	0.000	0.000	0.2356	0.0132	0.0000	9.62E-09	0.0000	0.0000	7.33E-05
362		*	0.00	0.000	0.000	0.2356	0.0132	0.0000	9.63E-09	0.0000	0.0000	7.32E-05
363	*	*	0.00	0.000	0.000	0.2356	0.0133	0.0000	9.64E-09	0.0000	0.0000	7.31E-05
364		*	0.00	0.000	0.000	0.2356	0.0133	0.0000	9.65E-09	0.0000	0.0000	7.31E-05

365	*	0.05	0.000	0.000	0.2378	0.0133	0.0000	9.65E-09	0.0000	0.0000	7.30E-05

* = Frozen (air or soil)

Annual Totals for Year 2			
	inches	cubic feet	percent
Precipitation	34.27	124,383.8	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	26.081	94,672.2	76.11
Drainage Collected from Layer 3	0.0028	10.3	0.01
Percolation/Leakage through Layer 4	0.000003	0.0111	0.00
Average Head on Top of Layer 4	0.0069	---	---
Percolation/Leakage through Layer 6	0.032435	117.7	0.09
Change in Water Storage	8.1497	29,583.5	23.78
Soil Water at Start of Year	32.5998	118,337.3	95.14
Soil Water at End of Year	40.7495	147,920.8	118.92
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 3

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:27

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.2378	0.0134	0.0000	9.66E-09	0.0000	0.0000	7.29E-05
2		*	0.00	0.000	0.000	0.2378	0.0134	0.0000	9.67E-09	0.0000	0.0000	7.29E-05
3	*	*	0.00	0.000	0.000	0.2378	0.0135	0.0000	9.68E-09	0.0000	0.0000	7.28E-05
4	*	*	0.00	0.000	0.000	0.2378	0.0135	0.0000	9.69E-09	0.0000	0.0000	7.27E-05
5	*	*	0.01	0.000	0.010	0.2378	0.0135	0.0000	9.69E-09	0.0000	0.0000	7.27E-05
6	*	*	0.00	0.000	0.000	0.2378	0.0136	0.0000	9.70E-09	0.0000	0.0000	7.26E-05
7		*	0.00	0.000	0.000	0.2378	0.0136	0.0000	9.71E-09	0.0000	0.0000	7.25E-05
8	*	*	0.00	0.000	0.000	0.2378	0.0137	0.0000	9.72E-09	0.0000	0.0000	7.25E-05
9	*	*	0.00	0.000	0.000	0.2378	0.0137	0.0000	9.73E-09	0.0000	0.0000	7.24E-05
10	*	*	0.19	0.000	0.007	0.2378	0.0137	0.0000	9.73E-09	0.0000	0.0000	7.23E-05
11	*	*	0.12	0.000	0.003	0.2378	0.0137	0.0000	9.72E-09	0.0000	0.0000	7.23E-05
12	*	*	0.00	0.000	0.021	0.2378	0.0136	0.0000	9.71E-09	0.0000	0.0000	7.22E-05
13	*	*	0.02	0.000	0.000	0.2378	0.0136	0.0000	9.70E-09	0.0000	0.0000	7.21E-05
14	*	*	0.02	0.000	0.000	0.2378	0.0136	0.0000	9.70E-09	0.0000	0.0000	7.21E-05
15	*	*	0.21	0.000	0.000	0.2378	0.0135	0.0000	9.69E-09	0.0000	0.0000	7.20E-05
16	*	*	0.03	0.000	0.000	0.2378	0.0135	0.0000	9.68E-09	0.0000	0.0000	7.19E-05
17	*	*	0.00	0.000	0.033	0.2378	0.0134	0.0000	9.67E-09	0.0000	0.0000	7.19E-05
18	*	*	0.00	0.000	0.023	0.2378	0.0134	0.0000	9.66E-09	0.0000	0.0000	7.18E-05
19		*	0.00	0.000	0.013	0.2505	0.0134	0.0000	9.66E-09	0.0000	0.0000	7.17E-05
20		*	0.00	0.000	0.032	0.2565	0.0133	0.0000	9.65E-09	0.0000	0.0000	7.17E-05
21	*	*	0.03	0.000	0.028	0.2565	0.0133	0.0000	9.64E-09	0.0000	0.0000	7.16E-05
22	*	*	0.15	0.000	0.030	0.2565	0.0132	0.0000	9.63E-09	0.0000	0.0000	7.16E-05
23	*	*	0.00	0.000	0.036	0.2565	0.0132	0.0000	9.63E-09	0.0000	0.0000	7.15E-05

24		*	0.00	0.000	0.065	0.2574	0.0132	0.0000	9.62E-09	0.0000	0.0000	7.14E-05
25	*	*	0.00	0.000	0.000	0.2574	0.0131	0.0000	9.61E-09	0.0000	0.0000	7.14E-05
26	*	*	0.00	0.000	0.000	0.2574	0.0131	0.0000	9.60E-09	0.0000	0.0000	7.13E-05
27	*	*	0.00	0.000	0.000	0.2574	0.0130	0.0000	9.59E-09	0.0000	0.0000	7.12E-05
28	*	*	0.00	0.000	0.000	0.2574	0.0130	0.0000	9.59E-09	0.0000	0.0000	7.12E-05
29	*	*	0.00	0.000	0.000	0.2574	0.0130	0.0000	9.58E-09	0.0000	0.0000	7.11E-05
30		*	0.00	0.000	0.000	0.2574	0.0129	0.0000	9.57E-09	0.0000	0.0000	7.10E-05
31		*	0.00	0.000	0.000	0.2574	0.0129	0.0000	9.56E-09	0.0000	0.0000	7.10E-05
32	*	*	0.00	0.000	0.000	0.2574	0.0128	0.0000	9.56E-09	0.0000	0.0000	7.09E-05
33	*	*	0.00	0.000	0.000	0.2574	0.0128	0.0000	9.55E-09	0.0000	0.0000	7.08E-05
34	*	*	0.13	0.000	0.027	0.2574	0.0128	0.0000	9.54E-09	0.0000	0.0000	7.08E-05
35	*	*	0.00	0.000	0.021	0.2574	0.0127	0.0000	9.53E-09	0.0000	0.0000	7.07E-05
36		*	0.19	0.000	0.015	0.2681	0.0127	0.0000	9.53E-09	0.0000	0.0000	7.07E-05
37		*	0.00	0.000	0.000	0.2681	0.0126	0.0000	9.52E-09	0.0000	0.0000	7.06E-05
38		*	0.00	0.000	0.000	0.2681	0.0126	0.0000	9.51E-09	0.0000	0.0000	7.05E-05
39		*	0.00	0.000	0.000	0.2681	0.0126	0.0000	9.50E-09	0.0000	0.0000	7.05E-05
40		*	0.00	0.000	0.000	0.2681	0.0125	0.0000	9.50E-09	0.0000	0.0000	7.04E-05
41		*	0.00	0.000	0.000	0.2681	0.0125	0.0000	9.49E-09	0.0000	0.0000	7.03E-05
42	*	*	0.02	0.000	0.021	0.2681	0.0125	0.0000	9.48E-09	0.0000	0.0000	7.03E-05
43	*	*	0.00	0.000	0.000	0.2681	0.0124	0.0000	9.47E-09	0.0000	0.0000	7.02E-05
44	*	*	0.00	0.000	0.000	0.2681	0.0124	0.0000	9.47E-09	0.0000	0.0000	7.02E-05
45	*	*	0.00	0.000	0.000	0.2681	0.0123	0.0000	9.46E-09	0.0000	0.0000	7.01E-05
46	*	*	0.00	0.000	0.000	0.2681	0.0123	0.0000	9.45E-09	0.0000	0.0000	7.00E-05
47	*	*	0.25	0.000	0.033	0.2681	0.0123	0.0000	9.45E-09	0.0000	0.0000	7.00E-05
48		*	0.01	0.000	0.000	0.2757	0.0122	0.0000	9.44E-09	0.0000	0.0000	6.99E-05
49		*	0.01	0.000	0.053	0.2757	0.0122	0.0000	9.43E-09	0.0000	0.0000	6.98E-05
50		*	0.00	0.000	0.000	0.2757	0.0122	0.0000	9.42E-09	0.0000	0.0000	6.98E-05
51	*	*	0.00	0.000	0.000	0.2757	0.0121	0.0000	9.42E-09	0.0000	0.0000	6.97E-05
52		*	0.00	0.000	0.000	0.2757	0.0121	0.0000	9.41E-09	0.0000	0.0000	6.97E-05
53	*	*	0.00	0.000	0.000	0.2757	0.0120	0.0000	9.40E-09	0.0000	0.0000	6.96E-05
54	*	*	0.00	0.000	0.000	0.2757	0.0120	0.0000	9.40E-09	0.0000	0.0000	6.95E-05

55	*	*	0.00	0.000	0.000	0.2757	0.0120	0.0000	9.39E-09	0.0000	0.0000	6.95E-05
56		*	0.00	0.000	0.000	0.2757	0.0119	0.0000	9.38E-09	0.0000	0.0000	6.94E-05
57		*	0.00	0.000	0.000	0.2757	0.0119	0.0000	9.37E-09	0.0000	0.0000	6.94E-05
58	*	*	0.00	0.000	0.000	0.2757	0.0119	0.0000	9.37E-09	0.0000	0.0000	6.93E-05
59		*	0.00	0.000	0.000	0.2757	0.0118	0.0000	9.36E-09	0.0000	0.0000	6.92E-05
60		*	0.00	0.000	0.000	0.2757	0.0118	0.0000	9.35E-09	0.0000	0.0000	6.92E-05
61	*	*	0.00	0.000	0.004	0.2757	0.0118	0.0000	9.35E-09	0.0000	0.0000	6.91E-05
62	*	*	0.03	0.000	0.030	0.2757	0.0117	0.0000	9.34E-09	0.0000	0.0000	6.90E-05
63	*	*	0.42	0.000	0.010	0.2757	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.90E-05
64	*	*	0.96	0.000	0.000	0.2757	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.89E-05
65	*	*	0.00	0.000	0.037	0.2757	0.0116	0.0000	9.32E-09	0.0000	0.0000	6.89E-05
66	*	*	0.00	0.000	0.013	0.2757	0.0116	0.0000	9.31E-09	0.0000	0.0000	6.88E-05
67	*	*	0.00	0.000	0.022	0.2757	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.87E-05
68	*	*	0.03	0.000	0.000	0.2757	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.87E-05
69		*	0.00	0.000	0.007	0.2881	0.0115	0.0000	9.29E-09	0.0000	0.0000	6.86E-05
70		*	0.00	0.000	0.000	0.3309	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.86E-05
71		*	0.00	0.000	0.000	0.3309	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.85E-05
72		*	0.00	0.000	0.000	0.3309	0.0114	0.0000	9.27E-09	0.0000	0.0000	6.84E-05
73	*	*	0.00	0.000	0.000	0.3309	0.0113	0.0000	9.26E-09	0.0000	0.0000	6.84E-05
74		*	0.32	0.000	0.000	0.3441	0.0113	0.0000	9.26E-09	0.0000	0.0000	6.83E-05
75		*	0.10	0.000	0.000	0.3483	0.0113	0.0000	9.25E-09	0.0000	0.0000	6.83E-05
76		*	0.01	0.000	0.000	0.3485	0.0112	0.0000	9.24E-09	0.0000	0.0000	6.82E-05
77		*	0.16	0.000	0.000	0.3551	0.0112	0.0000	9.24E-09	0.0000	0.0000	6.82E-05
78		*	0.00	0.000	0.000	0.3551	0.0112	0.0000	9.23E-09	0.0000	0.0000	6.81E-05
79		*	0.00	0.000	0.000	0.3551	0.0111	0.0000	9.22E-09	0.0000	0.0000	6.80E-05
80		*	0.00	0.000	0.000	0.3551	0.0111	0.0000	9.22E-09	0.0000	0.0000	6.80E-05
81		*	0.00	0.000	0.000	0.3551	0.0111	0.0000	9.21E-09	0.0000	0.0000	6.79E-05
82		*	0.16	0.000	0.000	0.3618	0.0110	0.0000	9.20E-09	0.0000	0.0000	6.79E-05
83		*	0.62	0.000	0.000	0.3875	0.0110	0.0000	9.20E-09	0.0000	0.0000	6.78E-05
84			0.13	0.000	0.185	0.2802	0.0110	0.0000	9.19E-09	0.0000	0.0000	6.77E-05
85			0.00	0.000	0.237	0.2399	0.0110	0.0000	9.19E-09	0.0000	0.0000	6.77E-05

86		0.00	0.000	0.187	0.2241	0.0110	0.0000	9.20E-09	0.0000	0.0000	6.76E-05
87		0.00	0.000	0.326	0.2058	0.0111	0.0000	9.21E-09	0.0000	0.0000	6.76E-05
88		0.00	0.000	0.132	0.1963	0.0111	0.0000	9.22E-09	0.0000	0.0000	6.75E-05
89		0.00	0.000	0.174	0.1852	0.0112	0.0000	9.23E-09	0.0000	0.0000	6.75E-05
90		0.00	0.000	0.177	0.1746	0.0112	0.0000	9.24E-09	0.0000	0.0000	6.74E-05
91		0.00	0.000	0.073	0.1689	0.0113	0.0000	9.25E-09	0.0000	0.0000	6.73E-05
92		0.00	0.000	0.056	0.1645	0.0113	0.0000	9.26E-09	0.0000	0.0000	6.73E-05
93	*	0.00	0.000	0.003	0.1623	0.0114	0.0000	9.27E-09	0.0000	0.0000	6.72E-05
94		0.02	0.000	0.047	0.1600	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.72E-05
95		0.10	0.000	0.042	0.1603	0.0115	0.0000	9.29E-09	0.0000	0.0000	6.71E-05
96		0.00	0.000	0.038	0.1577	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.71E-05
97		0.35	0.000	0.035	0.1700	0.0116	0.0000	9.31E-09	0.0000	0.0000	6.70E-05
98		0.05	0.000	0.032	0.1700	0.0116	0.0000	9.32E-09	0.0000	0.0000	6.69E-05
99		0.00	0.000	0.030	0.1677	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.69E-05
100	*	0.00	0.000	0.000	0.1667	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.68E-05
101		0.00	0.000	0.029	0.1644	0.0117	0.0000	9.34E-09	0.0000	0.0000	6.68E-05
102		0.63	0.000	0.027	0.1887	0.0117	0.0000	9.34E-09	0.0000	0.0000	6.67E-05
103		1.34	0.000	0.196	0.2353	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.67E-05
104	*	0.05	0.000	0.108	0.2326	0.0116	0.0000	9.32E-09	0.0000	0.0000	6.66E-05
105		0.00	0.000	0.156	0.2252	0.0116	0.0000	9.32E-09	0.0000	0.0000	6.65E-05
106		0.00	0.000	0.194	0.2159	0.0116	0.0000	9.31E-09	0.0000	0.0000	6.65E-05
107		0.17	0.000	0.158	0.2156	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.64E-05
108	*	0.00	0.000	0.131	0.2100	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.64E-05
109		0.00	0.000	0.160	0.2033	0.0115	0.0000	9.29E-09	0.0000	0.0000	6.63E-05
110		0.00	0.000	0.305	0.1895	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.63E-05
111		0.00	0.000	0.113	0.1824	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.62E-05
112		0.00	0.000	0.159	0.1737	0.0114	0.0000	9.27E-09	0.0000	0.0000	6.61E-05
113		0.00	0.000	0.073	0.1685	0.0114	0.0000	9.27E-09	0.0000	0.0000	6.61E-05
114		0.30	0.000	0.056	0.1768	0.0114	0.0000	9.28E-09	0.0000	0.0000	6.60E-05
115		0.31	0.000	0.047	0.1862	0.0115	0.0000	9.29E-09	0.0000	0.0000	6.60E-05
116	*	0.43	0.000	0.038	0.1855	0.0115	0.0000	9.30E-09	0.0000	0.0000	6.59E-05

117	*	0.00	0.000	0.023	0.1850	0.0116	0.0000	9.31E-09	0.0000	0.0000	6.59E-05
118	*	0.15	0.000	0.016	0.1846	0.0116	0.0000	9.32E-09	0.0000	0.0000	6.58E-05
119	*	0.19	0.000	0.000	0.1843	0.0117	0.0000	9.33E-09	0.0000	0.0000	6.58E-05
120	*	0.04	0.000	0.026	0.1841	0.0117	0.0000	9.34E-09	0.0000	0.0000	6.57E-05
121	*	0.00	0.000	0.000	0.1839	0.0118	0.0000	9.35E-09	0.0000	0.0000	6.57E-05
122		0.00	0.000	0.064	0.2046	0.0118	0.0000	9.36E-09	0.0000	0.0000	6.56E-05
123		0.00	0.000	0.107	0.1993	0.0119	0.0000	9.37E-09	0.0000	0.0000	6.55E-05
124		0.00	0.000	0.327	0.1845	0.0119	0.0000	9.38E-09	0.0000	0.0000	6.55E-05
125		0.00	0.000	0.421	0.1669	0.0120	0.0000	9.39E-09	0.0000	0.0000	6.54E-05
126		0.03	0.000	0.442	0.1488	0.0120	0.0000	9.40E-09	0.0000	0.0000	6.54E-05
127		0.09	0.000	0.177	0.1441	0.0121	0.0000	9.41E-09	0.0000	0.0000	6.53E-05
128		0.00	0.000	0.073	0.1405	0.0121	0.0000	9.42E-09	0.0000	0.0000	6.53E-05
129		0.35	0.000	0.056	0.1522	0.0122	0.0000	9.43E-09	0.0000	0.0000	6.52E-05
130		0.40	0.000	0.048	0.1664	0.0122	0.0000	9.44E-09	0.0000	0.0000	6.52E-05
131		0.00	0.000	0.107	0.1615	0.0123	0.0000	9.45E-09	0.0000	0.0000	6.51E-05
132		0.11	0.000	0.042	0.1640	0.0123	0.0000	9.46E-09	0.0000	0.0000	6.51E-05
133		0.02	0.000	0.405	0.1470	0.0124	0.0000	9.47E-09	0.0000	0.0000	6.50E-05
134		0.62	0.000	0.038	0.1712	0.0124	0.0000	9.48E-09	0.0000	0.0000	6.49E-05
135		0.99	0.000	0.331	0.1984	0.0125	0.0000	9.49E-09	0.0000	0.0000	6.49E-05
136		0.32	0.000	0.283	0.1997	0.0125	0.0000	9.50E-09	0.0000	0.0000	6.48E-05
137		0.22	0.000	0.082	0.2049	0.0126	0.0000	9.51E-09	0.0000	0.0000	6.48E-05
138	*	0.03	0.000	0.059	0.2031	0.0126	0.0000	9.51E-09	0.0000	0.0000	6.47E-05
139		0.03	0.000	0.075	0.2005	0.0127	0.0000	9.52E-09	0.0000	0.0000	6.47E-05
140	*	0.01	0.000	0.007	0.1999	0.0127	0.0000	9.53E-09	0.0000	0.0000	6.46E-05
141	*	0.00	0.000	0.142	0.1935	0.0128	0.0000	9.54E-09	0.0000	0.0000	6.46E-05
142		0.00	0.000	0.170	0.1860	0.0128	0.0000	9.55E-09	0.0000	0.0000	6.45E-05
143		0.00	0.000	0.281	0.1739	0.0129	0.0000	9.56E-09	0.0000	0.0000	6.45E-05
144		0.04	0.000	0.177	0.1677	0.0129	0.0000	9.57E-09	0.0000	0.0000	6.44E-05
145		0.00	0.000	0.178	0.1599	0.0129	0.0000	9.58E-09	0.0000	0.0000	6.44E-05
146		0.00	0.000	0.293	0.1473	0.0130	0.0000	9.59E-09	0.0000	0.0000	6.43E-05
147		0.00	0.000	0.177	0.1394	0.0130	0.0000	9.60E-09	0.0000	0.0000	6.43E-05

148	0.20	0.000	0.074	0.1439	0.0131	0.0000	9.60E-09	0.0000	0.0000	6.42E-05
149	0.07	0.000	0.057	0.1440	0.0131	0.0000	9.61E-09	0.0000	0.0000	6.42E-05
150	0.00	0.000	0.047	0.1416	0.0132	0.0000	9.62E-09	0.0000	0.0000	6.41E-05
151	0.00	0.000	0.042	0.1395	0.0132	0.0000	9.63E-09	0.0000	0.0000	6.41E-05
152	0.00	0.000	0.038	0.1376	0.0133	0.0000	9.64E-09	0.0000	0.0000	6.40E-05
153	0.00	0.000	0.035	0.1359	0.0133	0.0000	9.65E-09	0.0000	0.0000	6.39E-05
154	0.03	0.000	0.033	0.1354	0.0134	0.0000	9.66E-09	0.0000	0.0000	6.39E-05
155	1.17	0.000	0.031	0.1827	0.0134	0.0000	9.67E-09	0.0000	0.0000	6.38E-05
156	1.27	0.000	0.135	0.2299	0.0134	0.0000	9.67E-09	0.0000	0.0000	6.38E-05
157	0.01	0.000	0.165	0.2235	0.0135	0.0000	9.68E-09	0.0000	0.0000	6.37E-05
158	0.00	0.000	0.167	0.2164	0.0135	0.0000	9.69E-09	0.0000	0.0000	6.37E-05
159	0.00	0.000	0.165	0.2092	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.36E-05
160	0.00	0.000	0.389	0.1929	0.0136	0.0000	9.71E-09	0.0000	0.0000	6.36E-05
161	0.00	0.000	0.319	0.1796	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.35E-05
162	0.61	0.000	0.151	0.1989	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.35E-05
163	0.20	0.000	0.310	0.1941	0.0137	0.0000	9.73E-09	0.0000	0.0000	6.34E-05
164	0.01	0.000	0.332	0.1791	0.0137	0.0000	9.73E-09	0.0000	0.0000	6.34E-05
165	0.00	0.000	0.176	0.1696	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.33E-05
166	0.00	0.000	0.073	0.1648	0.0137	0.0000	9.71E-09	0.0000	0.0000	6.33E-05
167	0.00	0.000	0.050	0.1613	0.0136	0.0000	9.71E-09	0.0000	0.0000	6.32E-05
168	0.00	0.000	0.047	0.1580	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.32E-05
169	0.00	0.000	0.042	0.1550	0.0135	0.0000	9.69E-09	0.0000	0.0000	6.31E-05
170	0.00	0.000	0.038	0.1523	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.31E-05
171	0.16	0.000	0.035	0.1566	0.0136	0.0000	9.71E-09	0.0000	0.0000	6.30E-05
172	1.24	0.000	0.033	0.2060	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.30E-05
173	0.72	0.000	0.162	0.2284	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.29E-05
174	0.59	0.000	0.374	0.2367	0.0138	0.0000	9.75E-09	0.0000	0.0000	6.29E-05
175	0.60	0.000	0.295	0.2487	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.28E-05
176	0.07	0.000	0.167	0.2435	0.0139	0.0000	9.77E-09	0.0000	0.0000	6.28E-05
177	0.00	0.000	0.363	0.2277	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.27E-05
178	0.03	0.000	0.342	0.2145	0.0140	0.0000	9.79E-09	0.0000	0.0000	6.27E-05

179	0.07	0.000	0.174	0.2075	0.0141	0.0000	9.79E-09	0.0000	0.0000	6.26E-05
180	0.06	0.000	0.183	0.1975	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.26E-05
181	0.45	0.000	0.349	0.1985	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.25E-05
182	0.00	0.000	0.326	0.1829	0.0140	0.0000	9.79E-09	0.0000	0.0000	6.25E-05
183	0.39	0.000	0.178	0.1900	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.24E-05
184	0.70	0.000	0.242	0.2074	0.0142	0.0000	9.81E-09	0.0000	0.0000	6.24E-05
185	0.51	0.000	0.172	0.2195	0.0142	0.0000	9.83E-09	0.0000	0.0000	6.23E-05
186	0.53	0.000	0.183	0.2321	0.0143	0.0000	9.84E-09	0.0000	0.0000	6.23E-05
187	0.04	0.000	0.171	0.2254	0.0144	0.0000	9.85E-09	0.0000	0.0000	6.22E-05
188	0.11	0.000	0.168	0.2221	0.0144	0.0000	9.86E-09	0.0000	0.0000	6.22E-05
189	0.00	0.000	0.167	0.2136	0.0145	0.0000	9.88E-09	0.0000	0.0000	6.21E-05
190	0.00	0.000	0.207	0.2030	0.0146	0.0000	9.89E-09	0.0000	0.0000	6.21E-05
191	0.18	0.000	0.176	0.2019	0.0146	0.0000	9.90E-09	0.0000	0.0000	6.20E-05
192	0.00	0.000	0.339	0.1875	0.0147	0.0000	9.92E-09	0.0000	0.0000	6.20E-05
193	0.41	0.000	0.166	0.1965	0.0148	0.0000	9.93E-09	0.0000	0.0000	6.19E-05
194	0.03	0.000	0.355	0.1821	0.0148	0.0000	9.94E-09	0.0000	0.0000	6.19E-05
195	0.26	0.000	0.185	0.1842	0.0149	0.0000	9.95E-09	0.0000	0.0000	6.18E-05
196	0.00	0.000	0.363	0.1687	0.0150	0.0000	9.97E-09	0.0000	0.0000	6.18E-05
197	0.00	0.000	0.175	0.1604	0.0150	0.0000	9.98E-09	0.0000	0.0000	6.17E-05
198	0.00	0.000	0.073	0.1568	0.0151	0.0000	9.99E-09	0.0000	0.0000	6.17E-05
199	0.00	0.000	0.056	0.1543	0.0152	0.0000	1.00E-08	0.0000	0.0000	6.16E-05
200	0.00	0.000	0.047	0.1519	0.0152	0.0000	1.00E-08	0.0000	0.0000	6.16E-05
201	0.01	0.000	0.042	0.1499	0.0153	0.0000	1.00E-08	0.0000	0.0000	6.15E-05
202	0.07	0.000	0.038	0.1503	0.0153	0.0000	1.00E-08	0.0000	0.0000	6.15E-05
203	0.00	0.000	0.035	0.1480	0.0154	0.0000	1.01E-08	0.0000	0.0000	6.14E-05
204	0.02	0.000	0.033	0.1467	0.0155	0.0000	1.01E-08	0.0000	0.0000	6.14E-05
205	0.70	0.000	0.031	0.1736	0.0155	0.0000	1.01E-08	0.0000	0.0000	6.14E-05
206	0.09	0.000	0.382	0.1603	0.0156	0.0000	1.01E-08	0.0000	0.0000	6.13E-05
207	0.01	0.000	0.029	0.1595	0.0157	0.0000	1.01E-08	0.0000	0.0000	6.13E-05
208	1.40	0.000	0.028	0.2156	0.0157	0.0000	1.01E-08	0.0000	0.0000	6.12E-05
209	0.00	0.000	0.364	0.1994	0.0158	0.0000	1.01E-08	0.0000	0.0000	6.12E-05

210	0.00	0.000	0.374	0.1832	0.0158	0.0000	1.01E-08	0.0000	0.0000	6.11E-05
211	0.00	0.000	0.349	0.1677	0.0159	0.0000	1.01E-08	0.0000	0.0000	6.11E-05
212	0.08	0.000	0.177	0.1623	0.0159	0.0000	1.01E-08	0.0000	0.0000	6.10E-05
213	0.00	0.000	0.074	0.1582	0.0160	0.0000	1.02E-08	0.0000	0.0000	6.10E-05
214	0.11	0.000	0.057	0.1597	0.0160	0.0000	1.02E-08	0.0000	0.0000	6.09E-05
215	0.00	0.000	0.047	0.1569	0.0161	0.0000	1.02E-08	0.0000	0.0000	6.09E-05
216	0.00	0.000	0.042	0.1545	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.08E-05
217	0.40	0.000	0.038	0.1691	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.08E-05
218	0.07	0.000	0.333	0.1578	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.07E-05
219	0.00	0.000	0.035	0.1558	0.0164	0.0000	1.02E-08	0.0000	0.0000	6.07E-05
220	0.00	0.000	0.032	0.1539	0.0164	0.0000	1.02E-08	0.0000	0.0000	6.06E-05
221	0.23	0.000	0.031	0.1618	0.0165	0.0000	1.03E-08	0.0000	0.0000	6.06E-05
222	0.00	0.000	0.370	0.1461	0.0165	0.0000	1.03E-08	0.0000	0.0000	6.05E-05
223	0.00	0.000	0.029	0.1444	0.0166	0.0000	1.03E-08	0.0000	0.0000	6.05E-05
224	0.00	0.000	0.027	0.1428	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.05E-05
225	0.06	0.000	0.026	0.1439	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.04E-05
226	0.81	0.000	0.025	0.1764	0.0168	0.0000	1.03E-08	0.0000	0.0000	6.04E-05
227	0.37	0.000	0.174	0.1842	0.0168	0.0000	1.03E-08	0.0000	0.0000	6.03E-05
228	0.00	0.000	0.168	0.1768	0.0169	0.0000	1.03E-08	0.0000	0.0000	6.03E-05
229	0.00	0.000	0.150	0.1703	0.0170	0.0000	1.03E-08	0.0000	0.0000	6.02E-05
230	0.14	0.000	0.290	0.1637	0.0170	0.0000	1.04E-08	0.0000	0.0000	6.02E-05
231	0.01	0.000	0.274	0.1525	0.0171	0.0000	1.04E-08	0.0000	0.0000	6.01E-05
232	0.00	0.000	0.177	0.1449	0.0171	0.0000	1.04E-08	0.0000	0.0000	6.01E-05
233	0.00	0.000	0.073	0.1416	0.0172	0.0000	1.04E-08	0.0000	0.0000	6.00E-05
234	0.33	0.000	0.057	0.1527	0.0172	0.0000	1.04E-08	0.0000	0.0000	6.00E-05
235	0.00	0.000	0.047	0.1506	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.99E-05
236	0.00	0.000	0.042	0.1488	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.99E-05
237	0.24	0.000	0.038	0.1569	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.99E-05
238	0.00	0.000	0.321	0.1435	0.0175	0.0000	1.04E-08	0.0000	0.0000	5.98E-05
239	0.15	0.000	0.035	0.1483	0.0175	0.0000	1.05E-08	0.0000	0.0000	5.98E-05
240	0.00	0.000	0.032	0.1468	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.97E-05

241	0.00	0.000	0.030	0.1454	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.97E-05
242	0.26	0.000	0.029	0.1549	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.96E-05
243	0.00	0.000	0.028	0.1536	0.0178	0.0000	1.05E-08	0.0000	0.0000	5.96E-05
244	0.15	0.000	0.026	0.1584	0.0178	0.0000	1.05E-08	0.0000	0.0000	5.95E-05
245	0.24	0.000	0.134	0.1629	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.95E-05
246	0.04	0.000	0.297	0.1522	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.94E-05
247	0.01	0.000	0.177	0.1450	0.0180	0.0000	1.05E-08	0.0000	0.0000	5.94E-05
248	0.00	0.000	0.073	0.1417	0.0180	0.0000	1.06E-08	0.0000	0.0000	5.94E-05
249	0.16	0.000	0.056	0.1456	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.93E-05
250	0.82	0.000	0.048	0.1775	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.93E-05
251	0.00	0.000	0.086	0.1737	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.92E-05
252	0.00	0.000	0.206	0.1651	0.0183	0.0000	1.06E-08	0.0000	0.0000	5.92E-05
253	0.00	0.000	0.152	0.1586	0.0183	0.0000	1.06E-08	0.0000	0.0000	5.91E-05
254	0.00	0.000	0.175	0.1512	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.91E-05
255	0.00	0.000	0.137	0.1453	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.90E-05
256	0.00	0.000	0.073	0.1420	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.90E-05
257	0.00	0.000	0.056	0.1395	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.90E-05
258	0.00	0.000	0.047	0.1373	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.89E-05
259	0.00	0.000	0.042	0.1353	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.89E-05
260	0.00	0.000	0.038	0.1336	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.88E-05
261	0.00	0.000	0.035	0.1319	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.88E-05
262	0.00	0.000	0.032	0.1304	0.0188	0.0000	1.07E-08	0.0000	0.0000	5.87E-05
263	0.00	0.000	0.030	0.1290	0.0188	0.0000	1.07E-08	0.0000	0.0000	5.87E-05
264	0.00	0.000	0.029	0.1276	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.86E-05
265	0.00	0.000	0.027	0.1263	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.86E-05
266	0.00	0.000	0.026	0.1251	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.86E-05
267	0.18	0.000	0.025	0.1314	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.85E-05
268	0.01	0.000	0.024	0.1306	0.0191	0.0000	1.08E-08	0.0000	0.0000	5.85E-05
269	0.14	0.000	0.023	0.1352	0.0192	0.0000	1.08E-08	0.0000	0.0000	5.84E-05
270	0.00	0.000	0.023	0.1342	0.0192	0.0000	1.08E-08	0.0000	0.0000	5.84E-05
271	0.10	0.000	0.022	0.1374	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.83E-05

272		0.09	0.000	0.021	0.1399	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.83E-05
273		0.01	0.000	0.021	0.1393	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.83E-05
274		0.00	0.000	0.020	0.1383	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.82E-05
275		0.00	0.000	0.020	0.1374	0.0195	0.0000	1.08E-08	0.0000	0.0000	5.82E-05
276		0.00	0.000	0.019	0.1365	0.0195	0.0000	1.08E-08	0.0000	0.0000	5.81E-05
277	*	0.00	0.000	0.000	0.1364	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.81E-05
278	*	0.00	0.000	0.019	0.1355	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.80E-05
279	*	0.00	0.000	0.018	0.1346	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.80E-05
280	*	0.00	0.000	0.000	0.1345	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.80E-05
281	*	0.00	0.000	0.004	0.1344	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.79E-05
282	*	0.00	0.000	0.002	0.1343	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.79E-05
283	*	0.00	0.000	0.000	0.1343	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.78E-05
284	*	0.00	0.000	0.000	0.1342	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.78E-05
285		0.00	0.000	0.018	0.1333	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.77E-05
286		0.27	0.000	0.018	0.1439	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.77E-05
287	*	0.00	0.000	0.017	0.1431	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.77E-05
288	*	0.06	0.000	0.048	0.1435	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.76E-05
289		0.22	0.000	0.017	0.1519	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.76E-05
290	*	0.02	0.000	0.023	0.1518	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.75E-05
291		0.00	0.000	0.074	0.1487	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.75E-05
292	*	0.01	0.000	0.011	0.1487	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.74E-05
293	*	0.00	0.000	0.000	0.1486	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.74E-05
294	*	0.00	0.000	0.000	0.1485	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.74E-05
295	*	0.00	0.000	0.000	0.1484	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.73E-05
296		0.00	0.000	0.017	0.1478	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.73E-05
297		0.04	0.000	0.016	0.1488	0.0195	0.0000	1.08E-08	0.0000	0.0000	5.72E-05
298		0.00	0.000	0.016	0.1481	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.72E-05
299	*	0.01	0.000	0.022	0.1474	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.71E-05
300		1.10	0.000	0.016	0.1924	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.71E-05
301		0.00	0.000	0.123	0.1873	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.71E-05
302		0.00	0.000	0.065	0.1845	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.70E-05

303		0.00	0.000	0.083	0.1811	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.70E-05
304		0.00	0.000	0.075	0.1780	0.0192	0.0000	1.08E-08	0.0000	0.0000	5.69E-05
305		0.00	0.000	0.087	0.1743	0.0191	0.0000	1.08E-08	0.0000	0.0000	5.69E-05
306		0.00	0.000	0.138	0.1686	0.0191	0.0000	1.07E-08	0.0000	0.0000	5.69E-05
307		0.00	0.000	0.159	0.1619	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.68E-05
308		0.00	0.000	0.160	0.1553	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.68E-05
309		0.04	0.000	0.121	0.1518	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.67E-05
310		0.07	0.000	0.108	0.1501	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.67E-05
311		0.00	0.000	0.080	0.1467	0.0188	0.0000	1.07E-08	0.0000	0.0000	5.67E-05
312		0.00	0.000	0.065	0.1439	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.66E-05
313	*	0.00	0.000	0.000	0.1438	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.66E-05
314	*	0.00	0.000	0.052	0.1416	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.65E-05
315	*	0.00	0.000	0.048	0.1395	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.65E-05
316	*	0.28	0.000	0.031	0.1402	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.64E-05
317		0.00	0.000	0.061	0.1472	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.64E-05
318		0.00	0.000	0.047	0.1451	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.64E-05
319		0.00	0.000	0.042	0.1433	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.63E-05
320	*	0.00	0.000	0.000	0.1432	0.0183	0.0000	1.06E-08	0.0000	0.0000	5.63E-05
321		0.00	0.000	0.038	0.1416	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.62E-05
322		0.00	0.000	0.035	0.1401	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.62E-05
323		0.00	0.000	0.032	0.1386	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.62E-05
324		0.00	0.000	0.030	0.1373	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.61E-05
325		0.00	0.000	0.028	0.1361	0.0180	0.0000	1.05E-08	0.0000	0.0000	5.61E-05
326		0.00	0.000	0.027	0.1349	0.0180	0.0000	1.05E-08	0.0000	0.0000	5.60E-05
327		0.00	0.000	0.026	0.1337	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.60E-05
328		0.73	0.000	0.025	0.1632	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.60E-05
329		0.02	0.000	0.065	0.1615	0.0178	0.0000	1.05E-08	0.0000	0.0000	5.59E-05
330		0.00	0.000	0.070	0.1586	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.59E-05
331		0.10	0.000	0.115	0.1580	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.58E-05
332		0.03	0.000	0.158	0.1527	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.58E-05
333		0.00	0.000	0.079	0.1494	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.58E-05

334		0.00	0.000	0.076	0.1462	0.0175	0.0000	1.05E-08	0.0000	0.0000	5.57E-05
335		0.00	0.000	0.122	0.1410	0.0175	0.0000	1.04E-08	0.0000	0.0000	5.57E-05
336		0.00	0.000	0.073	0.1379	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.56E-05
337		0.00	0.000	0.056	0.1355	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.56E-05
338		0.00	0.000	0.047	0.1335	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.56E-05
339	*	0.00	0.000	0.000	0.1334	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.55E-05
340		0.00	0.000	0.042	0.1317	0.0172	0.0000	1.04E-08	0.0000	0.0000	5.55E-05
341		0.00	0.000	0.038	0.1300	0.0172	0.0000	1.04E-08	0.0000	0.0000	5.54E-05
342		0.00	0.000	0.033	0.1286	0.0171	0.0000	1.04E-08	0.0000	0.0000	5.54E-05
343		0.00	0.000	0.032	0.1272	0.0171	0.0000	1.04E-08	0.0000	0.0000	5.54E-05
344		0.00	0.000	0.030	0.1259	0.0170	0.0000	1.04E-08	0.0000	0.0000	5.53E-05
345		0.00	0.000	0.029	0.1247	0.0170	0.0000	1.03E-08	0.0000	0.0000	5.53E-05
346	*	0.00	0.000	0.027	0.1235	0.0169	0.0000	1.03E-08	0.0000	0.0000	5.52E-05
347	*	0.00	0.000	0.026	0.1224	0.0169	0.0000	1.03E-08	0.0000	0.0000	5.52E-05
348		0.00	0.000	0.025	0.1213	0.0168	0.0000	1.03E-08	0.0000	0.0000	5.52E-05
349		0.07	0.000	0.024	0.1232	0.0168	0.0000	1.03E-08	0.0000	0.0000	5.51E-05
350		0.02	0.000	0.023	0.1229	0.0167	0.0000	1.03E-08	0.0000	0.0000	5.51E-05
351		0.00	0.000	0.022	0.1219	0.0167	0.0000	1.03E-08	0.0000	0.0000	5.51E-05
352		0.00	0.000	0.022	0.1210	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.50E-05
353		0.00	0.000	0.021	0.1201	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.50E-05
354		0.08	0.000	0.021	0.1227	0.0165	0.0000	1.03E-08	0.0000	0.0000	5.49E-05
355		0.25	0.000	0.018	0.1324	0.0165	0.0000	1.03E-08	0.0000	0.0000	5.49E-05
356		0.00	0.000	0.017	0.1316	0.0164	0.0000	1.02E-08	0.0000	0.0000	5.49E-05
357	*	0.00	0.000	0.019	0.1308	0.0164	0.0000	1.02E-08	0.0000	0.0000	5.48E-05
358		0.00	0.000	0.019	0.1300	0.0163	0.0000	1.02E-08	0.0000	0.0000	5.48E-05
359	*	0.00	0.000	0.000	0.1300	0.0163	0.0000	1.02E-08	0.0000	0.0000	5.47E-05
360	*	0.04	0.000	0.011	0.1308	0.0162	0.0000	1.02E-08	0.0000	0.0000	5.47E-05
361	*	0.00	0.000	0.030	0.1301	0.0162	0.0000	1.02E-08	0.0000	0.0000	5.47E-05
362		0.00	0.000	0.018	0.1293	0.0161	0.0000	1.02E-08	0.0000	0.0000	5.46E-05
363		0.00	0.000	0.018	0.1285	0.0161	0.0000	1.02E-08	0.0000	0.0000	5.46E-05
364	*	0.00	0.000	0.000	0.1285	0.0160	0.0000	1.02E-08	0.0000	0.0000	5.46E-05

365	*	0.06	0.000	0.019	0.1293	0.0160	0.0000	1.02E-08	0.0000	0.0000	5.45E-05

* = Frozen (air or soil)

Annual Totals for Year 3			
	inches	cubic feet	percent
Precipitation	33.46	121,472.2	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.913	104,955.4	86.40
Drainage Collected from Layer 3	0.0062	22.5	0.02
Percolation/Leakage through Layer 4	0.000004	0.0132	0.00
Average Head on Top of Layer 4	0.0150	---	---
Percolation/Leakage through Layer 6	0.022943	83.3	0.07
Change in Water Storage	4.5209	16,410.9	13.51
Soil Water at Start of Year	40.7495	147,920.8	121.77
Soil Water at End of Year	45.2512	164,261.9	135.23
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0192	69.8	0.06
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 4

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:27

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*		0.11	0.000	0.007	0.1301	0.0159	0.0000	1.01E-08	0.0000	0.0000	5.45E-05
2	*		0.00	0.000	0.004	0.1309	0.0159	0.0000	1.01E-08	0.0000	0.0000	5.44E-05
3	*		0.00	0.000	0.012	0.1318	0.0158	0.0000	1.01E-08	0.0000	0.0000	5.44E-05
4	*		0.05	0.000	0.000	0.1326	0.0158	0.0000	1.01E-08	0.0000	0.0000	5.44E-05
5	*		0.00	0.000	0.009	0.1334	0.0157	0.0000	1.01E-08	0.0000	0.0000	5.43E-05
6	*	*	0.00	0.000	0.018	0.1334	0.0157	0.0000	1.01E-08	0.0000	0.0000	5.43E-05
7	*	*	0.02	0.000	0.029	0.1334	0.0156	0.0000	1.01E-08	0.0000	0.0000	5.43E-05
8		*	0.00	0.000	0.028	0.1334	0.0156	0.0000	1.01E-08	0.0000	0.0000	5.42E-05
9		*	0.00	0.000	0.000	0.1334	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.42E-05
10		*	0.00	0.000	0.000	0.1334	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.41E-05
11	*	*	0.00	0.000	0.000	0.1334	0.0154	0.0000	1.01E-08	0.0000	0.0000	5.41E-05
12		*	0.00	0.000	0.000	0.1334	0.0154	0.0000	1.00E-08	0.0000	0.0000	5.41E-05
13		*	0.15	0.000	0.000	0.1397	0.0154	0.0000	1.00E-08	0.0000	0.0000	5.40E-05
14	*	*	0.00	0.000	0.000	0.1397	0.0153	0.0000	1.00E-08	0.0000	0.0000	5.40E-05
15		*	0.00	0.000	0.000	0.1397	0.0153	0.0000	1.00E-08	0.0000	0.0000	5.40E-05
16		*	0.00	0.000	0.000	0.1397	0.0152	0.0000	1.00E-08	0.0000	0.0000	5.39E-05
17		*	0.00	0.000	0.000	0.1397	0.0152	0.0000	1.00E-08	0.0000	0.0000	5.39E-05
18	*	*	0.10	0.000	0.022	0.1397	0.0151	0.0000	1.00E-08	0.0000	0.0000	5.38E-05
19	*	*	0.00	0.000	0.009	0.1397	0.0151	0.0000	9.99E-09	0.0000	0.0000	5.38E-05
20	*	*	0.00	0.000	0.004	0.1397	0.0150	0.0000	9.98E-09	0.0000	0.0000	5.38E-05
21	*	*	0.00	0.000	0.002	0.1397	0.0150	0.0000	9.97E-09	0.0000	0.0000	5.37E-05
22	*	*	0.00	0.000	0.010	0.1397	0.0149	0.0000	9.96E-09	0.0000	0.0000	5.37E-05
23	*	*	0.00	0.000	0.012	0.1397	0.0149	0.0000	9.95E-09	0.0000	0.0000	5.37E-05

24	*	*	0.01	0.000	0.000	0.1397	0.0148	0.0000	9.94E-09	0.0000	0.0000	5.36E-05
25	*	*	0.12	0.000	0.006	0.1397	0.0148	0.0000	9.94E-09	0.0000	0.0000	5.36E-05
26	*	*	0.00	0.000	0.010	0.1397	0.0148	0.0000	9.93E-09	0.0000	0.0000	5.35E-05
27	*	*	0.02	0.000	0.000	0.1397	0.0147	0.0000	9.92E-09	0.0000	0.0000	5.35E-05
28	*	*	0.00	0.000	0.036	0.1397	0.0147	0.0000	9.91E-09	0.0000	0.0000	5.35E-05
29	*	*	0.00	0.000	0.018	0.1397	0.0146	0.0000	9.90E-09	0.0000	0.0000	5.34E-05
30	*	*	0.00	0.000	0.017	0.1397	0.0146	0.0000	9.89E-09	0.0000	0.0000	5.34E-05
31	*	*	0.00	0.000	0.018	0.1397	0.0145	0.0000	9.88E-09	0.0000	0.0000	5.34E-05
32	*	*	0.00	0.000	0.017	0.1397	0.0145	0.0000	9.88E-09	0.0000	0.0000	5.33E-05
33	*	*	0.00	0.000	0.029	0.1397	0.0144	0.0000	9.87E-09	0.0000	0.0000	5.33E-05
34	*	*	0.01	0.000	0.011	0.1397	0.0144	0.0000	9.86E-09	0.0000	0.0000	5.33E-05
35	*	*	0.00	0.000	0.005	0.1397	0.0144	0.0000	9.85E-09	0.0000	0.0000	5.32E-05
36	*	*	0.09	0.000	0.010	0.1397	0.0143	0.0000	9.84E-09	0.0000	0.0000	5.32E-05
37	*	*	0.04	0.000	0.000	0.1397	0.0143	0.0000	9.83E-09	0.0000	0.0000	5.31E-05
38	*	*	0.01	0.000	0.000	0.1397	0.0142	0.0000	9.83E-09	0.0000	0.0000	5.31E-05
39	*	*	0.01	0.000	0.026	0.1397	0.0142	0.0000	9.82E-09	0.0000	0.0000	5.31E-05
40	*	*	0.00	0.000	0.033	0.1397	0.0141	0.0000	9.81E-09	0.0000	0.0000	5.30E-05
41	*	*	0.00	0.000	0.014	0.1397	0.0141	0.0000	9.80E-09	0.0000	0.0000	5.30E-05
42	*	*	0.00	0.000	0.019	0.1397	0.0141	0.0000	9.79E-09	0.0000	0.0000	5.30E-05
43	*	*	0.00	0.000	0.016	0.1397	0.0140	0.0000	9.78E-09	0.0000	0.0000	5.29E-05
44	*	*	0.00	0.000	0.004	0.1397	0.0140	0.0000	9.78E-09	0.0000	0.0000	5.29E-05
45	*	*	0.19	0.000	0.005	0.1397	0.0139	0.0000	9.77E-09	0.0000	0.0000	5.29E-05
46	*	*	0.21	0.000	0.000	0.1397	0.0139	0.0000	9.76E-09	0.0000	0.0000	5.28E-05
47	*	*	0.00	0.000	0.005	0.1397	0.0139	0.0000	9.75E-09	0.0000	0.0000	5.28E-05
48	*	*	0.00	0.000	0.000	0.1397	0.0138	0.0000	9.74E-09	0.0000	0.0000	5.27E-05
49	*	*	0.12	0.000	0.007	0.1397	0.0138	0.0000	9.74E-09	0.0000	0.0000	5.27E-05
50	*	*	0.19	0.000	0.000	0.1397	0.0137	0.0000	9.73E-09	0.0000	0.0000	5.27E-05
51	*	*	0.19	0.000	0.000	0.1397	0.0137	0.0000	9.72E-09	0.0000	0.0000	5.26E-05
52	*	*	0.03	0.000	0.000	0.1397	0.0136	0.0000	9.71E-09	0.0000	0.0000	5.26E-05
53		*	0.04	0.000	0.000	0.1815	0.0136	0.0000	9.70E-09	0.0000	0.0000	5.26E-05
54		*	0.06	0.000	0.000	0.1838	0.0136	0.0000	9.70E-09	0.0000	0.0000	5.25E-05

55		*	0.01	0.000	0.000	0.1842	0.0135	0.0000	9.69E-09	0.0000	0.0000	5.25E-05
56		*	0.00	0.000	0.000	0.1844	0.0135	0.0000	9.68E-09	0.0000	0.0000	5.25E-05
57		*	0.01	0.000	0.000	0.1849	0.0134	0.0000	9.67E-09	0.0000	0.0000	5.24E-05
58		*	0.00	0.000	0.000	0.1849	0.0134	0.0000	9.66E-09	0.0000	0.0000	5.24E-05
59		*	0.00	0.000	0.000	0.1849	0.0134	0.0000	9.66E-09	0.0000	0.0000	5.24E-05
60		*	0.00	0.000	0.000	0.1849	0.0133	0.0000	9.65E-09	0.0000	0.0000	5.23E-05
61	*	*	0.00	0.000	0.000	0.1849	0.0133	0.0000	9.64E-09	0.0000	0.0000	5.23E-05
62		*	0.00	0.000	0.000	0.1849	0.0132	0.0000	9.63E-09	0.0000	0.0000	5.23E-05
63		*	0.00	0.000	0.000	0.1849	0.0132	0.0000	9.63E-09	0.0000	0.0000	5.22E-05
64		*	0.00	0.000	0.000	0.1849	0.0132	0.0000	9.62E-09	0.0000	0.0000	5.22E-05
65		*	0.00	0.000	0.000	0.1849	0.0131	0.0000	9.61E-09	0.0000	0.0000	5.21E-05
66	*	*	0.13	0.000	0.041	0.1849	0.0131	0.0000	9.60E-09	0.0000	0.0000	5.21E-05
67	*	*	0.07	0.000	0.037	0.1849	0.0130	0.0000	9.59E-09	0.0000	0.0000	5.21E-05
68		*	0.55	0.000	0.024	0.2117	0.0130	0.0000	9.59E-09	0.0000	0.0000	5.20E-05
69		*	0.00	0.000	0.000	0.2117	0.0130	0.0000	9.58E-09	0.0000	0.0000	5.20E-05
70		*	0.00	0.000	0.000	0.2117	0.0129	0.0000	9.57E-09	0.0000	0.0000	5.20E-05
71		*	0.13	0.000	0.000	0.2170	0.0129	0.0000	9.56E-09	0.0000	0.0000	5.19E-05
72			0.08	0.000	0.299	0.2078	0.0128	0.0000	9.56E-09	0.0000	0.0000	5.19E-05
73			0.11	0.000	0.092	0.2086	0.0128	0.0000	9.55E-09	0.0000	0.0000	5.19E-05
74			0.04	0.000	0.149	0.2041	0.0128	0.0000	9.54E-09	0.0000	0.0000	5.18E-05
75			0.26	0.000	0.163	0.2078	0.0127	0.0000	9.53E-09	0.0000	0.0000	5.18E-05
76	*		0.00	0.000	0.000	0.2078	0.0127	0.0000	9.53E-09	0.0000	0.0000	5.18E-05
77	*		0.01	0.000	0.006	0.2077	0.0126	0.0000	9.52E-09	0.0000	0.0000	5.17E-05
78	*		0.02	0.000	0.015	0.2081	0.0126	0.0000	9.51E-09	0.0000	0.0000	5.17E-05
79	*		0.00	0.000	0.000	0.2081	0.0126	0.0000	9.50E-09	0.0000	0.0000	5.17E-05
80	*		0.17	0.000	0.005	0.2090	0.0125	0.0000	9.50E-09	0.0000	0.0000	5.16E-05
81	*		0.29	0.000	0.000	0.2098	0.0125	0.0000	9.49E-09	0.0000	0.0000	5.16E-05
82	*		0.00	0.000	0.012	0.2106	0.0125	0.0000	9.48E-09	0.0000	0.0000	5.16E-05
83	*	*	0.01	0.000	0.015	0.2106	0.0124	0.0000	9.48E-09	0.0000	0.0000	5.15E-05
84	*	*	0.05	0.000	0.018	0.2106	0.0124	0.0000	9.47E-09	0.0000	0.0000	5.15E-05
85		*	0.01	0.000	0.015	0.2268	0.0123	0.0000	9.46E-09	0.0000	0.0000	5.15E-05

86		*	0.00	0.000	0.000	0.2268	0.0123	0.0000	9.45E-09	0.0000	0.0000	5.14E-05
87		*	0.00	0.000	0.000	0.2268	0.0123	0.0000	9.45E-09	0.0000	0.0000	5.14E-05
88		*	0.00	0.000	0.000	0.2268	0.0122	0.0000	9.44E-09	0.0000	0.0000	5.14E-05
89		*	0.00	0.000	0.000	0.2269	0.0122	0.0000	9.43E-09	0.0000	0.0000	5.13E-05
90		*	0.65	0.000	0.000	0.2540	0.0122	0.0000	9.42E-09	0.0000	0.0000	5.13E-05
91		*	0.03	0.000	0.000	0.2554	0.0121	0.0000	9.42E-09	0.0000	0.0000	5.13E-05
92		*	0.03	0.000	0.000	0.2568	0.0121	0.0000	9.41E-09	0.0000	0.0000	5.12E-05
93		*	0.00	0.000	0.000	0.2568	0.0121	0.0000	9.40E-09	0.0000	0.0000	5.12E-05
94		*	0.00	0.000	0.000	0.2568	0.0120	0.0000	9.40E-09	0.0000	0.0000	5.12E-05
95		*	0.00	0.000	0.000	0.2568	0.0120	0.0000	9.39E-09	0.0000	0.0000	5.11E-05
96		*	0.00	0.000	0.000	0.2568	0.0119	0.0000	9.38E-09	0.0000	0.0000	5.11E-05
97	*	*	0.00	0.000	0.000	0.2568	0.0119	0.0000	9.37E-09	0.0000	0.0000	5.11E-05
98		*	0.00	0.000	0.000	0.2568	0.0119	0.0000	9.37E-09	0.0000	0.0000	5.10E-05
99		*	0.00	0.000	0.000	0.2568	0.0118	0.0000	9.36E-09	0.0000	0.0000	5.10E-05
100			0.00	0.000	0.141	0.2508	0.0118	0.0000	9.35E-09	0.0000	0.0000	5.10E-05
101			0.00	0.000	0.354	0.2346	0.0118	0.0000	9.35E-09	0.0000	0.0000	5.09E-05
102			0.06	0.000	0.416	0.2131	0.0117	0.0000	9.34E-09	0.0000	0.0000	5.09E-05
103			0.57	0.000	0.221	0.2220	0.0117	0.0000	9.33E-09	0.0000	0.0000	5.09E-05
104			0.86	0.000	0.609	0.2270	0.0117	0.0000	9.33E-09	0.0000	0.0000	5.08E-05
105			0.00	0.000	0.673	0.1954	0.0116	0.0000	9.32E-09	0.0000	0.0000	5.08E-05
106			0.09	0.000	0.365	0.1810	0.0116	0.0000	9.31E-09	0.0000	0.0000	5.08E-05
107			0.07	0.000	0.177	0.1744	0.0116	0.0000	9.31E-09	0.0000	0.0000	5.07E-05
108			0.01	0.000	0.073	0.1693	0.0115	0.0000	9.30E-09	0.0000	0.0000	5.07E-05
109			0.00	0.000	0.056	0.1648	0.0115	0.0000	9.29E-09	0.0000	0.0000	5.07E-05
110			0.02	0.000	0.047	0.1616	0.0117	0.0000	9.33E-09	0.0000	0.0000	5.06E-05
111			0.00	0.000	0.042	0.1583	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.06E-05
112			0.01	0.000	0.038	0.1557	0.0234	0.0000	1.16E-08	0.0000	0.0000	5.06E-05
113	*		0.00	0.000	0.035	0.1531	0.0301	0.0000	1.28E-08	0.0000	0.0000	5.05E-05
114			0.60	0.000	0.032	0.1758	0.0367	0.0000	1.40E-08	0.0000	0.0000	5.05E-05
115			0.33	0.000	0.205	0.1799	0.0431	0.0000	1.51E-08	0.0000	0.0000	5.05E-05
116	*		0.41	0.000	0.052	0.1801	0.0495	0.0001	1.62E-08	0.0000	0.0000	5.04E-05

117		0.54	0.000	0.119	0.2111	0.0557	0.0001	1.73E-08	0.0000	0.0000	5.04E-05
118		0.02	0.000	0.076	0.2081	0.0619	0.0001	1.86E-08	0.0000	0.0000	5.04E-05
119		0.00	0.000	0.156	0.2008	0.0679	0.0001	2.03E-08	0.0000	0.0000	5.03E-05
120		0.32	0.000	0.184	0.2057	0.0739	0.0001	2.20E-08	0.0000	0.0000	5.03E-05
121		0.00	0.000	0.203	0.1968	0.0797	0.0001	2.37E-08	0.0000	0.0000	5.03E-05
122		0.00	0.000	0.115	0.1914	0.0855	0.0001	2.53E-08	0.0000	0.0000	5.02E-05
123		0.55	0.000	0.255	0.2033	0.0912	0.0001	2.69E-08	0.0000	0.0000	5.02E-05
124		0.22	0.000	0.365	0.1966	0.0967	0.0001	2.85E-08	0.0000	0.0000	5.02E-05
125		0.09	0.000	0.222	0.1905	0.1022	0.0001	3.01E-08	0.0000	0.0000	5.02E-05
126		0.02	0.000	0.251	0.1803	0.1077	0.0001	3.16E-08	0.0000	0.0000	5.01E-05
127		0.23	0.000	0.289	0.1772	0.1130	0.0001	3.31E-08	0.0000	0.0000	5.01E-05
128		0.00	0.000	0.194	0.1686	0.1182	0.0001	3.46E-08	0.0000	0.0000	5.01E-05
129		0.02	0.000	0.101	0.1649	0.1234	0.0001	3.61E-08	0.0000	0.0000	5.00E-05
130		0.58	0.000	0.314	0.1757	0.1285	0.0001	3.75E-08	0.0000	0.0000	5.00E-05
131		0.14	0.000	0.103	0.1764	0.1335	0.0002	3.89E-08	0.0000	0.0000	5.00E-05
132		0.00	0.000	0.319	0.1625	0.1385	0.0002	4.03E-08	0.0000	0.0000	4.99E-05
133		0.10	0.000	0.400	0.1496	0.1433	0.0002	4.17E-08	0.0000	0.0000	4.99E-05
134		0.06	0.000	0.177	0.1445	0.1481	0.0002	4.31E-08	0.0000	0.0000	4.99E-05
135		0.00	0.000	0.073	0.1413	0.1529	0.0002	4.44E-08	0.0000	0.0000	4.98E-05
136		0.00	0.000	0.056	0.1388	0.1575	0.0002	4.57E-08	0.0000	0.0000	4.98E-05
137		0.13	0.000	0.048	0.1418	0.1621	0.0002	4.70E-08	0.0000	0.0000	4.98E-05
138		0.00	0.000	0.042	0.1398	0.1666	0.0002	4.83E-08	0.0000	0.0000	4.98E-05
139	*	0.00	0.000	0.000	0.1396	0.1711	0.0002	4.96E-08	0.0000	0.0000	4.97E-05
140	*	0.00	0.000	0.000	0.1394	0.1755	0.0002	5.08E-08	0.0000	0.0000	4.97E-05
141		0.47	0.000	0.038	0.1570	0.1798	0.0002	5.20E-08	0.0000	0.0000	4.97E-05
142	*	0.03	0.000	0.061	0.1552	0.1841	0.0002	5.32E-08	0.0000	0.0000	4.96E-05
143		0.29	0.000	0.033	0.1658	0.1883	0.0002	5.44E-08	0.0000	0.0000	4.96E-05
144		0.00	0.000	0.203	0.1570	0.1924	0.0002	5.56E-08	0.0000	0.0000	4.96E-05
145		3.72	0.000	0.031	0.2219	0.1965	0.0002	5.68E-08	0.0000	0.0000	4.95E-05
146		0.00	0.000	0.119	0.2812	0.2005	0.0002	5.79E-08	0.0000	0.0000	4.95E-05
147		0.00	0.000	0.286	0.2933	0.2045	0.0002	5.90E-08	0.0000	0.0000	4.95E-05

148	0.00	0.000	0.376	0.2482	0.2067	0.0002	5.96E-08	0.0000	0.0000	4.94E-05
149	0.00	0.000	0.329	0.2264	0.2070	0.0002	5.97E-08	0.0000	0.0000	4.94E-05
150	0.00	0.000	0.185	0.2134	0.2108	0.0002	6.08E-08	0.0000	0.0000	4.94E-05
151	0.00	0.000	0.131	0.2027	0.2148	0.0002	6.19E-08	0.0000	0.0000	4.94E-05
152	1.20	0.000	0.123	0.2428	0.2187	0.0002	6.31E-08	0.0000	0.0000	4.93E-05
153	0.00	0.000	0.136	0.2335	0.2226	0.0003	6.42E-08	0.0000	0.0000	4.93E-05
154	0.70	0.000	0.203	0.2515	0.2265	0.0003	6.53E-08	0.0000	0.0000	4.93E-05
155	0.05	0.000	0.149	0.2449	0.2303	0.0003	6.63E-08	0.0000	0.0000	4.92E-05
156	0.00	0.000	0.272	0.2306	0.2340	0.0003	6.74E-08	0.0000	0.0000	4.92E-05
157	0.00	0.000	0.274	0.2185	0.2377	0.0003	6.85E-08	0.0000	0.0000	4.92E-05
158	0.26	0.000	0.346	0.2139	0.2414	0.0003	6.95E-08	0.0000	0.0000	4.91E-05
159	0.39	0.000	0.198	0.2183	0.2449	0.0003	7.05E-08	0.0000	0.0000	4.91E-05
160	0.00	0.000	0.318	0.2012	0.2485	0.0003	7.15E-08	0.0000	0.0000	4.91E-05
161	1.01	0.000	0.148	0.2339	0.2520	0.0003	7.25E-08	0.0000	0.0000	4.91E-05
162	0.33	0.000	0.376	0.2298	0.2554	0.0003	7.35E-08	0.0000	0.0000	4.90E-05
163	1.00	0.000	0.348	0.2542	0.2588	0.0003	7.45E-08	0.0000	0.0000	4.90E-05
164	0.00	0.000	0.322	0.2384	0.2621	0.0003	7.54E-08	0.0000	0.0000	4.90E-05
165	0.00	0.000	0.386	0.2208	0.2654	0.0003	7.64E-08	0.0000	0.0000	4.89E-05
166	0.00	0.000	0.320	0.2074	0.2687	0.0003	7.73E-08	0.0000	0.0000	4.89E-05
167	0.00	0.000	0.285	0.1914	0.2711	0.0003	7.80E-08	0.0000	0.0000	4.89E-05
168	0.00	0.000	0.177	0.1795	0.2713	0.0003	7.80E-08	0.0000	0.0000	4.88E-05
169	0.00	0.000	0.073	0.1727	0.2745	0.0003	7.89E-08	0.0000	0.0000	4.88E-05
170	0.00	0.000	0.056	0.1672	0.2778	0.0003	7.99E-08	0.0000	0.0000	4.88E-05
171	0.00	0.000	0.047	0.1626	0.2811	0.0003	8.08E-08	0.0000	0.0000	4.88E-05
172	0.00	0.000	0.042	0.1597	0.2843	0.0003	8.17E-08	0.0000	0.0000	4.87E-05
173	0.00	0.000	0.038	0.1568	0.2875	0.0003	8.27E-08	0.0000	0.0000	4.87E-05
174	0.00	0.000	0.035	0.1536	0.2906	0.0003	8.36E-08	0.0000	0.0000	4.87E-05
175	0.13	0.000	0.033	0.1559	0.2937	0.0003	8.44E-08	0.0000	0.0000	4.86E-05
176	0.13	0.000	0.031	0.1585	0.2968	0.0003	8.53E-08	0.0000	0.0000	4.86E-05
177	0.00	0.000	0.029	0.1557	0.2998	0.0003	8.62E-08	0.0000	0.0000	4.86E-05
178	0.00	0.000	0.028	0.1533	0.3027	0.0003	8.70E-08	0.0000	0.0000	4.85E-05

179	0.92	0.000	0.025	0.1892	0.3057	0.0003	8.79E-08	0.0000	0.0000	4.85E-05
180	0.17	0.000	0.160	0.1885	0.3085	0.0003	8.87E-08	0.0000	0.0000	4.85E-05
181	0.03	0.000	0.171	0.1815	0.3114	0.0004	8.95E-08	0.0000	0.0000	4.85E-05
182	0.11	0.000	0.179	0.1776	0.3142	0.0004	9.03E-08	0.0000	0.0000	4.84E-05
183	0.15	0.000	0.194	0.1756	0.3170	0.0004	9.11E-08	0.0000	0.0000	4.84E-05
184	0.00	0.000	0.368	0.1595	0.3197	0.0004	9.19E-08	0.0000	0.0000	4.84E-05
185	0.00	0.000	0.169	0.1516	0.3224	0.0004	9.27E-08	0.0000	0.0000	4.83E-05
186	0.00	0.000	0.066	0.1484	0.3250	0.0004	9.35E-08	0.0000	0.0000	4.83E-05
187	0.09	0.000	0.057	0.1487	0.3277	0.0004	9.42E-08	0.0000	0.0000	4.83E-05
188	0.00	0.000	0.047	0.1459	0.3302	0.0004	9.50E-08	0.0000	0.0000	4.83E-05
189	0.23	0.000	0.042	0.1530	0.3328	0.0004	9.57E-08	0.0000	0.0000	4.82E-05
190	0.00	0.000	0.038	0.1503	0.3353	0.0004	9.64E-08	0.0000	0.0000	4.82E-05
191	0.00	0.000	0.035	0.1481	0.3378	0.0004	9.71E-08	0.0000	0.0000	4.82E-05
192	0.00	0.000	0.032	0.1461	0.3402	0.0004	9.78E-08	0.0000	0.0000	4.81E-05
193	0.02	0.000	0.031	0.1454	0.3426	0.0004	9.85E-08	0.0000	0.0000	4.81E-05
194	2.50	0.000	0.029	0.2094	0.3450	0.0004	9.92E-08	0.0000	0.0000	4.81E-05
195	0.08	0.000	0.367	0.2354	0.3474	0.0004	9.99E-08	0.0000	0.0000	4.80E-05
196	0.00	0.000	0.380	0.2193	0.3497	0.0004	1.01E-07	0.0000	0.0000	4.80E-05
197	0.04	0.000	0.350	0.2054	0.3519	0.0004	1.01E-07	0.0000	0.0000	4.80E-05
198	2.50	0.000	0.250	0.2677	0.3542	0.0004	1.02E-07	0.0000	0.0000	4.80E-05
199	0.00	0.000	0.174	0.2912	0.3564	0.0004	1.03E-07	0.0000	0.0000	4.79E-05
200	0.00	0.000	0.345	0.2555	0.3574	0.0004	1.03E-07	0.0000	0.0000	4.79E-05
201	0.02	0.000	0.168	0.2398	0.3565	0.0004	1.03E-07	0.0000	0.0000	4.79E-05
202	0.00	0.000	0.224	0.2216	0.3584	0.0004	1.03E-07	0.0000	0.0000	4.78E-05
203	0.28	0.000	0.170	0.2199	0.3609	0.0004	1.04E-07	0.0000	0.0000	4.78E-05
204	0.00	0.000	0.166	0.2096	0.3633	0.0004	1.05E-07	0.0000	0.0000	4.78E-05
205	0.00	0.000	0.329	0.1925	0.3657	0.0004	1.05E-07	0.0000	0.0000	4.78E-05
206	0.00	0.000	0.177	0.1820	0.3681	0.0004	1.06E-07	0.0000	0.0000	4.77E-05
207	0.00	0.000	0.073	0.1764	0.3705	0.0004	1.07E-07	0.0000	0.0000	4.77E-05
208	0.07	0.000	0.057	0.1748	0.3728	0.0004	1.07E-07	0.0000	0.0000	4.77E-05
209	0.15	0.000	0.048	0.1771	0.3751	0.0004	1.08E-07	0.0000	0.0000	4.76E-05

210	0.00	0.000	0.042	0.1734	0.3773	0.0004	1.09E-07	0.0000	0.0000	4.76E-05
211	0.00	0.000	0.038	0.1702	0.3795	0.0004	1.09E-07	0.0000	0.0000	4.76E-05
212	0.00	0.000	0.035	0.1673	0.3817	0.0004	1.10E-07	0.0000	0.0000	4.76E-05
213	0.00	0.000	0.032	0.1646	0.3839	0.0004	1.11E-07	0.0000	0.0000	4.75E-05
214	0.05	0.000	0.031	0.1642	0.3860	0.0004	1.11E-07	0.0000	0.0000	4.75E-05
215	0.14	0.000	0.029	0.1679	0.3881	0.0004	1.12E-07	0.0000	0.0000	4.75E-05
216	0.00	0.000	0.027	0.1658	0.3902	0.0004	1.12E-07	0.0000	0.0000	4.74E-05
217	0.20	0.000	0.027	0.1721	0.3922	0.0004	1.13E-07	0.0000	0.0000	4.74E-05
218	0.00	0.000	0.025	0.1702	0.3942	0.0004	1.14E-07	0.0000	0.0000	4.74E-05
219	0.00	0.000	0.024	0.1684	0.3962	0.0004	1.14E-07	0.0000	0.0000	4.74E-05
220	0.00	0.000	0.023	0.1668	0.3982	0.0005	1.15E-07	0.0000	0.0000	4.73E-05
221	0.00	0.000	0.022	0.1652	0.4001	0.0005	1.15E-07	0.0000	0.0000	4.73E-05
222	0.00	0.000	0.022	0.1637	0.4020	0.0005	1.16E-07	0.0000	0.0000	4.73E-05
223	0.00	0.000	0.021	0.1622	0.4039	0.0005	1.16E-07	0.0000	0.0000	4.72E-05
224	0.09	0.000	0.021	0.1644	0.4057	0.0005	1.17E-07	0.0000	0.0000	4.72E-05
225	0.25	0.000	0.020	0.1736	0.4075	0.0005	1.17E-07	0.0000	0.0000	4.72E-05
226	0.71	0.000	0.153	0.1965	0.4093	0.0005	1.18E-07	0.0000	0.0000	4.72E-05
227	0.00	0.000	0.257	0.1851	0.4106	0.0005	1.18E-07	0.0000	0.0000	4.71E-05
228	0.28	0.000	0.310	0.1834	0.4122	0.0005	1.19E-07	0.0000	0.0000	4.71E-05
229	0.00	0.000	0.312	0.1700	0.4140	0.0005	1.19E-07	0.0000	0.0000	4.71E-05
230	0.24	0.000	0.273	0.1681	0.4148	0.0005	1.20E-07	0.0000	0.0000	4.70E-05
231	0.00	0.000	0.296	0.1554	0.4165	0.0005	1.20E-07	0.0000	0.0000	4.70E-05
232	0.28	0.000	0.177	0.1592	0.4181	0.0005	1.21E-07	0.0000	0.0000	4.70E-05
233	0.00	0.000	0.073	0.1562	0.4198	0.0005	1.21E-07	0.0000	0.0000	4.70E-05
234	0.10	0.000	0.057	0.1578	0.4214	0.0005	1.21E-07	0.0000	0.0000	4.69E-05
235	0.00	0.000	0.047	0.1556	0.4227	0.0005	1.22E-07	0.0000	0.0000	4.69E-05
236	0.00	0.000	0.042	0.1536	0.4233	0.0005	1.22E-07	0.0000	0.0000	4.69E-05
237	0.00	0.000	0.038	0.1516	0.4223	0.0005	1.22E-07	0.0000	0.0000	4.68E-05
238	0.00	0.000	0.035	0.1497	0.4210	0.0005	1.21E-07	0.0000	0.0000	4.68E-05
239	0.00	0.000	0.032	0.1479	0.4197	0.0005	1.21E-07	0.0000	0.0000	4.68E-05
240	0.24	0.000	0.031	0.1562	0.4184	0.0005	1.21E-07	0.0000	0.0000	4.68E-05

241	0.37	0.000	0.029	0.1700	0.4172	0.0005	1.20E-07	0.0000	0.0000	4.67E-05
242	0.10	0.000	0.335	0.1601	0.4161	0.0005	1.20E-07	0.0000	0.0000	4.67E-05
243	0.00	0.000	0.027	0.1585	0.4164	0.0005	1.20E-07	0.0000	0.0000	4.67E-05
244	0.00	0.000	0.026	0.1570	0.4152	0.0005	1.20E-07	0.0000	0.0000	4.66E-05
245	0.00	0.000	0.025	0.1555	0.4139	0.0005	1.19E-07	0.0000	0.0000	4.66E-05
246	0.00	0.000	0.024	0.1543	0.4127	0.0005	1.19E-07	0.0000	0.0000	4.66E-05
247	0.00	0.000	0.024	0.1533	0.4114	0.0005	1.19E-07	0.0000	0.0000	4.66E-05
248	0.08	0.000	0.023	0.1555	0.4102	0.0005	1.18E-07	0.0000	0.0000	4.65E-05
249	0.07	0.000	0.022	0.1574	0.4090	0.0005	1.18E-07	0.0000	0.0000	4.65E-05
250	0.00	0.000	0.021	0.1562	0.4077	0.0005	1.17E-07	0.0000	0.0000	4.65E-05
251	0.03	0.000	0.021	0.1564	0.4065	0.0005	1.17E-07	0.0000	0.0000	4.64E-05
252	0.00	0.000	0.020	0.1553	0.4053	0.0005	1.17E-07	0.0000	0.0000	4.64E-05
253	0.09	0.000	0.020	0.1579	0.4041	0.0005	1.16E-07	0.0000	0.0000	4.64E-05
254	1.06	0.000	0.019	0.2010	0.4028	0.0005	1.16E-07	0.0000	0.0000	4.64E-05
255	0.00	0.000	0.151	0.1945	0.4016	0.0005	1.16E-07	0.0000	0.0000	4.63E-05
256	0.63	0.000	0.177	0.2134	0.4007	0.0005	1.15E-07	0.0000	0.0000	4.63E-05
257	0.00	0.000	0.210	0.2045	0.3995	0.0005	1.15E-07	0.0000	0.0000	4.63E-05
258	0.00	0.000	0.229	0.1949	0.3983	0.0005	1.15E-07	0.0000	0.0000	4.62E-05
259	0.00	0.000	0.158	0.1881	0.3971	0.0005	1.14E-07	0.0000	0.0000	4.62E-05
260	0.00	0.000	0.241	0.1779	0.3959	0.0004	1.14E-07	0.0000	0.0000	4.62E-05
261	0.00	0.000	0.235	0.1678	0.3947	0.0004	1.14E-07	0.0000	0.0000	4.62E-05
262	0.00	0.000	0.177	0.1600	0.3935	0.0004	1.13E-07	0.0000	0.0000	4.61E-05
263	0.15	0.000	0.073	0.1630	0.3923	0.0004	1.13E-07	0.0000	0.0000	4.61E-05
264	0.33	0.000	0.056	0.1740	0.3911	0.0004	1.13E-07	0.0000	0.0000	4.61E-05
265	0.00	0.000	0.114	0.1690	0.3899	0.0004	1.12E-07	0.0000	0.0000	4.61E-05
266	0.00	0.000	0.151	0.1625	0.3887	0.0004	1.12E-07	0.0000	0.0000	4.60E-05
267	0.00	0.000	0.177	0.1549	0.3876	0.0004	1.12E-07	0.0000	0.0000	4.60E-05
268	0.00	0.000	0.073	0.1516	0.3864	0.0004	1.11E-07	0.0000	0.0000	4.60E-05
269	0.00	0.000	0.055	0.1491	0.3852	0.0004	1.11E-07	0.0000	0.0000	4.59E-05
270	0.00	0.000	0.047	0.1470	0.3841	0.0004	1.11E-07	0.0000	0.0000	4.59E-05
271	0.00	0.000	0.042	0.1453	0.3829	0.0004	1.10E-07	0.0000	0.0000	4.59E-05

272		0.00	0.000	0.038	0.1437	0.3817	0.0004	1.10E-07	0.0000	0.0000	4.59E-05
273		0.00	0.000	0.035	0.1421	0.3806	0.0004	1.10E-07	0.0000	0.0000	4.58E-05
274		0.00	0.000	0.032	0.1406	0.3794	0.0004	1.09E-07	0.0000	0.0000	4.58E-05
275		0.00	0.000	0.030	0.1394	0.3783	0.0004	1.09E-07	0.0000	0.0000	4.58E-05
276		0.60	0.000	0.029	0.1633	0.3772	0.0004	1.09E-07	0.0000	0.0000	4.57E-05
277		0.00	0.000	0.027	0.1622	0.3760	0.0004	1.08E-07	0.0000	0.0000	4.57E-05
278		0.00	0.000	0.026	0.1611	0.3749	0.0004	1.08E-07	0.0000	0.0000	4.57E-05
279		0.00	0.000	0.025	0.1600	0.3737	0.0004	1.08E-07	0.0000	0.0000	4.57E-05
280	*	0.24	0.000	0.036	0.1608	0.3726	0.0004	1.07E-07	0.0000	0.0000	4.56E-05
281		0.00	0.000	0.081	0.1652	0.3715	0.0004	1.07E-07	0.0000	0.0000	4.56E-05
282		0.00	0.000	0.193	0.1566	0.3704	0.0004	1.07E-07	0.0000	0.0000	4.56E-05
283		0.00	0.000	0.024	0.1555	0.3693	0.0004	1.06E-07	0.0000	0.0000	4.56E-05
284		0.00	0.000	0.023	0.1544	0.3681	0.0004	1.06E-07	0.0000	0.0000	4.55E-05
285		0.00	0.000	0.022	0.1532	0.3670	0.0004	1.06E-07	0.0000	0.0000	4.55E-05
286		0.01	0.000	0.022	0.1525	0.3659	0.0004	1.05E-07	0.0000	0.0000	4.55E-05
287		0.00	0.000	0.021	0.1514	0.3648	0.0004	1.05E-07	0.0000	0.0000	4.54E-05
288		0.00	0.000	0.021	0.1502	0.3637	0.0004	1.05E-07	0.0000	0.0000	4.54E-05
289		0.00	0.000	0.020	0.1489	0.3626	0.0004	1.04E-07	0.0000	0.0000	4.54E-05
290		0.00	0.000	0.020	0.1477	0.3615	0.0004	1.04E-07	0.0000	0.0000	4.54E-05
291		0.00	0.000	0.019	0.1466	0.3604	0.0004	1.04E-07	0.0000	0.0000	4.53E-05
292	*	0.05	0.000	0.029	0.1470	0.3593	0.0004	1.03E-07	0.0000	0.0000	4.53E-05
293	*	0.00	0.000	0.002	0.1467	0.3583	0.0004	1.03E-07	0.0000	0.0000	4.53E-05
294	*	0.00	0.000	0.000	0.1464	0.3577	0.0004	1.03E-07	0.0000	0.0000	4.53E-05
295		0.00	0.000	0.019	0.1453	0.3606	0.0004	1.04E-07	0.0000	0.0000	4.52E-05
296	*	0.01	0.000	0.011	0.1450	0.3662	0.0004	1.05E-07	0.0000	0.0000	4.52E-05
297	*	0.00	0.000	0.021	0.1439	0.3717	0.0004	1.07E-07	0.0000	0.0000	4.52E-05
298	*	0.43	0.000	0.039	0.1444	0.3808	0.0004	1.10E-07	0.0000	0.0000	4.52E-05
299		0.00	0.000	0.024	0.1585	0.3940	0.0004	1.13E-07	0.0000	0.0000	4.51E-05
300		0.00	0.000	0.018	0.1575	0.4084	0.0005	1.18E-07	0.0000	0.0000	4.51E-05
301		0.00	0.000	0.018	0.1565	0.4241	0.0005	1.22E-07	0.0000	0.0000	4.51E-05
302		0.07	0.000	0.017	0.1584	0.4422	0.0005	1.28E-07	0.0000	0.0000	4.51E-05

303			0.00	0.000	0.086	0.1545	0.4594	0.0005	1.33E-07	0.0000	0.0000	4.51E-05
304			0.00	0.000	0.017	0.1536	0.4788	0.0005	1.38E-07	0.0000	0.0000	4.50E-05
305	*		0.00	0.000	0.017	0.1527	0.5046	0.0006	1.46E-07	0.0000	0.0000	4.50E-05
306			0.01	0.000	0.016	0.1522	0.5296	0.0006	1.54E-07	0.0000	0.0000	4.50E-05
307			0.21	0.000	0.016	0.1601	0.5544	0.0006	1.61E-07	0.0000	0.0000	4.50E-05
308	*		0.00	0.000	0.000	0.1599	0.5787	0.0007	1.68E-07	0.0000	0.0000	4.50E-05
309	*		0.00	0.000	0.057	0.1572	0.5993	0.0007	1.75E-07	0.0000	0.0000	4.49E-05
310	*		0.00	0.000	0.000	0.1571	0.6205	0.0007	1.81E-07	0.0000	0.0000	4.49E-05
311	*		0.00	0.000	0.000	0.1570	0.6480	0.0007	1.89E-07	0.0000	0.0000	4.49E-05
312	*		0.23	0.000	0.015	0.1577	0.6731	0.0008	1.97E-07	0.0000	0.0000	4.49E-05
313	*		0.56	0.000	0.016	0.1583	0.6965	0.0008	2.04E-07	0.0000	0.0000	4.49E-05
314	*		0.00	0.000	0.025	0.1590	0.7195	0.0008	2.11E-07	0.0000	0.0000	4.48E-05
315	*	*	0.00	0.000	0.027	0.1590	0.7450	0.0008	2.19E-07	0.0000	0.0000	4.48E-05
316	*	*	0.00	0.000	0.024	0.1590	0.7741	0.0009	2.28E-07	0.0000	0.0000	4.48E-05
317	*	*	0.07	0.000	0.022	0.1590	0.8009	0.0009	2.37E-07	0.0000	0.0000	4.48E-05
318	*	*	0.00	0.000	0.033	0.1590	0.8259	0.0009	2.45E-07	0.0000	0.0000	4.48E-05
319		*	0.00	0.000	0.000	0.1857	0.8493	0.0010	2.52E-07	0.0000	0.0000	4.48E-05
320		*	0.00	0.000	0.000	0.1857	0.8714	0.0010	2.59E-07	0.0000	0.0000	4.47E-05
321		*	0.00	0.000	0.000	0.1857	0.8924	0.0010	2.66E-07	0.0000	0.0000	4.47E-05
322		*	0.00	0.000	0.000	0.1857	0.9125	0.0010	2.73E-07	0.0000	0.0000	4.47E-05
323		*	0.00	0.000	0.000	0.1857	0.9319	0.0011	2.79E-07	0.0000	0.0000	4.47E-05
324	*	*	0.02	0.000	0.024	0.1857	0.9508	0.0011	2.85E-07	0.0000	0.0000	4.47E-05
325		*	0.21	0.000	0.000	0.1945	0.9692	0.0011	2.91E-07	0.0000	0.0000	4.46E-05
326		*	0.00	0.000	0.000	0.1945	0.9873	0.0011	2.97E-07	0.0000	0.0000	4.46E-05
327		*	0.00	0.000	0.000	0.1945	1.0051	0.0011	3.03E-07	0.0000	0.0000	4.46E-05
328		*	0.00	0.000	0.000	0.1945	1.0229	0.0012	3.09E-07	0.0000	0.0000	4.46E-05
329		*	0.00	0.000	0.000	0.1945	1.0406	0.0012	3.14E-07	0.0000	0.0000	4.46E-05
330	*	*	0.00	0.000	0.000	0.1945	1.0584	0.0012	3.20E-07	0.0000	0.0000	4.45E-05
331	*	*	0.25	0.000	0.014	0.1945	1.0762	0.0012	3.26E-07	0.0000	0.0000	4.45E-05
332		*	0.00	0.000	0.018	0.2036	1.0942	0.0012	3.32E-07	0.0000	0.0000	4.45E-05
333		*	0.09	0.000	0.000	0.2075	1.1123	0.0013	3.38E-07	0.0000	0.0000	4.45E-05

334		*	0.00	0.000	0.000	0.2075	1.1307	0.0013	3.44E-07	0.0000	0.0000	4.45E-05
335	*	*	0.00	0.000	0.000	0.2075	1.1494	0.0013	3.51E-07	0.0000	0.0000	4.44E-05
336		*	0.00	0.000	0.000	0.2075	1.1683	0.0013	3.57E-07	0.0000	0.0000	4.44E-05
337		*	0.00	0.000	0.000	0.2075	1.1876	0.0013	3.64E-07	0.0000	0.0000	4.44E-05
338		*	0.00	0.000	0.000	0.2075	1.2071	0.0014	3.70E-07	0.0000	0.0000	4.44E-05
339		*	0.00	0.000	0.000	0.2075	1.2270	0.0014	3.77E-07	0.0000	0.0000	4.44E-05
340			0.00	0.000	0.094	0.2034	1.2428	0.0014	3.82E-07	0.0000	0.0000	4.43E-05
341	*		0.00	0.000	0.000	0.2033	1.2577	0.0014	3.88E-07	0.0000	0.0000	4.43E-05
342			0.00	0.000	0.073	0.2002	1.2756	0.0014	3.94E-07	0.0000	0.0000	4.43E-05
343	*		0.00	0.000	0.000	0.2000	1.2940	0.0015	4.00E-07	0.0000	0.0000	4.43E-05
344	*		0.00	0.000	0.001	0.1998	1.3111	0.0015	4.06E-07	0.0000	0.0000	4.43E-05
345	*		0.20	0.000	0.010	0.2004	1.3297	0.0015	4.13E-07	0.0000	0.0000	4.42E-05
346	*		0.00	0.000	0.011	0.2010	1.3484	0.0015	4.19E-07	0.0000	0.0000	4.42E-05
347	*		0.05	0.000	0.018	0.2015	1.3687	0.0016	4.26E-07	0.0000	0.0000	4.42E-05
348	*		0.00	0.000	0.019	0.2021	1.3910	0.0016	4.34E-07	0.0000	0.0000	4.42E-05
349			0.00	0.000	0.046	0.2050	1.4152	0.0016	4.43E-07	0.0000	0.0000	4.42E-05
350	*		0.00	0.000	0.044	0.2030	1.4420	0.0016	4.52E-07	0.0000	0.0000	4.41E-05
351	*		0.00	0.000	0.004	0.2028	1.4711	0.0017	4.62E-07	0.0000	0.0000	4.41E-05
352			0.21	0.000	0.067	0.2086	1.5039	0.0017	4.74E-07	0.0000	0.0000	4.41E-05
353			0.39	0.000	0.097	0.2207	1.5392	0.0017	4.87E-07	0.0000	0.0000	4.41E-05
354			0.16	0.000	0.092	0.2234	1.5761	0.0018	5.00E-07	0.0000	0.0000	4.41E-05
355			0.21	0.000	0.089	0.2282	1.6118	0.0018	5.13E-07	0.0000	0.0000	4.41E-05
356			0.00	0.000	0.071	0.2252	1.6465	0.0019	5.26E-07	0.0000	0.0000	4.41E-05
357			0.00	0.000	0.050	0.2231	1.6822	0.0019	5.39E-07	0.0000	0.0000	4.41E-05
358			0.00	0.000	0.051	0.2204	1.7131	0.0019	5.51E-07	0.0000	0.0000	4.40E-05
359			0.00	0.000	0.056	0.2176	1.7355	0.0020	5.59E-07	0.0000	0.0000	4.40E-05
360	*		0.00	0.000	0.041	0.2159	1.7652	0.0020	5.70E-07	0.0000	0.0000	4.40E-05
361	*		0.00	0.000	0.000	0.2159	1.8038	0.0020	5.85E-07	0.0000	0.0000	4.40E-05
362	*		0.00	0.000	0.043	0.2140	1.8402	0.0021	5.98E-07	0.0000	0.0000	4.40E-05
363	*		0.05	0.000	0.028	0.2136	1.8659	0.0021	6.08E-07	0.0000	0.0000	4.40E-05
364	*	*	0.23	0.000	0.010	0.2136	1.8933	0.0021	6.19E-07	0.0000	0.0000	4.39E-05

365	*	*	0.11	0.000	0.012	0.2136	1.9304	0.0022	6.33E-07	0.0000	0.0000	4.39E-05

* = Frozen (air or soil)

Annual Totals for Year 4			
	inches	cubic feet	percent
Precipitation	37.76	137,058.7	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.461	103,312.0	75.38
Drainage Collected from Layer 3	0.1534	556.8	0.41
Percolation/Leakage through Layer 4	0.000041	0.1498	0.00
Average Head on Top of Layer 4	0.3698	---	---
Percolation/Leakage through Layer 6	0.017788	64.6	0.05
Change in Water Storage	9.1254	33,125.3	24.17
Soil Water at Start of Year	45.2512	164,261.9	119.85
Soil Water at End of Year	54.0934	196,359.2	143.27
Snow Water at Start of Year	0.0192	69.8	0.05
Snow Water at End of Year	0.3024	1,097.9	0.80
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 5

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 9:27

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.036	0.2136	1.9981	0.0023	6.59E-07	0.0000	0.0000	4.39E-05
2		*	0.00	0.000	0.030	0.2183	2.0293	0.0023	6.71E-07	0.0000	0.0000	4.39E-05
3		*	0.00	0.000	0.041	0.2218	2.0591	0.0023	6.83E-07	0.0000	0.0000	4.39E-05
4		*	0.01	0.000	0.000	0.2224	2.0876	0.0024	6.94E-07	0.0000	0.0000	4.39E-05
5	*	*	0.00	0.000	0.000	0.2224	2.1150	0.0024	7.05E-07	0.0000	0.0000	4.39E-05
6	*	*	0.00	0.000	0.000	0.2224	2.1415	0.0024	7.15E-07	0.0000	0.0000	4.38E-05
7	*	*	0.00	0.000	0.000	0.2224	2.1672	0.0025	7.26E-07	0.0000	0.0000	4.38E-05
8	*	*	0.00	0.000	0.000	0.2224	2.1921	0.0025	7.36E-07	0.0000	0.0000	4.38E-05
9	*	*	0.05	0.000	0.010	0.2224	2.2165	0.0025	7.45E-07	0.0000	0.0000	4.38E-05
10	*	*	0.00	0.000	0.000	0.2224	2.2403	0.0025	7.55E-07	0.0000	0.0000	4.38E-05
11		*	0.00	0.000	0.039	0.2224	2.2637	0.0026	7.65E-07	0.0000	0.0000	4.38E-05
12		*	0.00	0.000	0.000	0.2224	2.2867	0.0026	7.74E-07	0.0000	0.0000	4.37E-05
13	*	*	0.00	0.000	0.000	0.2224	2.3094	0.0026	7.83E-07	0.0000	0.0000	4.37E-05
14		*	0.00	0.000	0.000	0.2224	2.3318	0.0026	7.92E-07	0.0000	0.0000	4.37E-05
15	*	*	0.00	0.000	0.000	0.2224	2.3540	0.0027	8.01E-07	0.0000	0.0000	4.37E-05
16	*	*	0.00	0.000	0.000	0.2224	2.3760	0.0027	8.10E-07	0.0000	0.0000	4.37E-05
17	*	*	0.00	0.000	0.000	0.2224	2.3979	0.0027	8.19E-07	0.0000	0.0000	4.37E-05
18	*	*	0.00	0.000	0.000	0.2224	2.4196	0.0027	8.28E-07	0.0000	0.0000	4.36E-05
19	*	*	0.00	0.000	0.000	0.2224	2.4413	0.0028	8.37E-07	0.0000	0.0000	4.36E-05
20		*	0.00	0.000	0.000	0.2226	2.4629	0.0028	8.46E-07	0.0000	0.0000	4.36E-05
21		*	0.00	0.000	0.000	0.2226	2.4845	0.0028	8.55E-07	0.0000	0.0000	4.36E-05
22	*	*	0.00	0.000	0.000	0.2226	2.5060	0.0028	8.64E-07	0.0000	0.0000	4.36E-05
23		*	0.00	0.000	0.000	0.2226	2.5276	0.0029	8.74E-07	0.0000	0.0000	4.36E-05

24		*	0.00	0.000	0.000	0.2226	2.5491	0.0029	8.83E-07	0.0000	0.0000	4.35E-05
25		*	0.00	0.000	0.000	0.2226	2.5707	0.0029	8.92E-07	0.0000	0.0000	4.35E-05
26		*	0.00	0.000	0.000	0.2226	2.5923	0.0029	9.01E-07	0.0000	0.0000	4.35E-05
27		*	0.00	0.000	0.000	0.2227	2.6139	0.0030	9.10E-07	0.0000	0.0000	4.35E-05
28		*	0.00	0.000	0.000	0.2227	2.6356	0.0030	9.19E-07	0.0000	0.0000	4.35E-05
29		*	0.00	0.000	0.000	0.2227	2.6573	0.0030	9.29E-07	0.0000	0.0000	4.35E-05
30		*	0.00	0.000	0.000	0.2227	2.6790	0.0030	9.38E-07	0.0000	0.0000	4.34E-05
31	*	*	0.00	0.000	0.001	0.2227	2.7008	0.0031	9.47E-07	0.0000	0.0000	4.34E-05
32		*	0.00	0.000	0.000	0.2228	2.7226	0.0031	9.57E-07	0.0000	0.0000	4.34E-05
33	*	*	0.00	0.000	0.000	0.2228	2.7445	0.0031	9.66E-07	0.0000	0.0000	4.34E-05
34	*	*	0.00	0.000	0.000	0.2228	2.7665	0.0031	9.76E-07	0.0000	0.0000	4.34E-05
35	*	*	0.00	0.000	0.000	0.2228	2.7885	0.0032	9.85E-07	0.0000	0.0000	4.34E-05
36	*	*	0.00	0.000	0.000	0.2228	2.8105	0.0032	9.95E-07	0.0000	0.0000	4.33E-05
37	*	*	0.00	0.000	0.000	0.2228	2.8326	0.0032	1.00E-06	0.0000	0.0000	4.33E-05
38	*	*	0.00	0.000	0.000	0.2228	2.8547	0.0032	1.01E-06	0.0000	0.0000	4.33E-05
39	*	*	0.00	0.000	0.000	0.2228	2.8769	0.0033	1.02E-06	0.0000	0.0000	4.33E-05
40	*	*	0.01	0.000	0.007	0.2228	2.8991	0.0033	1.03E-06	0.0000	0.0000	4.33E-05
41	*	*	0.00	0.000	0.003	0.2228	2.9214	0.0033	1.04E-06	0.0000	0.0000	4.33E-05
42	*	*	0.10	0.000	0.009	0.2228	2.9436	0.0033	1.05E-06	0.0000	0.0000	4.33E-05
43	*	*	0.07	0.000	0.000	0.2228	2.9660	0.0034	1.06E-06	0.0000	0.0000	4.32E-05
44	*	*	0.00	0.000	0.023	0.2228	2.9883	0.0034	1.07E-06	0.0000	0.0000	4.32E-05
45	*	*	0.00	0.000	0.009	0.2228	3.0107	0.0034	1.08E-06	0.0000	0.0000	4.32E-05
46	*	*	0.00	0.000	0.024	0.2228	3.0330	0.0034	1.09E-06	0.0000	0.0000	4.32E-05
47	*	*	0.00	0.000	0.019	0.2228	3.0554	0.0035	1.10E-06	0.0000	0.0000	4.32E-05
48	*	*	0.00	0.000	0.007	0.2228	3.0778	0.0035	1.11E-06	0.0000	0.0000	4.32E-05
49	*	*	0.00	0.000	0.011	0.2228	3.1003	0.0035	1.12E-06	0.0000	0.0000	4.31E-05
50	*	*	0.00	0.000	0.024	0.2228	3.1227	0.0035	1.13E-06	0.0000	0.0000	4.31E-05
51		*	0.00	0.000	0.042	0.2228	3.1451	0.0036	1.14E-06	0.0000	0.0000	4.31E-05
52		*	0.00	0.000	0.000	0.2228	3.1675	0.0036	1.15E-06	0.0000	0.0000	4.31E-05
53	*	*	0.00	0.000	0.000	0.2228	3.1900	0.0036	1.17E-06	0.0000	0.0000	4.31E-05
54		*	0.00	0.000	0.000	0.2228	3.2124	0.0036	1.18E-06	0.0000	0.0000	4.31E-05

55		*	0.00	0.000	0.000	0.2228	3.2348	0.0037	1.19E-06	0.0000	0.0000	4.31E-05
56		*	0.30	0.000	0.000	0.2354	3.2571	0.0037	1.20E-06	0.0000	0.0000	4.30E-05
57	*	*	0.00	0.000	0.000	0.2354	3.2795	0.0037	1.21E-06	0.0000	0.0000	4.30E-05
58	*	*	0.00	0.000	0.000	0.2354	3.3018	0.0037	1.22E-06	0.0000	0.0000	4.30E-05
59	*	*	0.00	0.000	0.000	0.2354	3.3241	0.0038	1.23E-06	0.0000	0.0000	4.30E-05
60	*	*	0.00	0.000	0.000	0.2354	3.3464	0.0038	1.24E-06	0.0000	0.0000	4.30E-05
61	*	*	0.00	0.000	0.000	0.2354	3.3687	0.0038	1.25E-06	0.0000	0.0000	4.30E-05
62	*	*	0.00	0.000	0.000	0.2354	3.3909	0.0038	1.26E-06	0.0000	0.0000	4.29E-05
63	*	*	0.00	0.000	0.000	0.2354	3.4131	0.0039	1.27E-06	0.0000	0.0000	4.29E-05
64	*	*	0.01	0.000	0.006	0.2354	3.4352	0.0039	1.28E-06	0.0000	0.0000	4.29E-05
65	*	*	0.00	0.000	0.000	0.2354	3.4573	0.0039	1.29E-06	0.0000	0.0000	4.29E-05
66	*	*	0.00	0.000	0.000	0.2354	3.4794	0.0039	1.30E-06	0.0000	0.0000	4.29E-05
67		*	0.00	0.000	0.000	0.2355	3.5014	0.0040	1.31E-06	0.0000	0.0000	4.29E-05
68	*	*	0.03	0.000	0.029	0.2355	3.5234	0.0040	1.32E-06	0.0000	0.0000	4.29E-05
69	*	*	0.00	0.000	0.000	0.2355	3.5453	0.0040	1.33E-06	0.0000	0.0000	4.28E-05
70	*	*	0.00	0.000	0.000	0.2355	3.5672	0.0040	1.34E-06	0.0000	0.0000	4.28E-05
71	*	*	0.00	0.000	0.000	0.2355	3.5890	0.0041	1.35E-06	0.0000	0.0000	4.28E-05
72	*	*	0.00	0.000	0.000	0.2355	3.6107	0.0041	1.36E-06	0.0000	0.0000	4.28E-05
73	*	*	0.00	0.000	0.000	0.2355	3.6324	0.0041	1.37E-06	0.0000	0.0000	4.28E-05
74		*	0.20	0.000	0.000	0.2438	3.6540	0.0041	1.38E-06	0.0000	0.0000	4.28E-05
75		*	0.00	0.000	0.000	0.2438	3.6756	0.0042	1.39E-06	0.0000	0.0000	4.28E-05
76		*	0.00	0.000	0.000	0.2438	3.6971	0.0042	1.41E-06	0.0000	0.0000	4.27E-05
77		*	0.06	0.000	0.000	0.2461	3.7186	0.0042	1.42E-06	0.0000	0.0000	4.27E-05
78		*	0.10	0.000	0.000	0.2504	3.7399	0.0042	1.43E-06	0.0000	0.0000	4.27E-05
79	*	*	0.00	0.000	0.000	0.2504	3.7612	0.0043	1.44E-06	0.0000	0.0000	4.27E-05
80	*	*	0.00	0.000	0.000	0.2504	3.7825	0.0043	1.45E-06	0.0000	0.0000	4.27E-05
81	*	*	0.15	0.000	0.035	0.2504	3.8036	0.0043	1.46E-06	0.0000	0.0000	4.27E-05
82	*	*	0.09	0.000	0.011	0.2504	3.8247	0.0043	1.47E-06	0.0000	0.0000	4.26E-05
83	*	*	0.00	0.000	0.022	0.2504	3.8457	0.0044	1.48E-06	0.0000	0.0000	4.26E-05
84		*	0.00	0.000	0.134	0.2522	3.8667	0.0044	1.49E-06	0.0000	0.0000	4.26E-05
85		*	0.01	0.000	0.000	0.2525	3.8876	0.0044	1.50E-06	0.0000	0.0000	4.26E-05

86	*	0.08	0.000	0.000	0.2559	3.9084	0.0044	1.51E-06	0.0000	0.0000	4.26E-05
87	*	0.27	0.000	0.000	0.2669	3.9291	0.0045	1.52E-06	0.0000	0.0000	4.26E-05
88	*	0.00	0.000	0.000	0.2669	3.9497	0.0045	1.53E-06	0.0000	0.0000	4.26E-05
89	*	0.11	0.000	0.000	0.2716	3.9703	0.0045	1.54E-06	0.0000	0.0000	4.25E-05
90	*	0.00	0.000	0.000	0.2716	3.9907	0.0045	1.55E-06	0.0000	0.0000	4.25E-05
91	*	0.03	0.000	0.000	0.2727	4.0111	0.0045	1.56E-06	0.0000	0.0000	4.25E-05
92	*	0.13	0.000	0.000	0.2780	4.0314	0.0046	1.57E-06	0.0000	0.0000	4.25E-05
93	*	0.01	0.000	0.000	0.2783	4.0517	0.0046	1.58E-06	0.0000	0.0000	4.25E-05
94	*	0.11	0.000	0.000	0.2828	4.0718	0.0046	1.59E-06	0.0000	0.0000	4.25E-05
95	*	0.40	0.000	0.000	0.2993	4.0919	0.0046	1.60E-06	0.0000	0.0000	4.25E-05
96	*	0.00	0.000	0.000	0.2993	4.1119	0.0047	1.61E-06	0.0000	0.0000	4.24E-05
97		0.22	0.000	0.189	0.2854	4.1309	0.0047	1.62E-06	0.0000	0.0000	4.24E-05
98		0.16	0.000	0.215	0.2511	4.1478	0.0047	1.63E-06	0.0000	0.0000	4.24E-05
99		0.08	0.000	0.160	0.2390	4.1669	0.0047	1.64E-06	0.0000	0.0000	4.24E-05
100		0.10	0.000	0.113	0.2329	4.2105	0.0048	1.66E-06	0.0000	0.0000	4.24E-05
101		0.04	0.000	0.084	0.2263	4.2554	0.0048	1.69E-06	0.0000	0.0000	4.24E-05
102		0.00	0.000	0.257	0.2130	4.2955	0.0049	1.71E-06	0.0000	0.0000	4.24E-05
103		0.00	0.000	0.234	0.2005	4.3316	0.0049	1.73E-06	0.0000	0.0000	4.24E-05
104		0.00	0.000	0.332	0.1848	4.3642	0.0049	1.74E-06	0.0000	0.0000	4.24E-05
105		0.00	0.000	0.443	0.1647	4.3936	0.0050	1.76E-06	0.0000	0.0000	4.24E-05
106		0.00	0.000	0.176	0.1555	4.4203	0.0050	1.77E-06	0.0000	0.0000	4.23E-05
107		0.00	0.000	0.073	0.1519	4.4445	0.0050	1.79E-06	0.0000	0.0000	4.23E-05
108		0.00	0.000	0.056	0.1482	4.4665	0.0051	1.80E-06	0.0000	0.0000	4.23E-05
109		0.00	0.000	0.047	0.1449	4.4865	0.0051	1.81E-06	0.0000	0.0000	4.23E-05
110		0.00	0.000	0.042	0.1415	4.5048	0.0051	1.82E-06	0.0000	0.0000	4.23E-05
111		0.00	0.000	0.038	0.1380	4.5214	0.0051	1.83E-06	0.0000	0.0000	4.23E-05
112		0.20	0.000	0.035	0.1431	4.5366	0.0051	1.84E-06	0.0000	0.0000	4.23E-05
113		0.08	0.000	0.032	0.1424	4.5504	0.0052	1.84E-06	0.0000	0.0000	4.22E-05
114		0.08	0.000	0.028	0.1425	4.5630	0.0052	1.85E-06	0.0000	0.0000	4.22E-05
115		0.05	0.000	0.029	0.1416	4.5744	0.0052	1.86E-06	0.0000	0.0000	4.22E-05
116		0.34	0.000	0.027	0.1531	4.5848	0.0052	1.86E-06	0.0000	0.0000	4.22E-05

117		0.00	0.000	0.026	0.1508	4.5941	0.0052	1.87E-06	0.0000	0.0000	4.22E-05
118		0.00	0.000	0.025	0.1488	4.6026	0.0052	1.87E-06	0.0000	0.0000	4.21E-05
119		0.00	0.000	0.024	0.1469	4.6102	0.0052	1.87E-06	0.0000	0.0000	4.21E-05
120		0.00	0.000	0.023	0.1451	4.6171	0.0052	1.88E-06	0.0000	0.0000	4.21E-05
121		2.07	0.000	0.023	0.2064	4.6232	0.0052	1.88E-06	0.0000	0.0000	4.21E-05
122	*	0.01	0.000	0.067	0.2267	4.6286	0.0052	1.88E-06	0.0000	0.0000	4.20E-05
123	*	0.03	0.000	0.029	0.2263	4.6333	0.0053	1.89E-06	0.0000	0.0000	4.20E-05
124	*	0.00	0.000	0.086	0.2224	4.6375	0.0053	1.89E-06	0.0000	0.0000	4.20E-05
125		0.20	0.000	0.160	0.2236	4.6411	0.0053	1.89E-06	0.0000	0.0000	4.20E-05
126		0.00	0.000	0.139	0.2172	4.6441	0.0053	1.89E-06	0.0000	0.0000	4.20E-05
127		0.08	0.000	0.372	0.2048	4.6466	0.0053	1.89E-06	0.0000	0.0000	4.19E-05
128		0.00	0.000	0.314	0.1916	4.6487	0.0053	1.90E-06	0.0000	0.0000	4.19E-05
129		0.00	0.000	0.211	0.1828	4.6503	0.0053	1.90E-06	0.0000	0.0000	4.19E-05
130		0.00	0.000	0.257	0.1720	4.6515	0.0053	1.90E-06	0.0000	0.0000	4.19E-05
131		0.00	0.000	0.158	0.1646	4.6495	0.0053	1.90E-06	0.0000	0.0000	4.18E-05
132		0.00	0.000	0.073	0.1598	4.6364	0.0053	1.89E-06	0.0000	0.0000	4.18E-05
133		0.00	0.000	0.056	0.1563	4.6230	0.0052	1.88E-06	0.0000	0.0000	4.18E-05
134		0.20	0.000	0.048	0.1619	4.6211	0.0052	1.88E-06	0.0000	0.0000	4.17E-05
135		0.00	0.000	0.042	0.1589	4.6117	0.0052	1.88E-06	0.0000	0.0000	4.17E-05
136	*	0.01	0.000	0.005	0.1574	4.5978	0.0052	1.87E-06	0.0000	0.0000	4.17E-05
137	*	0.01	0.000	0.048	0.1543	4.5839	0.0052	1.86E-06	0.0000	0.0000	4.16E-05
138	*	0.00	0.000	0.000	0.1529	4.5734	0.0052	1.86E-06	0.0000	0.0000	4.16E-05
139		0.51	0.000	0.035	0.1714	4.5738	0.0052	1.86E-06	0.0000	0.0000	4.16E-05
140		0.02	0.000	0.193	0.1628	4.5788	0.0052	1.86E-06	0.0000	0.0000	4.16E-05
141	*	0.04	0.000	0.075	0.1606	4.5841	0.0052	1.86E-06	0.0000	0.0000	4.15E-05
142		0.28	0.000	0.031	0.1703	4.5890	0.0052	1.86E-06	0.0000	0.0000	4.15E-05
143		0.00	0.000	0.161	0.1622	4.5896	0.0052	1.86E-06	0.0000	0.0000	4.15E-05
144		0.13	0.000	0.029	0.1664	4.5919	0.0052	1.86E-06	0.0000	0.0000	4.15E-05
145		0.30	0.000	0.288	0.1662	4.5933	0.0052	1.87E-06	0.0000	0.0000	4.15E-05
146		0.04	0.000	0.265	0.1557	4.5874	0.0052	1.86E-06	0.0000	0.0000	4.14E-05
147		0.37	0.000	0.125	0.1659	4.5855	0.0052	1.86E-06	0.0000	0.0000	4.14E-05

148	0.00	0.000	0.146	0.1591	4.5853	0.0052	1.86E-06	0.0000	0.0000	4.14E-05
149	0.00	0.000	0.073	0.1553	4.5870	0.0052	1.86E-06	0.0000	0.0000	4.14E-05
150	0.00	0.000	0.056	0.1521	4.5859	0.0052	1.86E-06	0.0000	0.0000	4.13E-05
151	0.07	0.000	0.048	0.1521	4.5803	0.0052	1.86E-06	0.0000	0.0000	4.13E-05
152	0.04	0.000	0.042	0.1511	4.5775	0.0052	1.86E-06	0.0000	0.0000	4.13E-05
153	1.55	0.000	0.038	0.2075	4.5786	0.0052	1.86E-06	0.0000	0.0000	4.13E-05
154	0.12	0.000	0.358	0.2029	4.5804	0.0052	1.86E-06	0.0000	0.0000	4.12E-05
155	0.01	0.000	0.406	0.1858	4.5818	0.0052	1.86E-06	0.0000	0.0000	4.12E-05
156	0.04	0.000	0.316	0.1736	4.5801	0.0052	1.86E-06	0.0000	0.0000	4.12E-05
157	0.00	0.000	0.338	0.1590	4.5799	0.0052	1.86E-06	0.0000	0.0000	4.12E-05
158	0.00	0.000	0.177	0.1510	4.5795	0.0052	1.86E-06	0.0000	0.0000	4.11E-05
159	0.00	0.000	0.073	0.1473	4.5774	0.0052	1.86E-06	0.0000	0.0000	4.11E-05
160	0.77	0.000	0.057	0.1763	4.5755	0.0052	1.86E-06	0.0000	0.0000	4.11E-05
161	0.18	0.000	0.196	0.1754	4.5750	0.0052	1.86E-06	0.0000	0.0000	4.11E-05
162	0.20	0.000	0.343	0.1688	4.5744	0.0052	1.86E-06	0.0000	0.0000	4.10E-05
163	0.00	0.000	0.318	0.1550	4.5657	0.0052	1.85E-06	0.0000	0.0000	4.10E-05
164	0.00	0.000	0.177	0.1472	4.5553	0.0052	1.85E-06	0.0000	0.0000	4.10E-05
165	0.00	0.000	0.073	0.1437	4.5480	0.0052	1.84E-06	0.0000	0.0000	4.09E-05
166	0.00	0.000	0.056	0.1410	4.5417	0.0051	1.84E-06	0.0000	0.0000	4.09E-05
167	0.58	0.000	0.048	0.1631	4.5355	0.0051	1.83E-06	0.0000	0.0000	4.09E-05
168	0.00	0.000	0.269	0.1516	4.5286	0.0051	1.83E-06	0.0000	0.0000	4.09E-05
169	0.00	0.000	0.042	0.1496	4.5221	0.0051	1.83E-06	0.0000	0.0000	4.08E-05
170	0.34	0.000	0.038	0.1619	4.5166	0.0051	1.82E-06	0.0000	0.0000	4.08E-05
171	0.00	0.000	0.386	0.1456	4.5067	0.0051	1.82E-06	0.0000	0.0000	4.08E-05
172	0.16	0.000	0.035	0.1507	4.4962	0.0051	1.81E-06	0.0000	0.0000	4.08E-05
173	0.38	0.000	0.033	0.1652	4.4882	0.0051	1.81E-06	0.0000	0.0000	4.07E-05
174	0.03	0.000	0.342	0.1520	4.4764	0.0051	1.80E-06	0.0000	0.0000	4.07E-05
175	0.17	0.000	0.031	0.1576	4.4663	0.0051	1.80E-06	0.0000	0.0000	4.07E-05
176	0.71	0.000	0.304	0.1744	4.4539	0.0050	1.79E-06	0.0000	0.0000	4.06E-05
177	0.00	0.000	0.299	0.1619	4.4405	0.0050	1.78E-06	0.0000	0.0000	4.06E-05
178	0.93	0.000	0.147	0.1943	4.4271	0.0050	1.78E-06	0.0000	0.0000	4.06E-05

179	0.28	0.000	0.332	0.1921	4.4137	0.0050	1.77E-06	0.0000	0.0000	4.05E-05
180	0.36	0.000	0.217	0.1978	4.4004	0.0050	1.76E-06	0.0000	0.0000	4.05E-05
181	0.11	0.000	0.333	0.1885	4.3871	0.0050	1.76E-06	0.0000	0.0000	4.05E-05
182	0.00	0.000	0.353	0.1736	4.3739	0.0050	1.75E-06	0.0000	0.0000	4.05E-05
183	0.42	0.000	0.278	0.1792	4.3606	0.0049	1.74E-06	0.0000	0.0000	4.04E-05
184	0.32	0.000	0.162	0.1854	4.3475	0.0049	1.74E-06	0.0000	0.0000	4.04E-05
185	0.00	0.000	0.286	0.1732	4.3344	0.0049	1.73E-06	0.0000	0.0000	4.04E-05
186	0.08	0.000	0.370	0.1608	4.3213	0.0049	1.72E-06	0.0000	0.0000	4.03E-05
187	0.16	0.000	0.345	0.1529	4.3082	0.0049	1.71E-06	0.0000	0.0000	4.03E-05
188	0.01	0.000	0.167	0.1462	4.2952	0.0049	1.71E-06	0.0000	0.0000	4.03E-05
189	0.21	0.000	0.074	0.1516	4.2822	0.0049	1.70E-06	0.0000	0.0000	4.02E-05
190	0.02	0.000	0.057	0.1496	4.2693	0.0048	1.69E-06	0.0000	0.0000	4.02E-05
191	0.00	0.000	0.047	0.1472	4.2564	0.0048	1.69E-06	0.0000	0.0000	4.02E-05
192	0.00	0.000	0.042	0.1452	4.2435	0.0048	1.68E-06	0.0000	0.0000	4.02E-05
193	0.00	0.000	0.038	0.1434	4.2315	0.0048	1.67E-06	0.0000	0.0000	4.01E-05
194	0.09	0.000	0.035	0.1452	4.2225	0.0048	1.67E-06	0.0000	0.0000	4.01E-05
195	0.00	0.000	0.032	0.1437	4.2165	0.0048	1.67E-06	0.0000	0.0000	4.01E-05
196	0.00	0.000	0.030	0.1421	4.2116	0.0048	1.66E-06	0.0000	0.0000	4.00E-05
197	0.00	0.000	0.029	0.1407	4.2101	0.0048	1.66E-06	0.0000	0.0000	4.00E-05
198	0.00	0.000	0.027	0.1394	4.2121	0.0048	1.66E-06	0.0000	0.0000	4.00E-05
199	0.00	0.000	0.026	0.1381	4.2152	0.0048	1.67E-06	0.0000	0.0000	4.00E-05
200	0.00	0.000	0.025	0.1369	4.2182	0.0048	1.67E-06	0.0000	0.0000	4.00E-05
201	0.00	0.000	0.024	0.1357	4.2231	0.0048	1.67E-06	0.0000	0.0000	3.99E-05
202	0.00	0.000	0.023	0.1345	4.2297	0.0048	1.67E-06	0.0000	0.0000	3.99E-05
203	0.00	0.000	0.022	0.1334	4.2378	0.0048	1.68E-06	0.0000	0.0000	3.99E-05
204	0.41	0.000	0.022	0.1496	4.2471	0.0048	1.68E-06	0.0000	0.0000	3.99E-05
205	0.47	0.000	0.360	0.1540	4.2575	0.0048	1.69E-06	0.0000	0.0000	3.99E-05
206	0.00	0.000	0.257	0.1432	4.2722	0.0048	1.70E-06	0.0000	0.0000	3.99E-05
207	1.27	0.000	0.164	0.1891	4.2902	0.0049	1.71E-06	0.0000	0.0000	3.98E-05
208	0.00	0.000	0.162	0.1823	4.3066	0.0049	1.71E-06	0.0000	0.0000	3.98E-05
209	0.00	0.000	0.341	0.1682	4.3218	0.0049	1.72E-06	0.0000	0.0000	3.98E-05

210	0.00	0.000	0.325	0.1546	4.3369	0.0049	1.73E-06	0.0000	0.0000	3.98E-05
211	0.00	0.000	0.344	0.1403	4.3511	0.0049	1.74E-06	0.0000	0.0000	3.98E-05
212	0.67	0.000	0.178	0.1607	4.3628	0.0049	1.74E-06	0.0000	0.0000	3.98E-05
213	0.00	0.000	0.179	0.1532	4.3716	0.0050	1.75E-06	0.0000	0.0000	3.97E-05
214	0.00	0.000	0.169	0.1460	4.3809	0.0050	1.75E-06	0.0000	0.0000	3.97E-05
215	0.14	0.000	0.178	0.1443	4.3910	0.0050	1.76E-06	0.0000	0.0000	3.97E-05
216	0.00	0.000	0.073	0.1410	4.3996	0.0050	1.76E-06	0.0000	0.0000	3.97E-05
217	0.45	0.000	0.057	0.1572	4.4083	0.0050	1.77E-06	0.0000	0.0000	3.97E-05
218	0.21	0.000	0.173	0.1586	4.4219	0.0050	1.77E-06	0.0000	0.0000	3.97E-05
219	0.00	0.000	0.211	0.1496	4.4368	0.0050	1.78E-06	0.0000	0.0000	3.96E-05
220	0.00	0.000	0.219	0.1403	4.4491	0.0050	1.79E-06	0.0000	0.0000	3.96E-05
221	0.16	0.000	0.154	0.1404	4.4660	0.0051	1.80E-06	0.0000	0.0000	3.96E-05
222	0.00	0.000	0.073	0.1372	4.4881	0.0051	1.81E-06	0.0000	0.0000	3.96E-05
223	0.00	0.000	0.056	0.1347	4.5086	0.0051	1.82E-06	0.0000	0.0000	3.96E-05
224	0.05	0.000	0.048	0.1349	4.5293	0.0051	1.83E-06	0.0000	0.0000	3.96E-05
225	0.14	0.000	0.042	0.1388	4.5508	0.0052	1.84E-06	0.0000	0.0000	3.96E-05
226	0.00	0.000	0.038	0.1371	4.5729	0.0052	1.85E-06	0.0000	0.0000	3.96E-05
227	0.00	0.000	0.035	0.1355	4.5958	0.0052	1.87E-06	0.0000	0.0000	3.96E-05
228	0.00	0.000	0.032	0.1340	4.6192	0.0052	1.88E-06	0.0000	0.0000	3.95E-05
229	0.00	0.000	0.030	0.1326	4.6432	0.0053	1.89E-06	0.0000	0.0000	3.95E-05
230	0.00	0.000	0.029	0.1313	4.6675	0.0053	1.91E-06	0.0000	0.0000	3.95E-05
231	0.00	0.000	0.027	0.1301	4.6922	0.0053	1.92E-06	0.0000	0.0000	3.95E-05
232	0.05	0.000	0.026	0.1310	4.7171	0.0053	1.93E-06	0.0000	0.0000	3.95E-05
233	0.00	0.000	0.025	0.1298	4.7421	0.0054	1.95E-06	0.0000	0.0000	3.95E-05
234	0.00	0.000	0.024	0.1287	4.7675	0.0054	1.96E-06	0.0000	0.0000	3.95E-05
235	0.00	0.000	0.023	0.1276	4.7930	0.0054	1.97E-06	0.0000	0.0000	3.95E-05
236	0.02	0.000	0.023	0.1276	4.8184	0.0055	1.99E-06	0.0000	0.0000	3.95E-05
237	0.02	0.000	0.022	0.1275	4.8439	0.0055	2.00E-06	0.0000	0.0000	3.95E-05
238	0.00	0.000	0.021	0.1265	4.8692	0.0055	2.02E-06	0.0000	0.0000	3.95E-05
239	0.00	0.000	0.021	0.1255	4.8945	0.0055	2.03E-06	0.0000	0.0000	3.94E-05
240	0.04	0.000	0.020	0.1263	4.9195	0.0056	2.04E-06	0.0000	0.0000	3.94E-05

241	0.00	0.000	0.020	0.1254	4.9450	0.0056	2.06E-06	0.0000	0.0000	3.94E-05
242	0.01	0.000	0.019	0.1250	4.9704	0.0056	2.07E-06	0.0000	0.0000	3.94E-05
243	0.00	0.000	0.019	0.1242	4.9953	0.0057	2.09E-06	0.0000	0.0000	3.94E-05
244	0.00	0.000	0.018	0.1233	5.0203	0.0057	2.10E-06	0.0000	0.0000	3.94E-05
245	0.00	0.000	0.018	0.1225	5.0448	0.0057	2.11E-06	0.0000	0.0000	3.94E-05
246	0.00	0.000	0.018	0.1217	5.0697	0.0057	2.13E-06	0.0000	0.0000	3.94E-05
247	0.00	0.000	0.017	0.1209	5.0948	0.0058	2.14E-06	0.0000	0.0000	3.94E-05
248	0.00	0.000	0.017	0.1201	5.1196	0.0058	2.16E-06	0.0000	0.0000	3.94E-05
249	0.04	0.000	0.017	0.1211	5.1443	0.0058	2.17E-06	0.0000	0.0000	3.94E-05
250	0.00	0.000	0.016	0.1204	5.1688	0.0059	2.18E-06	0.0000	0.0000	3.94E-05
251	0.00	0.000	0.016	0.1196	5.1932	0.0059	2.20E-06	0.0000	0.0000	3.93E-05
252	0.00	0.000	0.016	0.1190	5.2173	0.0059	2.21E-06	0.0000	0.0000	3.93E-05
253	0.00	0.000	0.016	0.1183	5.2412	0.0059	2.23E-06	0.0000	0.0000	3.93E-05
254	0.00	0.000	0.015	0.1176	5.2651	0.0060	2.24E-06	0.0000	0.0000	3.93E-05
255	0.00	0.000	0.015	0.1169	5.2891	0.0060	2.25E-06	0.0000	0.0000	3.93E-05
256	0.00	0.000	0.015	0.1162	5.3130	0.0060	2.27E-06	0.0000	0.0000	3.93E-05
257	0.00	0.000	0.015	0.1155	5.3367	0.0061	2.28E-06	0.0000	0.0000	3.93E-05
258	0.10	0.000	0.015	0.1189	5.3604	0.0061	2.29E-06	0.0000	0.0000	3.93E-05
259	0.21	0.000	0.015	0.1269	5.3839	0.0061	2.31E-06	0.0000	0.0000	3.93E-05
260	0.00	0.000	0.014	0.1262	5.4073	0.0061	2.32E-06	0.0000	0.0000	3.93E-05
261	0.00	0.000	0.014	0.1256	5.4307	0.0062	2.34E-06	0.0000	0.0000	3.93E-05
262	0.00	0.000	0.014	0.1250	5.4537	0.0062	2.35E-06	0.0000	0.0000	3.93E-05
263	0.00	0.000	0.014	0.1244	5.4769	0.0062	2.36E-06	0.0000	0.0000	3.92E-05
264	0.00	0.000	0.013	0.1238	5.5001	0.0062	2.38E-06	0.0000	0.0000	3.92E-05
265	0.00	0.000	0.013	0.1231	5.5232	0.0063	2.39E-06	0.0000	0.0000	3.92E-05
266	0.00	0.000	0.013	0.1226	5.5462	0.0063	2.40E-06	0.0000	0.0000	3.92E-05
267	0.00	0.000	0.013	0.1220	5.5692	0.0063	2.42E-06	0.0000	0.0000	3.92E-05
268	0.00	0.000	0.013	0.1214	5.5920	0.0064	2.43E-06	0.0000	0.0000	3.92E-05
269	0.00	0.000	0.013	0.1208	5.6148	0.0064	2.44E-06	0.0000	0.0000	3.92E-05
270	0.05	0.000	0.013	0.1224	5.6375	0.0064	2.46E-06	0.0000	0.0000	3.92E-05
271	0.08	0.000	0.013	0.1250	5.6602	0.0064	2.47E-06	0.0000	0.0000	3.92E-05

272		0.00	0.000	0.012	0.1244	5.6828	0.0065	2.48E-06	0.0000	0.0000	3.92E-05
273		0.00	0.000	0.012	0.1239	5.7053	0.0065	2.50E-06	0.0000	0.0000	3.92E-05
274		0.00	0.000	0.012	0.1233	5.7277	0.0065	2.51E-06	0.0000	0.0000	3.91E-05
275		0.00	0.000	0.012	0.1228	5.7500	0.0065	2.53E-06	0.0000	0.0000	3.91E-05
276		0.00	0.000	0.012	0.1222	5.7724	0.0066	2.54E-06	0.0000	0.0000	3.91E-05
277		0.00	0.000	0.012	0.1217	5.7948	0.0066	2.55E-06	0.0000	0.0000	3.91E-05
278	*	0.00	0.000	0.000	0.1217	5.8168	0.0066	2.57E-06	0.0000	0.0000	3.91E-05
279	*	0.00	0.000	0.012	0.1211	5.8388	0.0067	2.58E-06	0.0000	0.0000	3.91E-05
280	*	0.00	0.000	0.012	0.1206	5.8610	0.0067	2.59E-06	0.0000	0.0000	3.91E-05
281	*	0.00	0.000	0.000	0.1206	5.8830	0.0067	2.61E-06	0.0000	0.0000	3.91E-05
282		0.00	0.000	0.011	0.1200	5.9048	0.0067	2.62E-06	0.0000	0.0000	3.91E-05
283	*	0.00	0.000	0.000	0.1200	5.9268	0.0068	2.63E-06	0.0000	0.0000	3.91E-05
284		0.00	0.000	0.011	0.1195	5.9486	0.0068	2.65E-06	0.0000	0.0000	3.90E-05
285	*	0.00	0.000	0.011	0.1190	5.9707	0.0068	2.66E-06	0.0000	0.0000	3.90E-05
286		0.00	0.000	0.011	0.1185	5.9926	0.0068	2.67E-06	0.0000	0.0000	3.90E-05
287		0.00	0.000	0.011	0.1180	6.0144	0.0069	2.69E-06	0.0000	0.0000	3.90E-05
288		0.00	0.000	0.011	0.1175	6.0361	0.0069	2.70E-06	0.0000	0.0000	3.90E-05
289		0.00	0.000	0.011	0.1170	6.0577	0.0069	2.71E-06	0.0000	0.0000	3.90E-05
290		0.04	0.000	0.011	0.1183	6.0792	0.0069	2.73E-06	0.0000	0.0000	3.90E-05
291		0.00	0.000	0.011	0.1178	6.1006	0.0070	2.74E-06	0.0000	0.0000	3.90E-05
292		0.02	0.000	0.011	0.1181	6.1218	0.0070	2.75E-06	0.0000	0.0000	3.90E-05
293		0.83	0.000	0.011	0.1520	6.1430	0.0070	2.77E-06	0.0000	0.0000	3.90E-05
294		0.00	0.000	0.185	0.1443	6.1648	0.0070	2.78E-06	0.0000	0.0000	3.90E-05
295		0.01	0.000	0.164	0.1377	6.1868	0.0071	2.79E-06	0.0000	0.0000	3.89E-05
296		0.00	0.000	0.177	0.1303	6.2091	0.0071	2.81E-06	0.0000	0.0000	3.89E-05
297		0.00	0.000	0.073	0.1272	6.2298	0.0071	2.82E-06	0.0000	0.0000	3.89E-05
298		0.03	0.000	0.056	0.1260	6.2485	0.0071	2.83E-06	0.0000	0.0000	3.89E-05
299		0.01	0.000	0.048	0.1243	6.2675	0.0072	2.84E-06	0.0000	0.0000	3.89E-05
300		0.05	0.000	0.042	0.1244	6.2869	0.0072	2.86E-06	0.0000	0.0000	3.89E-05
301		0.08	0.000	0.038	0.1261	6.3064	0.0072	2.87E-06	0.0000	0.0000	3.89E-05
302		0.18	0.000	0.035	0.1323	6.3262	0.0072	2.88E-06	0.0000	0.0000	3.89E-05

303		0.00	0.000	0.032	0.1309	6.3461	0.0073	2.89E-06	0.0000	0.0000	3.89E-05
304		0.09	0.000	0.030	0.1332	6.3661	0.0073	2.91E-06	0.0000	0.0000	3.89E-05
305		0.03	0.000	0.029	0.1333	6.3862	0.0073	2.92E-06	0.0000	0.0000	3.88E-05
306		0.00	0.000	0.027	0.1321	6.4063	0.0073	2.93E-06	0.0000	0.0000	3.88E-05
307		0.00	0.000	0.026	0.1310	6.4265	0.0074	2.94E-06	0.0000	0.0000	3.88E-05
308		0.00	0.000	0.025	0.1299	6.4467	0.0074	2.96E-06	0.0000	0.0000	3.88E-05
309		0.00	0.000	0.024	0.1289	6.4668	0.0074	2.97E-06	0.0000	0.0000	3.88E-05
310		0.00	0.000	0.023	0.1278	6.4869	0.0074	2.98E-06	0.0000	0.0000	3.88E-05
311		0.00	0.000	0.022	0.1269	6.5069	0.0075	3.00E-06	0.0000	0.0000	3.88E-05
312		0.00	0.000	0.022	0.1259	6.5269	0.0075	3.01E-06	0.0000	0.0000	3.88E-05
313		0.10	0.000	0.021	0.1290	6.5468	0.0075	3.02E-06	0.0000	0.0000	3.88E-05
314		1.00	0.000	0.021	0.1698	6.5666	0.0075	3.03E-06	0.0000	0.0000	3.88E-05
315		0.01	0.000	0.073	0.1672	6.5863	0.0076	3.05E-06	0.0000	0.0000	3.87E-05
316	*	0.17	0.000	0.025	0.1680	6.6059	0.0076	3.06E-06	0.0000	0.0000	3.87E-05
317	*	0.03	0.000	0.000	0.1688	6.6254	0.0076	3.07E-06	0.0000	0.0000	3.87E-05
318	*	0.43	0.000	0.016	0.1696	6.6447	0.0076	3.08E-06	0.0000	0.0000	3.87E-05
319	*	0.00	0.000	0.033	0.1704	6.6640	0.0077	3.10E-06	0.0000	0.0000	3.87E-05
320	*	0.33	0.000	0.000	0.1712	6.6831	0.0077	3.11E-06	0.0000	0.0000	3.87E-05
321		0.00	0.000	0.000	0.2041	6.7021	0.0077	3.12E-06	0.0000	0.0000	3.87E-05
322	*	0.00	0.000	0.000	0.2041	6.7210	0.0077	3.13E-06	0.0000	0.0000	3.87E-05
323		0.00	0.000	0.053	0.2019	6.7398	0.0078	3.15E-06	0.0000	0.0000	3.87E-05
324		0.00	0.000	0.067	0.1990	6.7584	0.0078	3.16E-06	0.0000	0.0000	3.86E-05
325		0.00	0.000	0.061	0.1964	6.7769	0.0078	3.17E-06	0.0000	0.0000	3.86E-05
326	*	0.00	0.000	0.045	0.1945	6.7952	0.0078	3.18E-06	0.0000	0.0000	3.86E-05
327	*	0.00	0.000	0.000	0.1945	6.8135	0.0079	3.19E-06	0.0000	0.0000	3.86E-05
328	*	0.02	0.000	0.052	0.1930	6.8315	0.0079	3.21E-06	0.0000	0.0000	3.86E-05
329	*	0.00	0.000	0.000	0.1930	6.8495	0.0079	3.22E-06	0.0000	0.0000	3.86E-05
330	*	0.00	0.000	0.000	0.1930	6.8673	0.0079	3.23E-06	0.0000	0.0000	3.86E-05
331		0.00	0.000	0.078	0.1897	6.8855	0.0079	3.24E-06	0.0000	0.0000	3.86E-05
332		0.00	0.000	0.127	0.1844	6.9045	0.0080	3.26E-06	0.0000	0.0000	3.86E-05
333		0.00	0.000	0.103	0.1801	6.9229	0.0080	3.27E-06	0.0000	0.0000	3.86E-05

334			0.00	0.000	0.102	0.1758	6.9409	0.0080	3.28E-06	0.0000	0.0000	3.85E-05
335			0.00	0.000	0.082	0.1724	6.9585	0.0080	3.29E-06	0.0000	0.0000	3.85E-05
336			0.00	0.000	0.087	0.1688	6.9756	0.0081	3.30E-06	0.0000	0.0000	3.85E-05
337			0.01	0.000	0.068	0.1664	6.9924	0.0081	3.31E-06	0.0000	0.0000	3.85E-05
338			0.04	0.000	0.067	0.1651	7.0089	0.0081	3.32E-06	0.0000	0.0000	3.85E-05
339			0.03	0.000	0.074	0.1634	7.0251	0.0081	3.34E-06	0.0000	0.0000	3.85E-05
340			0.00	0.000	0.057	0.1610	7.0410	0.0081	3.35E-06	0.0000	0.0000	3.85E-05
341			0.10	0.000	0.051	0.1629	7.0567	0.0082	3.36E-06	0.0000	0.0000	3.85E-05
342			0.01	0.000	0.096	0.1591	7.0721	0.0082	3.37E-06	0.0000	0.0000	3.84E-05
343			0.43	0.000	0.128	0.1715	7.0854	0.0082	3.38E-06	0.0000	0.0000	3.84E-05
344			0.00	0.000	0.092	0.1673	7.0964	0.0082	3.38E-06	0.0000	0.0000	3.84E-05
345			0.10	0.000	0.062	0.1683	7.1073	0.0082	3.39E-06	0.0000	0.0000	3.84E-05
346	*		0.00	0.000	0.000	0.1677	7.1192	0.0082	3.40E-06	0.0000	0.0000	3.84E-05
347	*		0.00	0.000	0.000	0.1672	7.1319	0.0083	3.41E-06	0.0000	0.0000	3.84E-05
348	*		0.02	0.000	0.011	0.1670	7.1455	0.0083	3.42E-06	0.0000	0.0000	3.84E-05
349	*		0.00	0.000	0.000	0.1667	7.1597	0.0083	3.43E-06	0.0000	0.0000	3.83E-05
350	*		0.00	0.000	0.000	0.1663	7.1744	0.0083	3.44E-06	0.0000	0.0000	3.83E-05
351	*		0.00	0.000	0.000	0.1658	7.1897	0.0083	3.45E-06	0.0000	0.0000	3.83E-05
352	*		0.09	0.000	0.006	0.1662	7.2054	0.0084	3.46E-06	0.0000	0.0000	3.83E-05
353	*		0.06	0.000	0.013	0.1666	7.2215	0.0084	3.47E-06	0.0000	0.0000	3.83E-05
354	*	*	0.00	0.000	0.014	0.1666	7.2417	0.0084	3.48E-06	0.0000	0.0000	3.83E-05
355	*	*	0.11	0.000	0.006	0.1666	7.2672	0.0084	3.50E-06	0.0000	0.0000	3.83E-05
356	*	*	0.00	0.000	0.008	0.1666	7.2905	0.0085	3.51E-06	0.0000	0.0000	3.83E-05
357	*	*	0.00	0.000	0.004	0.1666	7.3119	0.0085	3.53E-06	0.0000	0.0000	3.83E-05
358	*	*	0.00	0.000	0.007	0.1666	7.3317	0.0085	3.54E-06	0.0000	0.0000	3.83E-05
359	*	*	0.00	0.000	0.000	0.1666	7.3501	0.0085	3.56E-06	0.0000	0.0000	3.82E-05
360	*	*	0.00	0.000	0.034	0.1666	7.3672	0.0086	3.57E-06	0.0000	0.0000	3.82E-05
361	*	*	0.01	0.000	0.037	0.1666	7.3833	0.0086	3.58E-06	0.0000	0.0000	3.82E-05
362	*	*	0.10	0.000	0.016	0.1666	7.3983	0.0086	3.59E-06	0.0000	0.0000	3.82E-05
363	*	*	0.00	0.000	0.007	0.1666	7.4125	0.0086	3.60E-06	0.0000	0.0000	3.82E-05
364	*	*	0.00	0.000	0.010	0.1666	7.4260	0.0086	3.61E-06	0.0000	0.0000	3.82E-05

365	*	*	0.00	0.000	0.017	0.1666	7.4387	0.0087	3.62E-06	0.0000	0.0000	3.82E-05

* = Frozen (air or soil)

Annual Totals for Year 5			
	inches	cubic feet	percent
Precipitation	25.46	92,408.5	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.104	83,868.9	90.76
Drainage Collected from Layer 3	1.9713	7,155.8	7.74
Percolation/Leakage through Layer 4	0.000728	2.6439	0.00
Average Head on Top of Layer 4	4.7382	---	---
Percolation/Leakage through Layer 6	0.014883	54.0	0.06
Change in Water Storage	0.3663	1,329.8	1.44
Soil Water at Start of Year	54.0934	196,359.2	212.49
Soil Water at End of Year	54.5981	198,191.1	214.47
Snow Water at Start of Year	0.3024	1,097.9	1.19
Snow Water at End of Year	0.1641	595.7	0.64
Annual Water Budget Balance	0.0000	0.0000	0.00

Average Annual Totals Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:27

	Average Annual Totals for Years 1 - 5*			
	(inches)	[std dev]	(cubic feet)	(percent)
Precipitation	31.43	[5.36]	114,107.4	100.00
Runoff	0.000	[0]	0.0000	0.00
Evapotranspiration	26.106	[2.598]	94,764.0	83.05
Subprofile1				
Lateral drainage collected from Layer 3	0.4273	[0.8656]	1,551.0	1.36
Percolation/leakage through Layer 4	0.000156	[0.00032]	0.5658	0.00
Average Head on Top of Layer 4	1.0272	[2.0803]	---	---
Subprofile2				
Percolation/leakage through Layer 6	0.028646	[0.016265]	104.0	0.09
Water storage				
Change in water storage	4.8728	[3.7547]	17,688.4	15.50

* Note: Average inches are converted to volume based on the user-specified area.

Peak Values Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:27

	Peak Values for Years 1 - 5*		
	(inches)		(cubic feet)
Precipitation	3.72		13,503.6
Runoff	0.000		0.0000
Subprofile1			
Drainage collected from Layer 3	0.0087		31.4
Percolation/leakage through Layer 4	0.000004		0.0131
Average head on Layer 4	7.4387		---
Maximum head on Layer 4	9.3392		---
Location of maximum head in Layer 3	38.88	(feet from drain)	
Subprofile2			
Percolation/leakage through Layer 6	0.000216		0.7835
Other Parameters			
Snow water	1.4979		5,437.3
Maximum vegetation soil water	0.3875	(vol/vol)	
Minimum vegetation soil water	0.1155	(vol/vol)	

Final Water Storage in Landfill Profile at End of Simulation Period

Title: Pilgrim Landfill
Simulated on: 9/17/2026 9:27
Simulation period: 5 years

	Final Water Storage	
Layer	(inches)	(vol/vol)
1	1.5866	0.2644
2	47.0334	0.1568
3	3.5364	0.2947
4	0.0000	0.0000
5	0.1473	0.5892
6	2.1077	0.3513
Snow water	0.1641	---

HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
HELP MODEL VERSION 4.0 BETA (2018)
DEVELOPED BY USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY

Title: Pilgrim Landfill **Simulated On:** 9/17/2026 8:57

Layer 1
Type 1 - Vertical Percolation Layer (Cover Soil)
SiCL - Silty Clay Loam
Material Texture Number 12

Thickness	=	6	inches
Porosity	=	0.471	vol/vol
Field Capacity	=	0.342	vol/vol
Wilting Point	=	0.21	vol/vol
Initial Soil Water Content	=	0.3175	vol/vol
Effective Sat. Hyd. Conductivity	=	4.20E-05	cm/sec

Layer 2
Type 1 - Vertical Percolation Layer (Waste)
Industrial Waste
Material Texture Number 83

Thickness	=	24	inches
Porosity	=	0.578	vol/vol
Field Capacity	=	0.076	vol/vol
Wilting Point	=	0.025	vol/vol
Initial Soil Water Content	=	0.1127	vol/vol
Effective Sat. Hyd. Conductivity	=	4.10E-03	cm/sec

Layer 3
Type 2 - Lateral Drainage Layer
Sand
Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.1637	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	5	%
Drainage Length	=	330	ft

Layer 4
Type 4 - Flexible Membrane Liner

HDPE Membrane

Material Texture Number 35

Thickness	=	0.06	inches
Effective Sat. Hyd. Conductivity	=	2.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 5

Type 1 - Vertical Percolation Layer

GCL

Material Texture Number 43

Thickness	=	0.25	inches
Porosity	=	0.75	vol/vol
Field Capacity	=	0.747	vol/vol
Wilting Point	=	0.4	vol/vol
Initial Soil Water Content	=	0.656	vol/vol
Effective Sat. Hyd. Conductivity	=	3.00E-09	cm/sec

Layer 6

Type 1 - Vertical Percolation Layer

SiC - Silty Clay (Moderate)

Material Texture Number 28

Thickness	=	6	inches
Porosity	=	0.452	vol/vol
Field Capacity	=	0.411	vol/vol
Wilting Point	=	0.311	vol/vol
Initial Soil Water Content	=	0.3723	vol/vol
Effective Sat. Hyd. Conductivity	=	1.20E-06	cm/sec

Note: Initial moisture content of the layers and snow water were computed as nearly steady-state values by HELP.

General Design and Evaporative Zone Data

SCS Runoff Curve Number	=	95.4	
Fraction of Area Allowing Runoff	=	0	%
Area projected on a horizontal plane	=	1	acres
Evaporative Zone Depth	=	24	inches
Initial Water in Evaporative Zone	=	3.867	inches
Upper Limit of Evaporative Storage	=	13.23	inches
Lower Limit of Evaporative Storage	=	1.71	inches
Initial Snow Water	=	0	inches
Initial Water in Layer Materials	=	8.971	inches
Total Initial Water	=	8.971	inches

Total Subsurface Inflow	=	0	inches/year

Note: SCS Runoff Curve Number was calculated by HELP.

Evapotranspiration and Weather Data

Station Latitude	=	44.13	Degrees
Maximum Leaf Area Index	=	0	
Start of Growing Season (Julian Date)	=	124	days
End of Growing Season (Julian Date)	=	182	days
Average Wind Speed	=	11	mph
Average 1st Quarter Relative Humidity	=	65	%
Average 2nd Quarter Relative Humidity	=	65	%
Average 3rd Quarter Relative Humidity	=	62	%
Average 4th Quarter Relative Humidity	=	65	%

Note: Evapotranspiration data was obtained for Mankato, Minnesota

Normal Mean Monthly Precipitation (inches)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
0.683107	0.60023	1.856155	3.092133	4.531518	6.501913
4.867874	3.191535	2.613059	1.132846	1.140449	1.223736

Note: Precipitation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Normal Mean Monthly Temperature (Degrees Fahrenheit)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
20.6	20.2	36	56.7	62.8	76.6
82.4	78.5	81.4	49.6	38.6	32.4

Note: Temperature was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98
Solar radiation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Daily Output for Year 1

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:58

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.004	0.1611	3.2546	0.0028	1.19E-06	0.0000	0.0000	2.16E-04
2	*	*	0.00	0.000	0.000	0.1611	3.2523	0.0028	1.19E-06	0.0000	0.0000	2.16E-04
3	*	*	0.00	0.000	0.000	0.1611	3.2500	0.0028	1.19E-06	0.0000	0.0000	2.15E-04
4	*	*	0.00	0.000	0.000	0.1611	3.2475	0.0028	1.19E-06	0.0000	0.0000	2.14E-04
5	*	*	0.00	0.000	0.000	0.1611	3.2449	0.0028	1.19E-06	0.0000	0.0000	2.14E-04
6	*	*	0.00	0.000	0.000	0.1611	3.2422	0.0028	1.19E-06	0.0000	0.0000	2.13E-04
7	*	*	0.00	0.000	0.000	0.1611	3.2394	0.0028	1.19E-06	0.0000	0.0000	2.13E-04
8	*	*	0.00	0.000	0.000	0.1611	3.2366	0.0028	1.19E-06	0.0000	0.0000	2.12E-04
9	*	*	0.13	0.000	0.003	0.1611	3.2336	0.0028	1.19E-06	0.0000	0.0000	2.12E-04
10	*	*	0.01	0.000	0.006	0.1611	3.2306	0.0028	1.18E-06	0.0000	0.0000	2.11E-04
11	*	*	0.03	0.000	0.003	0.1611	3.2276	0.0028	1.18E-06	0.0000	0.0000	2.11E-04
12	*	*	0.00	0.000	0.005	0.1611	3.2244	0.0028	1.18E-06	0.0000	0.0000	2.10E-04
13	*	*	0.00	0.000	0.026	0.1611	3.2212	0.0028	1.18E-06	0.0000	0.0000	2.09E-04
14	*	*	0.00	0.000	0.034	0.1611	3.2179	0.0028	1.18E-06	0.0000	0.0000	2.09E-04
15	*	*	0.00	0.000	0.016	0.1611	3.2146	0.0028	1.18E-06	0.0000	0.0000	2.08E-04
16	*	*	0.00	0.000	0.008	0.1611	3.2112	0.0028	1.17E-06	0.0000	0.0000	2.08E-04
17	*	*	0.00	0.000	0.004	0.1611	3.2077	0.0027	1.17E-06	0.0000	0.0000	2.07E-04
18	*	*	0.00	0.000	0.003	0.1611	3.2042	0.0027	1.17E-06	0.0000	0.0000	2.07E-04
19	*	*	0.00	0.000	0.004	0.1611	3.2006	0.0027	1.17E-06	0.0000	0.0000	2.06E-04
20	*	*	0.00	0.000	0.023	0.1611	3.1970	0.0027	1.17E-06	0.0000	0.0000	2.06E-04
21	*	*	0.00	0.000	0.009	0.1611	3.1933	0.0027	1.17E-06	0.0000	0.0000	2.05E-04
22	*	*	0.06	0.000	0.019	0.1611	3.1896	0.0027	1.16E-06	0.0000	0.0000	2.05E-04
23	*	*	0.03	0.000	0.020	0.1611	3.1858	0.0027	1.16E-06	0.0000	0.0000	2.04E-04

24	*	*	0.02	0.000	0.000	0.1611	3.1820	0.0027	1.16E-06	0.0000	0.0000	2.04E-04
25	*	*	0.00	0.000	0.025	0.1611	3.1781	0.0027	1.16E-06	0.0000	0.0000	2.03E-04
26	*	*	0.00	0.000	0.023	0.1611	3.1742	0.0027	1.16E-06	0.0000	0.0000	2.03E-04
27	*	*	0.13	0.000	0.022	0.1611	3.1703	0.0027	1.16E-06	0.0000	0.0000	2.02E-04
28	*	*	0.02	0.000	0.010	0.1611	3.1663	0.0027	1.15E-06	0.0000	0.0000	2.02E-04
29	*	*	0.00	0.000	0.020	0.1611	3.1623	0.0027	1.15E-06	0.0000	0.0000	2.01E-04
30	*	*	0.00	0.000	0.018	0.1611	3.1583	0.0027	1.15E-06	0.0000	0.0000	2.01E-04
31	*	*	0.05	0.000	0.000	0.1611	3.1542	0.0027	1.15E-06	0.0000	0.0000	2.00E-04
32	*	*	0.00	0.000	0.013	0.1611	3.1500	0.0027	1.15E-06	0.0000	0.0000	2.00E-04
33	*	*	0.00	0.000	0.024	0.1611	3.1459	0.0027	1.14E-06	0.0000	0.0000	1.99E-04
34		*	0.00	0.000	0.045	0.1650	3.1417	0.0027	1.14E-06	0.0000	0.0000	1.99E-04
35		*	0.00	0.000	0.000	0.1650	3.1375	0.0027	1.14E-06	0.0000	0.0000	1.98E-04
36	*	*	0.00	0.000	0.000	0.1650	3.1332	0.0027	1.14E-06	0.0000	0.0000	1.98E-04
37	*	*	0.01	0.000	0.014	0.1650	3.1290	0.0027	1.14E-06	0.0000	0.0000	1.97E-04
38		*	0.00	0.000	0.000	0.1650	3.1247	0.0027	1.14E-06	0.0000	0.0000	1.97E-04
39		*	0.00	0.000	0.000	0.1650	3.1203	0.0027	1.13E-06	0.0000	0.0000	1.96E-04
40		*	0.00	0.000	0.000	0.1650	3.1160	0.0027	1.13E-06	0.0000	0.0000	1.96E-04
41	*	*	0.00	0.000	0.000	0.1650	3.1116	0.0027	1.13E-06	0.0000	0.0000	1.95E-04
42	*	*	0.00	0.000	0.000	0.1650	3.1072	0.0027	1.13E-06	0.0000	0.0000	1.95E-04
43		*	0.00	0.000	0.000	0.1650	3.1028	0.0027	1.13E-06	0.0000	0.0000	1.94E-04
44	*	*	0.00	0.000	0.000	0.1650	3.0983	0.0027	1.12E-06	0.0000	0.0000	1.94E-04
45	*	*	0.00	0.000	0.000	0.1650	3.0939	0.0027	1.12E-06	0.0000	0.0000	1.93E-04
46	*	*	0.00	0.000	0.000	0.1650	3.0894	0.0026	1.12E-06	0.0000	0.0000	1.93E-04
47	*	*	0.00	0.000	0.000	0.1650	3.0849	0.0026	1.12E-06	0.0000	0.0000	1.93E-04
48	*	*	0.00	0.000	0.000	0.1650	3.0804	0.0026	1.12E-06	0.0000	0.0000	1.92E-04
49	*	*	0.00	0.000	0.000	0.1650	3.0758	0.0026	1.11E-06	0.0000	0.0000	1.92E-04
50	*	*	0.00	0.000	0.000	0.1650	3.0713	0.0026	1.11E-06	0.0000	0.0000	1.91E-04
51		*	0.00	0.000	0.000	0.1650	3.0667	0.0026	1.11E-06	0.0000	0.0000	1.91E-04
52		*	0.00	0.000	0.000	0.1650	3.0621	0.0026	1.11E-06	0.0000	0.0000	1.90E-04
53		*	0.17	0.000	0.000	0.1721	3.0575	0.0026	1.10E-06	0.0000	0.0000	1.90E-04
54		*	0.00	0.000	0.000	0.1721	3.0528	0.0026	1.10E-06	0.0000	0.0000	1.89E-04

55		*	0.00	0.000	0.000	0.1721	3.0482	0.0026	1.10E-06	0.0000	0.0000	1.89E-04
56		*	0.00	0.000	0.000	0.1721	3.0435	0.0026	1.10E-06	0.0000	0.0000	1.88E-04
57		*	0.00	0.000	0.000	0.1721	3.0389	0.0026	1.10E-06	0.0000	0.0000	1.88E-04
58		*	0.00	0.000	0.000	0.1722	3.0342	0.0026	1.09E-06	0.0000	0.0000	1.88E-04
59	*	*	0.10	0.000	0.056	0.1722	3.0295	0.0026	1.09E-06	0.0000	0.0000	1.87E-04
60		*	0.00	0.000	0.047	0.1722	3.0248	0.0026	1.09E-06	0.0000	0.0000	1.87E-04
61	*	*	0.00	0.000	0.005	0.1722	3.0200	0.0026	1.09E-06	0.0000	0.0000	1.86E-04
62		*	0.45	0.000	0.000	0.1909	3.0153	0.0026	1.09E-06	0.0000	0.0000	1.86E-04
63	*	*	0.00	0.000	0.000	0.1909	3.0106	0.0026	1.08E-06	0.0000	0.0000	1.85E-04
64	*	*	0.00	0.000	0.004	0.1909	3.0058	0.0026	1.08E-06	0.0000	0.0000	1.85E-04
65	*	*	0.02	0.000	0.007	0.1909	3.0010	0.0026	1.08E-06	0.0000	0.0000	1.85E-04
66	*	*	0.17	0.000	0.006	0.1909	2.9963	0.0026	1.08E-06	0.0000	0.0000	1.84E-04
67	*	*	0.00	0.000	0.046	0.1909	2.9915	0.0026	1.08E-06	0.0000	0.0000	1.84E-04
68	*	*	0.01	0.000	0.010	0.1909	2.9867	0.0026	1.07E-06	0.0000	0.0000	1.83E-04
69	*	*	0.00	0.000	0.030	0.1909	2.9819	0.0026	1.07E-06	0.0000	0.0000	1.83E-04
70		*	0.00	0.000	0.096	0.1909	2.9771	0.0026	1.07E-06	0.0000	0.0000	1.83E-04
71		*	0.00	0.000	0.000	0.1909	2.9723	0.0025	1.07E-06	0.0000	0.0000	1.82E-04
72	*	*	0.00	0.000	0.000	0.1909	2.9674	0.0025	1.06E-06	0.0000	0.0000	1.82E-04
73	*	*	0.00	0.000	0.000	0.1909	2.9626	0.0025	1.06E-06	0.0000	0.0000	1.81E-04
74	*	*	0.00	0.000	0.000	0.1909	2.9578	0.0025	1.06E-06	0.0000	0.0000	1.81E-04
75	*	*	0.00	0.000	0.000	0.1909	2.9529	0.0025	1.06E-06	0.0000	0.0000	1.80E-04
76	*	*	0.00	0.000	0.000	0.1909	2.9481	0.0025	1.06E-06	0.0000	0.0000	1.80E-04
77	*	*	0.00	0.000	0.000	0.1909	2.9432	0.0025	1.05E-06	0.0000	0.0000	1.80E-04
78	*	*	0.00	0.000	0.000	0.1909	2.9383	0.0025	1.05E-06	0.0000	0.0000	1.79E-04
79	*	*	0.00	0.000	0.000	0.1909	2.9335	0.0025	1.05E-06	0.0000	0.0000	1.79E-04
80	*	*	0.07	0.000	0.008	0.1909	2.9286	0.0025	1.05E-06	0.0000	0.0000	1.78E-04
81		*	0.00	0.000	0.062	0.1909	2.9237	0.0025	1.04E-06	0.0000	0.0000	1.78E-04
82	*	*	0.00	0.000	0.000	0.1909	2.9188	0.0025	1.04E-06	0.0000	0.0000	1.78E-04
83	*	*	0.00	0.000	0.000	0.1909	2.9140	0.0025	1.04E-06	0.0000	0.0000	1.77E-04
84		*	0.00	0.000	0.000	0.1909	2.9091	0.0025	1.04E-06	0.0000	0.0000	1.77E-04
85		*	0.00	0.000	0.000	0.1909	2.9042	0.0025	1.04E-06	0.0000	0.0000	1.77E-04

86		*	0.00	0.000	0.000	0.1909	2.8993	0.0025	1.03E-06	0.0000	0.0000	1.76E-04
87		*	0.00	0.000	0.000	0.1909	2.8944	0.0025	1.03E-06	0.0000	0.0000	1.76E-04
88		*	0.00	0.000	0.000	0.1909	2.8895	0.0025	1.03E-06	0.0000	0.0000	1.75E-04
89		*	0.00	0.000	0.000	0.1909	2.8846	0.0025	1.03E-06	0.0000	0.0000	1.75E-04
90		*	0.00	0.000	0.000	0.1909	2.8796	0.0025	1.03E-06	0.0000	0.0000	1.75E-04
91		*	0.00	0.000	0.000	0.1909	2.8747	0.0025	1.02E-06	0.0000	0.0000	1.74E-04
92		*	0.00	0.000	0.000	0.1909	2.8698	0.0025	1.02E-06	0.0000	0.0000	1.74E-04
93		*	0.41	0.000	0.000	0.2079	2.8649	0.0025	1.02E-06	0.0000	0.0000	1.74E-04
94		*	0.11	0.000	0.000	0.2123	2.8600	0.0025	1.02E-06	0.0000	0.0000	1.73E-04
95		*	0.00	0.000	0.000	0.2123	2.8551	0.0024	1.01E-06	0.0000	0.0000	1.73E-04
96		*	0.04	0.000	0.000	0.2137	2.8501	0.0024	1.01E-06	0.0000	0.0000	1.72E-04
97			0.21	0.000	0.195	0.2144	2.8449	0.0024	1.01E-06	0.0000	0.0000	1.72E-04
98			0.34	0.000	0.197	0.2203	2.8399	0.0024	1.01E-06	0.0000	0.0000	1.72E-04
99			0.00	0.000	0.370	0.2047	2.8342	0.0024	1.01E-06	0.0000	0.0000	1.71E-04
100			0.00	0.000	0.338	0.1906	2.8289	0.0024	1.00E-06	0.0000	0.0000	1.71E-04
101			0.00	0.000	0.152	0.1840	2.8235	0.0024	1.00E-06	0.0000	0.0000	1.71E-04
102			0.00	0.000	0.185	0.1760	2.8170	0.0024	9.98E-07	0.0000	0.0000	1.70E-04
103			0.00	0.000	0.454	0.1569	2.8106	0.0024	9.95E-07	0.0000	0.0000	1.70E-04
104			0.00	0.000	0.167	0.1498	2.8046	0.0024	9.92E-07	0.0000	0.0000	1.70E-04
105			0.00	0.000	0.073	0.1466	2.7984	0.0024	9.90E-07	0.0000	0.0000	1.69E-04
106	*		0.00	0.000	0.000	0.1466	2.7935	0.0024	9.87E-07	0.0000	0.0000	1.69E-04
107			0.00	0.000	0.056	0.1442	2.7894	0.0024	9.86E-07	0.0000	0.0000	1.68E-04
108			0.00	0.000	0.047	0.1423	2.7852	0.0024	9.84E-07	0.0000	0.0000	1.68E-04
109			0.00	0.000	0.042	0.1405	2.7807	0.0024	9.82E-07	0.0000	0.0000	1.68E-04
110			0.00	0.000	0.038	0.1389	2.7764	0.0024	9.80E-07	0.0000	0.0000	1.67E-04
111			0.08	0.000	0.035	0.1406	2.7719	0.0024	9.78E-07	0.0000	0.0000	1.67E-04
112			0.00	0.000	0.032	0.1383	2.7657	0.0024	9.75E-07	0.0000	0.0000	1.67E-04
113			0.00	0.000	0.030	0.1360	2.7594	0.0024	9.73E-07	0.0000	0.0000	1.66E-04
114			0.00	0.000	0.028	0.1331	2.7531	0.0024	9.70E-07	0.0000	0.0000	1.66E-04
115			0.00	0.000	0.027	0.1304	2.7468	0.0024	9.67E-07	0.0000	0.0000	1.66E-04
116			0.07	0.000	0.026	0.1307	2.7405	0.0023	9.64E-07	0.0000	0.0000	1.65E-04

117		0.15	0.000	0.025	0.1348	2.7343	0.0023	9.62E-07	0.0000	0.0000	1.65E-04
118	*	0.00	0.000	0.003	0.1337	2.7280	0.0023	9.59E-07	0.0000	0.0000	1.65E-04
119	*	0.44	0.000	0.021	0.1335	2.7218	0.0023	9.56E-07	0.0000	0.0000	1.64E-04
120	*	0.02	0.000	0.033	0.1334	2.7156	0.0023	9.54E-07	0.0000	0.0000	1.64E-04
121		0.00	0.000	0.074	0.1448	2.7094	0.0023	9.51E-07	0.0000	0.0000	1.64E-04
122		0.00	0.000	0.024	0.1431	2.7033	0.0023	9.48E-07	0.0000	0.0000	1.63E-04
123		0.00	0.000	0.023	0.1415	2.7007	0.0023	9.47E-07	0.0000	0.0000	1.63E-04
124		0.00	0.000	0.022	0.1400	2.7057	0.0023	9.49E-07	0.0000	0.0000	1.63E-04
125		0.25	0.000	0.022	0.1490	2.7162	0.0023	9.54E-07	0.0000	0.0000	1.62E-04
126		0.14	0.000	0.021	0.1534	2.7338	0.0023	9.62E-07	0.0000	0.0000	1.62E-04
127		0.00	0.000	0.021	0.1521	2.7551	0.0024	9.71E-07	0.0000	0.0000	1.62E-04
128		0.14	0.000	0.020	0.1568	2.7785	0.0024	9.81E-07	0.0000	0.0000	1.61E-04
129		0.08	0.000	0.020	0.1588	2.8032	0.0024	9.92E-07	0.0000	0.0000	1.61E-04
130		0.31	0.000	0.162	0.1645	2.8306	0.0024	1.00E-06	0.0000	0.0000	1.61E-04
131		0.00	0.000	0.267	0.1530	2.8579	0.0024	1.02E-06	0.0000	0.0000	1.60E-04
132		0.00	0.000	0.177	0.1456	2.8933	0.0025	1.03E-06	0.0000	0.0000	1.60E-04
133		0.00	0.000	0.073	0.1422	2.9235	0.0025	1.04E-06	0.0000	0.0000	1.60E-04
134		0.61	0.000	0.056	0.1647	2.9380	0.0025	1.05E-06	0.0000	0.0000	1.60E-04
135		0.00	0.000	0.412	0.1472	2.9454	0.0025	1.05E-06	0.0000	0.0000	1.59E-04
136		0.00	0.000	0.048	0.1448	2.9665	0.0025	1.06E-06	0.0000	0.0000	1.59E-04
137		1.02	0.000	0.042	0.1849	2.9761	0.0026	1.07E-06	0.0000	0.0000	1.59E-04
138		0.15	0.000	0.254	0.1807	2.9989	0.0026	1.08E-06	0.0000	0.0000	1.58E-04
139		0.27	0.000	0.303	0.1788	3.0320	0.0026	1.09E-06	0.0000	0.0000	1.58E-04
140		0.18	0.000	0.284	0.1740	3.0471	0.0026	1.10E-06	0.0000	0.0000	1.58E-04
141		0.00	0.000	0.250	0.1630	3.0591	0.0026	1.11E-06	0.0000	0.0000	1.57E-04
142		0.10	0.000	0.182	0.1591	3.0683	0.0026	1.11E-06	0.0000	0.0000	1.57E-04
143		0.00	0.000	0.382	0.1426	3.0740	0.0026	1.11E-06	0.0000	0.0000	1.57E-04
144		0.00	0.000	0.158	0.1355	3.0874	0.0026	1.12E-06	0.0000	0.0000	1.57E-04
145		0.42	0.000	0.074	0.1494	3.1017	0.0027	1.12E-06	0.0000	0.0000	1.56E-04
146		0.00	0.000	0.057	0.1467	3.1209	0.0027	1.13E-06	0.0000	0.0000	1.56E-04
147		0.05	0.000	0.048	0.1464	3.1445	0.0027	1.14E-06	0.0000	0.0000	1.56E-04

148	0.07	0.000	0.042	0.1473	3.1709	0.0027	1.16E-06	0.0000	0.0000	1.55E-04
149	0.09	0.000	0.038	0.1491	3.1970	0.0027	1.17E-06	0.0000	0.0000	1.55E-04
150	0.03	0.000	0.035	0.1486	3.2232	0.0028	1.18E-06	0.0000	0.0000	1.55E-04
151	0.00	0.000	0.032	0.1470	3.2492	0.0028	1.19E-06	0.0000	0.0000	1.55E-04
152	0.00	0.000	0.030	0.1455	3.2757	0.0028	1.20E-06	0.0000	0.0000	1.54E-04
153	0.19	0.000	0.029	0.1520	3.2981	0.0028	1.22E-06	0.0000	0.0000	1.54E-04
154	0.00	0.000	0.193	0.1438	3.3217	0.0028	1.23E-06	0.0000	0.0000	1.54E-04
155	0.05	0.000	0.028	0.1444	3.3414	0.0029	1.24E-06	0.0000	0.0000	1.53E-04
156	0.00	0.000	0.026	0.1431	3.3596	0.0029	1.24E-06	0.0000	0.0000	1.53E-04
157	0.00	0.000	0.025	0.1419	3.3804	0.0029	1.25E-06	0.0000	0.0000	1.53E-04
158	0.47	0.000	0.025	0.1601	3.3972	0.0029	1.26E-06	0.0000	0.0000	1.53E-04
159	0.22	0.000	0.199	0.1607	3.4130	0.0029	1.27E-06	0.0000	0.0000	1.52E-04
160	0.08	0.000	0.227	0.1544	3.4309	0.0029	1.28E-06	0.0000	0.0000	1.52E-04
161	0.00	0.000	0.306	0.1416	3.4496	0.0030	1.29E-06	0.0000	0.0000	1.52E-04
162	0.73	0.000	0.171	0.1647	3.4588	0.0030	1.29E-06	0.0000	0.0000	1.51E-04
163	1.39	0.000	0.188	0.2147	3.4683	0.0030	1.30E-06	0.0000	0.0000	1.51E-04
164	0.04	0.000	0.159	0.2096	3.4865	0.0030	1.30E-06	0.0000	0.0000	1.51E-04
165	0.15	0.000	0.141	0.2095	3.4893	0.0030	1.31E-06	0.0000	0.0000	1.51E-04
166	0.02	0.000	0.325	0.1963	3.4866	0.0030	1.30E-06	0.0000	0.0000	1.50E-04
167	0.02	0.000	0.177	0.1894	3.4871	0.0030	1.30E-06	0.0000	0.0000	1.50E-04
168	0.00	0.000	0.284	0.1774	3.4900	0.0030	1.31E-06	0.0000	0.0000	1.50E-04
169	0.01	0.000	0.339	0.1637	3.4971	0.0030	1.31E-06	0.0000	0.0000	1.49E-04
170	0.37	0.000	0.178	0.1715	3.5028	0.0030	1.31E-06	0.0000	0.0000	1.49E-04
171	0.82	0.000	0.327	0.1917	3.5087	0.0030	1.31E-06	0.0000	0.0000	1.49E-04
172	0.00	0.000	0.390	0.1754	3.5199	0.0030	1.32E-06	0.0000	0.0000	1.49E-04
173	0.00	0.000	0.399	0.1586	3.5292	0.0030	1.32E-06	0.0000	0.0000	1.48E-04
174	0.78	0.000	0.178	0.1836	3.5340	0.0030	1.33E-06	0.0000	0.0000	1.48E-04
175	1.15	0.000	0.302	0.2190	3.5462	0.0030	1.33E-06	0.0000	0.0000	1.48E-04
176	0.13	0.000	0.391	0.2081	3.5608	0.0031	1.34E-06	0.0000	0.0000	1.48E-04
177	0.00	0.000	0.233	0.1984	3.5744	0.0031	1.35E-06	0.0000	0.0000	1.47E-04
178	0.01	0.000	0.330	0.1851	3.5870	0.0031	1.35E-06	0.0000	0.0000	1.47E-04

179	0.43	0.000	0.347	0.1882	3.5924	0.0031	1.35E-06	0.0000	0.0000	1.47E-04
180	0.00	0.000	0.300	0.1757	3.6003	0.0031	1.36E-06	0.0000	0.0000	1.47E-04
181	0.00	0.000	0.335	0.1615	3.6062	0.0031	1.36E-06	0.0000	0.0000	1.46E-04
182	0.00	0.000	0.177	0.1538	3.6052	0.0031	1.36E-06	0.0000	0.0000	1.46E-04
183	0.00	0.000	0.073	0.1502	3.5969	0.0031	1.36E-06	0.0000	0.0000	1.46E-04
184	0.05	0.000	0.057	0.1491	3.5887	0.0031	1.35E-06	0.0000	0.0000	1.45E-04
185	0.00	0.000	0.047	0.1466	3.5805	0.0031	1.35E-06	0.0000	0.0000	1.45E-04
186	0.00	0.000	0.042	0.1443	3.5725	0.0031	1.35E-06	0.0000	0.0000	1.45E-04
187	0.11	0.000	0.038	0.1472	3.5743	0.0031	1.35E-06	0.0000	0.0000	1.45E-04
188	1.26	0.000	0.035	0.1983	3.5915	0.0031	1.35E-06	0.0000	0.0000	1.44E-04
189	0.59	0.000	0.348	0.2082	3.6021	0.0031	1.36E-06	0.0000	0.0000	1.44E-04
190	0.12	0.000	0.205	0.2047	3.6127	0.0031	1.36E-06	0.0000	0.0000	1.44E-04
191	0.30	0.000	0.373	0.2013	3.6284	0.0031	1.37E-06	0.0000	0.0000	1.44E-04
192	0.06	0.000	0.232	0.1938	3.6360	0.0031	1.38E-06	0.0000	0.0000	1.43E-04
193	0.05	0.000	0.182	0.1878	3.6332	0.0031	1.37E-06	0.0000	0.0000	1.43E-04
194	0.02	0.000	0.189	0.1804	3.6329	0.0031	1.37E-06	0.0000	0.0000	1.43E-04
195	0.04	0.000	0.351	0.1668	3.6434	0.0031	1.38E-06	0.0000	0.0000	1.43E-04
196	0.00	0.000	0.177	0.1588	3.6400	0.0031	1.38E-06	0.0000	0.0000	1.42E-04
197	0.25	0.000	0.074	0.1655	3.6342	0.0031	1.37E-06	0.0000	0.0000	1.42E-04
198	0.00	0.000	0.056	0.1624	3.6260	0.0031	1.37E-06	0.0000	0.0000	1.42E-04
199	0.00	0.000	0.047	0.1598	3.6213	0.0031	1.37E-06	0.0000	0.0000	1.42E-04
200	0.00	0.000	0.042	0.1574	3.6281	0.0031	1.37E-06	0.0000	0.0000	1.41E-04
201	0.08	0.000	0.038	0.1586	3.6398	0.0031	1.38E-06	0.0000	0.0000	1.41E-04
202	0.00	0.000	0.035	0.1566	3.6555	0.0031	1.39E-06	0.0000	0.0000	1.41E-04
203	0.00	0.000	0.033	0.1547	3.6711	0.0031	1.39E-06	0.0000	0.0000	1.41E-04
204	0.20	0.000	0.031	0.1614	3.6944	0.0032	1.40E-06	0.0000	0.0000	1.40E-04
205	0.00	0.000	0.029	0.1598	3.7213	0.0032	1.42E-06	0.0000	0.0000	1.40E-04
206	0.00	0.000	0.027	0.1582	3.7440	0.0032	1.43E-06	0.0000	0.0000	1.40E-04
207	0.45	0.000	0.027	0.1754	3.7704	0.0032	1.44E-06	0.0000	0.0000	1.40E-04
208	0.13	0.000	0.167	0.1737	3.7990	0.0033	1.46E-06	0.0000	0.0000	1.40E-04
209	0.00	0.000	0.183	0.1656	3.8206	0.0033	1.47E-06	0.0000	0.0000	1.39E-04

210	0.00	0.000	0.160	0.1585	3.8378	0.0033	1.47E-06	0.0000	0.0000	1.39E-04
211	0.11	0.000	0.172	0.1554	3.8586	0.0033	1.49E-06	0.0000	0.0000	1.39E-04
212	0.01	0.000	0.074	0.1524	3.8842	0.0033	1.50E-06	0.0000	0.0000	1.39E-04
213	0.00	0.000	0.056	0.1499	3.9182	0.0034	1.51E-06	0.0000	0.0000	1.38E-04
214	0.00	0.000	0.047	0.1478	3.9462	0.0034	1.53E-06	0.0000	0.0000	1.38E-04
215	0.00	0.000	0.042	0.1459	3.9684	0.0034	1.54E-06	0.0000	0.0000	1.38E-04
216	0.06	0.000	0.038	0.1466	3.9841	0.0034	1.55E-06	0.0000	0.0000	1.38E-04
217	0.09	0.000	0.035	0.1485	3.9954	0.0034	1.55E-06	0.0000	0.0000	1.37E-04
218	0.00	0.000	0.032	0.1469	4.0098	0.0034	1.56E-06	0.0000	0.0000	1.37E-04
219	0.11	0.000	0.031	0.1499	4.0226	0.0034	1.57E-06	0.0000	0.0000	1.37E-04
220	0.00	0.000	0.029	0.1485	4.0343	0.0035	1.57E-06	0.0000	0.0000	1.37E-04
221	0.00	0.000	0.027	0.1471	4.0463	0.0035	1.58E-06	0.0000	0.0000	1.37E-04
222	0.29	0.000	0.026	0.1579	4.0589	0.0035	1.59E-06	0.0000	0.0000	1.36E-04
223	0.58	0.000	0.025	0.1809	4.0700	0.0035	1.59E-06	0.0000	0.0000	1.36E-04
224	0.17	0.000	0.169	0.1807	4.0788	0.0035	1.60E-06	0.0000	0.0000	1.36E-04
225	0.00	0.000	0.212	0.1716	4.0850	0.0035	1.60E-06	0.0000	0.0000	1.36E-04
226	0.00	0.000	0.164	0.1648	4.1013	0.0035	1.61E-06	0.0000	0.0000	1.35E-04
227	0.01	0.000	0.166	0.1581	4.1208	0.0035	1.62E-06	0.0000	0.0000	1.35E-04
228	0.00	0.000	0.177	0.1507	4.1363	0.0035	1.63E-06	0.0000	0.0000	1.35E-04
229	0.00	0.000	0.073	0.1475	4.1460	0.0036	1.63E-06	0.0000	0.0000	1.35E-04
230	0.00	0.000	0.055	0.1450	4.1503	0.0036	1.63E-06	0.0000	0.0000	1.35E-04
231	0.00	0.000	0.047	0.1429	4.1534	0.0036	1.63E-06	0.0000	0.0000	1.34E-04
232	0.00	0.000	0.042	0.1409	4.1559	0.0036	1.64E-06	0.0000	0.0000	1.34E-04
233	0.00	0.000	0.038	0.1392	4.1583	0.0036	1.64E-06	0.0000	0.0000	1.34E-04
234	0.00	0.000	0.035	0.1375	4.1603	0.0036	1.64E-06	0.0000	0.0000	1.34E-04
235	0.00	0.000	0.032	0.1359	4.1587	0.0036	1.64E-06	0.0000	0.0000	1.33E-04
236	0.00	0.000	0.030	0.1344	4.1584	0.0036	1.64E-06	0.0000	0.0000	1.33E-04
237	0.32	0.000	0.029	0.1464	4.1631	0.0036	1.64E-06	0.0000	0.0000	1.33E-04
238	0.00	0.000	0.027	0.1451	4.1695	0.0036	1.64E-06	0.0000	0.0000	1.33E-04
239	0.00	0.000	0.026	0.1439	4.1736	0.0036	1.64E-06	0.0000	0.0000	1.33E-04
240	0.00	0.000	0.025	0.1427	4.1791	0.0036	1.65E-06	0.0000	0.0000	1.32E-04

241	0.00	0.000	0.024	0.1416	4.1845	0.0036	1.65E-06	0.0000	0.0000	1.32E-04
242	0.00	0.000	0.024	0.1405	4.1895	0.0036	1.65E-06	0.0000	0.0000	1.32E-04
243	0.00	0.000	0.022	0.1395	4.1940	0.0036	1.66E-06	0.0000	0.0000	1.32E-04
244	0.00	0.000	0.022	0.1384	4.1982	0.0036	1.66E-06	0.0000	0.0000	1.31E-04
245	0.00	0.000	0.021	0.1374	4.2021	0.0036	1.66E-06	0.0000	0.0000	1.31E-04
246	0.00	0.000	0.021	0.1364	4.2057	0.0036	1.66E-06	0.0000	0.0000	1.31E-04
247	0.08	0.000	0.020	0.1389	4.2091	0.0036	1.66E-06	0.0000	0.0000	1.31E-04
248	0.02	0.000	0.020	0.1389	4.2123	0.0036	1.66E-06	0.0000	0.0000	1.31E-04
249	0.78	0.000	0.019	0.1705	4.2152	0.0036	1.67E-06	0.0000	0.0000	1.30E-04
250	0.64	0.000	0.207	0.1885	4.2209	0.0036	1.67E-06	0.0000	0.0000	1.30E-04
251	0.45	0.000	0.147	0.2009	4.2293	0.0036	1.67E-06	0.0000	0.0000	1.30E-04
252	0.99	0.000	0.259	0.2314	4.2358	0.0036	1.68E-06	0.0000	0.0000	1.30E-04
253	0.03	0.000	0.325	0.2191	4.2425	0.0036	1.68E-06	0.0000	0.0000	1.30E-04
254	0.00	0.000	0.276	0.2074	4.2377	0.0036	1.68E-06	0.0000	0.0000	1.29E-04
255	0.00	0.000	0.146	0.2012	4.2318	0.0036	1.67E-06	0.0000	0.0000	1.29E-04
256	0.00	0.000	0.251	0.1906	4.2274	0.0036	1.67E-06	0.0000	0.0000	1.29E-04
257	1.56	0.000	0.178	0.2427	4.2315	0.0036	1.67E-06	0.0000	0.0000	1.29E-04
258	0.00	0.000	0.305	0.2353	4.2393	0.0036	1.68E-06	0.0000	0.0000	1.29E-04
259	0.00	0.000	0.372	0.2194	4.2461	0.0036	1.68E-06	0.0000	0.0000	1.28E-04
260	0.00	0.000	0.188	0.2101	4.2423	0.0036	1.68E-06	0.0000	0.0000	1.28E-04
261	0.00	0.000	0.251	0.1997	4.2413	0.0036	1.68E-06	0.0000	0.0000	1.28E-04
262	0.11	0.000	0.319	0.1897	4.2498	0.0036	1.68E-06	0.0000	0.0000	1.28E-04
263	0.00	0.000	0.177	0.1794	4.2415	0.0036	1.68E-06	0.0000	0.0000	1.27E-04
264	0.04	0.000	0.073	0.1749	4.2318	0.0036	1.67E-06	0.0000	0.0000	1.27E-04
265	0.00	0.000	0.056	0.1700	4.2221	0.0036	1.67E-06	0.0000	0.0000	1.27E-04
266	0.00	0.000	0.047	0.1657	4.2164	0.0036	1.67E-06	0.0000	0.0000	1.27E-04
267	0.00	0.000	0.042	0.1617	4.2359	0.0036	1.68E-06	0.0000	0.0000	1.27E-04
268	0.33	0.000	0.038	0.1720	4.3197	0.0037	1.72E-06	0.0000	0.0000	1.27E-04
269	0.00	0.000	0.035	0.1693	4.4414	0.0038	1.78E-06	0.0000	0.0000	1.26E-04
270	0.00	0.000	0.032	0.1672	4.5674	0.0039	1.85E-06	0.0000	0.0000	1.26E-04
271	0.00	0.000	0.030	0.1650	4.6681	0.0040	1.91E-06	0.0000	0.0000	1.26E-04

272		0.00	0.000	0.029	0.1627	4.7415	0.0041	1.95E-06	0.0000	0.0000	1.26E-04
273		0.00	0.000	0.027	0.1604	4.8030	0.0041	1.98E-06	0.0000	0.0000	1.26E-04
274		0.00	0.000	0.026	0.1582	4.8632	0.0042	2.01E-06	0.0000	0.0000	1.26E-04
275		0.03	0.000	0.025	0.1572	4.9255	0.0042	2.05E-06	0.0000	0.0000	1.25E-04
276		0.01	0.000	0.024	0.1556	4.9897	0.0043	2.08E-06	0.0000	0.0000	1.25E-04
277		0.00	0.000	0.023	0.1537	5.0556	0.0043	2.12E-06	0.0000	0.0000	1.25E-04
278		0.00	0.000	0.022	0.1518	5.1167	0.0044	2.16E-06	0.0000	0.0000	1.25E-04
279		0.00	0.000	0.022	0.1501	5.1769	0.0044	2.19E-06	0.0000	0.0000	1.25E-04
280		0.00	0.000	0.021	0.1484	5.2364	0.0045	2.22E-06	0.0000	0.0000	1.25E-04
281		0.00	0.000	0.021	0.1469	5.2931	0.0045	2.26E-06	0.0000	0.0000	1.24E-04
282		0.00	0.000	0.020	0.1454	5.3463	0.0046	2.29E-06	0.0000	0.0000	1.24E-04
283		0.07	0.000	0.020	0.1467	5.3959	0.0046	2.32E-06	0.0000	0.0000	1.24E-04
284		0.25	0.000	0.019	0.1558	5.4419	0.0047	2.34E-06	0.0000	0.0000	1.24E-04
285		0.00	0.000	0.019	0.1545	5.4847	0.0047	2.37E-06	0.0000	0.0000	1.24E-04
286		0.00	0.000	0.018	0.1532	5.5246	0.0047	2.39E-06	0.0000	0.0000	1.24E-04
287		0.00	0.000	0.018	0.1520	5.5619	0.0048	2.41E-06	0.0000	0.0000	1.23E-04
288		0.05	0.000	0.018	0.1527	5.5969	0.0048	2.43E-06	0.0000	0.0000	1.23E-04
289		0.06	0.000	0.017	0.1541	5.6283	0.0048	2.45E-06	0.0000	0.0000	1.23E-04
290		0.00	0.000	0.017	0.1529	5.6582	0.0048	2.47E-06	0.0000	0.0000	1.23E-04
291		0.19	0.000	0.017	0.1596	5.6865	0.0049	2.49E-06	0.0000	0.0000	1.23E-04
292		0.05	0.000	0.016	0.1605	5.7131	0.0049	2.50E-06	0.0000	0.0000	1.23E-04
293		0.00	0.000	0.016	0.1594	5.7381	0.0049	2.52E-06	0.0000	0.0000	1.22E-04
294		0.00	0.000	0.016	0.1584	5.7616	0.0049	2.53E-06	0.0000	0.0000	1.22E-04
295		0.00	0.000	0.016	0.1574	5.7837	0.0050	2.55E-06	0.0000	0.0000	1.22E-04
296		0.00	0.000	0.015	0.1565	5.8044	0.0050	2.56E-06	0.0000	0.0000	1.22E-04
297		0.00	0.000	0.015	0.1555	5.8238	0.0050	2.57E-06	0.0000	0.0000	1.22E-04
298		0.00	0.000	0.015	0.1546	5.8419	0.0050	2.58E-06	0.0000	0.0000	1.22E-04
299		0.00	0.000	0.015	0.1537	5.8590	0.0050	2.59E-06	0.0000	0.0000	1.21E-04
300		0.00	0.000	0.014	0.1528	5.8750	0.0050	2.60E-06	0.0000	0.0000	1.21E-04
301	*	0.00	0.000	0.000	0.1526	5.8906	0.0050	2.61E-06	0.0000	0.0000	1.21E-04
302	*	0.00	0.000	0.000	0.1523	5.9055	0.0051	2.62E-06	0.0000	0.0000	1.21E-04

303	*		0.00	0.000	0.000	0.1521	5.9187	0.0051	2.63E-06	0.0000	0.0000	1.21E-04
304	*		0.00	0.000	0.000	0.1518	5.9306	0.0051	2.63E-06	0.0000	0.0000	1.20E-04
305	*		0.00	0.000	0.000	0.1516	5.9415	0.0051	2.64E-06	0.0000	0.0000	1.20E-04
306			0.00	0.000	0.014	0.1507	5.9510	0.0051	2.65E-06	0.0000	0.0000	1.20E-04
307			0.00	0.000	0.014	0.1499	5.9594	0.0051	2.65E-06	0.0000	0.0000	1.20E-04
308			0.01	0.000	0.014	0.1497	5.9679	0.0051	2.66E-06	0.0000	0.0000	1.20E-04
309			0.00	0.000	0.014	0.1489	5.9765	0.0051	2.66E-06	0.0000	0.0000	1.20E-04
310			0.00	0.000	0.014	0.1481	5.9857	0.0051	2.67E-06	0.0000	0.0000	1.19E-04
311			0.00	0.000	0.013	0.1474	5.9958	0.0051	2.67E-06	0.0000	0.0000	1.19E-04
312			0.00	0.000	0.013	0.1466	6.0025	0.0051	2.68E-06	0.0000	0.0000	1.19E-04
313			0.00	0.000	0.013	0.1458	6.0077	0.0051	2.68E-06	0.0000	0.0000	1.19E-04
314			0.04	0.000	0.013	0.1467	6.0131	0.0052	2.69E-06	0.0000	0.0000	1.19E-04
315	*		0.00	0.000	0.013	0.1460	6.0184	0.0052	2.69E-06	0.0000	0.0000	1.18E-04
316			0.04	0.000	0.013	0.1469	6.0236	0.0052	2.69E-06	0.0000	0.0000	1.18E-04
317	*		0.00	0.000	0.000	0.1468	6.0292	0.0052	2.70E-06	0.0000	0.0000	1.18E-04
318			0.00	0.000	0.013	0.1461	6.0344	0.0052	2.70E-06	0.0000	0.0000	1.18E-04
319	*		0.00	0.000	0.000	0.1459	6.0388	0.0052	2.70E-06	0.0000	0.0000	1.18E-04
320	*		0.00	0.000	0.000	0.1458	6.0434	0.0052	2.70E-06	0.0000	0.0000	1.18E-04
321			0.00	0.000	0.012	0.1451	6.0475	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
322	*		0.00	0.000	0.000	0.1450	6.0512	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
323	*		0.00	0.000	0.000	0.1448	6.0535	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
324	*		0.00	0.000	0.000	0.1447	6.0552	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
325	*		0.00	0.000	0.000	0.1445	6.0567	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
326	*		0.00	0.000	0.012	0.1438	6.0572	0.0052	2.71E-06	0.0000	0.0000	1.17E-04
327	*	*	0.00	0.000	0.000	0.1438	6.0607	0.0052	2.71E-06	0.0000	0.0000	1.16E-04
328	*	*	0.00	0.000	0.000	0.1438	6.0694	0.0052	2.72E-06	0.0000	0.0000	1.16E-04
329	*	*	0.00	0.000	0.000	0.1438	6.0765	0.0052	2.72E-06	0.0000	0.0000	1.16E-04
330	*	*	0.00	0.000	0.000	0.1438	6.0822	0.0052	2.73E-06	0.0000	0.0000	1.16E-04
331	*	*	0.00	0.000	0.000	0.1438	6.0866	0.0052	2.73E-06	0.0000	0.0000	1.16E-04
332	*	*	0.00	0.000	0.000	0.1438	6.0899	0.0052	2.73E-06	0.0000	0.0000	1.16E-04
333	*	*	0.00	0.000	0.000	0.1438	6.0922	0.0052	2.73E-06	0.0000	0.0000	1.15E-04

334	*	*	0.00	0.000	0.000	0.1438	6.0936	0.0052	2.74E-06	0.0000	0.0000	1.15E-04
335	*	*	0.17	0.000	0.044	0.1438	6.0942	0.0052	2.74E-06	0.0000	0.0000	1.15E-04
336		*	0.00	0.000	0.082	0.1458	6.0941	0.0052	2.74E-06	0.0000	0.0000	1.15E-04
337		*	0.00	0.000	0.000	0.1458	6.0933	0.0052	2.73E-06	0.0000	0.0000	1.15E-04
338		*	0.00	0.000	0.000	0.1458	6.0919	0.0052	2.73E-06	0.0000	0.0000	1.15E-04
339		*	0.00	0.000	0.000	0.1458	6.0899	0.0052	2.73E-06	0.0000	0.0000	1.14E-04
340		*	0.00	0.000	0.000	0.1458	6.0875	0.0052	2.73E-06	0.0000	0.0000	1.14E-04
341		*	0.00	0.000	0.000	0.1458	6.0846	0.0052	2.73E-06	0.0000	0.0000	1.14E-04
342		*	0.02	0.000	0.000	0.1468	6.0812	0.0052	2.73E-06	0.0000	0.0000	1.14E-04
343		*	0.00	0.000	0.000	0.1468	6.0775	0.0052	2.73E-06	0.0000	0.0000	1.14E-04
344		*	0.00	0.000	0.000	0.1468	6.0734	0.0052	2.72E-06	0.0000	0.0000	1.14E-04
345		*	0.00	0.000	0.000	0.1468	6.0689	0.0052	2.72E-06	0.0000	0.0000	1.13E-04
346		*	0.00	0.000	0.000	0.1468	6.0641	0.0052	2.72E-06	0.0000	0.0000	1.13E-04
347		*	0.00	0.000	0.000	0.1468	6.0591	0.0052	2.71E-06	0.0000	0.0000	1.13E-04
348	*	*	0.00	0.000	0.000	0.1468	6.0537	0.0052	2.71E-06	0.0000	0.0000	1.13E-04
349		*	0.01	0.000	0.000	0.1474	6.0481	0.0052	2.71E-06	0.0000	0.0000	1.13E-04
350	*	*	0.00	0.000	0.000	0.1474	6.0422	0.0052	2.70E-06	0.0000	0.0000	1.13E-04
351		*	0.12	0.000	0.000	0.1522	6.0362	0.0052	2.70E-06	0.0000	0.0000	1.12E-04
352	*	*	0.00	0.000	0.000	0.1522	6.0299	0.0052	2.70E-06	0.0000	0.0000	1.12E-04
353	*	*	0.03	0.000	0.018	0.1522	6.0234	0.0052	2.69E-06	0.0000	0.0000	1.12E-04
354	*	*	0.02	0.000	0.007	0.1522	6.0167	0.0052	2.69E-06	0.0000	0.0000	1.12E-04
355	*	*	0.24	0.000	0.003	0.1522	6.0098	0.0051	2.68E-06	0.0000	0.0000	1.12E-04
356	*	*	0.04	0.000	0.002	0.1522	6.0028	0.0051	2.68E-06	0.0000	0.0000	1.12E-04
357	*	*	0.00	0.000	0.004	0.1522	5.9956	0.0051	2.67E-06	0.0000	0.0000	1.11E-04
358	*	*	0.00	0.000	0.006	0.1522	5.9882	0.0051	2.67E-06	0.0000	0.0000	1.11E-04
359	*	*	0.00	0.000	0.000	0.1522	5.9807	0.0051	2.67E-06	0.0000	0.0000	1.11E-04
360	*	*	0.00	0.000	0.042	0.1522	5.9731	0.0051	2.66E-06	0.0000	0.0000	1.11E-04
361		*	0.00	0.000	0.048	0.1603	5.9654	0.0051	2.66E-06	0.0000	0.0000	1.11E-04
362		*	0.00	0.000	0.000	0.1603	5.9575	0.0051	2.65E-06	0.0000	0.0000	1.11E-04
363		*	0.00	0.000	0.000	0.1603	5.9495	0.0051	2.65E-06	0.0000	0.0000	1.10E-04
364		*	0.02	0.000	0.000	0.1611	5.9414	0.0051	2.64E-06	0.0000	0.0000	1.10E-04

365	*	0.00	0.000	0.000	0.1611	5.9332	0.0051	2.64E-06	0.0000	0.0000	1.10E-04

* = Frozen (air or soil)

Annual Totals for Year 1			
	inches	cubic feet	percent
Precipitation	26.23	95,214.0	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.970	87,011.6	91.39
Drainage Collected from Layer 3	1.2568	4,562.2	4.79
Percolation/Leakage through Layer 4	0.000585	2.1247	0.00
Average Head on Top of Layer 4	4.0187	---	---
Percolation/Leakage through Layer 6	0.055242	200.5	0.21
Change in Water Storage	0.9476	3,439.6	3.61
Soil Water at Start of Year	9.1576	33,242.0	34.91
Soil Water at End of Year	10.1051	36,681.6	38.53
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 2

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:58

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.1611	5.9249	0.0051	2.63E-06	0.0000	0.0000	1.10E-04
2	*	*	0.00	0.000	0.000	0.1611	5.9165	0.0051	2.63E-06	0.0000	0.0000	1.10E-04
3	*	*	0.00	0.000	0.000	0.1611	5.9080	0.0051	2.62E-06	0.0000	0.0000	1.10E-04
4	*	*	0.00	0.000	0.000	0.1611	5.8995	0.0051	2.62E-06	0.0000	0.0000	1.09E-04
5	*	*	0.53	0.000	0.027	0.1611	5.8908	0.0050	2.61E-06	0.0000	0.0000	1.09E-04
6		*	0.00	0.000	0.000	0.1820	5.8821	0.0050	2.61E-06	0.0000	0.0000	1.09E-04
7		*	0.00	0.000	0.000	0.1820	5.8733	0.0050	2.60E-06	0.0000	0.0000	1.09E-04
8		*	0.26	0.000	0.000	0.1930	5.8644	0.0050	2.59E-06	0.0000	0.0000	1.09E-04
9		*	0.41	0.000	0.000	0.2100	5.8555	0.0050	2.59E-06	0.0000	0.0000	1.09E-04
10		*	0.00	0.000	0.000	0.2100	5.8465	0.0050	2.58E-06	0.0000	0.0000	1.08E-04
11		*	0.00	0.000	0.000	0.2100	5.8375	0.0050	2.58E-06	0.0000	0.0000	1.08E-04
12		*	0.00	0.000	0.000	0.2100	5.8283	0.0050	2.57E-06	0.0000	0.0000	1.08E-04
13	*	*	0.00	0.000	0.000	0.2100	5.8192	0.0050	2.57E-06	0.0000	0.0000	1.08E-04
14	*	*	0.00	0.000	0.000	0.2100	5.8100	0.0050	2.56E-06	0.0000	0.0000	1.08E-04
15		*	0.00	0.000	0.000	0.2100	5.8007	0.0050	2.56E-06	0.0000	0.0000	1.08E-04
16		*	0.00	0.000	0.000	0.2100	5.7914	0.0050	2.55E-06	0.0000	0.0000	1.08E-04
17		*	0.00	0.000	0.000	0.2100	5.7820	0.0050	2.54E-06	0.0000	0.0000	1.07E-04
18		*	0.00	0.000	0.000	0.2100	5.7726	0.0049	2.54E-06	0.0000	0.0000	1.07E-04
19		*	0.05	0.000	0.000	0.2122	5.7632	0.0049	2.53E-06	0.0000	0.0000	1.07E-04
20	*	*	0.00	0.000	0.000	0.2122	5.7537	0.0049	2.53E-06	0.0000	0.0000	1.07E-04
21	*	*	0.00	0.000	0.000	0.2122	5.7442	0.0049	2.52E-06	0.0000	0.0000	1.07E-04
22	*	*	0.16	0.000	0.039	0.2122	5.7346	0.0049	2.52E-06	0.0000	0.0000	1.07E-04
23		*	0.00	0.000	0.044	0.2131	5.7251	0.0049	2.51E-06	0.0000	0.0000	1.06E-04

24		*	0.00	0.000	0.054	0.2131	5.7154	0.0049	2.50E-06	0.0000	0.0000	1.06E-04
25	*	*	0.00	0.000	0.000	0.2131	5.7058	0.0049	2.50E-06	0.0000	0.0000	1.06E-04
26	*	*	0.00	0.000	0.000	0.2131	5.6961	0.0049	2.49E-06	0.0000	0.0000	1.06E-04
27		*	0.00	0.000	0.000	0.2131	5.6864	0.0049	2.49E-06	0.0000	0.0000	1.06E-04
28		*	0.00	0.000	0.000	0.2131	5.6767	0.0049	2.48E-06	0.0000	0.0000	1.06E-04
29	*	*	0.00	0.000	0.000	0.2131	5.6669	0.0049	2.48E-06	0.0000	0.0000	1.06E-04
30	*	*	0.00	0.000	0.000	0.2131	5.6572	0.0048	2.47E-06	0.0000	0.0000	1.05E-04
31		*	0.10	0.000	0.000	0.2175	5.6474	0.0048	2.46E-06	0.0000	0.0000	1.05E-04
32	*	*	0.01	0.000	0.012	0.2175	5.6376	0.0048	2.46E-06	0.0000	0.0000	1.05E-04
33	*	*	0.00	0.000	0.000	0.2175	5.6277	0.0048	2.45E-06	0.0000	0.0000	1.05E-04
34	*	*	0.00	0.000	0.000	0.2175	5.6179	0.0048	2.45E-06	0.0000	0.0000	1.05E-04
35	*	*	0.00	0.000	0.000	0.2175	5.6080	0.0048	2.44E-06	0.0000	0.0000	1.05E-04
36	*	*	0.00	0.000	0.000	0.2175	5.5981	0.0048	2.43E-06	0.0000	0.0000	1.05E-04
37	*	*	0.00	0.000	0.000	0.2175	5.5882	0.0048	2.43E-06	0.0000	0.0000	1.04E-04
38	*	*	0.00	0.000	0.000	0.2175	5.5783	0.0048	2.42E-06	0.0000	0.0000	1.04E-04
39	*	*	0.00	0.000	0.000	0.2175	5.5684	0.0048	2.42E-06	0.0000	0.0000	1.04E-04
40		*	0.00	0.000	0.000	0.2175	5.5584	0.0048	2.41E-06	0.0000	0.0000	1.04E-04
41		*	0.00	0.000	0.000	0.2175	5.5485	0.0048	2.41E-06	0.0000	0.0000	1.04E-04
42		*	0.06	0.000	0.000	0.2199	5.5385	0.0047	2.40E-06	0.0000	0.0000	1.04E-04
43		*	0.06	0.000	0.000	0.2226	5.5285	0.0047	2.39E-06	0.0000	0.0000	1.04E-04
44		*	0.00	0.000	0.000	0.2226	5.5185	0.0047	2.39E-06	0.0000	0.0000	1.03E-04
45	*	*	0.09	0.000	0.036	0.2226	5.5085	0.0047	2.38E-06	0.0000	0.0000	1.03E-04
46	*	*	0.00	0.000	0.012	0.2226	5.4985	0.0047	2.38E-06	0.0000	0.0000	1.03E-04
47	*	*	0.00	0.000	0.008	0.2226	5.4885	0.0047	2.37E-06	0.0000	0.0000	1.03E-04
48	*	*	0.00	0.000	0.008	0.2226	5.4785	0.0047	2.36E-06	0.0000	0.0000	1.03E-04
49	*	*	0.03	0.000	0.000	0.2226	5.4685	0.0047	2.36E-06	0.0000	0.0000	1.03E-04
50		*	0.05	0.000	0.099	0.2226	5.4584	0.0047	2.35E-06	0.0000	0.0000	1.03E-04
51		*	0.00	0.000	0.000	0.2226	5.4484	0.0047	2.35E-06	0.0000	0.0000	1.02E-04
52	*	*	0.00	0.000	0.000	0.2226	5.4384	0.0047	2.34E-06	0.0000	0.0000	1.02E-04
53	*	*	0.03	0.000	0.025	0.2226	5.4283	0.0047	2.33E-06	0.0000	0.0000	1.02E-04
54	*	*	0.01	0.000	0.010	0.2226	5.4183	0.0046	2.33E-06	0.0000	0.0000	1.02E-04

55	*	*	0.00	0.000	0.000	0.2226	5.4082	0.0046	2.32E-06	0.0000	0.0000	1.02E-04
56		*	0.00	0.000	0.000	0.2226	5.3982	0.0046	2.32E-06	0.0000	0.0000	1.02E-04
57		*	0.00	0.000	0.000	0.2226	5.3881	0.0046	2.31E-06	0.0000	0.0000	1.02E-04
58		*	0.03	0.000	0.000	0.2239	5.3781	0.0046	2.31E-06	0.0000	0.0000	1.01E-04
59		*	0.04	0.000	0.000	0.2256	5.3680	0.0046	2.30E-06	0.0000	0.0000	1.01E-04
60		*	0.68	0.000	0.000	0.2539	5.3580	0.0046	2.29E-06	0.0000	0.0000	1.01E-04
61		*	0.00	0.000	0.000	0.2539	5.3479	0.0046	2.29E-06	0.0000	0.0000	1.01E-04
62		*	0.24	0.000	0.000	0.2640	5.3379	0.0046	2.28E-06	0.0000	0.0000	1.01E-04
63	*	*	0.07	0.000	0.043	0.2640	5.3278	0.0046	2.28E-06	0.0000	0.0000	1.01E-04
64		*	0.19	0.000	0.110	0.2686	5.3178	0.0046	2.27E-06	0.0000	0.0000	1.01E-04
65	*	*	0.00	0.000	0.000	0.2686	5.3077	0.0045	2.26E-06	0.0000	0.0000	1.01E-04
66	*	*	0.00	0.000	0.000	0.2686	5.2977	0.0045	2.26E-06	0.0000	0.0000	1.00E-04
67	*	*	0.23	0.000	0.023	0.2686	5.2877	0.0045	2.25E-06	0.0000	0.0000	1.00E-04
68	*	*	0.10	0.000	0.011	0.2686	5.2776	0.0045	2.25E-06	0.0000	0.0000	1.00E-04
69	*	*	0.01	0.000	0.015	0.2686	5.2676	0.0045	2.24E-06	0.0000	0.0000	1.00E-04
70		*	0.00	0.000	0.029	0.2795	5.2575	0.0045	2.24E-06	0.0000	0.0000	9.98E-05
71		*	0.00	0.000	0.000	0.2795	5.2475	0.0045	2.23E-06	0.0000	0.0000	9.97E-05
72		*	0.01	0.000	0.000	0.2799	5.2375	0.0045	2.22E-06	0.0000	0.0000	9.96E-05
73		*	0.03	0.000	0.000	0.2813	5.2275	0.0045	2.22E-06	0.0000	0.0000	9.94E-05
74		*	0.00	0.000	0.000	0.2813	5.2175	0.0045	2.21E-06	0.0000	0.0000	9.93E-05
75	*	*	0.00	0.000	0.000	0.2813	5.2075	0.0045	2.21E-06	0.0000	0.0000	9.92E-05
76	*	*	0.00	0.000	0.000	0.2813	5.1975	0.0045	2.20E-06	0.0000	0.0000	9.90E-05
77		*	0.00	0.000	0.000	0.2813	5.1875	0.0044	2.20E-06	0.0000	0.0000	9.89E-05
78		*	0.00	0.000	0.000	0.2813	5.1775	0.0044	2.19E-06	0.0000	0.0000	9.88E-05
79	*	*	0.22	0.000	0.019	0.2813	5.1675	0.0044	2.18E-06	0.0000	0.0000	9.87E-05
80	*	*	0.00	0.000	0.062	0.2813	5.1575	0.0044	2.18E-06	0.0000	0.0000	9.85E-05
81		*	0.00	0.000	0.135	0.2813	5.1475	0.0044	2.17E-06	0.0000	0.0000	9.84E-05
82	*	*	0.00	0.000	0.000	0.2813	5.1376	0.0044	2.17E-06	0.0000	0.0000	9.83E-05
83	*	*	0.00	0.000	0.000	0.2813	5.1276	0.0044	2.16E-06	0.0000	0.0000	9.81E-05
84		*	0.00	0.000	0.000	0.2813	5.1177	0.0044	2.16E-06	0.0000	0.0000	9.80E-05
85		*	0.00	0.000	0.000	0.2813	5.1077	0.0044	2.15E-06	0.0000	0.0000	9.79E-05

86		*	0.00	0.000	0.000	0.2813	5.0978	0.0044	2.14E-06	0.0000	0.0000	9.78E-05
87		*	0.00	0.000	0.000	0.2813	5.0879	0.0044	2.14E-06	0.0000	0.0000	9.76E-05
88		*	0.17	0.000	0.000	0.2886	5.0780	0.0044	2.13E-06	0.0000	0.0000	9.75E-05
89		*	0.00	0.000	0.000	0.2886	5.0681	0.0043	2.13E-06	0.0000	0.0000	9.74E-05
90		*	0.00	0.000	0.000	0.2886	5.0582	0.0043	2.12E-06	0.0000	0.0000	9.73E-05
91	*	*	0.71	0.000	0.040	0.2886	5.0483	0.0043	2.12E-06	0.0000	0.0000	9.71E-05
92	*	*	0.00	0.000	0.017	0.2886	5.0384	0.0043	2.11E-06	0.0000	0.0000	9.70E-05
93	*	*	0.63	0.000	0.000	0.2886	5.0285	0.0043	2.11E-06	0.0000	0.0000	9.69E-05
94		*	0.23	0.000	0.000	0.3198	5.0187	0.0043	2.10E-06	0.0000	0.0000	9.68E-05
95	*	*	0.00	0.000	0.034	0.3198	5.0088	0.0043	2.09E-06	0.0000	0.0000	9.66E-05
96	*	*	0.00	0.000	0.018	0.3198	4.9990	0.0043	2.09E-06	0.0000	0.0000	9.65E-05
97	*	*	0.01	0.000	0.000	0.3198	4.9891	0.0043	2.08E-06	0.0000	0.0000	9.64E-05
98		*	0.04	0.000	0.004	0.3515	4.9793	0.0043	2.08E-06	0.0000	0.0000	9.63E-05
99		*	0.15	0.000	0.000	0.3578	4.9695	0.0043	2.07E-06	0.0000	0.0000	9.61E-05
100	*	*	0.31	0.000	0.034	0.3578	4.9597	0.0042	2.07E-06	0.0000	0.0000	9.60E-05
101	*	*	0.00	0.000	0.042	0.3578	4.9499	0.0042	2.06E-06	0.0000	0.0000	9.59E-05
102		*	0.00	0.000	0.056	0.3578	4.9401	0.0042	2.06E-06	0.0000	0.0000	9.58E-05
103	*	*	0.00	0.000	0.064	0.3578	4.9304	0.0042	2.05E-06	0.0000	0.0000	9.57E-05
104		*	0.00	0.000	0.111	0.3578	4.9206	0.0042	2.04E-06	0.0000	0.0000	9.55E-05
105		*	0.00	0.000	0.000	0.3578	4.9109	0.0042	2.04E-06	0.0000	0.0000	9.54E-05
106		*	0.00	0.000	0.000	0.3578	4.9011	0.0042	2.03E-06	0.0000	0.0000	9.53E-05
107		*	0.00	0.000	0.000	0.3578	4.8914	0.0042	2.03E-06	0.0000	0.0000	9.52E-05
108		*	0.00	0.000	0.000	0.3578	4.8817	0.0042	2.02E-06	0.0000	0.0000	9.51E-05
109		*	0.00	0.000	0.000	0.3578	4.8720	0.0042	2.02E-06	0.0000	0.0000	9.49E-05
110	*	*	0.13	0.000	0.057	0.3578	4.8623	0.0042	2.01E-06	0.0000	0.0000	9.48E-05
111		*	0.03	0.000	0.097	0.3580	4.8526	0.0042	2.01E-06	0.0000	0.0000	9.47E-05
112			0.00	0.000	0.180	0.2807	4.8427	0.0041	2.00E-06	0.0000	0.0000	9.46E-05
113			0.00	0.000	0.144	0.2385	7.5547	0.0065	3.72E-06	0.0000	0.0000	9.62E-05
114	*		0.01	0.000	0.056	0.2289	9.5620	0.0082	5.20E-06	0.0000	0.0000	9.75E-05
115	*		0.06	0.000	0.061	0.2236	10.1897	0.0087	5.71E-06	0.0000	0.0000	9.79E-05
116	*		0.44	0.000	0.022	0.2202	10.5911	0.0091	6.05E-06	0.0000	0.0000	9.81E-05

117		0.03	0.000	0.030	0.2330	10.9007	0.0093	6.31E-06	0.0000	0.0000	9.82E-05
118	*	0.65	0.000	0.034	0.2308	11.1572	0.0096	6.53E-06	0.0000	0.0000	9.83E-05
119	*	0.00	0.000	0.027	0.2293	11.3789	0.0097	6.73E-06	0.0000	0.0000	9.84E-05
120	*	0.06	0.000	0.028	0.2280	11.5661	0.0099	6.90E-06	0.0000	0.0000	9.84E-05
121		0.00	0.000	0.142	0.2427	11.7098	0.0100	7.03E-06	0.0000	0.0000	9.84E-05
122		0.08	0.000	0.340	0.2302	11.8339	0.0101	7.14E-06	0.0000	0.0000	9.84E-05
123		0.15	0.000	0.291	0.2225	12.7257	0.0129	7.98E-06	0.0000	0.0000	9.91E-05
124		0.46	0.000	0.254	0.2294	13.5402	0.0157	8.76E-06	0.0000	0.0000	9.97E-05
125	*	0.00	0.000	0.132	0.2227	13.5862	0.0159	8.81E-06	0.0000	0.0000	9.96E-05
126		0.00	0.000	0.275	0.2110	13.5890	0.0159	8.81E-06	0.0000	0.0000	9.95E-05
127		0.00	0.000	0.288	0.1980	13.5670	0.0158	8.79E-06	0.0000	0.0000	9.93E-05
128		0.00	0.000	0.297	0.1835	13.6160	0.0160	8.84E-06	0.0000	0.0000	9.92E-05
129		1.28	0.000	0.177	0.2275	13.6824	0.0162	8.90E-06	0.0000	0.0000	9.91E-05
130		0.30	0.000	0.300	0.2262	13.7306	0.0164	8.95E-06	0.0000	0.0000	9.90E-05
131		0.07	0.000	0.134	0.2222	13.7610	0.0165	8.98E-06	0.0000	0.0000	9.89E-05
132		0.28	0.000	0.122	0.2276	13.7899	0.0166	9.01E-06	0.0000	0.0000	9.88E-05
133		0.00	0.000	0.278	0.2142	13.8228	0.0167	9.05E-06	0.0000	0.0000	9.87E-05
134		0.24	0.000	0.402	0.2063	13.8670	0.0168	9.09E-06	0.0000	0.0000	9.86E-05
135		0.00	0.000	0.400	0.1885	13.8739	0.0169	9.10E-06	0.0000	0.0000	9.84E-05
136		0.39	0.000	0.274	0.1918	13.9059	0.0170	9.13E-06	0.0000	0.0000	9.83E-05
137		0.00	0.000	0.136	0.1845	13.9484	0.0171	9.17E-06	0.0000	0.0000	9.82E-05
138		0.00	0.000	0.210	0.1747	13.9790	0.0172	9.20E-06	0.0000	0.0000	9.81E-05
139		0.00	0.000	0.177	0.1664	13.9933	0.0173	9.22E-06	0.0000	0.0000	9.80E-05
140		0.00	0.000	0.073	0.1625	14.0032	0.0173	9.23E-06	0.0000	0.0000	9.79E-05
141		0.09	0.000	0.057	0.1634	14.0044	0.0173	9.23E-06	0.0000	0.0000	9.77E-05
142		0.04	0.000	0.048	0.1629	13.9929	0.0173	9.22E-06	0.0000	0.0000	9.76E-05
143		0.67	0.000	0.042	0.1887	13.9751	0.0172	9.20E-06	0.0000	0.0000	9.74E-05
144		0.16	0.000	0.143	0.1892	13.9512	0.0171	9.17E-06	0.0000	0.0000	9.72E-05
145		0.00	0.000	0.241	0.1783	13.9380	0.0171	9.16E-06	0.0000	0.0000	9.71E-05
146		0.00	0.000	0.256	0.1672	13.9360	0.0171	9.16E-06	0.0000	0.0000	9.69E-05
147		0.00	0.000	0.177	0.1597	13.9159	0.0170	9.14E-06	0.0000	0.0000	9.68E-05

148	0.00	0.000	0.073	0.1565	13.8878	0.0169	9.11E-06	0.0000	0.0000	9.66E-05
149	0.00	0.000	0.056	0.1538	13.8648	0.0168	9.09E-06	0.0000	0.0000	9.64E-05
150	0.00	0.000	0.047	0.1513	13.8513	0.0168	9.07E-06	0.0000	0.0000	9.63E-05
151	0.00	0.000	0.042	0.1490	13.8438	0.0168	9.07E-06	0.0000	0.0000	9.61E-05
152	0.00	0.000	0.038	0.1468	13.8391	0.0167	9.06E-06	0.0000	0.0000	9.60E-05
153	0.00	0.000	0.035	0.1447	13.8353	0.0167	9.06E-06	0.0000	0.0000	9.59E-05
154	0.00	0.000	0.032	0.1428	13.8313	0.0167	9.05E-06	0.0000	0.0000	9.57E-05
155	0.00	0.000	0.030	0.1409	13.8264	0.0167	9.05E-06	0.0000	0.0000	9.56E-05
156	0.00	0.000	0.029	0.1392	13.8204	0.0167	9.04E-06	0.0000	0.0000	9.54E-05
157	0.00	0.000	0.027	0.1375	13.8130	0.0167	9.04E-06	0.0000	0.0000	9.53E-05
158	0.00	0.000	0.026	0.1360	13.8044	0.0166	9.03E-06	0.0000	0.0000	9.51E-05
159	0.00	0.000	0.025	0.1344	13.7945	0.0166	9.02E-06	0.0000	0.0000	9.50E-05
160	0.00	0.000	0.024	0.1330	13.7835	0.0165	9.01E-06	0.0000	0.0000	9.49E-05
161	0.00	0.000	0.023	0.1316	13.7715	0.0165	8.99E-06	0.0000	0.0000	9.47E-05
162	0.00	0.000	0.022	0.1303	13.7585	0.0165	8.98E-06	0.0000	0.0000	9.46E-05
163	0.00	0.000	0.022	0.1290	13.7446	0.0164	8.97E-06	0.0000	0.0000	9.44E-05
164	0.39	0.000	0.022	0.1441	13.7299	0.0164	8.95E-06	0.0000	0.0000	9.43E-05
165	0.13	0.000	0.021	0.1482	13.7144	0.0163	8.94E-06	0.0000	0.0000	9.41E-05
166	0.16	0.000	0.021	0.1537	13.6984	0.0162	8.92E-06	0.0000	0.0000	9.40E-05
167	0.28	0.000	0.020	0.1643	13.6817	0.0162	8.90E-06	0.0000	0.0000	9.38E-05
168	0.10	0.000	0.358	0.1530	13.6634	0.0161	8.89E-06	0.0000	0.0000	9.37E-05
169	0.00	0.000	0.020	0.1522	13.6466	0.0161	8.87E-06	0.0000	0.0000	9.35E-05
170	0.00	0.000	0.019	0.1511	13.6239	0.0160	8.85E-06	0.0000	0.0000	9.34E-05
171	0.37	0.000	0.019	0.1656	13.6047	0.0159	8.83E-06	0.0000	0.0000	9.32E-05
172	0.00	0.000	0.296	0.1531	13.5874	0.0159	8.81E-06	0.0000	0.0000	9.31E-05
173	0.00	0.000	0.018	0.1521	13.5648	0.0158	8.79E-06	0.0000	0.0000	9.29E-05
174	0.00	0.000	0.018	0.1512	13.5438	0.0157	8.77E-06	0.0000	0.0000	9.28E-05
175	0.00	0.000	0.017	0.1502	13.5218	0.0156	8.74E-06	0.0000	0.0000	9.26E-05
176	0.68	0.000	0.018	0.1777	13.5017	0.0156	8.72E-06	0.0000	0.0000	9.25E-05
177	0.00	0.000	0.227	0.1681	13.4803	0.0155	8.70E-06	0.0000	0.0000	9.23E-05
178	0.95	0.000	0.296	0.1953	13.4565	0.0154	8.68E-06	0.0000	0.0000	9.22E-05

179	0.87	0.000	0.298	0.2190	13.4348	0.0153	8.66E-06	0.0000	0.0000	9.20E-05
180	0.93	0.000	0.329	0.2439	13.4156	0.0153	8.64E-06	0.0000	0.0000	9.19E-05
181	0.00	0.000	0.327	0.2299	13.3994	0.0152	8.62E-06	0.0000	0.0000	9.18E-05
182	0.00	0.000	0.312	0.2164	13.3919	0.0152	8.62E-06	0.0000	0.0000	9.16E-05
183	0.00	0.000	0.297	0.2040	13.3774	0.0151	8.60E-06	0.0000	0.0000	9.15E-05
184	0.00	0.000	0.250	0.1936	13.3473	0.0150	8.57E-06	0.0000	0.0000	9.13E-05
185	0.00	0.000	0.177	0.1845	12.9946	0.0138	8.24E-06	0.0000	0.0000	9.09E-05
186	0.00	0.000	0.073	0.1783	11.9816	0.0103	7.27E-06	0.0000	0.0000	8.98E-05
187	0.00	0.000	0.056	0.1730	13.1789	0.0144	8.42E-06	0.0000	0.0000	9.08E-05
188	0.01	0.000	0.048	0.1687	13.6620	0.0161	8.88E-06	0.0000	0.0000	9.12E-05
189	0.03	0.000	0.042	0.1658	13.7390	0.0164	8.96E-06	0.0000	0.0000	9.11E-05
190	0.82	0.000	0.038	0.1961	13.8201	0.0167	9.04E-06	0.0000	0.0000	9.11E-05
191	0.00	0.000	0.375	0.1787	13.8775	0.0169	9.10E-06	0.0000	0.0000	9.10E-05
192	0.04	0.000	0.035	0.1782	13.9119	0.0170	9.13E-06	0.0000	0.0000	9.09E-05
193	0.54	0.000	0.033	0.1983	13.9160	0.0170	9.14E-06	0.0000	0.0000	9.08E-05
194	0.02	0.000	0.372	0.1823	13.9364	0.0171	9.16E-06	0.0000	0.0000	9.07E-05
195	0.35	0.000	0.308	0.1831	13.9522	0.0171	9.18E-06	0.0000	0.0000	9.06E-05
196	0.00	0.000	0.352	0.1674	13.9591	0.0172	9.18E-06	0.0000	0.0000	9.05E-05
197	0.16	0.000	0.178	0.1655	13.9761	0.0172	9.20E-06	0.0000	0.0000	9.04E-05
198	0.04	0.000	0.074	0.1629	13.9919	0.0173	9.22E-06	0.0000	0.0000	9.02E-05
199	0.41	0.000	0.057	0.1763	14.0100	0.0173	9.23E-06	0.0000	0.0000	9.01E-05
200	0.00	0.000	0.373	0.1594	14.0369	0.0174	9.26E-06	0.0000	0.0000	9.00E-05
201	0.00	0.000	0.047	0.1568	14.0499	0.0175	9.27E-06	0.0000	0.0000	8.99E-05
202	0.00	0.000	0.042	0.1543	14.0462	0.0175	9.27E-06	0.0000	0.0000	8.98E-05
203	0.00	0.000	0.038	0.1521	14.0486	0.0175	9.27E-06	0.0000	0.0000	8.97E-05
204	0.09	0.000	0.035	0.1537	14.0520	0.0175	9.28E-06	0.0000	0.0000	8.96E-05
205	0.36	0.000	0.033	0.1665	14.0540	0.0175	9.28E-06	0.0000	0.0000	8.95E-05
206	0.07	0.000	0.031	0.1675	14.0539	0.0175	9.28E-06	0.0000	0.0000	8.93E-05
207	0.28	0.000	0.029	0.1774	14.0515	0.0175	9.28E-06	0.0000	0.0000	8.92E-05
208	0.35	0.000	0.348	0.1768	14.0517	0.0175	9.28E-06	0.0000	0.0000	8.91E-05
209	0.00	0.000	0.324	0.1631	14.0402	0.0174	9.26E-06	0.0000	0.0000	8.90E-05

210	0.00	0.000	0.177	0.1552	14.0202	0.0174	9.24E-06	0.0000	0.0000	8.88E-05
211	0.65	0.000	0.074	0.1785	14.0101	0.0173	9.23E-06	0.0000	0.0000	8.87E-05
212	0.42	0.000	0.268	0.1846	13.9981	0.0173	9.22E-06	0.0000	0.0000	8.86E-05
213	0.00	0.000	0.344	0.1698	13.9829	0.0172	9.21E-06	0.0000	0.0000	8.84E-05
214	0.00	0.000	0.341	0.1552	13.9687	0.0172	9.19E-06	0.0000	0.0000	8.83E-05
215	0.01	0.000	0.174	0.1476	13.9581	0.0172	9.18E-06	0.0000	0.0000	8.82E-05
216	0.02	0.000	0.074	0.1448	13.9508	0.0171	9.17E-06	0.0000	0.0000	8.80E-05
217	0.02	0.000	0.057	0.1427	13.9427	0.0171	9.17E-06	0.0000	0.0000	8.79E-05
218	0.65	0.000	0.048	0.1672	13.9320	0.0171	9.16E-06	0.0000	0.0000	8.78E-05
219	0.57	0.000	0.188	0.1826	13.9172	0.0170	9.14E-06	0.0000	0.0000	8.77E-05
220	1.01	0.000	0.286	0.2125	13.8974	0.0169	9.12E-06	0.0000	0.0000	8.75E-05
221	0.86	0.000	0.255	0.2375	13.8765	0.0169	9.10E-06	0.0000	0.0000	8.74E-05
222	0.25	0.000	0.293	0.2353	13.8571	0.0168	9.08E-06	0.0000	0.0000	8.73E-05
223	0.21	0.000	0.256	0.2330	13.8454	0.0168	9.07E-06	0.0000	0.0000	8.71E-05
224	0.00	0.000	0.160	0.2260	13.8329	0.0167	9.06E-06	0.0000	0.0000	8.70E-05
225	0.01	0.000	0.153	0.2199	13.8069	0.0166	9.03E-06	0.0000	0.0000	8.69E-05
226	0.00	0.000	0.245	0.2097	13.7739	0.0165	9.00E-06	0.0000	0.0000	8.67E-05
227	0.00	0.000	0.208	0.2000	13.7527	0.0164	8.97E-06	0.0000	0.0000	8.66E-05
228	0.81	0.000	0.160	0.2258	13.7799	0.0165	9.00E-06	0.0000	0.0000	8.65E-05
229	0.23	0.000	0.144	0.2281	13.8086	0.0166	9.03E-06	0.0000	0.0000	8.64E-05
230	0.25	0.000	0.304	0.2239	13.8568	0.0168	9.08E-06	0.0000	0.0000	8.63E-05
231	0.52	0.000	0.311	0.2305	13.9210	0.0170	9.14E-06	0.0000	0.0000	8.63E-05
232	0.05	0.000	0.188	0.2221	14.0085	0.0173	9.23E-06	0.0000	0.0000	8.63E-05
233	0.04	0.000	0.282	0.2108	14.0714	0.0176	9.30E-06	0.0000	0.0000	8.62E-05
234	0.40	0.000	0.281	0.2146	14.0979	0.0177	9.32E-06	0.0000	0.0000	8.61E-05
235	0.52	0.000	0.133	0.2292	14.1190	0.0177	9.35E-06	0.0000	0.0000	8.60E-05
236	0.00	0.000	0.170	0.2201	14.1617	0.0179	9.39E-06	0.0000	0.0000	8.60E-05
237	0.21	0.000	0.169	0.2211	14.2024	0.0180	9.43E-06	0.0000	0.0000	8.59E-05
238	0.00	0.000	0.350	0.2055	14.2105	0.0180	9.44E-06	0.0000	0.0000	8.58E-05
239	0.00	0.000	0.273	0.1932	14.2181	0.0181	9.45E-06	0.0000	0.0000	8.57E-05
240	0.15	0.000	0.142	0.1920	14.2389	0.0181	9.47E-06	0.0000	0.0000	8.56E-05

241	0.00	0.000	0.273	0.1796	14.2629	0.0182	9.49E-06	0.0000	0.0000	8.55E-05
242	0.00	0.000	0.290	0.1669	14.2689	0.0183	9.50E-06	0.0000	0.0000	8.54E-05
243	0.00	0.000	0.177	0.1590	14.2614	0.0182	9.49E-06	0.0000	0.0000	8.53E-05
244	0.00	0.000	0.073	0.1559	14.2372	0.0181	9.47E-06	0.0000	0.0000	8.52E-05
245	0.00	0.000	0.056	0.1529	14.2131	0.0181	9.44E-06	0.0000	0.0000	8.50E-05
246	0.00	0.000	0.047	0.1506	14.2088	0.0180	9.44E-06	0.0000	0.0000	8.49E-05
247	0.22	0.000	0.042	0.1582	14.1774	0.0179	9.40E-06	0.0000	0.0000	8.48E-05
248	0.00	0.000	0.038	0.1563	14.1475	0.0178	9.37E-06	0.0000	0.0000	8.46E-05
249	0.00	0.000	0.035	0.1542	14.1338	0.0178	9.36E-06	0.0000	0.0000	8.45E-05
250	0.13	0.000	0.033	0.1574	14.1342	0.0178	9.36E-06	0.0000	0.0000	8.44E-05
251	0.19	0.000	0.031	0.1630	14.1424	0.0178	9.37E-06	0.0000	0.0000	8.43E-05
252	1.28	0.000	0.029	0.2143	14.1533	0.0178	9.38E-06	0.0000	0.0000	8.42E-05
253	0.21	0.000	0.236	0.2119	14.1684	0.0179	9.40E-06	0.0000	0.0000	8.41E-05
254	0.00	0.000	0.214	0.2022	14.1746	0.0179	9.40E-06	0.0000	0.0000	8.40E-05
255	0.12	0.000	0.183	0.1987	14.1781	0.0179	9.41E-06	0.0000	0.0000	8.39E-05
256	0.14	0.000	0.186	0.1966	14.1721	0.0179	9.40E-06	0.0000	0.0000	8.38E-05
257	0.08	0.000	0.274	0.1879	14.1596	0.0179	9.39E-06	0.0000	0.0000	8.37E-05
258	0.04	0.000	0.155	0.1824	14.1609	0.0179	9.39E-06	0.0000	0.0000	8.36E-05
259	0.00	0.000	0.320	0.1683	14.1660	0.0179	9.39E-06	0.0000	0.0000	8.35E-05
260	0.00	0.000	0.194	0.1592	14.1753	0.0179	9.40E-06	0.0000	0.0000	8.34E-05
261	0.08	0.000	0.176	0.1546	14.1763	0.0179	9.40E-06	0.0000	0.0000	8.33E-05
262	0.00	0.000	0.073	0.1508	14.1742	0.0179	9.40E-06	0.0000	0.0000	8.32E-05
263	0.00	0.000	0.056	0.1476	14.1757	0.0179	9.40E-06	0.0000	0.0000	8.31E-05
264	0.00	0.000	0.047	0.1452	14.1715	0.0179	9.40E-06	0.0000	0.0000	8.29E-05
265	0.00	0.000	0.042	0.1430	14.1560	0.0179	9.38E-06	0.0000	0.0000	8.28E-05
266	0.00	0.000	0.037	0.1410	14.1465	0.0178	9.37E-06	0.0000	0.0000	8.27E-05
267	0.07	0.000	0.035	0.1419	14.1379	0.0178	9.36E-06	0.0000	0.0000	8.26E-05
268	0.28	0.000	0.032	0.1519	14.1254	0.0177	9.35E-06	0.0000	0.0000	8.25E-05
269	0.19	0.000	0.031	0.1585	14.1085	0.0177	9.33E-06	0.0000	0.0000	8.24E-05
270	0.11	0.000	0.029	0.1614	14.0872	0.0176	9.31E-06	0.0000	0.0000	8.22E-05
271	0.02	0.000	0.203	0.1536	14.0657	0.0175	9.29E-06	0.0000	0.0000	8.21E-05

272		0.00	0.000	0.027	0.1525	14.0415	0.0175	9.27E-06	0.0000	0.0000	8.20E-05
273		0.00	0.000	0.026	0.1513	14.0082	0.0173	9.23E-06	0.0000	0.0000	8.18E-05
274	*	0.01	0.000	0.033	0.1501	13.9792	0.0172	9.20E-06	0.0000	0.0000	8.17E-05
275		0.01	0.000	0.024	0.1495	13.9517	0.0171	9.18E-06	0.0000	0.0000	8.16E-05
276	*	0.02	0.000	0.041	0.1485	13.9244	0.0170	9.15E-06	0.0000	0.0000	8.15E-05
277	*	0.12	0.000	0.043	0.1491	13.8970	0.0169	9.12E-06	0.0000	0.0000	8.13E-05
278		0.00	0.000	0.081	0.1480	13.8733	0.0169	9.10E-06	0.0000	0.0000	8.12E-05
279		0.05	0.000	0.022	0.1490	13.8513	0.0168	9.07E-06	0.0000	0.0000	8.11E-05
280		0.00	0.000	0.021	0.1478	13.8295	0.0167	9.05E-06	0.0000	0.0000	8.10E-05
281		0.00	0.000	0.021	0.1467	13.8077	0.0166	9.03E-06	0.0000	0.0000	8.08E-05
282		0.00	0.000	0.020	0.1457	13.7850	0.0166	9.01E-06	0.0000	0.0000	8.07E-05
283		0.04	0.000	0.020	0.1465	13.7622	0.0165	8.98E-06	0.0000	0.0000	8.06E-05
284		0.00	0.000	0.019	0.1454	13.7417	0.0164	8.96E-06	0.0000	0.0000	8.05E-05
285		0.00	0.000	0.019	0.1444	13.7210	0.0163	8.94E-06	0.0000	0.0000	8.04E-05
286		0.00	0.000	0.018	0.1435	13.7001	0.0163	8.92E-06	0.0000	0.0000	8.02E-05
287		0.00	0.000	0.018	0.1426	13.6783	0.0162	8.90E-06	0.0000	0.0000	8.01E-05
288		0.00	0.000	0.016	0.1417	13.6556	0.0161	8.88E-06	0.0000	0.0000	8.00E-05
289		0.17	0.000	0.017	0.1478	13.6360	0.0160	8.86E-06	0.0000	0.0000	7.99E-05
290		0.00	0.000	0.017	0.1469	13.6153	0.0160	8.84E-06	0.0000	0.0000	7.98E-05
291		0.00	0.000	0.017	0.1459	13.5972	0.0159	8.82E-06	0.0000	0.0000	7.97E-05
292		0.00	0.000	0.016	0.1450	13.5790	0.0158	8.80E-06	0.0000	0.0000	7.95E-05
293		0.00	0.000	0.016	0.1441	13.5591	0.0158	8.78E-06	0.0000	0.0000	7.94E-05
294	*	0.00	0.000	0.000	0.1440	13.5360	0.0157	8.76E-06	0.0000	0.0000	7.93E-05
295	*	0.00	0.000	0.000	0.1439	13.5099	0.0156	8.73E-06	0.0000	0.0000	7.92E-05
296	*	0.04	0.000	0.015	0.1446	13.4850	0.0155	8.71E-06	0.0000	0.0000	7.91E-05
297	*	0.00	0.000	0.008	0.1445	13.4609	0.0154	8.68E-06	0.0000	0.0000	7.90E-05
298	*	0.00	0.000	0.000	0.1443	13.4375	0.0153	8.66E-06	0.0000	0.0000	7.88E-05
299	*	0.00	0.000	0.000	0.1442	13.4146	0.0153	8.64E-06	0.0000	0.0000	7.87E-05
300	*	0.00	0.000	0.000	0.1440	13.3923	0.0152	8.62E-06	0.0000	0.0000	7.86E-05
301	*	0.00	0.000	0.000	0.1438	13.3703	0.0151	8.60E-06	0.0000	0.0000	7.85E-05
302	*	0.00	0.000	0.000	0.1437	13.3486	0.0150	8.57E-06	0.0000	0.0000	7.84E-05

303	*		0.00	0.000	0.003	0.1435	13.3271	0.0149	8.55E-06	0.0000	0.0000	7.83E-05
304	*		0.00	0.000	0.000	0.1433	13.3058	0.0149	8.53E-06	0.0000	0.0000	7.82E-05
305	*		0.00	0.000	0.000	0.1431	13.2846	0.0148	8.51E-06	0.0000	0.0000	7.80E-05
306	*		0.00	0.000	0.000	0.1430	13.2635	0.0147	8.49E-06	0.0000	0.0000	7.79E-05
307			0.00	0.000	0.016	0.1420	13.2443	0.0147	8.47E-06	0.0000	0.0000	7.78E-05
308			0.00	0.000	0.016	0.1412	13.2275	0.0146	8.45E-06	0.0000	0.0000	7.77E-05
309			0.12	0.000	0.015	0.1454	13.2088	0.0145	8.44E-06	0.0000	0.0000	7.76E-05
310			0.00	0.000	0.015	0.1446	13.1870	0.0145	8.42E-06	0.0000	0.0000	7.75E-05
311			0.00	0.000	0.015	0.1438	13.1670	0.0144	8.40E-06	0.0000	0.0000	7.74E-05
312			0.00	0.000	0.015	0.1430	13.1469	0.0143	8.38E-06	0.0000	0.0000	7.73E-05
313			0.01	0.000	0.015	0.1424	13.1260	0.0142	8.36E-06	0.0000	0.0000	7.72E-05
314	*		0.00	0.000	0.014	0.1417	13.1040	0.0142	8.33E-06	0.0000	0.0000	7.71E-05
315	*		0.00	0.000	0.000	0.1417	13.0803	0.0141	8.31E-06	0.0000	0.0000	7.69E-05
316	*		0.00	0.000	0.000	0.1416	13.0543	0.0140	8.29E-06	0.0000	0.0000	7.68E-05
317	*		0.00	0.000	0.000	0.1416	13.0292	0.0139	8.26E-06	0.0000	0.0000	7.67E-05
318	*	*	0.00	0.000	0.000	0.1416	13.0037	0.0138	8.24E-06	0.0000	0.0000	7.66E-05
319	*	*	0.00	0.000	0.000	0.1416	12.9762	0.0137	8.21E-06	0.0000	0.0000	7.65E-05
320	*	*	0.00	0.000	0.000	0.1416	12.4738	0.0119	7.74E-06	0.0000	0.0000	7.59E-05
321	*	*	0.00	0.000	0.000	0.1416	12.2306	0.0111	7.51E-06	0.0000	0.0000	7.56E-05
322	*	*	0.00	0.000	0.000	0.1416	11.9991	0.0103	7.29E-06	0.0000	0.0000	7.53E-05
323	*	*	0.00	0.000	0.000	0.1416	11.9983	0.0103	7.29E-06	0.0000	0.0000	7.52E-05
324	*	*	0.00	0.000	0.000	0.1416	11.9953	0.0103	7.29E-06	0.0000	0.0000	7.52E-05
325	*	*	0.00	0.000	0.000	0.1416	11.9904	0.0103	7.28E-06	0.0000	0.0000	7.51E-05
326	*	*	0.00	0.000	0.000	0.1416	11.9839	0.0103	7.28E-06	0.0000	0.0000	7.50E-05
327	*	*	0.23	0.000	0.041	0.1416	11.9761	0.0103	7.27E-06	0.0000	0.0000	7.49E-05
328		*	0.00	0.000	0.032	0.1483	11.9670	0.0103	7.26E-06	0.0000	0.0000	7.48E-05
329		*	0.01	0.000	0.000	0.1488	11.9568	0.0102	7.25E-06	0.0000	0.0000	7.47E-05
330		*	0.17	0.000	0.000	0.1558	11.9457	0.0102	7.24E-06	0.0000	0.0000	7.46E-05
331		*	0.00	0.000	0.000	0.1560	11.9337	0.0102	7.23E-06	0.0000	0.0000	7.45E-05
332		*	0.00	0.000	0.000	0.1560	11.9209	0.0102	7.22E-06	0.0000	0.0000	7.45E-05
333		*	0.00	0.000	0.000	0.1560	11.9074	0.0102	7.21E-06	0.0000	0.0000	7.44E-05

334	*	*	0.00	0.000	0.000	0.1560	11.8934	0.0102	7.19E-06	0.0000	0.0000	7.43E-05
335		*	0.00	0.000	0.000	0.1560	11.8787	0.0102	7.18E-06	0.0000	0.0000	7.42E-05
336	*	*	0.01	0.000	0.008	0.1560	11.8635	0.0102	7.17E-06	0.0000	0.0000	7.41E-05
337	*	*	0.00	0.000	0.000	0.1560	11.8478	0.0102	7.15E-06	0.0000	0.0000	7.40E-05
338	*	*	0.05	0.000	0.028	0.1560	11.8318	0.0101	7.14E-06	0.0000	0.0000	7.39E-05
339	*	*	0.00	0.000	0.020	0.1560	11.8153	0.0101	7.12E-06	0.0000	0.0000	7.38E-05
340		*	0.00	0.000	0.000	0.1560	11.7984	0.0101	7.11E-06	0.0000	0.0000	7.37E-05
341		*	0.00	0.000	0.000	0.1560	11.7812	0.0101	7.09E-06	0.0000	0.0000	7.36E-05
342		*	0.13	0.000	0.000	0.1615	11.7637	0.0101	7.08E-06	0.0000	0.0000	7.35E-05
343		*	0.01	0.000	0.000	0.1619	11.7459	0.0101	7.06E-06	0.0000	0.0000	7.34E-05
344		*	0.02	0.000	0.000	0.1627	11.7278	0.0100	7.04E-06	0.0000	0.0000	7.33E-05
345		*	0.00	0.000	0.000	0.1628	11.7095	0.0100	7.03E-06	0.0000	0.0000	7.33E-05
346	*	*	0.57	0.000	0.040	0.1628	11.6910	0.0100	7.01E-06	0.0000	0.0000	7.32E-05
347	*	*	0.24	0.000	0.015	0.1628	11.6722	0.0100	6.99E-06	0.0000	0.0000	7.31E-05
348	*	*	0.73	0.000	0.025	0.1628	11.6533	0.0100	6.98E-06	0.0000	0.0000	7.30E-05
349	*	*	0.05	0.000	0.010	0.1628	11.6341	0.0100	6.96E-06	0.0000	0.0000	7.29E-05
350	*	*	0.00	0.000	0.022	0.1628	11.6148	0.0100	6.94E-06	0.0000	0.0000	7.28E-05
351	*	*	0.00	0.000	0.025	0.1628	11.5953	0.0099	6.92E-06	0.0000	0.0000	7.27E-05
352		*	0.03	0.000	0.000	0.1727	11.5757	0.0099	6.91E-06	0.0000	0.0000	7.26E-05
353	*	*	0.00	0.000	0.041	0.1727	11.5560	0.0099	6.89E-06	0.0000	0.0000	7.25E-05
354		*	0.09	0.000	0.000	0.1794	11.5361	0.0099	6.87E-06	0.0000	0.0000	7.24E-05
355		*	0.00	0.000	0.000	0.2263	11.5161	0.0099	6.85E-06	0.0000	0.0000	7.23E-05
356		*	0.00	0.000	0.000	0.2263	11.4959	0.0099	6.83E-06	0.0000	0.0000	7.22E-05
357	*	*	0.00	0.000	0.000	0.2263	11.4757	0.0098	6.82E-06	0.0000	0.0000	7.22E-05
358	*	*	0.00	0.000	0.000	0.2263	11.4554	0.0098	6.80E-06	0.0000	0.0000	7.21E-05
359	*	*	0.00	0.000	0.000	0.2263	11.4350	0.0098	6.78E-06	0.0000	0.0000	7.20E-05
360	*	*	0.00	0.000	0.000	0.2263	11.4145	0.0098	6.76E-06	0.0000	0.0000	7.19E-05
361		*	0.22	0.000	0.000	0.2356	11.3939	0.0098	6.74E-06	0.0000	0.0000	7.18E-05
362		*	0.00	0.000	0.000	0.2356	11.3732	0.0097	6.73E-06	0.0000	0.0000	7.17E-05
363	*	*	0.00	0.000	0.000	0.2356	11.3525	0.0097	6.71E-06	0.0000	0.0000	7.16E-05
364		*	0.00	0.000	0.000	0.2356	11.3317	0.0097	6.69E-06	0.0000	0.0000	7.15E-05

365	*	0.05	0.000	0.000	0.2378	11.3108	0.0097	6.67E-06	0.0000	0.0000	7.14E-05

* = Frozen (air or soil)

Annual Totals for Year 2			
	inches	cubic feet	percent
Precipitation	34.27	124,383.8	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	26.081	94,672.2	76.11
Drainage Collected from Layer 3	4.3342	15,733.1	12.65
Percolation/Leakage through Layer 4	0.002420	8.7855	0.01
Average Head on Top of Layer 4	10.8656	---	---
Percolation/Leakage through Layer 6	0.033055	120.0	0.10
Change in Water Storage	3.8178	13,858.5	11.14
Soil Water at Start of Year	10.1051	36,681.6	29.49
Soil Water at End of Year	13.9229	50,540.2	40.63
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 3

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:58

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.2378	11.2899	0.0097	6.65E-06	0.0000	0.0000	7.13E-05
2		*	0.00	0.000	0.000	0.2378	11.2689	0.0097	6.63E-06	0.0000	0.0000	7.13E-05
3	*	*	0.00	0.000	0.000	0.2378	11.2479	0.0096	6.61E-06	0.0000	0.0000	7.12E-05
4	*	*	0.00	0.000	0.000	0.2378	11.2269	0.0096	6.60E-06	0.0000	0.0000	7.11E-05
5	*	*	0.01	0.000	0.010	0.2378	11.2058	0.0096	6.58E-06	0.0000	0.0000	7.10E-05
6	*	*	0.00	0.000	0.000	0.2378	11.1846	0.0096	6.56E-06	0.0000	0.0000	7.09E-05
7		*	0.00	0.000	0.000	0.2378	11.1635	0.0096	6.54E-06	0.0000	0.0000	7.08E-05
8	*	*	0.00	0.000	0.000	0.2378	11.1422	0.0095	6.52E-06	0.0000	0.0000	7.07E-05
9	*	*	0.00	0.000	0.000	0.2378	11.1210	0.0095	6.50E-06	0.0000	0.0000	7.06E-05
10	*	*	0.19	0.000	0.007	0.2378	11.0998	0.0095	6.48E-06	0.0000	0.0000	7.05E-05
11	*	*	0.12	0.000	0.003	0.2378	11.0785	0.0095	6.47E-06	0.0000	0.0000	7.05E-05
12	*	*	0.00	0.000	0.021	0.2378	11.0572	0.0095	6.45E-06	0.0000	0.0000	7.04E-05
13	*	*	0.02	0.000	0.000	0.2378	11.0358	0.0095	6.43E-06	0.0000	0.0000	7.03E-05
14	*	*	0.02	0.000	0.000	0.2378	11.0145	0.0094	6.41E-06	0.0000	0.0000	7.02E-05
15	*	*	0.21	0.000	0.000	0.2378	10.9931	0.0094	6.39E-06	0.0000	0.0000	7.01E-05
16	*	*	0.03	0.000	0.000	0.2378	10.9718	0.0094	6.37E-06	0.0000	0.0000	7.00E-05
17	*	*	0.00	0.000	0.033	0.2378	10.9504	0.0094	6.35E-06	0.0000	0.0000	6.99E-05
18	*	*	0.00	0.000	0.023	0.2378	10.9290	0.0094	6.34E-06	0.0000	0.0000	6.99E-05
19		*	0.00	0.000	0.013	0.2505	10.9076	0.0093	6.32E-06	0.0000	0.0000	6.98E-05
20		*	0.00	0.000	0.032	0.2565	10.8862	0.0093	6.30E-06	0.0000	0.0000	6.97E-05
21	*	*	0.03	0.000	0.028	0.2565	10.8648	0.0093	6.28E-06	0.0000	0.0000	6.96E-05
22	*	*	0.15	0.000	0.030	0.2565	10.8434	0.0093	6.26E-06	0.0000	0.0000	6.95E-05
23	*	*	0.00	0.000	0.036	0.2565	10.8220	0.0093	6.24E-06	0.0000	0.0000	6.94E-05

24		*	0.00	0.000	0.065	0.2574	10.8005	0.0093	6.22E-06	0.0000	0.0000	6.93E-05
25	*	*	0.00	0.000	0.000	0.2574	10.7791	0.0092	6.21E-06	0.0000	0.0000	6.93E-05
26	*	*	0.00	0.000	0.000	0.2574	10.7577	0.0092	6.19E-06	0.0000	0.0000	6.92E-05
27	*	*	0.00	0.000	0.000	0.2574	10.7363	0.0092	6.17E-06	0.0000	0.0000	6.91E-05
28	*	*	0.00	0.000	0.000	0.2574	10.7149	0.0092	6.15E-06	0.0000	0.0000	6.90E-05
29	*	*	0.00	0.000	0.000	0.2574	10.6935	0.0092	6.13E-06	0.0000	0.0000	6.89E-05
30		*	0.00	0.000	0.000	0.2574	10.6721	0.0091	6.11E-06	0.0000	0.0000	6.88E-05
31		*	0.00	0.000	0.000	0.2574	10.6507	0.0091	6.10E-06	0.0000	0.0000	6.88E-05
32	*	*	0.00	0.000	0.000	0.2574	10.6294	0.0091	6.08E-06	0.0000	0.0000	6.87E-05
33	*	*	0.00	0.000	0.000	0.2574	10.6080	0.0091	6.06E-06	0.0000	0.0000	6.86E-05
34	*	*	0.13	0.000	0.027	0.2574	10.5867	0.0091	6.04E-06	0.0000	0.0000	6.85E-05
35	*	*	0.00	0.000	0.021	0.2574	10.5653	0.0091	6.02E-06	0.0000	0.0000	6.84E-05
36		*	0.19	0.000	0.015	0.2681	10.5440	0.0090	6.01E-06	0.0000	0.0000	6.84E-05
37		*	0.00	0.000	0.000	0.2681	10.5227	0.0090	5.99E-06	0.0000	0.0000	6.83E-05
38		*	0.00	0.000	0.000	0.2681	10.5014	0.0090	5.97E-06	0.0000	0.0000	6.82E-05
39		*	0.00	0.000	0.000	0.2681	10.4801	0.0090	5.95E-06	0.0000	0.0000	6.81E-05
40		*	0.00	0.000	0.000	0.2681	10.4588	0.0090	5.93E-06	0.0000	0.0000	6.80E-05
41		*	0.00	0.000	0.000	0.2681	10.4376	0.0089	5.92E-06	0.0000	0.0000	6.79E-05
42	*	*	0.02	0.000	0.021	0.2681	10.4163	0.0089	5.90E-06	0.0000	0.0000	6.79E-05
43	*	*	0.00	0.000	0.000	0.2681	10.3951	0.0089	5.88E-06	0.0000	0.0000	6.78E-05
44	*	*	0.00	0.000	0.000	0.2681	10.3739	0.0089	5.86E-06	0.0000	0.0000	6.77E-05
45	*	*	0.00	0.000	0.000	0.2681	10.3527	0.0089	5.84E-06	0.0000	0.0000	6.76E-05
46	*	*	0.00	0.000	0.000	0.2681	10.3316	0.0089	5.83E-06	0.0000	0.0000	6.76E-05
47	*	*	0.25	0.000	0.033	0.2681	10.3104	0.0088	5.81E-06	0.0000	0.0000	6.75E-05
48		*	0.01	0.000	0.000	0.2757	10.2893	0.0088	5.79E-06	0.0000	0.0000	6.74E-05
49		*	0.01	0.000	0.053	0.2757	10.2682	0.0088	5.77E-06	0.0000	0.0000	6.73E-05
50		*	0.00	0.000	0.000	0.2757	10.2471	0.0088	5.76E-06	0.0000	0.0000	6.72E-05
51	*	*	0.00	0.000	0.000	0.2757	10.2261	0.0088	5.74E-06	0.0000	0.0000	6.72E-05
52		*	0.00	0.000	0.000	0.2757	10.2050	0.0087	5.72E-06	0.0000	0.0000	6.71E-05
53	*	*	0.00	0.000	0.000	0.2757	10.1840	0.0087	5.70E-06	0.0000	0.0000	6.70E-05
54	*	*	0.00	0.000	0.000	0.2757	10.1631	0.0087	5.69E-06	0.0000	0.0000	6.69E-05

55	*	*	0.00	0.000	0.000	0.2757	10.1421	0.0087	5.67E-06	0.0000	0.0000	6.69E-05
56		*	0.00	0.000	0.000	0.2757	10.1212	0.0087	5.65E-06	0.0000	0.0000	6.68E-05
57		*	0.00	0.000	0.000	0.2757	10.1002	0.0087	5.63E-06	0.0000	0.0000	6.67E-05
58	*	*	0.00	0.000	0.000	0.2757	10.0794	0.0086	5.62E-06	0.0000	0.0000	6.66E-05
59		*	0.00	0.000	0.000	0.2757	10.0585	0.0086	5.60E-06	0.0000	0.0000	6.65E-05
60		*	0.00	0.000	0.000	0.2757	10.0377	0.0086	5.58E-06	0.0000	0.0000	6.65E-05
61	*	*	0.00	0.000	0.004	0.2757	10.0168	0.0086	5.57E-06	0.0000	0.0000	6.64E-05
62	*	*	0.03	0.000	0.030	0.2757	9.9961	0.0086	5.55E-06	0.0000	0.0000	6.63E-05
63	*	*	0.42	0.000	0.010	0.2757	9.9753	0.0085	5.53E-06	0.0000	0.0000	6.62E-05
64	*	*	0.96	0.000	0.000	0.2757	9.9546	0.0085	5.52E-06	0.0000	0.0000	6.62E-05
65	*	*	0.00	0.000	0.037	0.2757	9.9339	0.0085	5.50E-06	0.0000	0.0000	6.61E-05
66	*	*	0.00	0.000	0.013	0.2757	9.9132	0.0085	5.48E-06	0.0000	0.0000	6.60E-05
67	*	*	0.00	0.000	0.022	0.2757	9.8926	0.0085	5.46E-06	0.0000	0.0000	6.60E-05
68	*	*	0.03	0.000	0.000	0.2757	9.8719	0.0085	5.45E-06	0.0000	0.0000	6.59E-05
69		*	0.00	0.000	0.007	0.2881	9.8514	0.0084	5.43E-06	0.0000	0.0000	6.58E-05
70		*	0.00	0.000	0.000	0.3309	9.8308	0.0084	5.41E-06	0.0000	0.0000	6.57E-05
71		*	0.00	0.000	0.000	0.3309	9.8103	0.0084	5.40E-06	0.0000	0.0000	6.57E-05
72		*	0.00	0.000	0.000	0.3309	9.7898	0.0084	5.38E-06	0.0000	0.0000	6.56E-05
73	*	*	0.00	0.000	0.000	0.3309	9.7693	0.0084	5.36E-06	0.0000	0.0000	6.55E-05
74		*	0.32	0.000	0.000	0.3441	9.7488	0.0084	5.35E-06	0.0000	0.0000	6.54E-05
75		*	0.10	0.000	0.000	0.3483	9.7284	0.0083	5.33E-06	0.0000	0.0000	6.54E-05
76		*	0.01	0.000	0.000	0.3485	9.7081	0.0083	5.31E-06	0.0000	0.0000	6.53E-05
77		*	0.16	0.000	0.000	0.3551	9.6877	0.0083	5.30E-06	0.0000	0.0000	6.52E-05
78		*	0.00	0.000	0.000	0.3551	9.6674	0.0083	5.28E-06	0.0000	0.0000	6.52E-05
79		*	0.00	0.000	0.000	0.3551	9.6471	0.0083	5.27E-06	0.0000	0.0000	6.51E-05
80		*	0.00	0.000	0.000	0.3551	9.6268	0.0082	5.25E-06	0.0000	0.0000	6.50E-05
81		*	0.00	0.000	0.000	0.3551	9.6066	0.0082	5.23E-06	0.0000	0.0000	6.49E-05
82		*	0.16	0.000	0.000	0.3618	9.5864	0.0082	5.22E-06	0.0000	0.0000	6.49E-05
83		*	0.62	0.000	0.000	0.3875	9.5662	0.0082	5.20E-06	0.0000	0.0000	6.48E-05
84			0.13	0.000	0.185	0.2802	10.0204	0.0086	5.59E-06	0.0000	0.0000	6.51E-05
85			0.00	0.000	0.237	0.2399	16.2694	0.0253	1.17E-05	0.0000	0.0000	7.11E-05

86		0.00	0.000	0.187	0.2241	17.0937	0.0282	1.26E-05	0.0000	0.0000	7.20E-05
87		0.00	0.000	0.326	0.2058	17.3563	0.0291	1.29E-05	0.0000	0.0000	7.22E-05
88		0.00	0.000	0.132	0.1963	17.5062	0.0296	1.31E-05	0.0000	0.0000	7.23E-05
89		0.00	0.000	0.174	0.1852	17.6355	0.0301	1.32E-05	0.0000	0.0000	7.23E-05
90		0.00	0.000	0.177	0.1746	17.7488	0.0305	1.34E-05	0.0000	0.0000	7.24E-05
91		0.00	0.000	0.073	0.1689	17.8315	0.0308	1.35E-05	0.0000	0.0000	7.24E-05
92		0.00	0.000	0.056	0.1645	17.8789	0.0309	1.35E-05	0.0000	0.0000	7.23E-05
93	*	0.00	0.000	0.003	0.1623	17.9286	0.0311	1.36E-05	0.0000	0.0000	7.23E-05
94		0.02	0.000	0.047	0.1600	17.9408	0.0312	1.36E-05	0.0000	0.0000	7.22E-05
95		0.10	0.000	0.042	0.1603	17.9563	0.0312	1.36E-05	0.0000	0.0000	7.21E-05
96		0.00	0.000	0.038	0.1577	17.9757	0.0313	1.36E-05	0.0000	0.0000	7.21E-05
97		0.35	0.000	0.035	0.1700	17.9537	0.0312	1.36E-05	0.0000	0.0000	7.20E-05
98		0.05	0.000	0.032	0.1700	17.9279	0.0311	1.36E-05	0.0000	0.0000	7.18E-05
99		0.00	0.000	0.030	0.1677	17.9091	0.0310	1.35E-05	0.0000	0.0000	7.17E-05
100	*	0.00	0.000	0.000	0.1667	17.8950	0.0310	1.35E-05	0.0000	0.0000	7.16E-05
101		0.00	0.000	0.029	0.1644	17.8845	0.0310	1.35E-05	0.0000	0.0000	7.15E-05
102		0.63	0.000	0.027	0.1887	17.8731	0.0309	1.35E-05	0.0000	0.0000	7.14E-05
103		1.34	0.000	0.196	0.2353	17.8620	0.0309	1.35E-05	0.0000	0.0000	7.13E-05
104	*	0.05	0.000	0.108	0.2326	17.8385	0.0308	1.35E-05	0.0000	0.0000	7.12E-05
105		0.00	0.000	0.156	0.2252	17.8073	0.0307	1.34E-05	0.0000	0.0000	7.10E-05
106		0.00	0.000	0.194	0.2159	17.7995	0.0307	1.34E-05	0.0000	0.0000	7.09E-05
107		0.17	0.000	0.158	0.2156	17.7911	0.0306	1.34E-05	0.0000	0.0000	7.08E-05
108	*	0.00	0.000	0.131	0.2100	17.7605	0.0305	1.34E-05	0.0000	0.0000	7.07E-05
109		0.00	0.000	0.160	0.2033	17.7011	0.0303	1.33E-05	0.0000	0.0000	7.06E-05
110		0.00	0.000	0.305	0.1895	17.6540	0.0301	1.32E-05	0.0000	0.0000	7.04E-05
111		0.00	0.000	0.113	0.1824	17.6812	0.0302	1.33E-05	0.0000	0.0000	7.04E-05
112		0.00	0.000	0.159	0.1737	17.7255	0.0304	1.33E-05	0.0000	0.0000	7.03E-05
113		0.00	0.000	0.073	0.1685	17.7688	0.0305	1.34E-05	0.0000	0.0000	7.03E-05
114		0.30	0.000	0.056	0.1768	17.8007	0.0307	1.34E-05	0.0000	0.0000	7.02E-05
115		0.31	0.000	0.047	0.1862	17.8212	0.0307	1.34E-05	0.0000	0.0000	7.02E-05
116	*	0.43	0.000	0.038	0.1855	17.8333	0.0308	1.35E-05	0.0000	0.0000	7.01E-05

117	*	0.00	0.000	0.023	0.1850	17.8398	0.0308	1.35E-05	0.0000	0.0000	7.00E-05
118	*	0.15	0.000	0.016	0.1846	17.8391	0.0308	1.35E-05	0.0000	0.0000	6.99E-05
119	*	0.19	0.000	0.000	0.1843	17.8339	0.0308	1.35E-05	0.0000	0.0000	6.98E-05
120	*	0.04	0.000	0.026	0.1841	17.8249	0.0307	1.34E-05	0.0000	0.0000	6.97E-05
121	*	0.00	0.000	0.000	0.1839	17.8122	0.0307	1.34E-05	0.0000	0.0000	6.96E-05
122		0.00	0.000	0.064	0.2046	17.7961	0.0306	1.34E-05	0.0000	0.0000	6.95E-05
123		0.00	0.000	0.107	0.1993	17.7736	0.0306	1.34E-05	0.0000	0.0000	6.94E-05
124		0.00	0.000	0.327	0.1845	17.7633	0.0305	1.34E-05	0.0000	0.0000	6.93E-05
125		0.00	0.000	0.421	0.1669	17.7349	0.0304	1.33E-05	0.0000	0.0000	6.92E-05
126		0.03	0.000	0.442	0.1488	17.6898	0.0303	1.33E-05	0.0000	0.0000	6.90E-05
127		0.09	0.000	0.177	0.1441	17.6778	0.0302	1.33E-05	0.0000	0.0000	6.89E-05
128		0.00	0.000	0.073	0.1405	17.6525	0.0301	1.32E-05	0.0000	0.0000	6.88E-05
129		0.35	0.000	0.056	0.1522	17.6172	0.0300	1.32E-05	0.0000	0.0000	6.87E-05
130		0.40	0.000	0.048	0.1664	17.5814	0.0299	1.32E-05	0.0000	0.0000	6.86E-05
131		0.00	0.000	0.107	0.1615	17.5478	0.0298	1.31E-05	0.0000	0.0000	6.84E-05
132		0.11	0.000	0.042	0.1640	17.5132	0.0296	1.31E-05	0.0000	0.0000	6.83E-05
133		0.02	0.000	0.405	0.1470	17.4809	0.0295	1.30E-05	0.0000	0.0000	6.82E-05
134		0.62	0.000	0.038	0.1712	17.4435	0.0294	1.30E-05	0.0000	0.0000	6.81E-05
135		0.99	0.000	0.331	0.1984	17.3984	0.0292	1.29E-05	0.0000	0.0000	6.79E-05
136		0.32	0.000	0.283	0.1997	17.3459	0.0291	1.29E-05	0.0000	0.0000	6.78E-05
137		0.22	0.000	0.082	0.2049	17.3037	0.0289	1.28E-05	0.0000	0.0000	6.77E-05
138	*	0.03	0.000	0.059	0.2031	17.2736	0.0288	1.28E-05	0.0000	0.0000	6.75E-05
139		0.03	0.000	0.075	0.2005	17.2450	0.0287	1.28E-05	0.0000	0.0000	6.74E-05
140	*	0.01	0.000	0.007	0.1999	17.2162	0.0286	1.27E-05	0.0000	0.0000	6.73E-05
141	*	0.00	0.000	0.142	0.1935	17.1859	0.0285	1.27E-05	0.0000	0.0000	6.72E-05
142		0.00	0.000	0.170	0.1860	17.1522	0.0284	1.27E-05	0.0000	0.0000	6.71E-05
143		0.00	0.000	0.281	0.1739	17.1172	0.0283	1.26E-05	0.0000	0.0000	6.70E-05
144		0.04	0.000	0.177	0.1677	17.0825	0.0281	1.26E-05	0.0000	0.0000	6.68E-05
145		0.00	0.000	0.178	0.1599	17.0499	0.0280	1.25E-05	0.0000	0.0000	6.67E-05
146		0.00	0.000	0.293	0.1473	17.0173	0.0279	1.25E-05	0.0000	0.0000	6.66E-05
147		0.00	0.000	0.177	0.1394	16.9813	0.0278	1.25E-05	0.0000	0.0000	6.65E-05

148	0.20	0.000	0.074	0.1439	16.9533	0.0277	1.24E-05	0.0000	0.0000	6.64E-05
149	0.07	0.000	0.057	0.1440	16.9232	0.0276	1.24E-05	0.0000	0.0000	6.63E-05
150	0.00	0.000	0.047	0.1416	16.8897	0.0275	1.24E-05	0.0000	0.0000	6.61E-05
151	0.00	0.000	0.042	0.1395	16.8538	0.0273	1.23E-05	0.0000	0.0000	6.60E-05
152	0.00	0.000	0.038	0.1376	16.8160	0.0272	1.23E-05	0.0000	0.0000	6.59E-05
153	0.00	0.000	0.035	0.1359	16.7766	0.0271	1.22E-05	0.0000	0.0000	6.58E-05
154	0.03	0.000	0.033	0.1354	16.7345	0.0269	1.22E-05	0.0000	0.0000	6.57E-05
155	1.17	0.000	0.031	0.1827	16.6901	0.0268	1.21E-05	0.0000	0.0000	6.55E-05
156	1.27	0.000	0.135	0.2299	16.6462	0.0266	1.21E-05	0.0000	0.0000	6.54E-05
157	0.01	0.000	0.165	0.2235	16.6029	0.0265	1.20E-05	0.0000	0.0000	6.53E-05
158	0.00	0.000	0.167	0.2164	16.5535	0.0263	1.20E-05	0.0000	0.0000	6.51E-05
159	0.00	0.000	0.165	0.2092	16.5129	0.0261	1.19E-05	0.0000	0.0000	6.50E-05
160	0.00	0.000	0.389	0.1929	16.4720	0.0260	1.19E-05	0.0000	0.0000	6.49E-05
161	0.00	0.000	0.319	0.1796	16.4233	0.0258	1.18E-05	0.0000	0.0000	6.48E-05
162	0.61	0.000	0.151	0.1989	16.3720	0.0256	1.18E-05	0.0000	0.0000	6.46E-05
163	0.20	0.000	0.310	0.1941	16.3210	0.0255	1.17E-05	0.0000	0.0000	6.45E-05
164	0.01	0.000	0.332	0.1791	16.3070	0.0254	1.17E-05	0.0000	0.0000	6.44E-05
165	0.00	0.000	0.176	0.1696	16.3417	0.0255	1.17E-05	0.0000	0.0000	6.44E-05
166	0.00	0.000	0.073	0.1648	16.3876	0.0257	1.18E-05	0.0000	0.0000	6.44E-05
167	0.00	0.000	0.050	0.1613	16.4132	0.0258	1.18E-05	0.0000	0.0000	6.43E-05
168	0.00	0.000	0.047	0.1580	16.4270	0.0258	1.18E-05	0.0000	0.0000	6.43E-05
169	0.00	0.000	0.042	0.1550	16.4382	0.0259	1.18E-05	0.0000	0.0000	6.42E-05
170	0.00	0.000	0.038	0.1523	16.4431	0.0259	1.18E-05	0.0000	0.0000	6.41E-05
171	0.16	0.000	0.035	0.1566	16.4420	0.0259	1.18E-05	0.0000	0.0000	6.41E-05
172	1.24	0.000	0.033	0.2060	16.4393	0.0259	1.18E-05	0.0000	0.0000	6.40E-05
173	0.72	0.000	0.162	0.2284	16.4382	0.0259	1.18E-05	0.0000	0.0000	6.39E-05
174	0.59	0.000	0.374	0.2367	16.4289	0.0258	1.18E-05	0.0000	0.0000	6.38E-05
175	0.60	0.000	0.295	0.2487	16.4166	0.0258	1.18E-05	0.0000	0.0000	6.38E-05
176	0.07	0.000	0.167	0.2435	16.3993	0.0257	1.18E-05	0.0000	0.0000	6.37E-05
177	0.00	0.000	0.363	0.2277	16.4089	0.0258	1.18E-05	0.0000	0.0000	6.36E-05
178	0.03	0.000	0.342	0.2145	16.3784	0.0257	1.18E-05	0.0000	0.0000	6.35E-05

179	0.07	0.000	0.174	0.2075	16.3613	0.0256	1.17E-05	0.0000	0.0000	6.34E-05
180	0.06	0.000	0.183	0.1975	16.4794	0.0260	1.19E-05	0.0000	0.0000	6.35E-05
181	0.45	0.000	0.349	0.1985	16.6395	0.0266	1.21E-05	0.0000	0.0000	6.36E-05
182	0.00	0.000	0.326	0.1829	16.7165	0.0269	1.22E-05	0.0000	0.0000	6.36E-05
183	0.39	0.000	0.178	0.1900	16.7531	0.0270	1.22E-05	0.0000	0.0000	6.36E-05
184	0.70	0.000	0.242	0.2074	16.7749	0.0271	1.22E-05	0.0000	0.0000	6.35E-05
185	0.51	0.000	0.172	0.2195	16.8047	0.0272	1.23E-05	0.0000	0.0000	6.35E-05
186	0.53	0.000	0.183	0.2321	16.8368	0.0273	1.23E-05	0.0000	0.0000	6.35E-05
187	0.04	0.000	0.171	0.2254	16.8549	0.0273	1.23E-05	0.0000	0.0000	6.34E-05
188	0.11	0.000	0.168	0.2221	16.8527	0.0273	1.23E-05	0.0000	0.0000	6.33E-05
189	0.00	0.000	0.167	0.2136	16.8570	0.0273	1.23E-05	0.0000	0.0000	6.33E-05
190	0.00	0.000	0.207	0.2030	16.8833	0.0274	1.23E-05	0.0000	0.0000	6.32E-05
191	0.18	0.000	0.176	0.2019	16.9177	0.0276	1.24E-05	0.0000	0.0000	6.32E-05
192	0.00	0.000	0.339	0.1875	16.9037	0.0275	1.24E-05	0.0000	0.0000	6.31E-05
193	0.41	0.000	0.166	0.1965	16.8859	0.0274	1.23E-05	0.0000	0.0000	6.30E-05
194	0.03	0.000	0.355	0.1821	16.8751	0.0274	1.23E-05	0.0000	0.0000	6.29E-05
195	0.26	0.000	0.185	0.1842	16.8669	0.0274	1.23E-05	0.0000	0.0000	6.28E-05
196	0.00	0.000	0.363	0.1687	16.8451	0.0273	1.23E-05	0.0000	0.0000	6.27E-05
197	0.00	0.000	0.175	0.1604	16.8218	0.0272	1.23E-05	0.0000	0.0000	6.27E-05
198	0.00	0.000	0.073	0.1568	16.8082	0.0272	1.23E-05	0.0000	0.0000	6.26E-05
199	0.00	0.000	0.056	0.1543	16.7700	0.0270	1.22E-05	0.0000	0.0000	6.25E-05
200	0.00	0.000	0.047	0.1519	16.7286	0.0269	1.22E-05	0.0000	0.0000	6.23E-05
201	0.01	0.000	0.042	0.1499	16.6982	0.0268	1.21E-05	0.0000	0.0000	6.22E-05
202	0.07	0.000	0.038	0.1503	16.6786	0.0267	1.21E-05	0.0000	0.0000	6.21E-05
203	0.00	0.000	0.035	0.1480	16.6656	0.0267	1.21E-05	0.0000	0.0000	6.21E-05
204	0.02	0.000	0.033	0.1467	16.6551	0.0266	1.21E-05	0.0000	0.0000	6.20E-05
205	0.70	0.000	0.031	0.1736	16.6447	0.0266	1.21E-05	0.0000	0.0000	6.19E-05
206	0.09	0.000	0.382	0.1603	16.6414	0.0266	1.21E-05	0.0000	0.0000	6.18E-05
207	0.01	0.000	0.029	0.1595	16.6237	0.0265	1.20E-05	0.0000	0.0000	6.17E-05
208	1.40	0.000	0.028	0.2156	16.5835	0.0264	1.20E-05	0.0000	0.0000	6.16E-05
209	0.00	0.000	0.364	0.1994	16.5770	0.0264	1.20E-05	0.0000	0.0000	6.15E-05

210	0.00	0.000	0.374	0.1832	16.5745	0.0264	1.20E-05	0.0000	0.0000	6.15E-05
211	0.00	0.000	0.349	0.1677	16.5598	0.0263	1.20E-05	0.0000	0.0000	6.14E-05
212	0.08	0.000	0.177	0.1623	16.5587	0.0263	1.20E-05	0.0000	0.0000	6.13E-05
213	0.00	0.000	0.074	0.1582	16.5589	0.0263	1.20E-05	0.0000	0.0000	6.13E-05
214	0.11	0.000	0.057	0.1597	16.5536	0.0263	1.20E-05	0.0000	0.0000	6.12E-05
215	0.00	0.000	0.047	0.1569	16.5427	0.0262	1.20E-05	0.0000	0.0000	6.11E-05
216	0.00	0.000	0.042	0.1545	16.5262	0.0262	1.19E-05	0.0000	0.0000	6.10E-05
217	0.40	0.000	0.038	0.1691	16.5048	0.0261	1.19E-05	0.0000	0.0000	6.09E-05
218	0.07	0.000	0.333	0.1578	16.4773	0.0260	1.19E-05	0.0000	0.0000	6.08E-05
219	0.00	0.000	0.035	0.1558	16.4484	0.0259	1.18E-05	0.0000	0.0000	6.07E-05
220	0.00	0.000	0.032	0.1539	16.4267	0.0258	1.18E-05	0.0000	0.0000	6.06E-05
221	0.23	0.000	0.031	0.1618	16.3993	0.0257	1.18E-05	0.0000	0.0000	6.06E-05
222	0.00	0.000	0.370	0.1461	16.3647	0.0256	1.18E-05	0.0000	0.0000	6.04E-05
223	0.00	0.000	0.029	0.1444	16.3341	0.0255	1.17E-05	0.0000	0.0000	6.04E-05
224	0.00	0.000	0.027	0.1428	16.3064	0.0254	1.17E-05	0.0000	0.0000	6.03E-05
225	0.06	0.000	0.026	0.1439	16.2756	0.0253	1.17E-05	0.0000	0.0000	6.02E-05
226	0.81	0.000	0.025	0.1764	16.2426	0.0252	1.16E-05	0.0000	0.0000	6.01E-05
227	0.37	0.000	0.174	0.1842	16.2090	0.0251	1.16E-05	0.0000	0.0000	6.00E-05
228	0.00	0.000	0.168	0.1768	16.1757	0.0250	1.15E-05	0.0000	0.0000	5.99E-05
229	0.00	0.000	0.150	0.1703	16.1409	0.0248	1.15E-05	0.0000	0.0000	5.98E-05
230	0.14	0.000	0.290	0.1637	16.1042	0.0247	1.15E-05	0.0000	0.0000	5.97E-05
231	0.01	0.000	0.274	0.1525	16.0575	0.0245	1.14E-05	0.0000	0.0000	5.95E-05
232	0.00	0.000	0.177	0.1449	16.0120	0.0244	1.14E-05	0.0000	0.0000	5.94E-05
233	0.00	0.000	0.073	0.1416	15.9772	0.0243	1.13E-05	0.0000	0.0000	5.93E-05
234	0.33	0.000	0.057	0.1527	15.9411	0.0241	1.13E-05	0.0000	0.0000	5.92E-05
235	0.00	0.000	0.047	0.1506	15.9019	0.0240	1.12E-05	0.0000	0.0000	5.91E-05
236	0.00	0.000	0.042	0.1488	15.8582	0.0238	1.12E-05	0.0000	0.0000	5.90E-05
237	0.24	0.000	0.038	0.1569	15.8169	0.0237	1.11E-05	0.0000	0.0000	5.89E-05
238	0.00	0.000	0.321	0.1435	15.7769	0.0236	1.11E-05	0.0000	0.0000	5.88E-05
239	0.15	0.000	0.035	0.1483	15.7342	0.0234	1.11E-05	0.0000	0.0000	5.87E-05
240	0.00	0.000	0.032	0.1468	15.6945	0.0233	1.10E-05	0.0000	0.0000	5.86E-05

241	0.00	0.000	0.030	0.1454	15.6555	0.0231	1.10E-05	0.0000	0.0000	5.85E-05
242	0.26	0.000	0.029	0.1549	15.6172	0.0230	1.09E-05	0.0000	0.0000	5.84E-05
243	0.00	0.000	0.028	0.1536	15.5793	0.0229	1.09E-05	0.0000	0.0000	5.83E-05
244	0.15	0.000	0.026	0.1584	15.5418	0.0227	1.08E-05	0.0000	0.0000	5.82E-05
245	0.24	0.000	0.134	0.1629	15.5033	0.0226	1.08E-05	0.0000	0.0000	5.81E-05
246	0.04	0.000	0.297	0.1522	15.4613	0.0224	1.08E-05	0.0000	0.0000	5.80E-05
247	0.01	0.000	0.177	0.1450	15.4192	0.0223	1.07E-05	0.0000	0.0000	5.79E-05
248	0.00	0.000	0.073	0.1417	15.3825	0.0222	1.07E-05	0.0000	0.0000	5.78E-05
249	0.16	0.000	0.056	0.1456	15.3486	0.0220	1.06E-05	0.0000	0.0000	5.77E-05
250	0.82	0.000	0.048	0.1775	15.3150	0.0219	1.06E-05	0.0000	0.0000	5.76E-05
251	0.00	0.000	0.086	0.1737	15.2809	0.0218	1.06E-05	0.0000	0.0000	5.75E-05
252	0.00	0.000	0.206	0.1651	15.2444	0.0217	1.05E-05	0.0000	0.0000	5.74E-05
253	0.00	0.000	0.152	0.1586	15.2067	0.0215	1.05E-05	0.0000	0.0000	5.73E-05
254	0.00	0.000	0.175	0.1512	15.1706	0.0214	1.04E-05	0.0000	0.0000	5.72E-05
255	0.00	0.000	0.137	0.1453	15.1350	0.0213	1.04E-05	0.0000	0.0000	5.71E-05
256	0.00	0.000	0.073	0.1420	15.1015	0.0212	1.04E-05	0.0000	0.0000	5.71E-05
257	0.00	0.000	0.056	0.1395	15.0695	0.0211	1.03E-05	0.0000	0.0000	5.70E-05
258	0.00	0.000	0.047	0.1373	15.0376	0.0210	1.03E-05	0.0000	0.0000	5.69E-05
259	0.00	0.000	0.042	0.1353	15.0057	0.0208	1.03E-05	0.0000	0.0000	5.68E-05
260	0.00	0.000	0.038	0.1336	14.9736	0.0207	1.02E-05	0.0000	0.0000	5.67E-05
261	0.00	0.000	0.035	0.1319	14.9413	0.0206	1.02E-05	0.0000	0.0000	5.66E-05
262	0.00	0.000	0.032	0.1304	14.9089	0.0205	1.02E-05	0.0000	0.0000	5.65E-05
263	0.00	0.000	0.030	0.1290	14.8764	0.0204	1.01E-05	0.0000	0.0000	5.65E-05
264	0.00	0.000	0.029	0.1276	14.8437	0.0203	1.01E-05	0.0000	0.0000	5.64E-05
265	0.00	0.000	0.027	0.1263	14.8109	0.0202	1.01E-05	0.0000	0.0000	5.63E-05
266	0.00	0.000	0.026	0.1251	14.7781	0.0200	1.00E-05	0.0000	0.0000	5.62E-05
267	0.18	0.000	0.025	0.1314	14.7452	0.0199	9.99E-06	0.0000	0.0000	5.61E-05
268	0.01	0.000	0.024	0.1306	14.7123	0.0198	9.96E-06	0.0000	0.0000	5.60E-05
269	0.14	0.000	0.023	0.1352	14.6793	0.0197	9.92E-06	0.0000	0.0000	5.59E-05
270	0.00	0.000	0.023	0.1342	14.6464	0.0196	9.89E-06	0.0000	0.0000	5.59E-05
271	0.10	0.000	0.022	0.1374	14.6134	0.0195	9.86E-06	0.0000	0.0000	5.58E-05

272		0.09	0.000	0.021	0.1399	14.5805	0.0193	9.82E-06	0.0000	0.0000	5.57E-05
273		0.01	0.000	0.021	0.1393	14.5476	0.0192	9.79E-06	0.0000	0.0000	5.56E-05
274		0.00	0.000	0.020	0.1383	14.5148	0.0191	9.75E-06	0.0000	0.0000	5.55E-05
275		0.00	0.000	0.020	0.1374	14.4822	0.0190	9.72E-06	0.0000	0.0000	5.54E-05
276		0.00	0.000	0.019	0.1365	14.4496	0.0189	9.68E-06	0.0000	0.0000	5.54E-05
277	*	0.00	0.000	0.000	0.1364	14.4172	0.0188	9.65E-06	0.0000	0.0000	5.53E-05
278	*	0.00	0.000	0.019	0.1355	14.3850	0.0187	9.62E-06	0.0000	0.0000	5.52E-05
279	*	0.00	0.000	0.018	0.1346	14.3524	0.0185	9.58E-06	0.0000	0.0000	5.51E-05
280	*	0.00	0.000	0.000	0.1345	14.3202	0.0184	9.55E-06	0.0000	0.0000	5.50E-05
281	*	0.00	0.000	0.004	0.1344	14.2885	0.0183	9.52E-06	0.0000	0.0000	5.49E-05
282	*	0.00	0.000	0.002	0.1343	14.2568	0.0182	9.49E-06	0.0000	0.0000	5.49E-05
283	*	0.00	0.000	0.000	0.1343	14.2252	0.0181	9.45E-06	0.0000	0.0000	5.48E-05
284	*	0.00	0.000	0.000	0.1342	14.1936	0.0180	9.42E-06	0.0000	0.0000	5.47E-05
285		0.00	0.000	0.018	0.1333	14.1619	0.0179	9.39E-06	0.0000	0.0000	5.46E-05
286		0.27	0.000	0.018	0.1439	14.1299	0.0178	9.36E-06	0.0000	0.0000	5.46E-05
287	*	0.00	0.000	0.017	0.1431	14.0980	0.0177	9.32E-06	0.0000	0.0000	5.45E-05
288	*	0.06	0.000	0.048	0.1435	14.0666	0.0175	9.29E-06	0.0000	0.0000	5.44E-05
289		0.22	0.000	0.017	0.1519	14.0354	0.0174	9.26E-06	0.0000	0.0000	5.43E-05
290	*	0.02	0.000	0.023	0.1518	14.0042	0.0173	9.23E-06	0.0000	0.0000	5.42E-05
291		0.00	0.000	0.074	0.1487	13.9725	0.0172	9.20E-06	0.0000	0.0000	5.42E-05
292	*	0.01	0.000	0.011	0.1487	13.9404	0.0171	9.16E-06	0.0000	0.0000	5.41E-05
293	*	0.00	0.000	0.000	0.1486	13.9101	0.0170	9.13E-06	0.0000	0.0000	5.40E-05
294	*	0.00	0.000	0.000	0.1485	13.8800	0.0169	9.10E-06	0.0000	0.0000	5.39E-05
295	*	0.00	0.000	0.000	0.1484	13.8499	0.0168	9.07E-06	0.0000	0.0000	5.39E-05
296		0.00	0.000	0.017	0.1478	13.8198	0.0167	9.04E-06	0.0000	0.0000	5.38E-05
297		0.04	0.000	0.016	0.1488	13.7894	0.0166	9.01E-06	0.0000	0.0000	5.37E-05
298		0.00	0.000	0.016	0.1481	13.7592	0.0165	8.98E-06	0.0000	0.0000	5.36E-05
299	*	0.01	0.000	0.022	0.1474	13.7292	0.0164	8.95E-06	0.0000	0.0000	5.36E-05
300		1.10	0.000	0.016	0.1924	13.6993	0.0163	8.92E-06	0.0000	0.0000	5.35E-05
301		0.00	0.000	0.123	0.1873	13.6687	0.0161	8.89E-06	0.0000	0.0000	5.34E-05
302		0.00	0.000	0.065	0.1845	13.6370	0.0160	8.86E-06	0.0000	0.0000	5.34E-05

303		0.00	0.000	0.083	0.1811	13.6059	0.0159	8.83E-06	0.0000	0.0000	5.33E-05
304		0.00	0.000	0.075	0.1780	13.5749	0.0158	8.80E-06	0.0000	0.0000	5.32E-05
305		0.00	0.000	0.087	0.1743	13.5443	0.0157	8.77E-06	0.0000	0.0000	5.31E-05
306		0.00	0.000	0.138	0.1686	13.5134	0.0156	8.74E-06	0.0000	0.0000	5.31E-05
307		0.00	0.000	0.159	0.1619	13.4824	0.0155	8.71E-06	0.0000	0.0000	5.30E-05
308		0.00	0.000	0.160	0.1553	13.4516	0.0154	8.68E-06	0.0000	0.0000	5.29E-05
309		0.04	0.000	0.121	0.1518	13.4211	0.0153	8.65E-06	0.0000	0.0000	5.28E-05
310		0.07	0.000	0.108	0.1501	13.3922	0.0152	8.62E-06	0.0000	0.0000	5.28E-05
311		0.00	0.000	0.080	0.1467	13.3667	0.0151	8.59E-06	0.0000	0.0000	5.27E-05
312		0.00	0.000	0.065	0.1439	13.3414	0.0150	8.57E-06	0.0000	0.0000	5.26E-05
313	*	0.00	0.000	0.000	0.1438	13.3161	0.0149	8.54E-06	0.0000	0.0000	5.26E-05
314	*	0.00	0.000	0.052	0.1416	13.2908	0.0148	8.52E-06	0.0000	0.0000	5.25E-05
315	*	0.00	0.000	0.048	0.1395	13.2655	0.0147	8.49E-06	0.0000	0.0000	5.25E-05
316	*	0.28	0.000	0.031	0.1402	13.2402	0.0146	8.47E-06	0.0000	0.0000	5.24E-05
317		0.00	0.000	0.061	0.1472	13.2150	0.0146	8.44E-06	0.0000	0.0000	5.23E-05
318		0.00	0.000	0.047	0.1451	13.1899	0.0145	8.42E-06	0.0000	0.0000	5.23E-05
319		0.00	0.000	0.042	0.1433	13.1648	0.0144	8.39E-06	0.0000	0.0000	5.22E-05
320	*	0.00	0.000	0.000	0.1432	13.1398	0.0143	8.37E-06	0.0000	0.0000	5.21E-05
321		0.00	0.000	0.038	0.1416	13.1148	0.0142	8.35E-06	0.0000	0.0000	5.21E-05
322		0.00	0.000	0.035	0.1401	13.0900	0.0141	8.32E-06	0.0000	0.0000	5.20E-05
323		0.00	0.000	0.032	0.1386	13.0652	0.0140	8.30E-06	0.0000	0.0000	5.19E-05
324		0.00	0.000	0.030	0.1373	13.0405	0.0139	8.27E-06	0.0000	0.0000	5.19E-05
325		0.00	0.000	0.028	0.1361	13.0158	0.0139	8.25E-06	0.0000	0.0000	5.18E-05
326		0.00	0.000	0.027	0.1349	12.7446	0.0129	7.99E-06	0.0000	0.0000	5.15E-05
327		0.00	0.000	0.026	0.1337	12.4837	0.0120	7.75E-06	0.0000	0.0000	5.13E-05
328		0.73	0.000	0.025	0.1632	12.2361	0.0111	7.51E-06	0.0000	0.0000	5.10E-05
329		0.02	0.000	0.065	0.1615	12.2310	0.0111	7.51E-06	0.0000	0.0000	5.09E-05
330		0.00	0.000	0.070	0.1586	11.9980	0.0103	7.29E-06	0.0000	0.0000	5.07E-05
331		0.10	0.000	0.115	0.1580	11.9955	0.0103	7.29E-06	0.0000	0.0000	5.07E-05
332		0.03	0.000	0.158	0.1527	11.9918	0.0103	7.28E-06	0.0000	0.0000	5.06E-05
333		0.00	0.000	0.079	0.1494	11.9845	0.0103	7.28E-06	0.0000	0.0000	5.06E-05

334		0.00	0.000	0.076	0.1462	11.9765	0.0103	7.27E-06	0.0000	0.0000	5.05E-05
335		0.00	0.000	0.122	0.1410	11.9667	0.0103	7.26E-06	0.0000	0.0000	5.05E-05
336		0.00	0.000	0.073	0.1379	11.9560	0.0102	7.25E-06	0.0000	0.0000	5.05E-05
337		0.00	0.000	0.056	0.1355	11.9446	0.0102	7.24E-06	0.0000	0.0000	5.04E-05
338		0.00	0.000	0.047	0.1335	11.9325	0.0102	7.23E-06	0.0000	0.0000	5.04E-05
339	*	0.00	0.000	0.000	0.1334	11.9198	0.0102	7.22E-06	0.0000	0.0000	5.03E-05
340		0.00	0.000	0.042	0.1317	11.9065	0.0102	7.21E-06	0.0000	0.0000	5.03E-05
341		0.00	0.000	0.038	0.1300	11.8927	0.0102	7.19E-06	0.0000	0.0000	5.02E-05
342		0.00	0.000	0.033	0.1286	11.8784	0.0102	7.18E-06	0.0000	0.0000	5.02E-05
343		0.00	0.000	0.032	0.1272	11.8636	0.0102	7.17E-06	0.0000	0.0000	5.01E-05
344		0.00	0.000	0.030	0.1259	11.8485	0.0102	7.15E-06	0.0000	0.0000	5.01E-05
345		0.00	0.000	0.029	0.1247	11.8330	0.0101	7.14E-06	0.0000	0.0000	5.01E-05
346	*	0.00	0.000	0.027	0.1235	11.8171	0.0101	7.12E-06	0.0000	0.0000	5.00E-05
347	*	0.00	0.000	0.026	0.1224	11.8010	0.0101	7.11E-06	0.0000	0.0000	5.00E-05
348		0.00	0.000	0.025	0.1213	11.7850	0.0101	7.10E-06	0.0000	0.0000	4.99E-05
349		0.07	0.000	0.024	0.1232	11.7690	0.0101	7.08E-06	0.0000	0.0000	4.99E-05
350		0.02	0.000	0.023	0.1229	11.7531	0.0101	7.07E-06	0.0000	0.0000	4.98E-05
351		0.00	0.000	0.022	0.1219	11.7371	0.0101	7.05E-06	0.0000	0.0000	4.98E-05
352		0.00	0.000	0.022	0.1210	11.7210	0.0100	7.04E-06	0.0000	0.0000	4.97E-05
353		0.00	0.000	0.021	0.1201	11.7048	0.0100	7.02E-06	0.0000	0.0000	4.97E-05
354		0.08	0.000	0.021	0.1227	11.6884	0.0100	7.01E-06	0.0000	0.0000	4.96E-05
355		0.25	0.000	0.018	0.1324	11.6718	0.0100	6.99E-06	0.0000	0.0000	4.96E-05
356		0.00	0.000	0.017	0.1316	11.6548	0.0100	6.98E-06	0.0000	0.0000	4.96E-05
357	*	0.00	0.000	0.019	0.1308	11.6354	0.0100	6.96E-06	0.0000	0.0000	4.95E-05
358		0.00	0.000	0.019	0.1300	11.6154	0.0100	6.94E-06	0.0000	0.0000	4.95E-05
359	*	0.00	0.000	0.000	0.1300	11.5964	0.0099	6.92E-06	0.0000	0.0000	4.94E-05
360	*	0.04	0.000	0.011	0.1308	11.5791	0.0099	6.91E-06	0.0000	0.0000	4.94E-05
361	*	0.00	0.000	0.030	0.1301	11.5612	0.0099	6.89E-06	0.0000	0.0000	4.93E-05
362		0.00	0.000	0.018	0.1293	11.5407	0.0099	6.87E-06	0.0000	0.0000	4.93E-05
363		0.00	0.000	0.018	0.1285	11.5197	0.0099	6.86E-06	0.0000	0.0000	4.92E-05
364	*	0.00	0.000	0.000	0.1285	11.4999	0.0099	6.84E-06	0.0000	0.0000	4.92E-05

365	*	0.06	0.000	0.019	0.1293	11.4818	0.0098	6.82E-06	0.0000	0.0000	4.91E-05

* = Frozen (air or soil)

Annual Totals for Year 3			
	inches	cubic feet	percent
Precipitation	33.46	121,472.2	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.913	104,955.4	86.40
Drainage Collected from Layer 3	7.0229	25,493.0	20.99
Percolation/Leakage through Layer 4	0.003528	12.8	0.01
Average Head on Top of Layer 4	14.2580	---	---
Percolation/Leakage through Layer 6	0.022593	82.0	0.07
Change in Water Storage	-2.4954	-9,058.3	-7.46
Soil Water at Start of Year	13.9229	50,540.2	41.61
Soil Water at End of Year	11.4083	41,412.1	34.09
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0192	69.8	0.06
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 4

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:58

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*		0.11	0.000	0.007	0.1301	11.4635	0.0098	6.81E-06	0.0000	0.0000	4.91E-05
2	*		0.00	0.000	0.004	0.1309	11.4450	0.0098	6.79E-06	0.0000	0.0000	4.90E-05
3	*		0.00	0.000	0.012	0.1318	11.4263	0.0098	6.77E-06	0.0000	0.0000	4.90E-05
4	*		0.05	0.000	0.000	0.1326	11.4075	0.0098	6.76E-06	0.0000	0.0000	4.90E-05
5	*		0.00	0.000	0.009	0.1334	11.3885	0.0098	6.74E-06	0.0000	0.0000	4.89E-05
6	*	*	0.00	0.000	0.018	0.1334	11.3693	0.0097	6.72E-06	0.0000	0.0000	4.89E-05
7	*	*	0.02	0.000	0.029	0.1334	11.3500	0.0097	6.70E-06	0.0000	0.0000	4.88E-05
8		*	0.00	0.000	0.028	0.1334	11.3306	0.0097	6.69E-06	0.0000	0.0000	4.88E-05
9		*	0.00	0.000	0.000	0.1334	11.3111	0.0097	6.67E-06	0.0000	0.0000	4.87E-05
10		*	0.00	0.000	0.000	0.1334	11.2914	0.0097	6.65E-06	0.0000	0.0000	4.87E-05
11	*	*	0.00	0.000	0.000	0.1334	11.2716	0.0097	6.64E-06	0.0000	0.0000	4.86E-05
12		*	0.00	0.000	0.000	0.1334	11.2517	0.0096	6.62E-06	0.0000	0.0000	4.86E-05
13		*	0.15	0.000	0.000	0.1397	11.2318	0.0096	6.60E-06	0.0000	0.0000	4.85E-05
14	*	*	0.00	0.000	0.000	0.1397	11.2117	0.0096	6.58E-06	0.0000	0.0000	4.85E-05
15		*	0.00	0.000	0.000	0.1397	11.1916	0.0096	6.56E-06	0.0000	0.0000	4.85E-05
16		*	0.00	0.000	0.000	0.1397	11.1714	0.0096	6.55E-06	0.0000	0.0000	4.84E-05
17		*	0.00	0.000	0.000	0.1397	11.1511	0.0096	6.53E-06	0.0000	0.0000	4.84E-05
18	*	*	0.10	0.000	0.022	0.1397	11.1308	0.0095	6.51E-06	0.0000	0.0000	4.83E-05
19	*	*	0.00	0.000	0.009	0.1397	11.1104	0.0095	6.49E-06	0.0000	0.0000	4.83E-05
20	*	*	0.00	0.000	0.004	0.1397	11.0899	0.0095	6.48E-06	0.0000	0.0000	4.82E-05
21	*	*	0.00	0.000	0.002	0.1397	11.0694	0.0095	6.46E-06	0.0000	0.0000	4.82E-05
22	*	*	0.00	0.000	0.010	0.1397	11.0488	0.0095	6.44E-06	0.0000	0.0000	4.81E-05
23	*	*	0.00	0.000	0.012	0.1397	11.0282	0.0094	6.42E-06	0.0000	0.0000	4.81E-05

24	*	*	0.01	0.000	0.000	0.1397	11.0076	0.0094	6.40E-06	0.0000	0.0000	4.81E-05
25	*	*	0.12	0.000	0.006	0.1397	10.9869	0.0094	6.39E-06	0.0000	0.0000	4.80E-05
26	*	*	0.00	0.000	0.010	0.1397	10.9662	0.0094	6.37E-06	0.0000	0.0000	4.80E-05
27	*	*	0.02	0.000	0.000	0.1397	10.9454	0.0094	6.35E-06	0.0000	0.0000	4.79E-05
28	*	*	0.00	0.000	0.036	0.1397	10.9246	0.0094	6.33E-06	0.0000	0.0000	4.79E-05
29	*	*	0.00	0.000	0.018	0.1397	10.9038	0.0093	6.31E-06	0.0000	0.0000	4.78E-05
30	*	*	0.00	0.000	0.017	0.1397	10.8830	0.0093	6.30E-06	0.0000	0.0000	4.78E-05
31	*	*	0.00	0.000	0.018	0.1397	10.8621	0.0093	6.28E-06	0.0000	0.0000	4.77E-05
32	*	*	0.00	0.000	0.017	0.1397	10.8412	0.0093	6.26E-06	0.0000	0.0000	4.77E-05
33	*	*	0.00	0.000	0.029	0.1397	10.8203	0.0093	6.24E-06	0.0000	0.0000	4.77E-05
34	*	*	0.01	0.000	0.011	0.1397	10.7994	0.0093	6.22E-06	0.0000	0.0000	4.76E-05
35	*	*	0.00	0.000	0.005	0.1397	10.7785	0.0092	6.21E-06	0.0000	0.0000	4.76E-05
36	*	*	0.09	0.000	0.010	0.1397	10.7575	0.0092	6.19E-06	0.0000	0.0000	4.75E-05
37	*	*	0.04	0.000	0.000	0.1397	10.7366	0.0092	6.17E-06	0.0000	0.0000	4.75E-05
38	*	*	0.01	0.000	0.000	0.1397	10.7156	0.0092	6.15E-06	0.0000	0.0000	4.74E-05
39	*	*	0.01	0.000	0.026	0.1397	10.6947	0.0092	6.13E-06	0.0000	0.0000	4.74E-05
40	*	*	0.00	0.000	0.033	0.1397	10.6737	0.0091	6.12E-06	0.0000	0.0000	4.74E-05
41	*	*	0.00	0.000	0.014	0.1397	10.6527	0.0091	6.10E-06	0.0000	0.0000	4.73E-05
42	*	*	0.00	0.000	0.019	0.1397	10.6317	0.0091	6.08E-06	0.0000	0.0000	4.73E-05
43	*	*	0.00	0.000	0.016	0.1397	10.6107	0.0091	6.06E-06	0.0000	0.0000	4.72E-05
44	*	*	0.00	0.000	0.004	0.1397	10.5898	0.0091	6.04E-06	0.0000	0.0000	4.72E-05
45	*	*	0.19	0.000	0.005	0.1397	10.5688	0.0091	6.03E-06	0.0000	0.0000	4.71E-05
46	*	*	0.21	0.000	0.000	0.1397	10.5478	0.0090	6.01E-06	0.0000	0.0000	4.71E-05
47	*	*	0.00	0.000	0.005	0.1397	10.5268	0.0090	5.99E-06	0.0000	0.0000	4.71E-05
48	*	*	0.00	0.000	0.000	0.1397	10.5059	0.0090	5.97E-06	0.0000	0.0000	4.70E-05
49	*	*	0.12	0.000	0.007	0.1397	10.4849	0.0090	5.96E-06	0.0000	0.0000	4.70E-05
50	*	*	0.19	0.000	0.000	0.1397	10.4639	0.0090	5.94E-06	0.0000	0.0000	4.69E-05
51	*	*	0.19	0.000	0.000	0.1397	10.4430	0.0089	5.92E-06	0.0000	0.0000	4.69E-05
52	*	*	0.03	0.000	0.000	0.1397	10.4221	0.0089	5.90E-06	0.0000	0.0000	4.69E-05
53		*	0.04	0.000	0.000	0.1815	10.4011	0.0089	5.89E-06	0.0000	0.0000	4.68E-05
54		*	0.06	0.000	0.000	0.1838	10.3802	0.0089	5.87E-06	0.0000	0.0000	4.68E-05

55		*	0.01	0.000	0.000	0.1842	10.3593	0.0089	5.85E-06	0.0000	0.0000	4.67E-05
56		*	0.00	0.000	0.000	0.1844	10.3384	0.0089	5.83E-06	0.0000	0.0000	4.67E-05
57		*	0.01	0.000	0.000	0.1849	10.3175	0.0088	5.82E-06	0.0000	0.0000	4.67E-05
58		*	0.00	0.000	0.000	0.1849	10.2967	0.0088	5.80E-06	0.0000	0.0000	4.66E-05
59		*	0.00	0.000	0.000	0.1849	10.2758	0.0088	5.78E-06	0.0000	0.0000	4.66E-05
60		*	0.00	0.000	0.000	0.1849	10.2550	0.0088	5.76E-06	0.0000	0.0000	4.65E-05
61	*	*	0.00	0.000	0.000	0.1849	10.2342	0.0088	5.75E-06	0.0000	0.0000	4.65E-05
62		*	0.00	0.000	0.000	0.1849	10.2134	0.0088	5.73E-06	0.0000	0.0000	4.65E-05
63		*	0.00	0.000	0.000	0.1849	10.1926	0.0087	5.71E-06	0.0000	0.0000	4.64E-05
64		*	0.00	0.000	0.000	0.1849	10.1718	0.0087	5.69E-06	0.0000	0.0000	4.64E-05
65		*	0.00	0.000	0.000	0.1849	10.1511	0.0087	5.68E-06	0.0000	0.0000	4.63E-05
66	*	*	0.13	0.000	0.041	0.1849	10.1303	0.0087	5.66E-06	0.0000	0.0000	4.63E-05
67	*	*	0.07	0.000	0.037	0.1849	10.1096	0.0087	5.64E-06	0.0000	0.0000	4.63E-05
68		*	0.55	0.000	0.024	0.2117	10.0889	0.0086	5.63E-06	0.0000	0.0000	4.62E-05
69		*	0.00	0.000	0.000	0.2117	10.0683	0.0086	5.61E-06	0.0000	0.0000	4.62E-05
70		*	0.00	0.000	0.000	0.2117	10.0476	0.0086	5.59E-06	0.0000	0.0000	4.61E-05
71		*	0.13	0.000	0.000	0.2170	10.0270	0.0086	5.57E-06	0.0000	0.0000	4.61E-05
72			0.08	0.000	0.299	0.2078	10.0060	0.0086	5.56E-06	0.0000	0.0000	4.61E-05
73			0.11	0.000	0.092	0.2086	9.9852	0.0086	5.54E-06	0.0000	0.0000	4.60E-05
74			0.04	0.000	0.149	0.2041	9.9633	0.0085	5.52E-06	0.0000	0.0000	4.60E-05
75			0.26	0.000	0.163	0.2078	9.9405	0.0085	5.50E-06	0.0000	0.0000	4.59E-05
76	*		0.00	0.000	0.000	0.2078	9.9178	0.0085	5.49E-06	0.0000	0.0000	4.59E-05
77	*		0.01	0.000	0.006	0.2077	9.8953	0.0085	5.47E-06	0.0000	0.0000	4.59E-05
78	*		0.02	0.000	0.015	0.2081	9.8747	0.0085	5.45E-06	0.0000	0.0000	4.58E-05
79	*		0.00	0.000	0.000	0.2081	9.8546	0.0084	5.43E-06	0.0000	0.0000	4.58E-05
80	*		0.17	0.000	0.005	0.2090	9.8345	0.0084	5.42E-06	0.0000	0.0000	4.58E-05
81	*		0.29	0.000	0.000	0.2098	9.8144	0.0084	5.40E-06	0.0000	0.0000	4.57E-05
82	*		0.00	0.000	0.012	0.2106	9.7944	0.0084	5.38E-06	0.0000	0.0000	4.57E-05
83	*	*	0.01	0.000	0.015	0.2106	9.7743	0.0084	5.37E-06	0.0000	0.0000	4.56E-05
84	*	*	0.05	0.000	0.018	0.2106	9.7543	0.0084	5.35E-06	0.0000	0.0000	4.56E-05
85		*	0.01	0.000	0.015	0.2268	9.7343	0.0083	5.34E-06	0.0000	0.0000	4.56E-05

86		*	0.00	0.000	0.000	0.2268	9.7144	0.0083	5.32E-06	0.0000	0.0000	4.55E-05
87		*	0.00	0.000	0.000	0.2268	9.6944	0.0083	5.30E-06	0.0000	0.0000	4.55E-05
88		*	0.00	0.000	0.000	0.2268	9.6745	0.0083	5.29E-06	0.0000	0.0000	4.55E-05
89		*	0.00	0.000	0.000	0.2269	9.6546	0.0083	5.27E-06	0.0000	0.0000	4.54E-05
90		*	0.65	0.000	0.000	0.2540	9.6347	0.0083	5.26E-06	0.0000	0.0000	4.54E-05
91		*	0.03	0.000	0.000	0.2554	9.6148	0.0082	5.24E-06	0.0000	0.0000	4.53E-05
92		*	0.03	0.000	0.000	0.2568	9.5950	0.0082	5.22E-06	0.0000	0.0000	4.53E-05
93		*	0.00	0.000	0.000	0.2568	9.5752	0.0082	5.21E-06	0.0000	0.0000	4.53E-05
94		*	0.00	0.000	0.000	0.2568	9.5554	0.0082	5.19E-06	0.0000	0.0000	4.52E-05
95		*	0.00	0.000	0.000	0.2568	9.5356	0.0082	5.18E-06	0.0000	0.0000	4.52E-05
96		*	0.00	0.000	0.000	0.2568	9.5159	0.0082	5.16E-06	0.0000	0.0000	4.52E-05
97	*	*	0.00	0.000	0.000	0.2568	9.4962	0.0081	5.15E-06	0.0000	0.0000	4.51E-05
98		*	0.00	0.000	0.000	0.2568	9.4765	0.0081	5.13E-06	0.0000	0.0000	4.51E-05
99		*	0.00	0.000	0.000	0.2568	9.4568	0.0081	5.11E-06	0.0000	0.0000	4.51E-05
100			0.00	0.000	0.141	0.2508	9.4371	0.0081	5.10E-06	0.0000	0.0000	4.50E-05
101			0.00	0.000	0.354	0.2346	9.4172	0.0081	5.08E-06	0.0000	0.0000	4.50E-05
102			0.06	0.000	0.416	0.2131	9.3965	0.0081	5.07E-06	0.0000	0.0000	4.50E-05
103			0.57	0.000	0.221	0.2220	9.3750	0.0080	5.05E-06	0.0000	0.0000	4.49E-05
104			0.86	0.000	0.609	0.2270	9.3536	0.0080	5.03E-06	0.0000	0.0000	4.49E-05
105			0.00	0.000	0.673	0.1954	9.3322	0.0080	5.02E-06	0.0000	0.0000	4.49E-05
106			0.09	0.000	0.365	0.1810	9.3825	0.0080	5.06E-06	0.0000	0.0000	4.49E-05
107			0.07	0.000	0.177	0.1744	9.4983	0.0081	5.15E-06	0.0000	0.0000	4.49E-05
108			0.01	0.000	0.073	0.1693	9.6145	0.0082	5.24E-06	0.0000	0.0000	4.50E-05
109			0.00	0.000	0.056	0.1648	9.7419	0.0083	5.34E-06	0.0000	0.0000	4.51E-05
110			0.02	0.000	0.047	0.1616	9.8768	0.0085	5.45E-06	0.0000	0.0000	4.52E-05
111			0.00	0.000	0.042	0.1583	10.0110	0.0086	5.56E-06	0.0000	0.0000	4.53E-05
112			0.01	0.000	0.038	0.1557	10.1303	0.0087	5.66E-06	0.0000	0.0000	4.54E-05
113	*		0.00	0.000	0.035	0.1531	10.2339	0.0088	5.75E-06	0.0000	0.0000	4.54E-05
114			0.60	0.000	0.032	0.1758	10.3264	0.0088	5.82E-06	0.0000	0.0000	4.55E-05
115			0.33	0.000	0.205	0.1799	10.4027	0.0089	5.89E-06	0.0000	0.0000	4.55E-05
116	*		0.41	0.000	0.052	0.1801	10.4797	0.0090	5.95E-06	0.0000	0.0000	4.56E-05

117		0.54	0.000	0.119	0.2111	10.5477	0.0090	6.01E-06	0.0000	0.0000	4.56E-05
118		0.02	0.000	0.076	0.2081	10.5948	0.0091	6.05E-06	0.0000	0.0000	4.56E-05
119		0.00	0.000	0.156	0.2008	10.6339	0.0091	6.08E-06	0.0000	0.0000	4.56E-05
120		0.32	0.000	0.184	0.2057	10.6760	0.0091	6.12E-06	0.0000	0.0000	4.56E-05
121		0.00	0.000	0.203	0.1968	10.7267	0.0092	6.16E-06	0.0000	0.0000	4.57E-05
122		0.00	0.000	0.115	0.1914	10.7552	0.0092	6.19E-06	0.0000	0.0000	4.57E-05
123		0.55	0.000	0.255	0.2033	10.7877	0.0092	6.21E-06	0.0000	0.0000	4.57E-05
124		0.22	0.000	0.365	0.1966	10.8202	0.0093	6.24E-06	0.0000	0.0000	4.57E-05
125		0.09	0.000	0.222	0.1905	10.8384	0.0093	6.26E-06	0.0000	0.0000	4.57E-05
126		0.02	0.000	0.251	0.1803	10.8521	0.0093	6.27E-06	0.0000	0.0000	4.56E-05
127		0.23	0.000	0.289	0.1772	10.8708	0.0093	6.29E-06	0.0000	0.0000	4.56E-05
128		0.00	0.000	0.194	0.1686	10.8861	0.0093	6.30E-06	0.0000	0.0000	4.56E-05
129		0.02	0.000	0.101	0.1649	10.9007	0.0093	6.31E-06	0.0000	0.0000	4.56E-05
130		0.58	0.000	0.314	0.1757	10.9161	0.0094	6.32E-06	0.0000	0.0000	4.56E-05
131		0.14	0.000	0.103	0.1764	10.9250	0.0094	6.33E-06	0.0000	0.0000	4.56E-05
132		0.00	0.000	0.319	0.1625	10.9267	0.0094	6.33E-06	0.0000	0.0000	4.56E-05
133		0.10	0.000	0.400	0.1496	10.9369	0.0094	6.34E-06	0.0000	0.0000	4.55E-05
134		0.06	0.000	0.177	0.1445	10.9527	0.0094	6.36E-06	0.0000	0.0000	4.55E-05
135		0.00	0.000	0.073	0.1413	10.9761	0.0094	6.38E-06	0.0000	0.0000	4.55E-05
136		0.00	0.000	0.056	0.1388	11.0002	0.0094	6.40E-06	0.0000	0.0000	4.55E-05
137		0.13	0.000	0.048	0.1418	11.0128	0.0094	6.41E-06	0.0000	0.0000	4.55E-05
138		0.00	0.000	0.042	0.1398	11.0202	0.0094	6.41E-06	0.0000	0.0000	4.55E-05
139	*	0.00	0.000	0.000	0.1396	11.0263	0.0094	6.42E-06	0.0000	0.0000	4.55E-05
140	*	0.00	0.000	0.000	0.1394	11.0323	0.0095	6.43E-06	0.0000	0.0000	4.55E-05
141		0.47	0.000	0.038	0.1570	11.0334	0.0095	6.43E-06	0.0000	0.0000	4.54E-05
142	*	0.03	0.000	0.061	0.1552	11.0314	0.0095	6.42E-06	0.0000	0.0000	4.54E-05
143		0.29	0.000	0.033	0.1658	11.0300	0.0095	6.42E-06	0.0000	0.0000	4.54E-05
144		0.00	0.000	0.203	0.1570	11.0258	0.0094	6.42E-06	0.0000	0.0000	4.53E-05
145		3.72	0.000	0.031	0.2219	11.0238	0.0094	6.42E-06	0.0000	0.0000	4.53E-05
146		0.00	0.000	0.119	0.2812	11.0286	0.0094	6.42E-06	0.0000	0.0000	4.53E-05
147		0.00	0.000	0.286	0.2933	11.0238	0.0094	6.42E-06	0.0000	0.0000	4.53E-05

148	0.00	0.000	0.376	0.2482	11.0696	0.0095	6.46E-06	0.0000	0.0000	4.53E-05
149	0.00	0.000	0.329	0.2264	11.7078	0.0100	7.03E-06	0.0000	0.0000	4.58E-05
150	0.00	0.000	0.185	0.2134	14.0796	0.0176	9.31E-06	0.0000	0.0000	4.81E-05
151	0.00	0.000	0.131	0.2027	14.2835	0.0183	9.51E-06	0.0000	0.0000	4.82E-05
152	1.20	0.000	0.123	0.2428	14.4899	0.0190	9.73E-06	0.0000	0.0000	4.84E-05
153	0.00	0.000	0.136	0.2335	14.6548	0.0196	9.90E-06	0.0000	0.0000	4.86E-05
154	0.70	0.000	0.203	0.2515	14.7645	0.0200	1.00E-05	0.0000	0.0000	4.86E-05
155	0.05	0.000	0.149	0.2449	14.8610	0.0203	1.01E-05	0.0000	0.0000	4.87E-05
156	0.00	0.000	0.272	0.2306	14.9448	0.0206	1.02E-05	0.0000	0.0000	4.87E-05
157	0.00	0.000	0.274	0.2185	15.0049	0.0208	1.03E-05	0.0000	0.0000	4.88E-05
158	0.26	0.000	0.346	0.2139	14.9974	0.0208	1.03E-05	0.0000	0.0000	4.87E-05
159	0.39	0.000	0.198	0.2183	15.0567	0.0210	1.03E-05	0.0000	0.0000	4.87E-05
160	0.00	0.000	0.318	0.2012	15.1989	0.0215	1.05E-05	0.0000	0.0000	4.88E-05
161	1.01	0.000	0.148	0.2339	15.3339	0.0220	1.06E-05	0.0000	0.0000	4.89E-05
162	0.33	0.000	0.376	0.2298	15.4298	0.0223	1.07E-05	0.0000	0.0000	4.90E-05
163	1.00	0.000	0.348	0.2542	15.4837	0.0225	1.08E-05	0.0000	0.0000	4.90E-05
164	0.00	0.000	0.322	0.2384	15.5511	0.0228	1.09E-05	0.0000	0.0000	4.90E-05
165	0.00	0.000	0.386	0.2208	15.6275	0.0230	1.09E-05	0.0000	0.0000	4.91E-05
166	0.00	0.000	0.320	0.2074	15.6168	0.0230	1.09E-05	0.0000	0.0000	4.90E-05
167	0.00	0.000	0.285	0.1914	15.6340	0.0230	1.09E-05	0.0000	0.0000	4.90E-05
168	0.00	0.000	0.177	0.1795	15.8075	0.0237	1.11E-05	0.0000	0.0000	4.91E-05
169	0.00	0.000	0.073	0.1727	15.9611	0.0242	1.13E-05	0.0000	0.0000	4.93E-05
170	0.00	0.000	0.056	0.1672	16.0773	0.0246	1.14E-05	0.0000	0.0000	4.93E-05
171	0.00	0.000	0.047	0.1626	16.1717	0.0249	1.15E-05	0.0000	0.0000	4.94E-05
172	0.00	0.000	0.042	0.1597	16.2261	0.0251	1.16E-05	0.0000	0.0000	4.94E-05
173	0.00	0.000	0.038	0.1568	16.2253	0.0251	1.16E-05	0.0000	0.0000	4.94E-05
174	0.00	0.000	0.035	0.1536	16.2478	0.0252	1.16E-05	0.0000	0.0000	4.94E-05
175	0.13	0.000	0.033	0.1559	16.2870	0.0253	1.17E-05	0.0000	0.0000	4.93E-05
176	0.13	0.000	0.031	0.1585	16.3245	0.0255	1.17E-05	0.0000	0.0000	4.93E-05
177	0.00	0.000	0.029	0.1557	16.3539	0.0256	1.17E-05	0.0000	0.0000	4.93E-05
178	0.00	0.000	0.028	0.1533	16.3745	0.0256	1.18E-05	0.0000	0.0000	4.93E-05

179	0.92	0.000	0.025	0.1892	16.3859	0.0257	1.18E-05	0.0000	0.0000	4.93E-05
180	0.17	0.000	0.160	0.1885	16.3970	0.0257	1.18E-05	0.0000	0.0000	4.92E-05
181	0.03	0.000	0.171	0.1815	16.4038	0.0258	1.18E-05	0.0000	0.0000	4.92E-05
182	0.11	0.000	0.179	0.1776	16.3989	0.0257	1.18E-05	0.0000	0.0000	4.91E-05
183	0.15	0.000	0.194	0.1756	16.3726	0.0256	1.18E-05	0.0000	0.0000	4.91E-05
184	0.00	0.000	0.368	0.1595	16.3399	0.0255	1.17E-05	0.0000	0.0000	4.90E-05
185	0.00	0.000	0.169	0.1516	16.3289	0.0255	1.17E-05	0.0000	0.0000	4.89E-05
186	0.00	0.000	0.066	0.1484	16.3132	0.0254	1.17E-05	0.0000	0.0000	4.89E-05
187	0.09	0.000	0.057	0.1487	16.2951	0.0254	1.17E-05	0.0000	0.0000	4.88E-05
188	0.00	0.000	0.047	0.1459	16.2926	0.0254	1.17E-05	0.0000	0.0000	4.87E-05
189	0.23	0.000	0.042	0.1530	16.2851	0.0253	1.17E-05	0.0000	0.0000	4.87E-05
190	0.00	0.000	0.038	0.1503	16.2817	0.0253	1.17E-05	0.0000	0.0000	4.86E-05
191	0.00	0.000	0.035	0.1481	16.2764	0.0253	1.17E-05	0.0000	0.0000	4.86E-05
192	0.00	0.000	0.032	0.1461	16.2609	0.0253	1.16E-05	0.0000	0.0000	4.85E-05
193	0.02	0.000	0.031	0.1454	16.2356	0.0252	1.16E-05	0.0000	0.0000	4.85E-05
194	2.50	0.000	0.029	0.2094	16.2055	0.0251	1.16E-05	0.0000	0.0000	4.84E-05
195	0.08	0.000	0.367	0.2354	16.1791	0.0250	1.15E-05	0.0000	0.0000	4.83E-05
196	0.00	0.000	0.380	0.2193	16.1487	0.0249	1.15E-05	0.0000	0.0000	4.82E-05
197	0.04	0.000	0.350	0.2054	16.1238	0.0248	1.15E-05	0.0000	0.0000	4.81E-05
198	2.50	0.000	0.250	0.2677	16.1084	0.0247	1.15E-05	0.0000	0.0000	4.81E-05
199	0.00	0.000	0.174	0.2912	16.0784	0.0246	1.14E-05	0.0000	0.0000	4.80E-05
200	0.00	0.000	0.345	0.2555	16.3709	0.0256	1.18E-05	0.0000	0.0000	4.83E-05
201	0.02	0.000	0.168	0.2398	17.1745	0.0285	1.27E-05	0.0000	0.0000	4.92E-05
202	0.00	0.000	0.224	0.2216	17.5512	0.0298	1.31E-05	0.0000	0.0000	4.96E-05
203	0.28	0.000	0.170	0.2201	17.8741	0.0309	1.35E-05	0.0000	0.0000	4.99E-05
204	0.00	0.000	0.166	0.2118	19.1377	0.0354	1.50E-05	0.0000	0.0000	5.14E-05
205	0.00	0.000	0.329	0.1966	19.2246	0.0357	1.52E-05	0.0000	0.0000	5.14E-05
206	0.00	0.000	0.177	0.1878	19.2801	0.0359	1.52E-05	0.0000	0.0000	5.14E-05
207	0.00	0.000	0.073	0.1832	19.3143	0.0360	1.53E-05	0.0000	0.0000	5.14E-05
208	0.07	0.000	0.057	0.1824	19.3382	0.0361	1.53E-05	0.0000	0.0000	5.14E-05
209	0.15	0.000	0.048	0.1853	19.3497	0.0361	1.53E-05	0.0000	0.0000	5.13E-05

210	0.00	0.000	0.042	0.1820	19.3467	0.0361	1.53E-05	0.0000	0.0000	5.13E-05
211	0.00	0.000	0.038	0.1790	19.3362	0.0361	1.53E-05	0.0000	0.0000	5.12E-05
212	0.00	0.000	0.035	0.1760	19.3187	0.0360	1.53E-05	0.0000	0.0000	5.11E-05
213	0.00	0.000	0.032	0.1732	19.2932	0.0359	1.52E-05	0.0000	0.0000	5.10E-05
214	0.05	0.000	0.031	0.1725	19.2619	0.0358	1.52E-05	0.0000	0.0000	5.09E-05
215	0.14	0.000	0.029	0.1758	19.2264	0.0357	1.52E-05	0.0000	0.0000	5.08E-05
216	0.00	0.000	0.027	0.1732	19.1875	0.0355	1.51E-05	0.0000	0.0000	5.07E-05
217	0.20	0.000	0.027	0.1789	19.1460	0.0354	1.51E-05	0.0000	0.0000	5.06E-05
218	0.00	0.000	0.025	0.1764	19.1023	0.0352	1.50E-05	0.0000	0.0000	5.05E-05
219	0.00	0.000	0.024	0.1739	19.0539	0.0351	1.49E-05	0.0000	0.0000	5.04E-05
220	0.00	0.000	0.023	0.1715	19.0072	0.0349	1.49E-05	0.0000	0.0000	5.02E-05
221	0.00	0.000	0.022	0.1691	18.9614	0.0347	1.48E-05	0.0000	0.0000	5.01E-05
222	0.00	0.000	0.022	0.1667	18.9140	0.0346	1.48E-05	0.0000	0.0000	5.00E-05
223	0.00	0.000	0.021	0.1644	18.8651	0.0344	1.47E-05	0.0000	0.0000	4.99E-05
224	0.09	0.000	0.021	0.1659	18.2066	0.0321	1.39E-05	0.0000	0.0000	4.90E-05
225	0.25	0.000	0.020	0.1747	17.9877	0.0313	1.36E-05	0.0000	0.0000	4.87E-05
226	0.71	0.000	0.153	0.1973	17.9640	0.0312	1.36E-05	0.0000	0.0000	4.86E-05
227	0.00	0.000	0.257	0.1858	17.9428	0.0312	1.36E-05	0.0000	0.0000	4.86E-05
228	0.28	0.000	0.310	0.1839	17.9177	0.0311	1.36E-05	0.0000	0.0000	4.85E-05
229	0.00	0.000	0.312	0.1705	17.8783	0.0309	1.35E-05	0.0000	0.0000	4.84E-05
230	0.24	0.000	0.273	0.1685	17.8445	0.0308	1.35E-05	0.0000	0.0000	4.83E-05
231	0.00	0.000	0.296	0.1557	17.8112	0.0307	1.34E-05	0.0000	0.0000	4.82E-05
232	0.28	0.000	0.177	0.1595	17.7697	0.0306	1.34E-05	0.0000	0.0000	4.81E-05
233	0.00	0.000	0.073	0.1564	17.7167	0.0304	1.33E-05	0.0000	0.0000	4.80E-05
234	0.10	0.000	0.057	0.1580	17.6621	0.0302	1.33E-05	0.0000	0.0000	4.79E-05
235	0.00	0.000	0.047	0.1557	17.6129	0.0300	1.32E-05	0.0000	0.0000	4.78E-05
236	0.00	0.000	0.042	0.1537	17.5668	0.0298	1.31E-05	0.0000	0.0000	4.77E-05
237	0.00	0.000	0.038	0.1517	17.5241	0.0297	1.31E-05	0.0000	0.0000	4.76E-05
238	0.00	0.000	0.035	0.1497	17.4879	0.0296	1.30E-05	0.0000	0.0000	4.75E-05
239	0.00	0.000	0.032	0.1479	17.4520	0.0294	1.30E-05	0.0000	0.0000	4.74E-05
240	0.24	0.000	0.031	0.1563	17.4152	0.0293	1.30E-05	0.0000	0.0000	4.73E-05

241	0.37	0.000	0.029	0.1701	17.3775	0.0292	1.29E-05	0.0000	0.0000	4.72E-05
242	0.10	0.000	0.335	0.1601	17.3412	0.0290	1.29E-05	0.0000	0.0000	4.71E-05
243	0.00	0.000	0.027	0.1586	17.2957	0.0289	1.28E-05	0.0000	0.0000	4.70E-05
244	0.00	0.000	0.026	0.1570	17.2601	0.0288	1.28E-05	0.0000	0.0000	4.69E-05
245	0.00	0.000	0.025	0.1555	17.2248	0.0286	1.27E-05	0.0000	0.0000	4.68E-05
246	0.00	0.000	0.024	0.1544	17.1847	0.0285	1.27E-05	0.0000	0.0000	4.67E-05
247	0.00	0.000	0.024	0.1533	17.1422	0.0283	1.26E-05	0.0000	0.0000	4.66E-05
248	0.08	0.000	0.023	0.1555	17.0980	0.0282	1.26E-05	0.0000	0.0000	4.65E-05
249	0.07	0.000	0.022	0.1574	17.0510	0.0280	1.25E-05	0.0000	0.0000	4.64E-05
250	0.00	0.000	0.021	0.1562	17.0060	0.0279	1.25E-05	0.0000	0.0000	4.63E-05
251	0.03	0.000	0.021	0.1564	16.9666	0.0277	1.24E-05	0.0000	0.0000	4.63E-05
252	0.00	0.000	0.020	0.1553	16.9232	0.0276	1.24E-05	0.0000	0.0000	4.62E-05
253	0.09	0.000	0.020	0.1579	16.8827	0.0274	1.23E-05	0.0000	0.0000	4.61E-05
254	1.06	0.000	0.019	0.2010	16.8405	0.0273	1.23E-05	0.0000	0.0000	4.60E-05
255	0.00	0.000	0.151	0.1945	16.8018	0.0272	1.22E-05	0.0000	0.0000	4.59E-05
256	0.63	0.000	0.177	0.2134	16.7538	0.0270	1.22E-05	0.0000	0.0000	4.58E-05
257	0.00	0.000	0.210	0.2045	16.7084	0.0268	1.21E-05	0.0000	0.0000	4.57E-05
258	0.00	0.000	0.229	0.1949	16.6595	0.0267	1.21E-05	0.0000	0.0000	4.56E-05
259	0.00	0.000	0.158	0.1881	16.6122	0.0265	1.20E-05	0.0000	0.0000	4.55E-05
260	0.00	0.000	0.241	0.1779	16.5674	0.0263	1.20E-05	0.0000	0.0000	4.54E-05
261	0.00	0.000	0.235	0.1678	16.5243	0.0262	1.19E-05	0.0000	0.0000	4.53E-05
262	0.00	0.000	0.177	0.1600	16.4910	0.0261	1.19E-05	0.0000	0.0000	4.52E-05
263	0.15	0.000	0.073	0.1630	16.4574	0.0259	1.19E-05	0.0000	0.0000	4.52E-05
264	0.33	0.000	0.056	0.1740	16.4220	0.0258	1.18E-05	0.0000	0.0000	4.51E-05
265	0.00	0.000	0.114	0.1690	16.3852	0.0257	1.18E-05	0.0000	0.0000	4.50E-05
266	0.00	0.000	0.151	0.1625	16.3473	0.0256	1.17E-05	0.0000	0.0000	4.49E-05
267	0.00	0.000	0.177	0.1549	16.3076	0.0254	1.17E-05	0.0000	0.0000	4.48E-05
268	0.00	0.000	0.073	0.1516	16.2667	0.0253	1.16E-05	0.0000	0.0000	4.48E-05
269	0.00	0.000	0.055	0.1491	16.2271	0.0251	1.16E-05	0.0000	0.0000	4.47E-05
270	0.00	0.000	0.047	0.1470	16.1856	0.0250	1.16E-05	0.0000	0.0000	4.46E-05
271	0.00	0.000	0.042	0.1453	16.1396	0.0248	1.15E-05	0.0000	0.0000	4.45E-05

272		0.00	0.000	0.038	0.1437	16.0907	0.0247	1.14E-05	0.0000	0.0000	4.44E-05
273		0.00	0.000	0.035	0.1421	16.0439	0.0245	1.14E-05	0.0000	0.0000	4.43E-05
274		0.00	0.000	0.032	0.1406	16.0030	0.0243	1.13E-05	0.0000	0.0000	4.42E-05
275		0.00	0.000	0.030	0.1394	15.9562	0.0242	1.13E-05	0.0000	0.0000	4.41E-05
276		0.60	0.000	0.029	0.1633	15.9082	0.0240	1.12E-05	0.0000	0.0000	4.41E-05
277		0.00	0.000	0.027	0.1622	15.8605	0.0238	1.12E-05	0.0000	0.0000	4.40E-05
278		0.00	0.000	0.026	0.1611	15.8131	0.0237	1.11E-05	0.0000	0.0000	4.39E-05
279		0.00	0.000	0.025	0.1600	15.7663	0.0235	1.11E-05	0.0000	0.0000	4.38E-05
280	*	0.24	0.000	0.036	0.1608	15.7214	0.0234	1.10E-05	0.0000	0.0000	4.37E-05
281		0.00	0.000	0.081	0.1652	15.6796	0.0232	1.10E-05	0.0000	0.0000	4.36E-05
282		0.00	0.000	0.193	0.1566	15.6476	0.0231	1.10E-05	0.0000	0.0000	4.36E-05
283		0.00	0.000	0.024	0.1555	15.6155	0.0230	1.09E-05	0.0000	0.0000	4.35E-05
284		0.00	0.000	0.023	0.1544	15.5761	0.0228	1.09E-05	0.0000	0.0000	4.34E-05
285		0.00	0.000	0.022	0.1532	15.5415	0.0227	1.08E-05	0.0000	0.0000	4.33E-05
286		0.01	0.000	0.022	0.1525	15.5097	0.0226	1.08E-05	0.0000	0.0000	4.33E-05
287		0.00	0.000	0.021	0.1514	15.4790	0.0225	1.08E-05	0.0000	0.0000	4.32E-05
288		0.00	0.000	0.021	0.1502	15.4481	0.0224	1.07E-05	0.0000	0.0000	4.31E-05
289		0.00	0.000	0.020	0.1489	15.4218	0.0223	1.07E-05	0.0000	0.0000	4.31E-05
290		0.00	0.000	0.020	0.1477	15.3969	0.0222	1.07E-05	0.0000	0.0000	4.30E-05
291		0.00	0.000	0.019	0.1466	15.3711	0.0221	1.07E-05	0.0000	0.0000	4.29E-05
292	*	0.05	0.000	0.029	0.1470	15.3441	0.0220	1.06E-05	0.0000	0.0000	4.29E-05
293	*	0.00	0.000	0.002	0.1467	15.3162	0.0219	1.06E-05	0.0000	0.0000	4.28E-05
294	*	0.00	0.000	0.000	0.1464	15.2885	0.0218	1.06E-05	0.0000	0.0000	4.28E-05
295		0.00	0.000	0.019	0.1453	15.2600	0.0217	1.05E-05	0.0000	0.0000	4.27E-05
296	*	0.01	0.000	0.011	0.1450	15.2315	0.0216	1.05E-05	0.0000	0.0000	4.26E-05
297	*	0.00	0.000	0.021	0.1439	15.2050	0.0215	1.05E-05	0.0000	0.0000	4.26E-05
298	*	0.43	0.000	0.039	0.1444	15.1780	0.0214	1.05E-05	0.0000	0.0000	4.25E-05
299		0.00	0.000	0.024	0.1585	15.1493	0.0213	1.04E-05	0.0000	0.0000	4.25E-05
300		0.00	0.000	0.018	0.1575	15.1210	0.0212	1.04E-05	0.0000	0.0000	4.24E-05
301		0.00	0.000	0.018	0.1565	15.0930	0.0211	1.04E-05	0.0000	0.0000	4.23E-05
302		0.07	0.000	0.017	0.1584	15.0642	0.0210	1.03E-05	0.0000	0.0000	4.23E-05

303			0.00	0.000	0.086	0.1545	15.0369	0.0210	1.03E-05	0.0000	0.0000	4.22E-05
304			0.00	0.000	0.017	0.1536	15.0093	0.0209	1.03E-05	0.0000	0.0000	4.21E-05
305	*		0.00	0.000	0.017	0.1527	14.9769	0.0207	1.02E-05	0.0000	0.0000	4.21E-05
306			0.01	0.000	0.016	0.1522	14.9446	0.0206	1.02E-05	0.0000	0.0000	4.20E-05
307			0.21	0.000	0.016	0.1601	14.9122	0.0205	1.02E-05	0.0000	0.0000	4.20E-05
308	*		0.00	0.000	0.000	0.1599	14.8799	0.0204	1.01E-05	0.0000	0.0000	4.19E-05
309	*		0.00	0.000	0.057	0.1572	14.8501	0.0203	1.01E-05	0.0000	0.0000	4.18E-05
310	*		0.00	0.000	0.000	0.1571	14.8207	0.0202	1.01E-05	0.0000	0.0000	4.18E-05
311	*		0.00	0.000	0.000	0.1570	14.7860	0.0201	1.00E-05	0.0000	0.0000	4.17E-05
312	*		0.23	0.000	0.015	0.1577	14.7524	0.0200	1.00E-05	0.0000	0.0000	4.16E-05
313	*		0.56	0.000	0.016	0.1583	14.7196	0.0198	9.97E-06	0.0000	0.0000	4.16E-05
314	*		0.00	0.000	0.025	0.1590	14.6869	0.0197	9.93E-06	0.0000	0.0000	4.15E-05
315	*	*	0.00	0.000	0.027	0.1590	14.6519	0.0196	9.90E-06	0.0000	0.0000	4.14E-05
316	*	*	0.00	0.000	0.024	0.1590	14.6129	0.0195	9.85E-06	0.0000	0.0000	4.14E-05
317	*	*	0.07	0.000	0.022	0.1590	14.5742	0.0193	9.81E-06	0.0000	0.0000	4.13E-05
318	*	*	0.00	0.000	0.033	0.1590	14.5358	0.0192	9.77E-06	0.0000	0.0000	4.12E-05
319		*	0.00	0.000	0.000	0.1857	14.4977	0.0191	9.73E-06	0.0000	0.0000	4.12E-05
320		*	0.00	0.000	0.000	0.1857	14.4598	0.0189	9.70E-06	0.0000	0.0000	4.11E-05
321		*	0.00	0.000	0.000	0.1857	14.4222	0.0188	9.66E-06	0.0000	0.0000	4.10E-05
322		*	0.00	0.000	0.000	0.1857	14.3848	0.0187	9.62E-06	0.0000	0.0000	4.10E-05
323		*	0.00	0.000	0.000	0.1857	14.3477	0.0185	9.58E-06	0.0000	0.0000	4.09E-05
324	*	*	0.02	0.000	0.024	0.1857	14.3109	0.0184	9.54E-06	0.0000	0.0000	4.08E-05
325		*	0.21	0.000	0.000	0.1945	14.2743	0.0183	9.50E-06	0.0000	0.0000	4.08E-05
326		*	0.00	0.000	0.000	0.1945	14.2380	0.0181	9.47E-06	0.0000	0.0000	4.07E-05
327		*	0.00	0.000	0.000	0.1945	14.2019	0.0180	9.43E-06	0.0000	0.0000	4.07E-05
328		*	0.00	0.000	0.000	0.1945	14.1661	0.0179	9.39E-06	0.0000	0.0000	4.06E-05
329		*	0.00	0.000	0.000	0.1945	14.1306	0.0178	9.36E-06	0.0000	0.0000	4.05E-05
330	*	*	0.00	0.000	0.000	0.1945	14.0952	0.0176	9.32E-06	0.0000	0.0000	4.05E-05
331	*	*	0.25	0.000	0.014	0.1945	14.0602	0.0175	9.29E-06	0.0000	0.0000	4.04E-05
332		*	0.00	0.000	0.018	0.2036	14.0253	0.0174	9.25E-06	0.0000	0.0000	4.04E-05
333		*	0.09	0.000	0.000	0.2075	13.9908	0.0173	9.21E-06	0.0000	0.0000	4.03E-05

334		*	0.00	0.000	0.000	0.2075	13.9564	0.0172	9.18E-06	0.0000	0.0000	4.02E-05
335	*	*	0.00	0.000	0.000	0.2075	13.9223	0.0170	9.15E-06	0.0000	0.0000	4.02E-05
336		*	0.00	0.000	0.000	0.2075	13.8884	0.0169	9.11E-06	0.0000	0.0000	4.01E-05
337		*	0.00	0.000	0.000	0.2075	13.8548	0.0168	9.08E-06	0.0000	0.0000	4.01E-05
338		*	0.00	0.000	0.000	0.2075	13.8214	0.0167	9.04E-06	0.0000	0.0000	4.00E-05
339		*	0.00	0.000	0.000	0.2075	13.7883	0.0166	9.01E-06	0.0000	0.0000	3.99E-05
340			0.00	0.000	0.094	0.2034	13.7608	0.0165	8.98E-06	0.0000	0.0000	3.99E-05
341	*		0.00	0.000	0.000	0.2033	13.7356	0.0164	8.96E-06	0.0000	0.0000	3.98E-05
342			0.00	0.000	0.073	0.2002	13.7077	0.0163	8.93E-06	0.0000	0.0000	3.98E-05
343	*		0.00	0.000	0.000	0.2000	13.6808	0.0162	8.90E-06	0.0000	0.0000	3.97E-05
344	*		0.00	0.000	0.001	0.1998	13.6564	0.0161	8.88E-06	0.0000	0.0000	3.97E-05
345	*		0.20	0.000	0.010	0.2004	13.6327	0.0160	8.85E-06	0.0000	0.0000	3.97E-05
346	*		0.00	0.000	0.011	0.2010	13.6136	0.0160	8.84E-06	0.0000	0.0000	3.96E-05
347	*		0.05	0.000	0.018	0.2015	13.5953	0.0159	8.82E-06	0.0000	0.0000	3.96E-05
348	*		0.00	0.000	0.019	0.2021	13.5759	0.0158	8.80E-06	0.0000	0.0000	3.95E-05
349			0.00	0.000	0.046	0.2050	13.5557	0.0157	8.78E-06	0.0000	0.0000	3.95E-05
350	*		0.00	0.000	0.044	0.2030	13.5348	0.0157	8.76E-06	0.0000	0.0000	3.94E-05
351	*		0.00	0.000	0.004	0.2028	13.5133	0.0156	8.74E-06	0.0000	0.0000	3.94E-05
352			0.21	0.000	0.067	0.2086	13.4896	0.0155	8.71E-06	0.0000	0.0000	3.94E-05
353			0.39	0.000	0.097	0.2207	13.4640	0.0154	8.69E-06	0.0000	0.0000	3.93E-05
354			0.16	0.000	0.092	0.2234	13.4365	0.0153	8.66E-06	0.0000	0.0000	3.93E-05
355			0.21	0.000	0.089	0.2282	13.4094	0.0152	8.63E-06	0.0000	0.0000	3.92E-05
356			0.00	0.000	0.071	0.2252	13.3830	0.0151	8.61E-06	0.0000	0.0000	3.92E-05
357			0.00	0.000	0.050	0.2231	13.3554	0.0150	8.58E-06	0.0000	0.0000	3.91E-05
358			0.00	0.000	0.051	0.2204	13.3363	0.0150	8.56E-06	0.0000	0.0000	3.91E-05
359			0.00	0.000	0.056	0.2176	13.3324	0.0150	8.56E-06	0.0000	0.0000	3.91E-05
360	*		0.00	0.000	0.041	0.2159	13.3150	0.0149	8.54E-06	0.0000	0.0000	3.90E-05
361	*		0.00	0.000	0.000	0.2159	13.2854	0.0148	8.51E-06	0.0000	0.0000	3.90E-05
362	*		0.00	0.000	0.043	0.2140	13.2560	0.0147	8.48E-06	0.0000	0.0000	3.89E-05
363	*		0.05	0.000	0.028	0.2136	12.9377	0.0136	8.18E-06	0.0000	0.0000	3.86E-05
364	*	*	0.23	0.000	0.010	0.2136	12.9448	0.0136	8.19E-06	0.0000	0.0000	3.86E-05

365	*	*	0.11	0.000	0.012	0.2136	13.2355	0.0146	8.46E-06	0.0000	0.0000	3.88E-05

* = Frozen (air or soil)

Annual Totals for Year 4			
	inches	cubic feet	percent
Precipitation	37.76	137,058.7	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.461	103,312.0	75.38
Drainage Collected from Layer 3	6.5148	23,648.7	17.25
Percolation/Leakage through Layer 4	0.003332	12.1	0.01
Average Head on Top of Layer 4	13.6742	---	---
Percolation/Leakage through Layer 6	0.016737	60.8	0.04
Change in Water Storage	2.7651	10,037.3	7.32
Soil Water at Start of Year	11.4083	41,412.1	30.21
Soil Water at End of Year	13.8901	50,421.2	36.79
Snow Water at Start of Year	0.0192	69.8	0.05
Snow Water at End of Year	0.3024	1,097.9	0.80
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 5

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:58

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.036	0.2136	13.1776	0.0144	8.41E-06	0.0000	0.0000	3.88E-05
2		*	0.00	0.000	0.030	0.2183	13.1489	0.0143	8.38E-06	0.0000	0.0000	3.87E-05
3		*	0.00	0.000	0.041	0.2218	13.1204	0.0142	8.35E-06	0.0000	0.0000	3.87E-05
4		*	0.01	0.000	0.000	0.2224	13.0922	0.0141	8.32E-06	0.0000	0.0000	3.86E-05
5	*	*	0.00	0.000	0.000	0.2224	13.0641	0.0140	8.30E-06	0.0000	0.0000	3.86E-05
6	*	*	0.00	0.000	0.000	0.2224	13.0362	0.0139	8.27E-06	0.0000	0.0000	3.85E-05
7	*	*	0.00	0.000	0.000	0.2224	13.0085	0.0138	8.24E-06	0.0000	0.0000	3.85E-05
8	*	*	0.00	0.000	0.000	0.2224	12.9811	0.0137	8.22E-06	0.0000	0.0000	3.84E-05
9	*	*	0.05	0.000	0.010	0.2224	12.4763	0.0120	7.74E-06	0.0000	0.0000	3.79E-05
10	*	*	0.00	0.000	0.000	0.2224	12.2331	0.0111	7.51E-06	0.0000	0.0000	3.77E-05
11		*	0.00	0.000	0.039	0.2224	12.2283	0.0111	7.51E-06	0.0000	0.0000	3.77E-05
12		*	0.00	0.000	0.000	0.2224	11.9979	0.0103	7.29E-06	0.0000	0.0000	3.74E-05
13	*	*	0.00	0.000	0.000	0.2224	11.9952	0.0103	7.29E-06	0.0000	0.0000	3.74E-05
14		*	0.00	0.000	0.000	0.2224	11.9907	0.0103	7.28E-06	0.0000	0.0000	3.74E-05
15	*	*	0.00	0.000	0.000	0.2224	11.9845	0.0103	7.28E-06	0.0000	0.0000	3.74E-05
16	*	*	0.00	0.000	0.000	0.2224	11.9769	0.0103	7.27E-06	0.0000	0.0000	3.74E-05
17	*	*	0.00	0.000	0.000	0.2224	11.9680	0.0103	7.26E-06	0.0000	0.0000	3.73E-05
18	*	*	0.00	0.000	0.000	0.2224	11.9580	0.0102	7.25E-06	0.0000	0.0000	3.73E-05
19	*	*	0.00	0.000	0.000	0.2224	11.9471	0.0102	7.24E-06	0.0000	0.0000	3.73E-05
20		*	0.00	0.000	0.000	0.2226	11.9352	0.0102	7.23E-06	0.0000	0.0000	3.73E-05
21		*	0.00	0.000	0.000	0.2226	11.9226	0.0102	7.22E-06	0.0000	0.0000	3.72E-05
22	*	*	0.00	0.000	0.000	0.2226	11.9092	0.0102	7.21E-06	0.0000	0.0000	3.72E-05
23		*	0.00	0.000	0.000	0.2226	11.8953	0.0102	7.20E-06	0.0000	0.0000	3.72E-05

24		*	0.00	0.000	0.000	0.2226	11.8807	0.0102	7.18E-06	0.0000	0.0000	3.72E-05
25		*	0.00	0.000	0.000	0.2226	11.8656	0.0102	7.17E-06	0.0000	0.0000	3.71E-05
26		*	0.00	0.000	0.000	0.2226	11.8500	0.0102	7.15E-06	0.0000	0.0000	3.71E-05
27		*	0.00	0.000	0.000	0.2227	11.8340	0.0101	7.14E-06	0.0000	0.0000	3.71E-05
28		*	0.00	0.000	0.000	0.2227	11.8176	0.0101	7.12E-06	0.0000	0.0000	3.71E-05
29		*	0.00	0.000	0.000	0.2227	11.8008	0.0101	7.11E-06	0.0000	0.0000	3.70E-05
30		*	0.00	0.000	0.000	0.2227	11.7837	0.0101	7.09E-06	0.0000	0.0000	3.70E-05
31	*	*	0.00	0.000	0.001	0.2227	11.7662	0.0101	7.08E-06	0.0000	0.0000	3.70E-05
32		*	0.00	0.000	0.000	0.2228	11.7485	0.0101	7.06E-06	0.0000	0.0000	3.69E-05
33	*	*	0.00	0.000	0.000	0.2228	11.7305	0.0101	7.05E-06	0.0000	0.0000	3.69E-05
34	*	*	0.00	0.000	0.000	0.2228	11.7122	0.0100	7.03E-06	0.0000	0.0000	3.69E-05
35	*	*	0.00	0.000	0.000	0.2228	11.6937	0.0100	7.01E-06	0.0000	0.0000	3.69E-05
36	*	*	0.00	0.000	0.000	0.2228	11.6750	0.0100	7.00E-06	0.0000	0.0000	3.68E-05
37	*	*	0.00	0.000	0.000	0.2228	11.6561	0.0100	6.98E-06	0.0000	0.0000	3.68E-05
38	*	*	0.00	0.000	0.000	0.2228	11.6369	0.0100	6.96E-06	0.0000	0.0000	3.68E-05
39	*	*	0.00	0.000	0.000	0.2228	11.6177	0.0100	6.94E-06	0.0000	0.0000	3.67E-05
40	*	*	0.01	0.000	0.007	0.2228	11.5982	0.0099	6.93E-06	0.0000	0.0000	3.67E-05
41	*	*	0.00	0.000	0.003	0.2228	11.5786	0.0099	6.91E-06	0.0000	0.0000	3.67E-05
42	*	*	0.10	0.000	0.009	0.2228	11.5589	0.0099	6.89E-06	0.0000	0.0000	3.66E-05
43	*	*	0.07	0.000	0.000	0.2228	11.5390	0.0099	6.87E-06	0.0000	0.0000	3.66E-05
44	*	*	0.00	0.000	0.023	0.2228	11.5191	0.0099	6.86E-06	0.0000	0.0000	3.66E-05
45	*	*	0.00	0.000	0.009	0.2228	11.4989	0.0099	6.84E-06	0.0000	0.0000	3.66E-05
46	*	*	0.00	0.000	0.024	0.2228	11.4787	0.0098	6.82E-06	0.0000	0.0000	3.65E-05
47	*	*	0.00	0.000	0.019	0.2228	11.4584	0.0098	6.80E-06	0.0000	0.0000	3.65E-05
48	*	*	0.00	0.000	0.007	0.2228	11.4380	0.0098	6.78E-06	0.0000	0.0000	3.65E-05
49	*	*	0.00	0.000	0.011	0.2228	11.4175	0.0098	6.76E-06	0.0000	0.0000	3.64E-05
50	*	*	0.00	0.000	0.024	0.2228	11.3970	0.0098	6.75E-06	0.0000	0.0000	3.64E-05
51		*	0.00	0.000	0.042	0.2228	11.3763	0.0097	6.73E-06	0.0000	0.0000	3.64E-05
52		*	0.00	0.000	0.000	0.2228	11.3556	0.0097	6.71E-06	0.0000	0.0000	3.63E-05
53	*	*	0.00	0.000	0.000	0.2228	11.3348	0.0097	6.69E-06	0.0000	0.0000	3.63E-05
54		*	0.00	0.000	0.000	0.2228	11.3140	0.0097	6.67E-06	0.0000	0.0000	3.63E-05

55		*	0.00	0.000	0.000	0.2228	11.2931	0.0097	6.65E-06	0.0000	0.0000	3.63E-05
56		*	0.30	0.000	0.000	0.2354	11.2721	0.0097	6.64E-06	0.0000	0.0000	3.62E-05
57	*	*	0.00	0.000	0.000	0.2354	11.2511	0.0096	6.62E-06	0.0000	0.0000	3.62E-05
58	*	*	0.00	0.000	0.000	0.2354	11.2301	0.0096	6.60E-06	0.0000	0.0000	3.62E-05
59	*	*	0.00	0.000	0.000	0.2354	11.2090	0.0096	6.58E-06	0.0000	0.0000	3.61E-05
60	*	*	0.00	0.000	0.000	0.2354	11.1878	0.0096	6.56E-06	0.0000	0.0000	3.61E-05
61	*	*	0.00	0.000	0.000	0.2354	11.1667	0.0096	6.54E-06	0.0000	0.0000	3.61E-05
62	*	*	0.00	0.000	0.000	0.2354	11.1455	0.0095	6.52E-06	0.0000	0.0000	3.61E-05
63	*	*	0.00	0.000	0.000	0.2354	11.1242	0.0095	6.51E-06	0.0000	0.0000	3.60E-05
64	*	*	0.01	0.000	0.006	0.2354	11.1030	0.0095	6.49E-06	0.0000	0.0000	3.60E-05
65	*	*	0.00	0.000	0.000	0.2354	11.0817	0.0095	6.47E-06	0.0000	0.0000	3.60E-05
66	*	*	0.00	0.000	0.000	0.2354	11.0604	0.0095	6.45E-06	0.0000	0.0000	3.59E-05
67		*	0.00	0.000	0.000	0.2355	11.0391	0.0095	6.43E-06	0.0000	0.0000	3.59E-05
68	*	*	0.03	0.000	0.029	0.2355	11.0178	0.0094	6.41E-06	0.0000	0.0000	3.59E-05
69	*	*	0.00	0.000	0.000	0.2355	10.9964	0.0094	6.39E-06	0.0000	0.0000	3.58E-05
70	*	*	0.00	0.000	0.000	0.2355	10.9750	0.0094	6.38E-06	0.0000	0.0000	3.58E-05
71	*	*	0.00	0.000	0.000	0.2355	10.9537	0.0094	6.36E-06	0.0000	0.0000	3.58E-05
72	*	*	0.00	0.000	0.000	0.2355	10.9323	0.0094	6.34E-06	0.0000	0.0000	3.58E-05
73	*	*	0.00	0.000	0.000	0.2355	10.9109	0.0093	6.32E-06	0.0000	0.0000	3.57E-05
74		*	0.20	0.000	0.000	0.2438	10.8895	0.0093	6.30E-06	0.0000	0.0000	3.57E-05
75		*	0.00	0.000	0.000	0.2438	10.8681	0.0093	6.28E-06	0.0000	0.0000	3.57E-05
76		*	0.00	0.000	0.000	0.2438	10.8466	0.0093	6.26E-06	0.0000	0.0000	3.57E-05
77		*	0.06	0.000	0.000	0.2461	10.8252	0.0093	6.25E-06	0.0000	0.0000	3.56E-05
78		*	0.10	0.000	0.000	0.2504	10.8038	0.0093	6.23E-06	0.0000	0.0000	3.56E-05
79	*	*	0.00	0.000	0.000	0.2504	10.7824	0.0092	6.21E-06	0.0000	0.0000	3.56E-05
80	*	*	0.00	0.000	0.000	0.2504	10.7610	0.0092	6.19E-06	0.0000	0.0000	3.55E-05
81	*	*	0.15	0.000	0.035	0.2504	10.7396	0.0092	6.17E-06	0.0000	0.0000	3.55E-05
82	*	*	0.09	0.000	0.011	0.2504	10.7182	0.0092	6.15E-06	0.0000	0.0000	3.55E-05
83	*	*	0.00	0.000	0.022	0.2504	10.6968	0.0092	6.14E-06	0.0000	0.0000	3.55E-05
84		*	0.00	0.000	0.134	0.2522	10.6754	0.0091	6.12E-06	0.0000	0.0000	3.54E-05
85		*	0.01	0.000	0.000	0.2525	10.6540	0.0091	6.10E-06	0.0000	0.0000	3.54E-05

86	*	0.08	0.000	0.000	0.2559	10.6327	0.0091	6.08E-06	0.0000	0.0000	3.54E-05
87	*	0.27	0.000	0.000	0.2669	10.6113	0.0091	6.06E-06	0.0000	0.0000	3.54E-05
88	*	0.00	0.000	0.000	0.2669	10.5899	0.0091	6.04E-06	0.0000	0.0000	3.53E-05
89	*	0.11	0.000	0.000	0.2716	10.5686	0.0091	6.03E-06	0.0000	0.0000	3.53E-05
90	*	0.00	0.000	0.000	0.2716	10.5473	0.0090	6.01E-06	0.0000	0.0000	3.53E-05
91	*	0.03	0.000	0.000	0.2727	10.5260	0.0090	5.99E-06	0.0000	0.0000	3.52E-05
92	*	0.13	0.000	0.000	0.2780	10.5047	0.0090	5.97E-06	0.0000	0.0000	3.52E-05
93	*	0.01	0.000	0.000	0.2783	10.4834	0.0090	5.95E-06	0.0000	0.0000	3.52E-05
94	*	0.11	0.000	0.000	0.2828	10.4621	0.0090	5.94E-06	0.0000	0.0000	3.52E-05
95	*	0.40	0.000	0.000	0.2993	10.4408	0.0089	5.92E-06	0.0000	0.0000	3.51E-05
96	*	0.00	0.000	0.000	0.2993	10.4196	0.0089	5.90E-06	0.0000	0.0000	3.51E-05
97		0.22	0.000	0.189	0.2854	10.3978	0.0089	5.88E-06	0.0000	0.0000	3.51E-05
98		0.16	0.000	0.215	0.2511	10.4785	0.0090	5.95E-06	0.0000	0.0000	3.52E-05
99		0.08	0.000	0.160	0.2390	11.4518	0.0098	6.80E-06	0.0000	0.0000	3.60E-05
100		0.10	0.000	0.113	0.2329	13.4746	0.0155	8.72E-06	0.0000	0.0000	3.79E-05
101		0.04	0.000	0.084	0.2263	14.1829	0.0180	9.41E-06	0.0000	0.0000	3.86E-05
102		0.00	0.000	0.257	0.2130	14.3429	0.0185	9.57E-06	0.0000	0.0000	3.87E-05
103		0.00	0.000	0.234	0.2005	14.4182	0.0188	9.65E-06	0.0000	0.0000	3.88E-05
104		0.00	0.000	0.332	0.1848	14.4980	0.0191	9.73E-06	0.0000	0.0000	3.88E-05
105		0.00	0.000	0.443	0.1647	14.5365	0.0192	9.77E-06	0.0000	0.0000	3.88E-05
106		0.00	0.000	0.176	0.1555	14.5979	0.0194	9.84E-06	0.0000	0.0000	3.89E-05
107		0.00	0.000	0.073	0.1519	14.6117	0.0195	9.85E-06	0.0000	0.0000	3.89E-05
108		0.00	0.000	0.056	0.1482	14.6232	0.0195	9.87E-06	0.0000	0.0000	3.88E-05
109		0.00	0.000	0.047	0.1449	14.6433	0.0196	9.89E-06	0.0000	0.0000	3.88E-05
110		0.00	0.000	0.042	0.1415	14.6701	0.0197	9.91E-06	0.0000	0.0000	3.88E-05
111		0.00	0.000	0.038	0.1380	14.7171	0.0198	9.96E-06	0.0000	0.0000	3.89E-05
112		0.20	0.000	0.035	0.1431	14.7669	0.0200	1.00E-05	0.0000	0.0000	3.89E-05
113		0.08	0.000	0.032	0.1424	14.8281	0.0202	1.01E-05	0.0000	0.0000	3.89E-05
114		0.08	0.000	0.028	0.1425	14.8993	0.0205	1.02E-05	0.0000	0.0000	3.90E-05
115		0.05	0.000	0.029	0.1416	14.9449	0.0206	1.02E-05	0.0000	0.0000	3.90E-05
116		0.34	0.000	0.027	0.1531	14.9777	0.0207	1.02E-05	0.0000	0.0000	3.90E-05

117		0.00	0.000	0.026	0.1508	14.9987	0.0208	1.03E-05	0.0000	0.0000	3.90E-05
118		0.00	0.000	0.025	0.1488	15.0105	0.0209	1.03E-05	0.0000	0.0000	3.90E-05
119		0.00	0.000	0.024	0.1469	15.0152	0.0209	1.03E-05	0.0000	0.0000	3.90E-05
120		0.00	0.000	0.023	0.1451	15.0141	0.0209	1.03E-05	0.0000	0.0000	3.89E-05
121		2.07	0.000	0.023	0.2064	15.0089	0.0209	1.03E-05	0.0000	0.0000	3.89E-05
122	*	0.01	0.000	0.067	0.2267	15.0001	0.0208	1.03E-05	0.0000	0.0000	3.89E-05
123	*	0.03	0.000	0.029	0.2263	14.9881	0.0208	1.02E-05	0.0000	0.0000	3.88E-05
124	*	0.00	0.000	0.086	0.2224	14.9724	0.0207	1.02E-05	0.0000	0.0000	3.88E-05
125		0.20	0.000	0.160	0.2236	14.9585	0.0207	1.02E-05	0.0000	0.0000	3.87E-05
126		0.00	0.000	0.139	0.2172	14.9475	0.0206	1.02E-05	0.0000	0.0000	3.87E-05
127		0.08	0.000	0.372	0.2048	14.9302	0.0206	1.02E-05	0.0000	0.0000	3.86E-05
128		0.00	0.000	0.314	0.1916	14.8975	0.0205	1.02E-05	0.0000	0.0000	3.86E-05
129		0.00	0.000	0.211	0.1828	14.8584	0.0203	1.01E-05	0.0000	0.0000	3.85E-05
130		0.00	0.000	0.257	0.1720	14.8187	0.0202	1.01E-05	0.0000	0.0000	3.85E-05
131		0.00	0.000	0.158	0.1646	14.7896	0.0201	1.00E-05	0.0000	0.0000	3.84E-05
132		0.00	0.000	0.073	0.1598	14.8031	0.0201	1.01E-05	0.0000	0.0000	3.84E-05
133		0.00	0.000	0.056	0.1563	14.8519	0.0203	1.01E-05	0.0000	0.0000	3.84E-05
134		0.20	0.000	0.048	0.1619	14.8488	0.0203	1.01E-05	0.0000	0.0000	3.84E-05
135		0.00	0.000	0.042	0.1589	14.8518	0.0203	1.01E-05	0.0000	0.0000	3.84E-05
136	*	0.01	0.000	0.005	0.1574	14.8752	0.0204	1.01E-05	0.0000	0.0000	3.84E-05
137	*	0.01	0.000	0.048	0.1543	14.9080	0.0205	1.02E-05	0.0000	0.0000	3.84E-05
138	*	0.00	0.000	0.000	0.1529	14.9375	0.0206	1.02E-05	0.0000	0.0000	3.84E-05
139		0.51	0.000	0.035	0.1714	14.9618	0.0207	1.02E-05	0.0000	0.0000	3.84E-05
140		0.02	0.000	0.193	0.1628	14.9836	0.0208	1.02E-05	0.0000	0.0000	3.84E-05
141	*	0.04	0.000	0.075	0.1606	14.9938	0.0208	1.03E-05	0.0000	0.0000	3.83E-05
142		0.28	0.000	0.031	0.1703	14.9932	0.0208	1.03E-05	0.0000	0.0000	3.83E-05
143		0.00	0.000	0.161	0.1622	15.0009	0.0208	1.03E-05	0.0000	0.0000	3.83E-05
144		0.13	0.000	0.029	0.1664	15.0002	0.0208	1.03E-05	0.0000	0.0000	3.83E-05
145		0.30	0.000	0.288	0.1662	14.9771	0.0207	1.02E-05	0.0000	0.0000	3.82E-05
146		0.04	0.000	0.265	0.1557	14.9793	0.0207	1.02E-05	0.0000	0.0000	3.82E-05
147		0.37	0.000	0.125	0.1659	14.9719	0.0207	1.02E-05	0.0000	0.0000	3.82E-05

148	0.00	0.000	0.146	0.1591	14.9541	0.0207	1.02E-05	0.0000	0.0000	3.81E-05
149	0.00	0.000	0.073	0.1553	14.9407	0.0206	1.02E-05	0.0000	0.0000	3.81E-05
150	0.00	0.000	0.056	0.1521	14.9383	0.0206	1.02E-05	0.0000	0.0000	3.81E-05
151	0.07	0.000	0.048	0.1521	14.9411	0.0206	1.02E-05	0.0000	0.0000	3.80E-05
152	0.04	0.000	0.042	0.1511	14.9432	0.0206	1.02E-05	0.0000	0.0000	3.80E-05
153	1.55	0.000	0.038	0.2075	14.9423	0.0206	1.02E-05	0.0000	0.0000	3.80E-05
154	0.12	0.000	0.358	0.2029	14.9361	0.0206	1.02E-05	0.0000	0.0000	3.79E-05
155	0.01	0.000	0.406	0.1858	14.9238	0.0206	1.02E-05	0.0000	0.0000	3.79E-05
156	0.04	0.000	0.316	0.1736	14.9141	0.0205	1.02E-05	0.0000	0.0000	3.79E-05
157	0.00	0.000	0.338	0.1590	14.9025	0.0205	1.02E-05	0.0000	0.0000	3.78E-05
158	0.00	0.000	0.177	0.1510	14.8897	0.0204	1.01E-05	0.0000	0.0000	3.78E-05
159	0.00	0.000	0.073	0.1473	14.8792	0.0204	1.01E-05	0.0000	0.0000	3.78E-05
160	0.77	0.000	0.057	0.1763	14.8672	0.0204	1.01E-05	0.0000	0.0000	3.77E-05
161	0.18	0.000	0.196	0.1754	14.8503	0.0203	1.01E-05	0.0000	0.0000	3.77E-05
162	0.20	0.000	0.343	0.1688	14.8271	0.0202	1.01E-05	0.0000	0.0000	3.76E-05
163	0.00	0.000	0.318	0.1550	14.8103	0.0202	1.01E-05	0.0000	0.0000	3.76E-05
164	0.00	0.000	0.177	0.1472	14.7956	0.0201	1.00E-05	0.0000	0.0000	3.75E-05
165	0.00	0.000	0.073	0.1437	14.7774	0.0200	1.00E-05	0.0000	0.0000	3.75E-05
166	0.00	0.000	0.056	0.1410	14.7566	0.0200	1.00E-05	0.0000	0.0000	3.75E-05
167	0.58	0.000	0.048	0.1631	14.7336	0.0199	9.98E-06	0.0000	0.0000	3.74E-05
168	0.00	0.000	0.269	0.1516	14.7089	0.0198	9.95E-06	0.0000	0.0000	3.74E-05
169	0.00	0.000	0.042	0.1496	14.6817	0.0197	9.93E-06	0.0000	0.0000	3.73E-05
170	0.34	0.000	0.038	0.1619	14.6512	0.0196	9.89E-06	0.0000	0.0000	3.72E-05
171	0.00	0.000	0.386	0.1456	14.6219	0.0195	9.86E-06	0.0000	0.0000	3.72E-05
172	0.16	0.000	0.035	0.1507	14.5918	0.0194	9.83E-06	0.0000	0.0000	3.71E-05
173	0.38	0.000	0.033	0.1652	14.5566	0.0193	9.80E-06	0.0000	0.0000	3.71E-05
174	0.03	0.000	0.342	0.1520	14.5246	0.0192	9.76E-06	0.0000	0.0000	3.70E-05
175	0.17	0.000	0.031	0.1576	14.4889	0.0190	9.73E-06	0.0000	0.0000	3.70E-05
176	0.71	0.000	0.304	0.1744	14.4514	0.0189	9.69E-06	0.0000	0.0000	3.69E-05
177	0.00	0.000	0.299	0.1619	14.4199	0.0188	9.65E-06	0.0000	0.0000	3.68E-05
178	0.93	0.000	0.147	0.1943	14.3858	0.0187	9.62E-06	0.0000	0.0000	3.68E-05

179	0.28	0.000	0.332	0.1921	14.3512	0.0185	9.58E-06	0.0000	0.0000	3.67E-05
180	0.36	0.000	0.217	0.1978	14.3177	0.0184	9.55E-06	0.0000	0.0000	3.67E-05
181	0.11	0.000	0.333	0.1885	14.2878	0.0183	9.52E-06	0.0000	0.0000	3.66E-05
182	0.00	0.000	0.353	0.1736	14.2589	0.0182	9.49E-06	0.0000	0.0000	3.66E-05
183	0.42	0.000	0.278	0.1792	14.2340	0.0181	9.46E-06	0.0000	0.0000	3.65E-05
184	0.32	0.000	0.162	0.1854	14.2103	0.0180	9.44E-06	0.0000	0.0000	3.65E-05
185	0.00	0.000	0.286	0.1732	14.1877	0.0180	9.42E-06	0.0000	0.0000	3.64E-05
186	0.08	0.000	0.370	0.1608	14.1671	0.0179	9.39E-06	0.0000	0.0000	3.64E-05
187	0.16	0.000	0.345	0.1529	14.1399	0.0178	9.37E-06	0.0000	0.0000	3.63E-05
188	0.01	0.000	0.167	0.1462	14.1161	0.0177	9.34E-06	0.0000	0.0000	3.63E-05
189	0.21	0.000	0.074	0.1516	14.0973	0.0176	9.32E-06	0.0000	0.0000	3.63E-05
190	0.02	0.000	0.057	0.1496	14.0793	0.0176	9.30E-06	0.0000	0.0000	3.62E-05
191	0.00	0.000	0.047	0.1472	14.0613	0.0175	9.29E-06	0.0000	0.0000	3.62E-05
192	0.00	0.000	0.042	0.1452	14.0417	0.0175	9.27E-06	0.0000	0.0000	3.61E-05
193	0.00	0.000	0.038	0.1434	14.0202	0.0174	9.24E-06	0.0000	0.0000	3.61E-05
194	0.09	0.000	0.035	0.1452	13.9980	0.0173	9.22E-06	0.0000	0.0000	3.61E-05
195	0.00	0.000	0.032	0.1437	13.9751	0.0172	9.20E-06	0.0000	0.0000	3.60E-05
196	0.00	0.000	0.030	0.1421	13.9529	0.0171	9.18E-06	0.0000	0.0000	3.60E-05
197	0.00	0.000	0.029	0.1407	13.9298	0.0171	9.15E-06	0.0000	0.0000	3.59E-05
198	0.00	0.000	0.027	0.1394	13.9050	0.0170	9.13E-06	0.0000	0.0000	3.59E-05
199	0.00	0.000	0.026	0.1381	13.8803	0.0169	9.10E-06	0.0000	0.0000	3.58E-05
200	0.00	0.000	0.025	0.1369	13.8567	0.0168	9.08E-06	0.0000	0.0000	3.58E-05
201	0.00	0.000	0.024	0.1357	13.8326	0.0167	9.06E-06	0.0000	0.0000	3.57E-05
202	0.00	0.000	0.023	0.1345	13.8081	0.0166	9.03E-06	0.0000	0.0000	3.57E-05
203	0.00	0.000	0.022	0.1334	13.7832	0.0165	9.01E-06	0.0000	0.0000	3.57E-05
204	0.41	0.000	0.022	0.1496	13.7580	0.0165	8.98E-06	0.0000	0.0000	3.56E-05
205	0.47	0.000	0.360	0.1540	13.7326	0.0164	8.95E-06	0.0000	0.0000	3.56E-05
206	0.00	0.000	0.257	0.1432	13.7040	0.0163	8.93E-06	0.0000	0.0000	3.55E-05
207	1.27	0.000	0.164	0.1891	13.6722	0.0162	8.89E-06	0.0000	0.0000	3.55E-05
208	0.00	0.000	0.162	0.1823	13.6407	0.0160	8.86E-06	0.0000	0.0000	3.54E-05
209	0.00	0.000	0.341	0.1682	13.6095	0.0159	8.83E-06	0.0000	0.0000	3.54E-05

210	0.00	0.000	0.325	0.1546	13.5778	0.0158	8.80E-06	0.0000	0.0000	3.53E-05
211	0.00	0.000	0.344	0.1403	13.5463	0.0157	8.77E-06	0.0000	0.0000	3.53E-05
212	0.67	0.000	0.178	0.1607	13.5167	0.0156	8.74E-06	0.0000	0.0000	3.52E-05
213	0.00	0.000	0.179	0.1532	13.4899	0.0155	8.71E-06	0.0000	0.0000	3.52E-05
214	0.00	0.000	0.169	0.1460	13.4637	0.0154	8.69E-06	0.0000	0.0000	3.51E-05
215	0.14	0.000	0.178	0.1443	13.4380	0.0153	8.66E-06	0.0000	0.0000	3.51E-05
216	0.00	0.000	0.073	0.1410	13.4147	0.0153	8.64E-06	0.0000	0.0000	3.51E-05
217	0.45	0.000	0.057	0.1572	13.3933	0.0152	8.62E-06	0.0000	0.0000	3.50E-05
218	0.21	0.000	0.173	0.1586	13.3699	0.0151	8.59E-06	0.0000	0.0000	3.50E-05
219	0.00	0.000	0.211	0.1496	13.3464	0.0150	8.57E-06	0.0000	0.0000	3.49E-05
220	0.00	0.000	0.219	0.1403	13.3267	0.0149	8.55E-06	0.0000	0.0000	3.49E-05
221	0.16	0.000	0.154	0.1404	13.3052	0.0149	8.53E-06	0.0000	0.0000	3.49E-05
222	0.00	0.000	0.073	0.1372	13.2804	0.0148	8.51E-06	0.0000	0.0000	3.48E-05
223	0.00	0.000	0.056	0.1347	13.2573	0.0147	8.48E-06	0.0000	0.0000	3.48E-05
224	0.05	0.000	0.048	0.1349	13.2347	0.0146	8.46E-06	0.0000	0.0000	3.48E-05
225	0.14	0.000	0.042	0.1388	13.2122	0.0145	8.44E-06	0.0000	0.0000	3.47E-05
226	0.00	0.000	0.038	0.1371	13.1898	0.0145	8.42E-06	0.0000	0.0000	3.47E-05
227	0.00	0.000	0.035	0.1355	13.1673	0.0144	8.40E-06	0.0000	0.0000	3.46E-05
228	0.00	0.000	0.032	0.1340	13.1449	0.0143	8.37E-06	0.0000	0.0000	3.46E-05
229	0.00	0.000	0.030	0.1326	13.1225	0.0142	8.35E-06	0.0000	0.0000	3.46E-05
230	0.00	0.000	0.029	0.1313	13.1000	0.0141	8.33E-06	0.0000	0.0000	3.45E-05
231	0.00	0.000	0.027	0.1301	13.0775	0.0141	8.31E-06	0.0000	0.0000	3.45E-05
232	0.05	0.000	0.026	0.1310	13.0551	0.0140	8.29E-06	0.0000	0.0000	3.45E-05
233	0.00	0.000	0.025	0.1298	13.0327	0.0139	8.27E-06	0.0000	0.0000	3.44E-05
234	0.00	0.000	0.024	0.1287	12.7597	0.0130	8.01E-06	0.0000	0.0000	3.41E-05
235	0.00	0.000	0.023	0.1276	12.4961	0.0120	7.76E-06	0.0000	0.0000	3.39E-05
236	0.02	0.000	0.023	0.1276	12.4855	0.0120	7.75E-06	0.0000	0.0000	3.39E-05
237	0.02	0.000	0.022	0.1275	11.9986	0.0103	7.29E-06	0.0000	0.0000	3.34E-05
238	0.00	0.000	0.021	0.1265	11.9981	0.0103	7.29E-06	0.0000	0.0000	3.34E-05
239	0.00	0.000	0.021	0.1255	11.9958	0.0103	7.29E-06	0.0000	0.0000	3.34E-05
240	0.04	0.000	0.020	0.1263	11.9915	0.0103	7.28E-06	0.0000	0.0000	3.34E-05

241	0.00	0.000	0.020	0.1254	11.9864	0.0103	7.28E-06	0.0000	0.0000	3.33E-05
242	0.01	0.000	0.019	0.1250	11.9799	0.0103	7.27E-06	0.0000	0.0000	3.33E-05
243	0.00	0.000	0.019	0.1242	11.9721	0.0103	7.27E-06	0.0000	0.0000	3.33E-05
244	0.00	0.000	0.018	0.1233	11.9633	0.0103	7.26E-06	0.0000	0.0000	3.33E-05
245	0.00	0.000	0.018	0.1225	11.9533	0.0102	7.25E-06	0.0000	0.0000	3.33E-05
246	0.00	0.000	0.018	0.1217	11.9429	0.0102	7.24E-06	0.0000	0.0000	3.32E-05
247	0.00	0.000	0.017	0.1209	11.9321	0.0102	7.23E-06	0.0000	0.0000	3.32E-05
248	0.00	0.000	0.017	0.1201	11.9207	0.0102	7.22E-06	0.0000	0.0000	3.32E-05
249	0.04	0.000	0.017	0.1211	11.9086	0.0102	7.21E-06	0.0000	0.0000	3.32E-05
250	0.00	0.000	0.016	0.1204	11.8959	0.0102	7.20E-06	0.0000	0.0000	3.32E-05
251	0.00	0.000	0.016	0.1196	11.8827	0.0102	7.18E-06	0.0000	0.0000	3.31E-05
252	0.00	0.000	0.016	0.1190	11.8690	0.0102	7.17E-06	0.0000	0.0000	3.31E-05
253	0.00	0.000	0.016	0.1183	11.8546	0.0102	7.16E-06	0.0000	0.0000	3.31E-05
254	0.00	0.000	0.015	0.1176	11.8400	0.0101	7.15E-06	0.0000	0.0000	3.31E-05
255	0.00	0.000	0.015	0.1169	11.8251	0.0101	7.13E-06	0.0000	0.0000	3.31E-05
256	0.00	0.000	0.015	0.1162	11.8100	0.0101	7.12E-06	0.0000	0.0000	3.30E-05
257	0.00	0.000	0.015	0.1155	11.7945	0.0101	7.10E-06	0.0000	0.0000	3.30E-05
258	0.10	0.000	0.015	0.1189	11.7787	0.0101	7.09E-06	0.0000	0.0000	3.30E-05
259	0.21	0.000	0.015	0.1269	11.7626	0.0101	7.07E-06	0.0000	0.0000	3.30E-05
260	0.00	0.000	0.014	0.1262	11.7462	0.0101	7.06E-06	0.0000	0.0000	3.29E-05
261	0.00	0.000	0.014	0.1256	11.7297	0.0101	7.04E-06	0.0000	0.0000	3.29E-05
262	0.00	0.000	0.014	0.1250	11.7126	0.0100	7.03E-06	0.0000	0.0000	3.29E-05
263	0.00	0.000	0.014	0.1244	11.6955	0.0100	7.01E-06	0.0000	0.0000	3.29E-05
264	0.00	0.000	0.013	0.1238	11.6783	0.0100	7.00E-06	0.0000	0.0000	3.28E-05
265	0.00	0.000	0.013	0.1231	11.6609	0.0100	6.98E-06	0.0000	0.0000	3.28E-05
266	0.00	0.000	0.013	0.1226	11.6434	0.0100	6.97E-06	0.0000	0.0000	3.28E-05
267	0.00	0.000	0.013	0.1220	11.6256	0.0100	6.95E-06	0.0000	0.0000	3.28E-05
268	0.00	0.000	0.013	0.1214	11.6077	0.0099	6.93E-06	0.0000	0.0000	3.27E-05
269	0.00	0.000	0.013	0.1208	11.5896	0.0099	6.92E-06	0.0000	0.0000	3.27E-05
270	0.05	0.000	0.013	0.1224	11.5714	0.0099	6.90E-06	0.0000	0.0000	3.27E-05
271	0.08	0.000	0.013	0.1250	11.5531	0.0099	6.89E-06	0.0000	0.0000	3.27E-05

272		0.00	0.000	0.012	0.1244	11.5346	0.0099	6.87E-06	0.0000	0.0000	3.26E-05
273		0.00	0.000	0.012	0.1239	11.5161	0.0099	6.85E-06	0.0000	0.0000	3.26E-05
274		0.00	0.000	0.012	0.1233	11.4973	0.0099	6.84E-06	0.0000	0.0000	3.26E-05
275		0.00	0.000	0.012	0.1228	11.4784	0.0098	6.82E-06	0.0000	0.0000	3.26E-05
276		0.00	0.000	0.012	0.1222	11.4596	0.0098	6.80E-06	0.0000	0.0000	3.25E-05
277		0.00	0.000	0.012	0.1217	11.4406	0.0098	6.79E-06	0.0000	0.0000	3.25E-05
278	*	0.00	0.000	0.000	0.1217	11.4214	0.0098	6.77E-06	0.0000	0.0000	3.25E-05
279	*	0.00	0.000	0.012	0.1211	11.4019	0.0098	6.75E-06	0.0000	0.0000	3.25E-05
280	*	0.00	0.000	0.012	0.1206	11.3828	0.0098	6.73E-06	0.0000	0.0000	3.24E-05
281	*	0.00	0.000	0.000	0.1206	11.3634	0.0097	6.72E-06	0.0000	0.0000	3.24E-05
282		0.00	0.000	0.011	0.1200	11.3438	0.0097	6.70E-06	0.0000	0.0000	3.24E-05
283	*	0.00	0.000	0.000	0.1200	11.3243	0.0097	6.68E-06	0.0000	0.0000	3.24E-05
284		0.00	0.000	0.011	0.1195	11.3046	0.0097	6.66E-06	0.0000	0.0000	3.23E-05
285	*	0.00	0.000	0.011	0.1190	11.2853	0.0097	6.65E-06	0.0000	0.0000	3.23E-05
286		0.00	0.000	0.011	0.1185	11.2658	0.0097	6.63E-06	0.0000	0.0000	3.23E-05
287		0.00	0.000	0.011	0.1180	11.2463	0.0096	6.61E-06	0.0000	0.0000	3.23E-05
288		0.00	0.000	0.011	0.1175	11.2268	0.0096	6.60E-06	0.0000	0.0000	3.22E-05
289		0.00	0.000	0.011	0.1170	11.2072	0.0096	6.58E-06	0.0000	0.0000	3.22E-05
290		0.04	0.000	0.011	0.1183	11.1875	0.0096	6.56E-06	0.0000	0.0000	3.22E-05
291		0.00	0.000	0.011	0.1178	11.1678	0.0096	6.54E-06	0.0000	0.0000	3.22E-05
292		0.02	0.000	0.011	0.1181	11.1481	0.0096	6.53E-06	0.0000	0.0000	3.21E-05
293		0.83	0.000	0.011	0.1520	11.1283	0.0095	6.51E-06	0.0000	0.0000	3.21E-05
294		0.00	0.000	0.185	0.1443	11.1092	0.0095	6.49E-06	0.0000	0.0000	3.21E-05
295		0.01	0.000	0.164	0.1377	11.0906	0.0095	6.48E-06	0.0000	0.0000	3.21E-05
296		0.00	0.000	0.177	0.1303	11.0726	0.0095	6.46E-06	0.0000	0.0000	3.20E-05
297		0.00	0.000	0.073	0.1272	11.0534	0.0095	6.44E-06	0.0000	0.0000	3.20E-05
298		0.03	0.000	0.056	0.1260	11.0321	0.0095	6.43E-06	0.0000	0.0000	3.20E-05
299		0.01	0.000	0.048	0.1243	11.0108	0.0094	6.41E-06	0.0000	0.0000	3.20E-05
300		0.05	0.000	0.042	0.1244	10.9896	0.0094	6.39E-06	0.0000	0.0000	3.19E-05
301		0.08	0.000	0.038	0.1261	10.9685	0.0094	6.37E-06	0.0000	0.0000	3.19E-05
302		0.18	0.000	0.035	0.1323	10.9475	0.0094	6.35E-06	0.0000	0.0000	3.19E-05

303		0.00	0.000	0.032	0.1309	10.9266	0.0094	6.33E-06	0.0000	0.0000	3.19E-05
304		0.09	0.000	0.030	0.1332	10.9057	0.0093	6.32E-06	0.0000	0.0000	3.18E-05
305		0.03	0.000	0.029	0.1333	10.8848	0.0093	6.30E-06	0.0000	0.0000	3.18E-05
306		0.00	0.000	0.027	0.1321	10.8641	0.0093	6.28E-06	0.0000	0.0000	3.18E-05
307		0.00	0.000	0.026	0.1310	10.8434	0.0093	6.26E-06	0.0000	0.0000	3.18E-05
308		0.00	0.000	0.025	0.1299	10.8227	0.0093	6.24E-06	0.0000	0.0000	3.18E-05
309		0.00	0.000	0.024	0.1289	10.8021	0.0093	6.23E-06	0.0000	0.0000	3.17E-05
310		0.00	0.000	0.023	0.1278	10.7816	0.0092	6.21E-06	0.0000	0.0000	3.17E-05
311		0.00	0.000	0.022	0.1269	10.7611	0.0092	6.19E-06	0.0000	0.0000	3.17E-05
312		0.00	0.000	0.022	0.1259	10.7406	0.0092	6.17E-06	0.0000	0.0000	3.17E-05
313		0.10	0.000	0.021	0.1290	10.7202	0.0092	6.16E-06	0.0000	0.0000	3.16E-05
314		1.00	0.000	0.021	0.1698	10.6998	0.0092	6.14E-06	0.0000	0.0000	3.16E-05
315		0.01	0.000	0.073	0.1672	10.6795	0.0092	6.12E-06	0.0000	0.0000	3.16E-05
316	*	0.17	0.000	0.025	0.1680	10.6592	0.0091	6.10E-06	0.0000	0.0000	3.16E-05
317	*	0.03	0.000	0.000	0.1688	10.6389	0.0091	6.09E-06	0.0000	0.0000	3.15E-05
318	*	0.43	0.000	0.016	0.1696	10.6187	0.0091	6.07E-06	0.0000	0.0000	3.15E-05
319	*	0.00	0.000	0.033	0.1704	10.5985	0.0091	6.05E-06	0.0000	0.0000	3.15E-05
320	*	0.33	0.000	0.000	0.1712	10.5783	0.0091	6.04E-06	0.0000	0.0000	3.15E-05
321		0.00	0.000	0.000	0.2041	10.5582	0.0090	6.02E-06	0.0000	0.0000	3.15E-05
322	*	0.00	0.000	0.000	0.2041	10.5381	0.0090	6.00E-06	0.0000	0.0000	3.14E-05
323		0.00	0.000	0.053	0.2019	10.5180	0.0090	5.98E-06	0.0000	0.0000	3.14E-05
324		0.00	0.000	0.067	0.1990	10.4980	0.0090	5.97E-06	0.0000	0.0000	3.14E-05
325		0.00	0.000	0.061	0.1964	10.4779	0.0090	5.95E-06	0.0000	0.0000	3.14E-05
326	*	0.00	0.000	0.045	0.1945	10.4579	0.0090	5.93E-06	0.0000	0.0000	3.13E-05
327	*	0.00	0.000	0.000	0.1945	10.4380	0.0089	5.92E-06	0.0000	0.0000	3.13E-05
328	*	0.02	0.000	0.052	0.1930	10.4180	0.0089	5.90E-06	0.0000	0.0000	3.13E-05
329	*	0.00	0.000	0.000	0.1930	10.3981	0.0089	5.88E-06	0.0000	0.0000	3.13E-05
330	*	0.00	0.000	0.000	0.1930	10.3782	0.0089	5.87E-06	0.0000	0.0000	3.13E-05
331		0.00	0.000	0.078	0.1897	10.3589	0.0089	5.85E-06	0.0000	0.0000	3.12E-05
332		0.00	0.000	0.127	0.1844	10.3407	0.0089	5.83E-06	0.0000	0.0000	3.12E-05
333		0.00	0.000	0.103	0.1801	10.3225	0.0088	5.82E-06	0.0000	0.0000	3.12E-05

334			0.00	0.000	0.102	0.1758	10.3043	0.0088	5.80E-06	0.0000	0.0000	3.12E-05
335			0.00	0.000	0.082	0.1724	10.2859	0.0088	5.79E-06	0.0000	0.0000	3.12E-05
336			0.00	0.000	0.087	0.1688	10.2675	0.0088	5.77E-06	0.0000	0.0000	3.11E-05
337			0.01	0.000	0.068	0.1664	10.2490	0.0088	5.76E-06	0.0000	0.0000	3.11E-05
338			0.04	0.000	0.067	0.1651	10.2305	0.0088	5.74E-06	0.0000	0.0000	3.11E-05
339			0.03	0.000	0.074	0.1634	10.2119	0.0087	5.73E-06	0.0000	0.0000	3.11E-05
340			0.00	0.000	0.057	0.1610	10.1933	0.0087	5.71E-06	0.0000	0.0000	3.11E-05
341			0.10	0.000	0.051	0.1629	10.1746	0.0087	5.70E-06	0.0000	0.0000	3.10E-05
342			0.01	0.000	0.096	0.1591	10.1558	0.0087	5.68E-06	0.0000	0.0000	3.10E-05
343			0.43	0.000	0.128	0.1715	10.1354	0.0087	5.66E-06	0.0000	0.0000	3.10E-05
344			0.00	0.000	0.092	0.1673	10.1130	0.0087	5.65E-06	0.0000	0.0000	3.10E-05
345			0.10	0.000	0.062	0.1683	10.0899	0.0086	5.63E-06	0.0000	0.0000	3.10E-05
346	*		0.00	0.000	0.000	0.1677	10.0669	0.0086	5.61E-06	0.0000	0.0000	3.09E-05
347	*		0.00	0.000	0.000	0.1672	10.0439	0.0086	5.59E-06	0.0000	0.0000	3.09E-05
348	*		0.02	0.000	0.011	0.1670	10.0209	0.0086	5.57E-06	0.0000	0.0000	3.09E-05
349	*		0.00	0.000	0.000	0.1667	9.9980	0.0086	5.55E-06	0.0000	0.0000	3.09E-05
350	*		0.00	0.000	0.000	0.1663	9.9752	0.0085	5.53E-06	0.0000	0.0000	3.08E-05
351	*		0.00	0.000	0.000	0.1658	9.9524	0.0085	5.51E-06	0.0000	0.0000	3.08E-05
352	*		0.09	0.000	0.006	0.1662	9.9297	0.0085	5.49E-06	0.0000	0.0000	3.08E-05
353	*		0.06	0.000	0.013	0.1666	9.9070	0.0085	5.48E-06	0.0000	0.0000	3.08E-05
354	*	*	0.00	0.000	0.014	0.1666	9.8897	0.0085	5.46E-06	0.0000	0.0000	3.08E-05
355	*	*	0.11	0.000	0.006	0.1666	9.8808	0.0085	5.45E-06	0.0000	0.0000	3.08E-05
356	*	*	0.00	0.000	0.008	0.1666	9.8713	0.0085	5.45E-06	0.0000	0.0000	3.07E-05
357	*	*	0.00	0.000	0.004	0.1666	9.8613	0.0084	5.44E-06	0.0000	0.0000	3.07E-05
358	*	*	0.00	0.000	0.007	0.1666	9.8507	0.0084	5.43E-06	0.0000	0.0000	3.07E-05
359	*	*	0.00	0.000	0.000	0.1666	9.8396	0.0084	5.42E-06	0.0000	0.0000	3.07E-05
360	*	*	0.00	0.000	0.034	0.1666	9.8281	0.0084	5.41E-06	0.0000	0.0000	3.07E-05
361	*	*	0.01	0.000	0.037	0.1666	9.8161	0.0084	5.40E-06	0.0000	0.0000	3.07E-05
362	*	*	0.10	0.000	0.016	0.1666	9.8038	0.0084	5.39E-06	0.0000	0.0000	3.07E-05
363	*	*	0.00	0.000	0.007	0.1666	9.7912	0.0084	5.38E-06	0.0000	0.0000	3.07E-05
364	*	*	0.00	0.000	0.010	0.1666	9.7782	0.0084	5.37E-06	0.0000	0.0000	3.06E-05

365	*	*	0.00	0.000	0.017	0.1666	9.7649	0.0084	5.36E-06	0.0000	0.0000	3.06E-05

* = Frozen (air or soil)

Annual Totals for Year 5			
	inches	cubic feet	percent
Precipitation	25.46	92,408.5	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.104	83,868.9	90.76
Drainage Collected from Layer 3	4.7210	17,137.4	18.55
Percolation/Leakage through Layer 4	0.002801	10.2	0.01
Average Head on Top of Layer 4	12.3397	---	---
Percolation/Leakage through Layer 6	0.012809	46.5	0.05
Change in Water Storage	-2.3813	-8,644.3	-9.35
Soil Water at Start of Year	13.8901	50,421.2	54.56
Soil Water at End of Year	11.6471	42,279.2	45.75
Snow Water at Start of Year	0.3024	1,097.9	1.19
Snow Water at End of Year	0.1641	595.7	0.64
Annual Water Budget Balance	0.0000	0.0000	0.00

Average Annual Totals Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:58

	Average Annual Totals for Years 1 - 5*			
	(inches)	[std dev]	(cubic feet)	(percent)
Precipitation	31.43	[5.36]	114,107.4	100.00
Runoff	0.000	[0]	0.0000	0.00
Evapotranspiration	26.106	[2.598]	94,764.0	83.05
Subprofile1				
Lateral drainage collected from Layer 3	4.7699	[2.2724]	17,314.9	15.17
Percolation/leakage through Layer 4	0.002533	[0.001173]	9.1958	0.01
Average Head on Top of Layer 4	11.0312	[4.1326]	---	---
Subprofile2				
Percolation/leakage through Layer 6	0.028087	[0.016989]	102.0	0.09
Water storage				
Change in water storage	0.5307	[2.8986]	1,926.6	1.69

* Note: Average inches are converted to volume based on the user-specified area.

Peak Values Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:59

	Peak Values for Years 1 - 5*		
	(inches)		(cubic feet)
Precipitation	3.72		13,503.6
Runoff	0.000		0.0000
Subprofile1			
Drainage collected from Layer 3	0.0361		131.0
Percolation/leakage through Layer 4	0.000015		0.0556
Average head on Layer 4	19.3497		---
Maximum head on Layer 4	29.6142		---
Location of maximum head in Layer 3	76.84	(feet from drain)	
Subprofile2			
Percolation/leakage through Layer 6	0.000216		0.7845
Other Parameters			
Snow water	1.4979		5,437.3
Maximum vegetation soil water	0.3875	(vol/vol)	
Minimum vegetation soil water	0.1155	(vol/vol)	

Final Water Storage in Landfill Profile at End of Simulation Period

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:59
Simulation period: 5 years

	Final Water Storage	
Layer	(inches)	(vol/vol)
1	1.5866	0.2644
2	3.2016	0.1334
3	4.4027	0.3669
4	0.0000	0.0000
5	0.1587	0.6348
6	2.1110	0.3518
Snow water	0.1641	---

HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
HELP MODEL VERSION 4.0 BETA (2018)
DEVELOPED BY USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY

Title: Pilgrim Landfill **Simulated On:** 9/17/2026 8:50

Layer 1

Type 1 - Vertical Percolation Layer (Cover Soil)
SiCL - Silty Clay Loam
Material Texture Number 12

Thickness	=	6	inches
Porosity	=	0.471	vol/vol
Field Capacity	=	0.342	vol/vol
Wilting Point	=	0.21	vol/vol
Initial Soil Water Content	=	0.3175	vol/vol
Effective Sat. Hyd. Conductivity	=	4.20E-05	cm/sec

Layer 2

Type 1 - Vertical Percolation Layer (Waste)
Industrial Waste
Material Texture Number 83

Thickness	=	300	inches
Porosity	=	0.578	vol/vol
Field Capacity	=	0.076	vol/vol
Wilting Point	=	0.025	vol/vol
Initial Soil Water Content	=	0.0839	vol/vol
Effective Sat. Hyd. Conductivity	=	4.10E-03	cm/sec

Layer 3

Type 2 - Lateral Drainage Layer
Sand
Material Texture Number 44

Thickness	=	12	inches
Porosity	=	0.437	vol/vol
Field Capacity	=	0.062	vol/vol
Wilting Point	=	0.024	vol/vol
Initial Soil Water Content	=	0.0622	vol/vol
Effective Sat. Hyd. Conductivity	=	1.00E-03	cm/sec
Slope	=	5	%
Drainage Length	=	330	ft

Layer 4

Type 4 - Flexible Membrane Liner

HDPE Membrane

Material Texture Number 35

Thickness	=	0.06	inches
Effective Sat. Hyd. Conductivity	=	2.00E-13	cm/sec
FML Pinhole Density	=	2	Holes/Acre
FML Installation Defects	=	2	Holes/Acre
FML Placement Quality	=	3	Good

Layer 5

Type 1 - Vertical Percolation Layer

GCL

Material Texture Number 43

Thickness	=	0.25	inches
Porosity	=	0.75	vol/vol
Field Capacity	=	0.747	vol/vol
Wilting Point	=	0.4	vol/vol
Initial Soil Water Content	=	0.6552	vol/vol
Effective Sat. Hyd. Conductivity	=	3.00E-09	cm/sec

Layer 6

Type 1 - Vertical Percolation Layer

SiC - Silty Clay (Moderate)

Material Texture Number 28

Thickness	=	6	inches
Porosity	=	0.452	vol/vol
Field Capacity	=	0.411	vol/vol
Wilting Point	=	0.311	vol/vol
Initial Soil Water Content	=	0.3723	vol/vol
Effective Sat. Hyd. Conductivity	=	1.20E-06	cm/sec

Note: Initial moisture content of the layers and snow water were computed as nearly steady-state values by HELP.

General Design and Evaporative Zone Data

SCS Runoff Curve Number	=	95.4	
Fraction of Area Allowing Runoff	=	0	%
Area projected on a horizontal plane	=	1	acres
Evaporative Zone Depth	=	24	inches
Initial Water in Evaporative Zone	=	3.867	inches
Upper Limit of Evaporative Storage	=	13.23	inches
Lower Limit of Evaporative Storage	=	1.71	inches
Initial Snow Water	=	0	inches
Initial Water in Layer Materials	=	30.211	inches
Total Initial Water	=	30.211	inches

Total Subsurface Inflow	=	0	inches/year

Note: SCS Runoff Curve Number was calculated by HELP.

Evapotranspiration and Weather Data

Station Latitude	=	44.13	Degrees
Maximum Leaf Area Index	=	0	
Start of Growing Season (Julian Date)	=	124	days
End of Growing Season (Julian Date)	=	182	days
Average Wind Speed	=	11	mph
Average 1st Quarter Relative Humidity	=	65	%
Average 2nd Quarter Relative Humidity	=	65	%
Average 3rd Quarter Relative Humidity	=	62	%
Average 4th Quarter Relative Humidity	=	65	%

Note: Evapotranspiration data was obtained for Mankato, Minnesota

Normal Mean Monthly Precipitation (inches)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
0.683107	0.60023	1.856155	3.092133	4.531518	6.501913
4.867874	3.191535	2.613059	1.132846	1.140449	1.223736

Note: Precipitation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Normal Mean Monthly Temperature (Degrees Fahrenheit)

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
20.6	20.2	36	56.7	62.8	76.6
82.4	78.5	81.4	49.6	38.6	32.4

Note: Temperature was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98
Solar radiation was simulated based on HELP V4 weather simulation for:
Lat/Long: 44.13/-93.98

Daily Output for Year 1

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:51

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.004	0.1611	0.0064	0.0000	8.28E-09	0.0000	0.0000	2.16E-04
2	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.27E-09	0.0000	0.0000	2.15E-04
3	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.27E-09	0.0000	0.0000	2.15E-04
4	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.27E-09	0.0000	0.0000	2.14E-04
5	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.27E-09	0.0000	0.0000	2.14E-04
6	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.26E-09	0.0000	0.0000	2.13E-04
7	*	*	0.00	0.000	0.000	0.1611	0.0064	0.0000	8.26E-09	0.0000	0.0000	2.12E-04
8	*	*	0.00	0.000	0.000	0.1611	0.0063	0.0000	8.26E-09	0.0000	0.0000	2.12E-04
9	*	*	0.13	0.000	0.003	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	2.11E-04
10	*	*	0.01	0.000	0.006	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	2.11E-04
11	*	*	0.03	0.000	0.003	0.1611	0.0063	0.0000	8.25E-09	0.0000	0.0000	2.10E-04
12	*	*	0.00	0.000	0.005	0.1611	0.0063	0.0000	8.24E-09	0.0000	0.0000	2.10E-04
13	*	*	0.00	0.000	0.026	0.1611	0.0063	0.0000	8.24E-09	0.0000	0.0000	2.09E-04
14	*	*	0.00	0.000	0.034	0.1611	0.0063	0.0000	8.24E-09	0.0000	0.0000	2.09E-04
15	*	*	0.00	0.000	0.016	0.1611	0.0062	0.0000	8.24E-09	0.0000	0.0000	2.08E-04
16	*	*	0.00	0.000	0.008	0.1611	0.0062	0.0000	8.23E-09	0.0000	0.0000	2.08E-04
17	*	*	0.00	0.000	0.004	0.1611	0.0062	0.0000	8.23E-09	0.0000	0.0000	2.07E-04
18	*	*	0.00	0.000	0.003	0.1611	0.0062	0.0000	8.23E-09	0.0000	0.0000	2.07E-04
19	*	*	0.00	0.000	0.004	0.1611	0.0062	0.0000	8.22E-09	0.0000	0.0000	2.06E-04
20	*	*	0.00	0.000	0.023	0.1611	0.0062	0.0000	8.22E-09	0.0000	0.0000	2.06E-04
21	*	*	0.00	0.000	0.009	0.1611	0.0062	0.0000	8.22E-09	0.0000	0.0000	2.05E-04
22	*	*	0.06	0.000	0.019	0.1611	0.0061	0.0000	8.22E-09	0.0000	0.0000	2.05E-04
23	*	*	0.03	0.000	0.020	0.1611	0.0061	0.0000	8.21E-09	0.0000	0.0000	2.04E-04

24	*	*	0.02	0.000	0.000	0.1611	0.0061	0.0000	8.21E-09	0.0000	0.0000	2.04E-04
25	*	*	0.00	0.000	0.025	0.1611	0.0061	0.0000	8.21E-09	0.0000	0.0000	2.03E-04
26	*	*	0.00	0.000	0.023	0.1611	0.0061	0.0000	8.20E-09	0.0000	0.0000	2.03E-04
27	*	*	0.13	0.000	0.022	0.1611	0.0061	0.0000	8.20E-09	0.0000	0.0000	2.02E-04
28	*	*	0.02	0.000	0.010	0.1611	0.0061	0.0000	8.20E-09	0.0000	0.0000	2.02E-04
29	*	*	0.00	0.000	0.020	0.1611	0.0060	0.0000	8.20E-09	0.0000	0.0000	2.01E-04
30	*	*	0.00	0.000	0.018	0.1611	0.0060	0.0000	8.19E-09	0.0000	0.0000	2.01E-04
31	*	*	0.05	0.000	0.000	0.1611	0.0060	0.0000	8.19E-09	0.0000	0.0000	2.00E-04
32	*	*	0.00	0.000	0.013	0.1611	0.0060	0.0000	8.19E-09	0.0000	0.0000	2.00E-04
33	*	*	0.00	0.000	0.024	0.1611	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.99E-04
34		*	0.00	0.000	0.045	0.1650	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.99E-04
35		*	0.00	0.000	0.000	0.1650	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.98E-04
36	*	*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.18E-09	0.0000	0.0000	1.98E-04
37	*	*	0.01	0.000	0.014	0.1650	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.97E-04
38		*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.97E-04
39		*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.96E-04
40		*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.96E-04
41	*	*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.95E-04
42	*	*	0.00	0.000	0.000	0.1650	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.95E-04
43		*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.16E-09	0.0000	0.0000	1.94E-04
44	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.94E-04
45	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.93E-04
46	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.15E-09	0.0000	0.0000	1.93E-04
47	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.93E-04
48	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.92E-04
49	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.92E-04
50	*	*	0.00	0.000	0.000	0.1650	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.91E-04
51		*	0.00	0.000	0.000	0.1650	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.91E-04
52		*	0.00	0.000	0.000	0.1650	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.90E-04
53		*	0.17	0.000	0.000	0.1721	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.90E-04
54		*	0.00	0.000	0.000	0.1721	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.89E-04

55		*	0.00	0.000	0.000	0.1721	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.89E-04
56		*	0.00	0.000	0.000	0.1721	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.89E-04
57		*	0.00	0.000	0.000	0.1721	0.0057	0.0000	8.12E-09	0.0000	0.0000	1.88E-04
58		*	0.00	0.000	0.000	0.1722	0.0057	0.0000	8.11E-09	0.0000	0.0000	1.88E-04
59	*	*	0.10	0.000	0.056	0.1722	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.87E-04
60		*	0.00	0.000	0.047	0.1722	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.87E-04
61	*	*	0.00	0.000	0.005	0.1722	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.86E-04
62		*	0.45	0.000	0.000	0.1909	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.86E-04
63	*	*	0.00	0.000	0.000	0.1909	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.86E-04
64	*	*	0.00	0.000	0.004	0.1909	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.85E-04
65	*	*	0.02	0.000	0.007	0.1909	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.85E-04
66	*	*	0.17	0.000	0.006	0.1909	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.84E-04
67	*	*	0.00	0.000	0.046	0.1909	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.84E-04
68	*	*	0.01	0.000	0.010	0.1909	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.83E-04
69	*	*	0.00	0.000	0.030	0.1909	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.83E-04
70		*	0.00	0.000	0.096	0.1909	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.83E-04
71		*	0.00	0.000	0.000	0.1909	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.82E-04
72	*	*	0.00	0.000	0.000	0.1909	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.82E-04
73	*	*	0.00	0.000	0.000	0.1909	0.0055	0.0000	8.07E-09	0.0000	0.0000	1.81E-04
74	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.81E-04
75	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.81E-04
76	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.80E-04
77	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.80E-04
78	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.79E-04
79	*	*	0.00	0.000	0.000	0.1909	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.79E-04
80	*	*	0.07	0.000	0.008	0.1909	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.79E-04
81		*	0.00	0.000	0.062	0.1909	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.78E-04
82	*	*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.05E-09	0.0000	0.0000	1.78E-04
83	*	*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.05E-09	0.0000	0.0000	1.77E-04
84		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.05E-09	0.0000	0.0000	1.77E-04
85		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.77E-04

86		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.76E-04
87		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.76E-04
88		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.76E-04
89		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.75E-04
90		*	0.00	0.000	0.000	0.1909	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.75E-04
91		*	0.00	0.000	0.000	0.1909	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.74E-04
92		*	0.00	0.000	0.000	0.1909	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.74E-04
93		*	0.41	0.000	0.000	0.2079	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.74E-04
94		*	0.11	0.000	0.000	0.2123	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.73E-04
95		*	0.00	0.000	0.000	0.2123	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.73E-04
96		*	0.04	0.000	0.000	0.2137	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.73E-04
97			0.21	0.000	0.195	0.2144	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.72E-04
98			0.34	0.000	0.197	0.2203	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.72E-04
99			0.00	0.000	0.370	0.2047	0.0052	0.0000	8.02E-09	0.0000	0.0000	1.72E-04
100			0.00	0.000	0.338	0.1906	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.71E-04
101			0.00	0.000	0.152	0.1840	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.71E-04
102			0.00	0.000	0.185	0.1760	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.70E-04
103			0.00	0.000	0.454	0.1569	0.0052	0.0000	8.03E-09	0.0000	0.0000	1.70E-04
104			0.00	0.000	0.167	0.1498	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.70E-04
105			0.00	0.000	0.073	0.1466	0.0053	0.0000	8.03E-09	0.0000	0.0000	1.69E-04
106	*		0.00	0.000	0.000	0.1466	0.0053	0.0000	8.04E-09	0.0000	0.0000	1.69E-04
107			0.00	0.000	0.056	0.1442	0.0054	0.0000	8.05E-09	0.0000	0.0000	1.69E-04
108			0.00	0.000	0.047	0.1423	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.68E-04
109			0.00	0.000	0.042	0.1405	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.68E-04
110			0.00	0.000	0.038	0.1389	0.0056	0.0000	8.09E-09	0.0000	0.0000	1.68E-04
111			0.08	0.000	0.035	0.1406	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.67E-04
112			0.00	0.000	0.032	0.1383	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.67E-04
113			0.00	0.000	0.030	0.1360	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.67E-04
114			0.00	0.000	0.028	0.1331	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.66E-04
115			0.00	0.000	0.027	0.1304	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.66E-04
116			0.07	0.000	0.026	0.1307	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.66E-04

117		0.15	0.000	0.025	0.1348	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.65E-04
118	*	0.00	0.000	0.003	0.1337	0.0055	0.0000	8.09E-09	0.0000	0.0000	1.65E-04
119	*	0.44	0.000	0.021	0.1335	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.65E-04
120	*	0.02	0.000	0.033	0.1334	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.64E-04
121		0.00	0.000	0.074	0.1448	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.64E-04
122		0.00	0.000	0.024	0.1431	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.64E-04
123		0.00	0.000	0.023	0.1415	0.0055	0.0000	8.07E-09	0.0000	0.0000	1.63E-04
124		0.00	0.000	0.022	0.1400	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.63E-04
125		0.25	0.000	0.022	0.1490	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.63E-04
126		0.14	0.000	0.021	0.1534	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.62E-04
127		0.00	0.000	0.021	0.1521	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.62E-04
128		0.14	0.000	0.020	0.1568	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.62E-04
129		0.08	0.000	0.020	0.1588	0.0054	0.0000	8.06E-09	0.0000	0.0000	1.61E-04
130		0.31	0.000	0.162	0.1645	0.0054	0.0000	8.07E-09	0.0000	0.0000	1.61E-04
131		0.00	0.000	0.267	0.1530	0.0055	0.0000	8.08E-09	0.0000	0.0000	1.61E-04
132		0.00	0.000	0.177	0.1456	0.0056	0.0000	8.10E-09	0.0000	0.0000	1.60E-04
133		0.00	0.000	0.073	0.1422	0.0056	0.0000	8.11E-09	0.0000	0.0000	1.60E-04
134		0.61	0.000	0.056	0.1647	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.60E-04
135		0.00	0.000	0.412	0.1472	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.59E-04
136		0.00	0.000	0.048	0.1448	0.0058	0.0000	8.13E-09	0.0000	0.0000	1.59E-04
137		1.02	0.000	0.042	0.1849	0.0057	0.0000	8.13E-09	0.0000	0.0000	1.59E-04
138		0.15	0.000	0.254	0.1807	0.0058	0.0000	8.14E-09	0.0000	0.0000	1.58E-04
139		0.27	0.000	0.303	0.1788	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.58E-04
140		0.18	0.000	0.284	0.1740	0.0059	0.0000	8.16E-09	0.0000	0.0000	1.58E-04
141		0.00	0.000	0.250	0.1630	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.58E-04
142		0.10	0.000	0.182	0.1591	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.57E-04
143		0.00	0.000	0.382	0.1426	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.57E-04
144		0.00	0.000	0.158	0.1355	0.0059	0.0000	8.17E-09	0.0000	0.0000	1.57E-04
145		0.42	0.000	0.074	0.1494	0.0060	0.0000	8.18E-09	0.0000	0.0000	1.56E-04
146		0.00	0.000	0.057	0.1467	0.0060	0.0000	8.19E-09	0.0000	0.0000	1.56E-04
147		0.05	0.000	0.048	0.1464	0.0061	0.0000	8.21E-09	0.0000	0.0000	1.56E-04

148	0.07	0.000	0.042	0.1473	0.0062	0.0000	8.22E-09	0.0000	0.0000	1.55E-04
149	0.09	0.000	0.038	0.1491	0.0062	0.0000	8.24E-09	0.0000	0.0000	1.55E-04
150	0.03	0.000	0.035	0.1486	0.0063	0.0000	8.25E-09	0.0000	0.0000	1.55E-04
151	0.00	0.000	0.032	0.1470	0.0064	0.0000	8.27E-09	0.0000	0.0000	1.55E-04
152	0.00	0.000	0.030	0.1455	0.0064	0.0000	8.28E-09	0.0000	0.0000	1.54E-04
153	0.19	0.000	0.029	0.1520	0.0065	0.0000	8.29E-09	0.0000	0.0000	1.54E-04
154	0.00	0.000	0.193	0.1438	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.54E-04
155	0.05	0.000	0.028	0.1444	0.0067	0.0000	8.32E-09	0.0000	0.0000	1.53E-04
156	0.00	0.000	0.026	0.1431	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.53E-04
157	0.00	0.000	0.025	0.1419	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.53E-04
158	0.47	0.000	0.025	0.1601	0.0069	0.0000	8.36E-09	0.0000	0.0000	1.53E-04
159	0.22	0.000	0.199	0.1607	0.0069	0.0000	8.38E-09	0.0000	0.0000	1.52E-04
160	0.08	0.000	0.227	0.1544	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.52E-04
161	0.00	0.000	0.306	0.1416	0.0071	0.0000	8.40E-09	0.0000	0.0000	1.52E-04
162	0.73	0.000	0.171	0.1647	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.51E-04
163	1.39	0.000	0.188	0.2147	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.51E-04
164	0.04	0.000	0.159	0.2096	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.51E-04
165	0.15	0.000	0.141	0.2095	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.51E-04
166	0.02	0.000	0.325	0.1963	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.50E-04
167	0.02	0.000	0.177	0.1894	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.50E-04
168	0.00	0.000	0.284	0.1774	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.50E-04
169	0.01	0.000	0.339	0.1637	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.49E-04
170	0.37	0.000	0.178	0.1715	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.49E-04
171	0.82	0.000	0.327	0.1917	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.49E-04
172	0.00	0.000	0.390	0.1754	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.49E-04
173	0.00	0.000	0.399	0.1586	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.48E-04
174	0.78	0.000	0.178	0.1836	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.48E-04
175	1.15	0.000	0.302	0.2190	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.48E-04
176	0.13	0.000	0.391	0.2081	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.48E-04
177	0.00	0.000	0.233	0.1984	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.47E-04
178	0.01	0.000	0.330	0.1851	0.0081	0.0000	8.63E-09	0.0000	0.0000	1.47E-04

179	0.43	0.000	0.347	0.1882	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.47E-04
180	0.00	0.000	0.300	0.1757	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.46E-04
181	0.00	0.000	0.335	0.1615	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.46E-04
182	0.00	0.000	0.177	0.1538	0.0083	0.0000	8.67E-09	0.0000	0.0000	1.46E-04
183	0.00	0.000	0.073	0.1502	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.46E-04
184	0.05	0.000	0.057	0.1491	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.45E-04
185	0.00	0.000	0.047	0.1466	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.45E-04
186	0.00	0.000	0.042	0.1443	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.45E-04
187	0.11	0.000	0.038	0.1472	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.45E-04
188	1.26	0.000	0.035	0.1983	0.0084	0.0000	8.67E-09	0.0000	0.0000	1.44E-04
189	0.59	0.000	0.348	0.2082	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.44E-04
190	0.12	0.000	0.205	0.2047	0.0085	0.0000	8.69E-09	0.0000	0.0000	1.44E-04
191	0.30	0.000	0.373	0.2013	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.44E-04
192	0.06	0.000	0.232	0.1938	0.0086	0.0000	8.71E-09	0.0000	0.0000	1.43E-04
193	0.05	0.000	0.182	0.1878	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.43E-04
194	0.02	0.000	0.189	0.1804	0.0087	0.0000	8.73E-09	0.0000	0.0000	1.43E-04
195	0.04	0.000	0.351	0.1668	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.43E-04
196	0.00	0.000	0.177	0.1588	0.0087	0.0000	8.75E-09	0.0000	0.0000	1.42E-04
197	0.25	0.000	0.074	0.1655	0.0088	0.0000	8.75E-09	0.0000	0.0000	1.42E-04
198	0.00	0.000	0.056	0.1624	0.0087	0.0000	8.75E-09	0.0000	0.0000	1.42E-04
199	0.00	0.000	0.047	0.1598	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.42E-04
200	0.00	0.000	0.042	0.1574	0.0088	0.0000	8.75E-09	0.0000	0.0000	1.41E-04
201	0.08	0.000	0.038	0.1586	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.41E-04
202	0.00	0.000	0.035	0.1566	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.41E-04
203	0.00	0.000	0.033	0.1547	0.0090	0.0000	8.79E-09	0.0000	0.0000	1.41E-04
204	0.20	0.000	0.031	0.1614	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.40E-04
205	0.00	0.000	0.029	0.1598	0.0091	0.0000	8.81E-09	0.0000	0.0000	1.40E-04
206	0.00	0.000	0.027	0.1582	0.0091	0.0000	8.83E-09	0.0000	0.0000	1.40E-04
207	0.45	0.000	0.027	0.1754	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.40E-04
208	0.13	0.000	0.167	0.1737	0.0093	0.0000	8.85E-09	0.0000	0.0000	1.39E-04
209	0.00	0.000	0.183	0.1656	0.0093	0.0000	8.86E-09	0.0000	0.0000	1.39E-04

210	0.00	0.000	0.160	0.1585	0.0093	0.0000	8.86E-09	0.0000	0.0000	1.39E-04
211	0.11	0.000	0.172	0.1554	0.0093	0.0000	8.85E-09	0.0000	0.0000	1.39E-04
212	0.01	0.000	0.074	0.1524	0.0092	0.0000	8.85E-09	0.0000	0.0000	1.38E-04
213	0.00	0.000	0.056	0.1499	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.38E-04
214	0.00	0.000	0.047	0.1478	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.38E-04
215	0.00	0.000	0.042	0.1459	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.38E-04
216	0.06	0.000	0.038	0.1466	0.0092	0.0000	8.83E-09	0.0000	0.0000	1.38E-04
217	0.09	0.000	0.035	0.1485	0.0091	0.0000	8.83E-09	0.0000	0.0000	1.37E-04
218	0.00	0.000	0.032	0.1469	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.37E-04
219	0.11	0.000	0.031	0.1499	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.37E-04
220	0.00	0.000	0.029	0.1485	0.0091	0.0000	8.81E-09	0.0000	0.0000	1.37E-04
221	0.00	0.000	0.027	0.1471	0.0091	0.0000	8.81E-09	0.0000	0.0000	1.36E-04
222	0.29	0.000	0.026	0.1579	0.0090	0.0000	8.81E-09	0.0000	0.0000	1.36E-04
223	0.58	0.000	0.025	0.1809	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.36E-04
224	0.17	0.000	0.169	0.1807	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.36E-04
225	0.00	0.000	0.212	0.1716	0.0090	0.0000	8.79E-09	0.0000	0.0000	1.35E-04
226	0.00	0.000	0.164	0.1648	0.0090	0.0000	8.79E-09	0.0000	0.0000	1.35E-04
227	0.01	0.000	0.166	0.1581	0.0089	0.0000	8.79E-09	0.0000	0.0000	1.35E-04
228	0.00	0.000	0.177	0.1507	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.35E-04
229	0.00	0.000	0.073	0.1475	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.35E-04
230	0.00	0.000	0.055	0.1450	0.0089	0.0000	8.77E-09	0.0000	0.0000	1.34E-04
231	0.00	0.000	0.047	0.1429	0.0088	0.0000	8.77E-09	0.0000	0.0000	1.34E-04
232	0.00	0.000	0.042	0.1409	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.34E-04
233	0.00	0.000	0.038	0.1392	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.34E-04
234	0.00	0.000	0.035	0.1375	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.33E-04
235	0.00	0.000	0.032	0.1359	0.0088	0.0000	8.75E-09	0.0000	0.0000	1.33E-04
236	0.00	0.000	0.030	0.1344	0.0087	0.0000	8.75E-09	0.0000	0.0000	1.33E-04
237	0.32	0.000	0.029	0.1464	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.33E-04
238	0.00	0.000	0.027	0.1451	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.33E-04
239	0.00	0.000	0.026	0.1439	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.32E-04
240	0.00	0.000	0.025	0.1427	0.0087	0.0000	8.73E-09	0.0000	0.0000	1.32E-04

241	0.00	0.000	0.024	0.1416	0.0086	0.0000	8.73E-09	0.0000	0.0000	1.32E-04
242	0.00	0.000	0.024	0.1405	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.32E-04
243	0.00	0.000	0.022	0.1395	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.32E-04
244	0.00	0.000	0.022	0.1384	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.31E-04
245	0.00	0.000	0.021	0.1374	0.0086	0.0000	8.71E-09	0.0000	0.0000	1.31E-04
246	0.00	0.000	0.021	0.1364	0.0086	0.0000	8.71E-09	0.0000	0.0000	1.31E-04
247	0.08	0.000	0.020	0.1389	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.31E-04
248	0.02	0.000	0.020	0.1389	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.30E-04
249	0.78	0.000	0.019	0.1705	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.30E-04
250	0.64	0.000	0.207	0.1885	0.0085	0.0000	8.69E-09	0.0000	0.0000	1.30E-04
251	0.45	0.000	0.147	0.2009	0.0085	0.0000	8.69E-09	0.0000	0.0000	1.30E-04
252	0.99	0.000	0.259	0.2314	0.0084	0.0000	8.69E-09	0.0000	0.0000	1.30E-04
253	0.03	0.000	0.325	0.2191	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.29E-04
254	0.00	0.000	0.276	0.2074	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.29E-04
255	0.00	0.000	0.146	0.2012	0.0084	0.0000	8.67E-09	0.0000	0.0000	1.29E-04
256	0.00	0.000	0.251	0.1906	0.0084	0.0000	8.67E-09	0.0000	0.0000	1.29E-04
257	1.56	0.000	0.178	0.2427	0.0083	0.0000	8.67E-09	0.0000	0.0000	1.29E-04
258	0.00	0.000	0.305	0.2353	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.28E-04
259	0.00	0.000	0.372	0.2194	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.28E-04
260	0.00	0.000	0.188	0.2101	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.28E-04
261	0.00	0.000	0.251	0.1997	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.28E-04
262	0.11	0.000	0.319	0.1897	0.0083	0.0000	8.67E-09	0.0000	0.0000	1.28E-04
263	0.00	0.000	0.177	0.1794	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.27E-04
264	0.04	0.000	0.073	0.1749	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.27E-04
265	0.00	0.000	0.056	0.1700	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.27E-04
266	0.00	0.000	0.047	0.1657	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.27E-04
267	0.00	0.000	0.042	0.1617	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.27E-04
268	0.33	0.000	0.038	0.1720	0.0082	0.0000	8.65E-09	0.0000	0.0000	1.26E-04
269	0.00	0.000	0.035	0.1693	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.26E-04
270	0.00	0.000	0.032	0.1672	0.0083	0.0000	8.67E-09	0.0000	0.0000	1.26E-04
271	0.00	0.000	0.030	0.1650	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.26E-04

272		0.00	0.000	0.029	0.1627	0.0085	0.0000	8.69E-09	0.0000	0.0000	1.26E-04
273		0.00	0.000	0.027	0.1604	0.0085	0.0000	8.71E-09	0.0000	0.0000	1.25E-04
274		0.00	0.000	0.026	0.1582	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.25E-04
275		0.03	0.000	0.025	0.1572	0.0087	0.0000	8.73E-09	0.0000	0.0000	1.25E-04
276		0.01	0.000	0.024	0.1556	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.25E-04
277		0.00	0.000	0.023	0.1537	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.25E-04
278		0.00	0.000	0.022	0.1518	0.0088	0.0000	8.77E-09	0.0000	0.0000	1.24E-04
279		0.00	0.000	0.022	0.1501	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.24E-04
280		0.00	0.000	0.021	0.1484	0.0090	0.0000	8.79E-09	0.0000	0.0000	1.24E-04
281		0.00	0.000	0.021	0.1469	0.0090	0.0000	8.81E-09	0.0000	0.0000	1.24E-04
282		0.00	0.000	0.020	0.1454	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.24E-04
283		0.07	0.000	0.020	0.1467	0.0092	0.0000	8.83E-09	0.0000	0.0000	1.23E-04
284		0.25	0.000	0.019	0.1558	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.23E-04
285		0.00	0.000	0.019	0.1545	0.0093	0.0000	8.85E-09	0.0000	0.0000	1.23E-04
286		0.00	0.000	0.018	0.1532	0.0093	0.0000	8.86E-09	0.0000	0.0000	1.23E-04
287		0.00	0.000	0.018	0.1520	0.0093	0.0000	8.86E-09	0.0000	0.0000	1.23E-04
288		0.05	0.000	0.018	0.1527	0.0093	0.0000	8.85E-09	0.0000	0.0000	1.23E-04
289		0.06	0.000	0.017	0.1541	0.0093	0.0000	8.85E-09	0.0000	0.0000	1.22E-04
290		0.00	0.000	0.017	0.1529	0.0092	0.0000	8.85E-09	0.0000	0.0000	1.22E-04
291		0.19	0.000	0.017	0.1596	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.22E-04
292		0.05	0.000	0.016	0.1605	0.0092	0.0000	8.84E-09	0.0000	0.0000	1.22E-04
293		0.00	0.000	0.016	0.1594	0.0092	0.0000	8.83E-09	0.0000	0.0000	1.22E-04
294		0.00	0.000	0.016	0.1584	0.0091	0.0000	8.83E-09	0.0000	0.0000	1.21E-04
295		0.00	0.000	0.016	0.1574	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.21E-04
296		0.00	0.000	0.015	0.1565	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.21E-04
297		0.00	0.000	0.015	0.1555	0.0091	0.0000	8.82E-09	0.0000	0.0000	1.21E-04
298		0.00	0.000	0.015	0.1546	0.0091	0.0000	8.81E-09	0.0000	0.0000	1.21E-04
299		0.00	0.000	0.015	0.1537	0.0090	0.0000	8.81E-09	0.0000	0.0000	1.21E-04
300		0.00	0.000	0.014	0.1528	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.20E-04
301	*	0.00	0.000	0.000	0.1526	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.20E-04
302	*	0.00	0.000	0.000	0.1523	0.0090	0.0000	8.80E-09	0.0000	0.0000	1.20E-04

303	*		0.00	0.000	0.000	0.1521	0.0090	0.0000	8.79E-09	0.0000	0.0000	1.20E-04
304	*		0.00	0.000	0.000	0.1518	0.0089	0.0000	8.79E-09	0.0000	0.0000	1.20E-04
305	*		0.00	0.000	0.000	0.1516	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.19E-04
306			0.00	0.000	0.014	0.1507	0.0089	0.0000	8.78E-09	0.0000	0.0000	1.19E-04
307			0.00	0.000	0.014	0.1499	0.0089	0.0000	8.77E-09	0.0000	0.0000	1.19E-04
308			0.01	0.000	0.014	0.1497	0.0089	0.0000	8.77E-09	0.0000	0.0000	1.19E-04
309			0.00	0.000	0.014	0.1489	0.0088	0.0000	8.77E-09	0.0000	0.0000	1.19E-04
310			0.00	0.000	0.014	0.1481	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.19E-04
311			0.00	0.000	0.013	0.1474	0.0088	0.0000	8.76E-09	0.0000	0.0000	1.18E-04
312			0.00	0.000	0.013	0.1466	0.0088	0.0000	8.75E-09	0.0000	0.0000	1.18E-04
313			0.00	0.000	0.013	0.1458	0.0088	0.0000	8.75E-09	0.0000	0.0000	1.18E-04
314			0.04	0.000	0.013	0.1467	0.0087	0.0000	8.75E-09	0.0000	0.0000	1.18E-04
315	*		0.00	0.000	0.013	0.1460	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.18E-04
316			0.04	0.000	0.013	0.1469	0.0087	0.0000	8.74E-09	0.0000	0.0000	1.18E-04
317	*		0.00	0.000	0.000	0.1468	0.0087	0.0000	8.73E-09	0.0000	0.0000	1.17E-04
318			0.00	0.000	0.013	0.1461	0.0087	0.0000	8.73E-09	0.0000	0.0000	1.17E-04
319	*		0.00	0.000	0.000	0.1459	0.0086	0.0000	8.73E-09	0.0000	0.0000	1.17E-04
320	*		0.00	0.000	0.000	0.1458	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.17E-04
321			0.00	0.000	0.012	0.1451	0.0086	0.0000	8.72E-09	0.0000	0.0000	1.17E-04
322	*		0.00	0.000	0.000	0.1450	0.0086	0.0000	8.71E-09	0.0000	0.0000	1.17E-04
323	*		0.00	0.000	0.000	0.1448	0.0086	0.0000	8.71E-09	0.0000	0.0000	1.16E-04
324	*		0.00	0.000	0.000	0.1447	0.0085	0.0000	8.71E-09	0.0000	0.0000	1.16E-04
325	*		0.00	0.000	0.000	0.1445	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.16E-04
326	*		0.00	0.000	0.012	0.1438	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.16E-04
327	*	*	0.00	0.000	0.000	0.1438	0.0085	0.0000	8.70E-09	0.0000	0.0000	1.16E-04
328	*	*	0.00	0.000	0.000	0.1438	0.0085	0.0000	8.69E-09	0.0000	0.0000	1.16E-04
329	*	*	0.00	0.000	0.000	0.1438	0.0084	0.0000	8.69E-09	0.0000	0.0000	1.15E-04
330	*	*	0.00	0.000	0.000	0.1438	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.15E-04
331	*	*	0.00	0.000	0.000	0.1438	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.15E-04
332	*	*	0.00	0.000	0.000	0.1438	0.0084	0.0000	8.68E-09	0.0000	0.0000	1.15E-04
333	*	*	0.00	0.000	0.000	0.1438	0.0084	0.0000	8.67E-09	0.0000	0.0000	1.15E-04

334	*	*	0.00	0.000	0.000	0.1438	0.0083	0.0000	8.67E-09	0.0000	0.0000	1.15E-04
335	*	*	0.17	0.000	0.044	0.1438	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.14E-04
336		*	0.00	0.000	0.082	0.1458	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.14E-04
337		*	0.00	0.000	0.000	0.1458	0.0083	0.0000	8.66E-09	0.0000	0.0000	1.14E-04
338		*	0.00	0.000	0.000	0.1458	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.14E-04
339		*	0.00	0.000	0.000	0.1458	0.0083	0.0000	8.65E-09	0.0000	0.0000	1.14E-04
340		*	0.00	0.000	0.000	0.1458	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.14E-04
341		*	0.00	0.000	0.000	0.1458	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.13E-04
342		*	0.02	0.000	0.000	0.1468	0.0082	0.0000	8.64E-09	0.0000	0.0000	1.13E-04
343		*	0.00	0.000	0.000	0.1468	0.0082	0.0000	8.63E-09	0.0000	0.0000	1.13E-04
344		*	0.00	0.000	0.000	0.1468	0.0082	0.0000	8.63E-09	0.0000	0.0000	1.13E-04
345		*	0.00	0.000	0.000	0.1468	0.0081	0.0000	8.63E-09	0.0000	0.0000	1.13E-04
346		*	0.00	0.000	0.000	0.1468	0.0081	0.0000	8.62E-09	0.0000	0.0000	1.13E-04
347		*	0.00	0.000	0.000	0.1468	0.0081	0.0000	8.62E-09	0.0000	0.0000	1.12E-04
348	*	*	0.00	0.000	0.000	0.1468	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.12E-04
349		*	0.01	0.000	0.000	0.1474	0.0081	0.0000	8.61E-09	0.0000	0.0000	1.12E-04
350	*	*	0.00	0.000	0.000	0.1474	0.0080	0.0000	8.61E-09	0.0000	0.0000	1.12E-04
351		*	0.12	0.000	0.000	0.1522	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.12E-04
352	*	*	0.00	0.000	0.000	0.1522	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.12E-04
353	*	*	0.03	0.000	0.018	0.1522	0.0080	0.0000	8.60E-09	0.0000	0.0000	1.12E-04
354	*	*	0.02	0.000	0.007	0.1522	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.11E-04
355	*	*	0.24	0.000	0.003	0.1522	0.0080	0.0000	8.59E-09	0.0000	0.0000	1.11E-04
356	*	*	0.04	0.000	0.002	0.1522	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.11E-04
357	*	*	0.00	0.000	0.004	0.1522	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.11E-04
358	*	*	0.00	0.000	0.006	0.1522	0.0079	0.0000	8.58E-09	0.0000	0.0000	1.11E-04
359	*	*	0.00	0.000	0.000	0.1522	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.11E-04
360	*	*	0.00	0.000	0.042	0.1522	0.0079	0.0000	8.57E-09	0.0000	0.0000	1.10E-04
361		*	0.00	0.000	0.048	0.1603	0.0078	0.0000	8.57E-09	0.0000	0.0000	1.10E-04
362		*	0.00	0.000	0.000	0.1603	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.10E-04
363		*	0.00	0.000	0.000	0.1603	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.10E-04
364		*	0.02	0.000	0.000	0.1611	0.0078	0.0000	8.56E-09	0.0000	0.0000	1.10E-04

365	*	0.00	0.000	0.000	0.1611	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.10E-04

* = Frozen (air or soil)

Annual Totals for Year 1			
	inches	cubic feet	percent
Precipitation	26.23	95,214.0	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.970	87,011.6	91.39
Drainage Collected from Layer 3	0.0023	8.3180	0.01
Percolation/Leakage through Layer 4	0.000003	0.0112	0.00
Average Head on Top of Layer 4	0.0073	---	---
Percolation/Leakage through Layer 6	0.055179	200.3	0.21
Change in Water Storage	2.2021	7,993.8	8.40
Soil Water at Start of Year	30.3982	110,345.4	115.89
Soil Water at End of Year	32.6003	118,339.2	124.29
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 2

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:51

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.1611	0.0078	0.0000	8.55E-09	0.0000	0.0000	1.10E-04
2	*	*	0.00	0.000	0.000	0.1611	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.09E-04
3	*	*	0.00	0.000	0.000	0.1611	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.09E-04
4	*	*	0.00	0.000	0.000	0.1611	0.0077	0.0000	8.54E-09	0.0000	0.0000	1.09E-04
5	*	*	0.53	0.000	0.027	0.1611	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.09E-04
6		*	0.00	0.000	0.000	0.1820	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.09E-04
7		*	0.00	0.000	0.000	0.1820	0.0077	0.0000	8.53E-09	0.0000	0.0000	1.09E-04
8		*	0.26	0.000	0.000	0.1930	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.08E-04
9		*	0.41	0.000	0.000	0.2100	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.08E-04
10		*	0.00	0.000	0.000	0.2100	0.0076	0.0000	8.52E-09	0.0000	0.0000	1.08E-04
11		*	0.00	0.000	0.000	0.2100	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.08E-04
12		*	0.00	0.000	0.000	0.2100	0.0076	0.0000	8.51E-09	0.0000	0.0000	1.08E-04
13	*	*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.51E-09	0.0000	0.0000	1.08E-04
14	*	*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.08E-04
15		*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.07E-04
16		*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.50E-09	0.0000	0.0000	1.07E-04
17		*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.07E-04
18		*	0.00	0.000	0.000	0.2100	0.0075	0.0000	8.49E-09	0.0000	0.0000	1.07E-04
19		*	0.05	0.000	0.000	0.2122	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.07E-04
20	*	*	0.00	0.000	0.000	0.2122	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.07E-04
21	*	*	0.00	0.000	0.000	0.2122	0.0074	0.0000	8.48E-09	0.0000	0.0000	1.07E-04
22	*	*	0.16	0.000	0.039	0.2122	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.06E-04
23		*	0.00	0.000	0.044	0.2131	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.06E-04

24		*	0.00	0.000	0.054	0.2131	0.0074	0.0000	8.47E-09	0.0000	0.0000	1.06E-04
25	*	*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.06E-04
26	*	*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.06E-04
27		*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.46E-09	0.0000	0.0000	1.06E-04
28		*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.06E-04
29	*	*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.05E-04
30	*	*	0.00	0.000	0.000	0.2131	0.0073	0.0000	8.45E-09	0.0000	0.0000	1.05E-04
31		*	0.10	0.000	0.000	0.2175	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.05E-04
32	*	*	0.01	0.000	0.012	0.2175	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.05E-04
33	*	*	0.00	0.000	0.000	0.2175	0.0072	0.0000	8.44E-09	0.0000	0.0000	1.05E-04
34	*	*	0.00	0.000	0.000	0.2175	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.05E-04
35	*	*	0.00	0.000	0.000	0.2175	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.05E-04
36	*	*	0.00	0.000	0.000	0.2175	0.0072	0.0000	8.43E-09	0.0000	0.0000	1.05E-04
37	*	*	0.00	0.000	0.000	0.2175	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.04E-04
38	*	*	0.00	0.000	0.000	0.2175	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.04E-04
39	*	*	0.00	0.000	0.000	0.2175	0.0071	0.0000	8.42E-09	0.0000	0.0000	1.04E-04
40		*	0.00	0.000	0.000	0.2175	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.04E-04
41		*	0.00	0.000	0.000	0.2175	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.04E-04
42		*	0.06	0.000	0.000	0.2199	0.0071	0.0000	8.41E-09	0.0000	0.0000	1.04E-04
43		*	0.06	0.000	0.000	0.2226	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.04E-04
44		*	0.00	0.000	0.000	0.2226	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.03E-04
45	*	*	0.09	0.000	0.036	0.2226	0.0070	0.0000	8.40E-09	0.0000	0.0000	1.03E-04
46	*	*	0.00	0.000	0.012	0.2226	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.03E-04
47	*	*	0.00	0.000	0.008	0.2226	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.03E-04
48	*	*	0.00	0.000	0.008	0.2226	0.0070	0.0000	8.39E-09	0.0000	0.0000	1.03E-04
49	*	*	0.03	0.000	0.000	0.2226	0.0070	0.0000	8.38E-09	0.0000	0.0000	1.03E-04
50		*	0.05	0.000	0.099	0.2226	0.0069	0.0000	8.38E-09	0.0000	0.0000	1.03E-04
51		*	0.00	0.000	0.000	0.2226	0.0069	0.0000	8.38E-09	0.0000	0.0000	1.03E-04
52	*	*	0.00	0.000	0.000	0.2226	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.02E-04
53	*	*	0.03	0.000	0.025	0.2226	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.02E-04
54	*	*	0.01	0.000	0.010	0.2226	0.0069	0.0000	8.37E-09	0.0000	0.0000	1.02E-04

55	*	*	0.00	0.000	0.000	0.2226	0.0069	0.0000	8.36E-09	0.0000	0.0000	1.02E-04
56		*	0.00	0.000	0.000	0.2226	0.0068	0.0000	8.36E-09	0.0000	0.0000	1.02E-04
57		*	0.00	0.000	0.000	0.2226	0.0068	0.0000	8.36E-09	0.0000	0.0000	1.02E-04
58		*	0.03	0.000	0.000	0.2239	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.02E-04
59		*	0.04	0.000	0.000	0.2256	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.01E-04
60		*	0.68	0.000	0.000	0.2539	0.0068	0.0000	8.35E-09	0.0000	0.0000	1.01E-04
61		*	0.00	0.000	0.000	0.2539	0.0068	0.0000	8.34E-09	0.0000	0.0000	1.01E-04
62		*	0.24	0.000	0.000	0.2640	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.01E-04
63	*	*	0.07	0.000	0.043	0.2640	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.01E-04
64		*	0.19	0.000	0.110	0.2686	0.0067	0.0000	8.34E-09	0.0000	0.0000	1.01E-04
65	*	*	0.00	0.000	0.000	0.2686	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.01E-04
66	*	*	0.00	0.000	0.000	0.2686	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.01E-04
67	*	*	0.23	0.000	0.023	0.2686	0.0067	0.0000	8.33E-09	0.0000	0.0000	1.00E-04
68	*	*	0.10	0.000	0.011	0.2686	0.0067	0.0000	8.32E-09	0.0000	0.0000	1.00E-04
69	*	*	0.01	0.000	0.015	0.2686	0.0066	0.0000	8.32E-09	0.0000	0.0000	1.00E-04
70		*	0.00	0.000	0.029	0.2795	0.0066	0.0000	8.32E-09	0.0000	0.0000	1.00E-04
71		*	0.00	0.000	0.000	0.2795	0.0066	0.0000	8.31E-09	0.0000	0.0000	1.00E-04
72		*	0.01	0.000	0.000	0.2799	0.0066	0.0000	8.31E-09	0.0000	0.0000	9.98E-05
73		*	0.03	0.000	0.000	0.2813	0.0066	0.0000	8.31E-09	0.0000	0.0000	9.97E-05
74		*	0.00	0.000	0.000	0.2813	0.0066	0.0000	8.30E-09	0.0000	0.0000	9.96E-05
75	*	*	0.00	0.000	0.000	0.2813	0.0065	0.0000	8.30E-09	0.0000	0.0000	9.95E-05
76	*	*	0.00	0.000	0.000	0.2813	0.0065	0.0000	8.30E-09	0.0000	0.0000	9.94E-05
77		*	0.00	0.000	0.000	0.2813	0.0065	0.0000	8.29E-09	0.0000	0.0000	9.92E-05
78		*	0.00	0.000	0.000	0.2813	0.0065	0.0000	8.29E-09	0.0000	0.0000	9.91E-05
79	*	*	0.22	0.000	0.019	0.2813	0.0065	0.0000	8.29E-09	0.0000	0.0000	9.90E-05
80	*	*	0.00	0.000	0.062	0.2813	0.0065	0.0000	8.29E-09	0.0000	0.0000	9.89E-05
81		*	0.00	0.000	0.135	0.2813	0.0065	0.0000	8.28E-09	0.0000	0.0000	9.87E-05
82	*	*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.28E-09	0.0000	0.0000	9.86E-05
83	*	*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.28E-09	0.0000	0.0000	9.85E-05
84		*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.27E-09	0.0000	0.0000	9.84E-05
85		*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.27E-09	0.0000	0.0000	9.83E-05

86		*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.27E-09	0.0000	0.0000	9.81E-05
87		*	0.00	0.000	0.000	0.2813	0.0064	0.0000	8.26E-09	0.0000	0.0000	9.80E-05
88		*	0.17	0.000	0.000	0.2886	0.0064	0.0000	8.26E-09	0.0000	0.0000	9.79E-05
89		*	0.00	0.000	0.000	0.2886	0.0063	0.0000	8.26E-09	0.0000	0.0000	9.78E-05
90		*	0.00	0.000	0.000	0.2886	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.77E-05
91	*	*	0.71	0.000	0.040	0.2886	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.75E-05
92	*	*	0.00	0.000	0.017	0.2886	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.74E-05
93	*	*	0.63	0.000	0.000	0.2886	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.73E-05
94		*	0.23	0.000	0.000	0.3198	0.0063	0.0000	8.24E-09	0.0000	0.0000	9.72E-05
95	*	*	0.00	0.000	0.034	0.3198	0.0063	0.0000	8.24E-09	0.0000	0.0000	9.71E-05
96	*	*	0.00	0.000	0.018	0.3198	0.0062	0.0000	8.24E-09	0.0000	0.0000	9.69E-05
97	*	*	0.01	0.000	0.000	0.3198	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.68E-05
98		*	0.04	0.000	0.004	0.3515	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.67E-05
99		*	0.15	0.000	0.000	0.3578	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.66E-05
100	*	*	0.31	0.000	0.034	0.3578	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.65E-05
101	*	*	0.00	0.000	0.042	0.3578	0.0062	0.0000	8.22E-09	0.0000	0.0000	9.64E-05
102		*	0.00	0.000	0.056	0.3578	0.0062	0.0000	8.22E-09	0.0000	0.0000	9.62E-05
103	*	*	0.00	0.000	0.064	0.3578	0.0061	0.0000	8.22E-09	0.0000	0.0000	9.61E-05
104		*	0.00	0.000	0.111	0.3578	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.60E-05
105		*	0.00	0.000	0.000	0.3578	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.59E-05
106		*	0.00	0.000	0.000	0.3578	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.58E-05
107		*	0.00	0.000	0.000	0.3578	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.57E-05
108		*	0.00	0.000	0.000	0.3578	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.56E-05
109		*	0.00	0.000	0.000	0.3578	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.54E-05
110	*	*	0.13	0.000	0.057	0.3578	0.0060	0.0000	8.20E-09	0.0000	0.0000	9.53E-05
111		*	0.03	0.000	0.097	0.3580	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.52E-05
112			0.00	0.000	0.180	0.2807	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.51E-05
113			0.00	0.000	0.144	0.2385	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.50E-05
114	*		0.01	0.000	0.056	0.2289	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.49E-05
115	*		0.06	0.000	0.061	0.2236	0.0061	0.0000	8.22E-09	0.0000	0.0000	9.48E-05
116	*		0.44	0.000	0.022	0.2202	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.46E-05

117		0.03	0.000	0.030	0.2330	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.45E-05
118	*	0.65	0.000	0.034	0.2308	0.0063	0.0000	8.25E-09	0.0000	0.0000	9.44E-05
119	*	0.00	0.000	0.027	0.2293	0.0063	0.0000	8.24E-09	0.0000	0.0000	9.43E-05
120	*	0.06	0.000	0.028	0.2280	0.0063	0.0000	8.24E-09	0.0000	0.0000	9.42E-05
121		0.00	0.000	0.142	0.2427	0.0062	0.0000	8.24E-09	0.0000	0.0000	9.41E-05
122		0.08	0.000	0.340	0.2302	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.40E-05
123		0.15	0.000	0.291	0.2225	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.39E-05
124		0.46	0.000	0.254	0.2294	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.38E-05
125	*	0.00	0.000	0.132	0.2227	0.0062	0.0000	8.23E-09	0.0000	0.0000	9.37E-05
126		0.00	0.000	0.275	0.2110	0.0062	0.0000	8.22E-09	0.0000	0.0000	9.35E-05
127		0.00	0.000	0.288	0.1980	0.0062	0.0000	8.22E-09	0.0000	0.0000	9.34E-05
128		0.00	0.000	0.297	0.1835	0.0061	0.0000	8.22E-09	0.0000	0.0000	9.33E-05
129		1.28	0.000	0.177	0.2275	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.32E-05
130		0.30	0.000	0.300	0.2262	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.31E-05
131		0.07	0.000	0.134	0.2222	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.30E-05
132		0.28	0.000	0.122	0.2276	0.0061	0.0000	8.21E-09	0.0000	0.0000	9.29E-05
133		0.00	0.000	0.278	0.2142	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.28E-05
134		0.24	0.000	0.402	0.2063	0.0061	0.0000	8.20E-09	0.0000	0.0000	9.27E-05
135		0.00	0.000	0.400	0.1885	0.0060	0.0000	8.20E-09	0.0000	0.0000	9.26E-05
136		0.39	0.000	0.274	0.1918	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.25E-05
137		0.00	0.000	0.136	0.1845	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.24E-05
138		0.00	0.000	0.210	0.1747	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.22E-05
139		0.00	0.000	0.177	0.1664	0.0060	0.0000	8.19E-09	0.0000	0.0000	9.21E-05
140		0.00	0.000	0.073	0.1625	0.0060	0.0000	8.18E-09	0.0000	0.0000	9.20E-05
141		0.09	0.000	0.057	0.1634	0.0060	0.0000	8.18E-09	0.0000	0.0000	9.19E-05
142		0.04	0.000	0.048	0.1629	0.0060	0.0000	8.18E-09	0.0000	0.0000	9.18E-05
143		0.67	0.000	0.042	0.1887	0.0059	0.0000	8.17E-09	0.0000	0.0000	9.17E-05
144		0.16	0.000	0.143	0.1892	0.0059	0.0000	8.17E-09	0.0000	0.0000	9.16E-05
145		0.00	0.000	0.241	0.1783	0.0059	0.0000	8.17E-09	0.0000	0.0000	9.15E-05
146		0.00	0.000	0.256	0.1672	0.0059	0.0000	8.17E-09	0.0000	0.0000	9.14E-05
147		0.00	0.000	0.177	0.1597	0.0059	0.0000	8.16E-09	0.0000	0.0000	9.13E-05

148	0.00	0.000	0.073	0.1565	0.0059	0.0000	8.16E-09	0.0000	0.0000	9.12E-05
149	0.00	0.000	0.056	0.1538	0.0059	0.0000	8.16E-09	0.0000	0.0000	9.11E-05
150	0.00	0.000	0.047	0.1513	0.0058	0.0000	8.15E-09	0.0000	0.0000	9.10E-05
151	0.00	0.000	0.042	0.1490	0.0058	0.0000	8.15E-09	0.0000	0.0000	9.09E-05
152	0.00	0.000	0.038	0.1468	0.0058	0.0000	8.15E-09	0.0000	0.0000	9.08E-05
153	0.00	0.000	0.035	0.1447	0.0058	0.0000	8.15E-09	0.0000	0.0000	9.07E-05
154	0.00	0.000	0.032	0.1428	0.0058	0.0000	8.14E-09	0.0000	0.0000	9.06E-05
155	0.00	0.000	0.030	0.1409	0.0058	0.0000	8.14E-09	0.0000	0.0000	9.05E-05
156	0.00	0.000	0.029	0.1392	0.0058	0.0000	8.14E-09	0.0000	0.0000	9.04E-05
157	0.00	0.000	0.027	0.1375	0.0058	0.0000	8.13E-09	0.0000	0.0000	9.03E-05
158	0.00	0.000	0.026	0.1360	0.0057	0.0000	8.13E-09	0.0000	0.0000	9.02E-05
159	0.00	0.000	0.025	0.1344	0.0057	0.0000	8.13E-09	0.0000	0.0000	9.01E-05
160	0.00	0.000	0.024	0.1330	0.0057	0.0000	8.13E-09	0.0000	0.0000	9.00E-05
161	0.00	0.000	0.023	0.1316	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.99E-05
162	0.00	0.000	0.022	0.1303	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.98E-05
163	0.00	0.000	0.022	0.1290	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.97E-05
164	0.39	0.000	0.022	0.1441	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.96E-05
165	0.13	0.000	0.021	0.1482	0.0056	0.0000	8.11E-09	0.0000	0.0000	8.95E-05
166	0.16	0.000	0.021	0.1537	0.0056	0.0000	8.11E-09	0.0000	0.0000	8.94E-05
167	0.28	0.000	0.020	0.1643	0.0056	0.0000	8.11E-09	0.0000	0.0000	8.93E-05
168	0.10	0.000	0.358	0.1530	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.92E-05
169	0.00	0.000	0.020	0.1522	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.91E-05
170	0.00	0.000	0.019	0.1511	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.90E-05
171	0.37	0.000	0.019	0.1656	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.89E-05
172	0.00	0.000	0.296	0.1531	0.0056	0.0000	8.09E-09	0.0000	0.0000	8.88E-05
173	0.00	0.000	0.018	0.1521	0.0055	0.0000	8.09E-09	0.0000	0.0000	8.87E-05
174	0.00	0.000	0.018	0.1512	0.0055	0.0000	8.09E-09	0.0000	0.0000	8.86E-05
175	0.00	0.000	0.017	0.1502	0.0055	0.0000	8.09E-09	0.0000	0.0000	8.85E-05
176	0.68	0.000	0.018	0.1777	0.0055	0.0000	8.08E-09	0.0000	0.0000	8.84E-05
177	0.00	0.000	0.227	0.1681	0.0055	0.0000	8.08E-09	0.0000	0.0000	8.83E-05
178	0.95	0.000	0.296	0.1953	0.0055	0.0000	8.08E-09	0.0000	0.0000	8.82E-05

179	0.87	0.000	0.298	0.2190	0.0055	0.0000	8.08E-09	0.0000	0.0000	8.81E-05
180	0.93	0.000	0.329	0.2439	0.0055	0.0000	8.07E-09	0.0000	0.0000	8.80E-05
181	0.00	0.000	0.327	0.2299	0.0054	0.0000	8.07E-09	0.0000	0.0000	8.79E-05
182	0.00	0.000	0.312	0.2164	0.0054	0.0000	8.07E-09	0.0000	0.0000	8.78E-05
183	0.00	0.000	0.297	0.2040	0.0054	0.0000	8.07E-09	0.0000	0.0000	8.77E-05
184	0.00	0.000	0.250	0.1936	0.0054	0.0000	8.06E-09	0.0000	0.0000	8.76E-05
185	0.00	0.000	0.177	0.1845	0.0054	0.0000	8.06E-09	0.0000	0.0000	8.75E-05
186	0.00	0.000	0.073	0.1783	0.0054	0.0000	8.06E-09	0.0000	0.0000	8.74E-05
187	0.00	0.000	0.056	0.1730	0.0054	0.0000	8.05E-09	0.0000	0.0000	8.73E-05
188	0.01	0.000	0.048	0.1687	0.0054	0.0000	8.05E-09	0.0000	0.0000	8.72E-05
189	0.03	0.000	0.042	0.1658	0.0053	0.0000	8.05E-09	0.0000	0.0000	8.71E-05
190	0.82	0.000	0.038	0.1961	0.0053	0.0000	8.05E-09	0.0000	0.0000	8.70E-05
191	0.00	0.000	0.375	0.1787	0.0054	0.0000	8.06E-09	0.0000	0.0000	8.69E-05
192	0.04	0.000	0.035	0.1782	0.0054	0.0000	8.07E-09	0.0000	0.0000	8.68E-05
193	0.54	0.000	0.033	0.1983	0.0055	0.0000	8.09E-09	0.0000	0.0000	8.67E-05
194	0.02	0.000	0.372	0.1823	0.0056	0.0000	8.10E-09	0.0000	0.0000	8.66E-05
195	0.35	0.000	0.308	0.1831	0.0057	0.0000	8.12E-09	0.0000	0.0000	8.65E-05
196	0.00	0.000	0.352	0.1674	0.0057	0.0000	8.13E-09	0.0000	0.0000	8.64E-05
197	0.16	0.000	0.178	0.1655	0.0058	0.0000	8.14E-09	0.0000	0.0000	8.63E-05
198	0.04	0.000	0.074	0.1629	0.0059	0.0000	8.16E-09	0.0000	0.0000	8.63E-05
199	0.41	0.000	0.057	0.1763	0.0059	0.0000	8.17E-09	0.0000	0.0000	8.62E-05
200	0.00	0.000	0.373	0.1594	0.0060	0.0000	8.19E-09	0.0000	0.0000	8.61E-05
201	0.00	0.000	0.047	0.1568	0.0061	0.0000	8.20E-09	0.0000	0.0000	8.60E-05
202	0.00	0.000	0.042	0.1543	0.0061	0.0000	8.22E-09	0.0000	0.0000	8.59E-05
203	0.00	0.000	0.038	0.1521	0.0062	0.0000	8.23E-09	0.0000	0.0000	8.58E-05
204	0.09	0.000	0.035	0.1537	0.0063	0.0000	8.25E-09	0.0000	0.0000	8.57E-05
205	0.36	0.000	0.033	0.1665	0.0064	0.0000	8.26E-09	0.0000	0.0000	8.56E-05
206	0.07	0.000	0.031	0.1675	0.0064	0.0000	8.28E-09	0.0000	0.0000	8.55E-05
207	0.28	0.000	0.029	0.1774	0.0065	0.0000	8.29E-09	0.0000	0.0000	8.54E-05
208	0.35	0.000	0.348	0.1768	0.0066	0.0000	8.30E-09	0.0000	0.0000	8.53E-05
209	0.00	0.000	0.324	0.1631	0.0066	0.0000	8.32E-09	0.0000	0.0000	8.52E-05

210	0.00	0.000	0.177	0.1552	0.0067	0.0000	8.33E-09	0.0000	0.0000	8.51E-05
211	0.65	0.000	0.074	0.1785	0.0068	0.0000	8.35E-09	0.0000	0.0000	8.51E-05
212	0.42	0.000	0.268	0.1846	0.0068	0.0000	8.36E-09	0.0000	0.0000	8.50E-05
213	0.00	0.000	0.344	0.1698	0.0069	0.0000	8.37E-09	0.0000	0.0000	8.49E-05
214	0.00	0.000	0.341	0.1552	0.0070	0.0000	8.39E-09	0.0000	0.0000	8.48E-05
215	0.01	0.000	0.174	0.1476	0.0070	0.0000	8.40E-09	0.0000	0.0000	8.47E-05
216	0.02	0.000	0.074	0.1448	0.0071	0.0000	8.41E-09	0.0000	0.0000	8.46E-05
217	0.02	0.000	0.057	0.1427	0.0072	0.0000	8.43E-09	0.0000	0.0000	8.45E-05
218	0.65	0.000	0.048	0.1672	0.0072	0.0000	8.44E-09	0.0000	0.0000	8.44E-05
219	0.57	0.000	0.188	0.1826	0.0073	0.0000	8.46E-09	0.0000	0.0000	8.43E-05
220	1.01	0.000	0.286	0.2125	0.0074	0.0000	8.47E-09	0.0000	0.0000	8.42E-05
221	0.86	0.000	0.255	0.2375	0.0074	0.0000	8.48E-09	0.0000	0.0000	8.42E-05
222	0.25	0.000	0.293	0.2353	0.0075	0.0000	8.50E-09	0.0000	0.0000	8.41E-05
223	0.21	0.000	0.256	0.2330	0.0076	0.0000	8.51E-09	0.0000	0.0000	8.40E-05
224	0.00	0.000	0.160	0.2260	0.0076	0.0000	8.52E-09	0.0000	0.0000	8.39E-05
225	0.01	0.000	0.153	0.2199	0.0077	0.0000	8.54E-09	0.0000	0.0000	8.38E-05
226	0.00	0.000	0.245	0.2097	0.0078	0.0000	8.55E-09	0.0000	0.0000	8.37E-05
227	0.00	0.000	0.208	0.2000	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.36E-05
228	0.81	0.000	0.160	0.2258	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.35E-05
229	0.23	0.000	0.144	0.2281	0.0078	0.0000	8.55E-09	0.0000	0.0000	8.35E-05
230	0.25	0.000	0.304	0.2239	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.34E-05
231	0.52	0.000	0.311	0.2305	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.33E-05
232	0.05	0.000	0.188	0.2221	0.0078	0.0000	8.56E-09	0.0000	0.0000	8.32E-05
233	0.04	0.000	0.282	0.2108	0.0079	0.0000	8.57E-09	0.0000	0.0000	8.31E-05
234	0.40	0.000	0.281	0.2146	0.0079	0.0000	8.58E-09	0.0000	0.0000	8.30E-05
235	0.52	0.000	0.133	0.2292	0.0080	0.0000	8.59E-09	0.0000	0.0000	8.29E-05
236	0.00	0.000	0.170	0.2201	0.0080	0.0000	8.61E-09	0.0000	0.0000	8.28E-05
237	0.21	0.000	0.169	0.2211	0.0081	0.0000	8.62E-09	0.0000	0.0000	8.28E-05
238	0.00	0.000	0.350	0.2055	0.0082	0.0000	8.63E-09	0.0000	0.0000	8.27E-05
239	0.00	0.000	0.273	0.1932	0.0082	0.0000	8.64E-09	0.0000	0.0000	8.26E-05
240	0.15	0.000	0.142	0.1920	0.0083	0.0000	8.66E-09	0.0000	0.0000	8.25E-05

241	0.00	0.000	0.273	0.1796	0.0084	0.0000	8.67E-09	0.0000	0.0000	8.24E-05
242	0.00	0.000	0.290	0.1669	0.0084	0.0000	8.68E-09	0.0000	0.0000	8.23E-05
243	0.00	0.000	0.177	0.1590	0.0085	0.0000	8.70E-09	0.0000	0.0000	8.22E-05
244	0.00	0.000	0.073	0.1559	0.0086	0.0000	8.71E-09	0.0000	0.0000	8.22E-05
245	0.00	0.000	0.056	0.1529	0.0086	0.0000	8.72E-09	0.0000	0.0000	8.21E-05
246	0.00	0.000	0.047	0.1506	0.0087	0.0000	8.74E-09	0.0000	0.0000	8.20E-05
247	0.22	0.000	0.042	0.1582	0.0088	0.0000	8.75E-09	0.0000	0.0000	8.19E-05
248	0.00	0.000	0.038	0.1563	0.0088	0.0000	8.76E-09	0.0000	0.0000	8.18E-05
249	0.00	0.000	0.035	0.1542	0.0089	0.0000	8.78E-09	0.0000	0.0000	8.17E-05
250	0.13	0.000	0.033	0.1574	0.0089	0.0000	8.79E-09	0.0000	0.0000	8.17E-05
251	0.19	0.000	0.031	0.1630	0.0090	0.0000	8.80E-09	0.0000	0.0000	8.16E-05
252	1.28	0.000	0.029	0.2143	0.0091	0.0000	8.81E-09	0.0000	0.0000	8.15E-05
253	0.21	0.000	0.236	0.2119	0.0091	0.0000	8.83E-09	0.0000	0.0000	8.14E-05
254	0.00	0.000	0.214	0.2022	0.0092	0.0000	8.84E-09	0.0000	0.0000	8.13E-05
255	0.12	0.000	0.183	0.1987	0.0093	0.0000	8.85E-09	0.0000	0.0000	8.12E-05
256	0.14	0.000	0.186	0.1966	0.0093	0.0000	8.87E-09	0.0000	0.0000	8.12E-05
257	0.08	0.000	0.274	0.1879	0.0094	0.0000	8.88E-09	0.0000	0.0000	8.11E-05
258	0.04	0.000	0.155	0.1824	0.0095	0.0000	8.89E-09	0.0000	0.0000	8.10E-05
259	0.00	0.000	0.320	0.1683	0.0095	0.0000	8.90E-09	0.0000	0.0000	8.09E-05
260	0.00	0.000	0.194	0.1592	0.0096	0.0000	8.92E-09	0.0000	0.0000	8.08E-05
261	0.08	0.000	0.176	0.1546	0.0096	0.0000	8.93E-09	0.0000	0.0000	8.07E-05
262	0.00	0.000	0.073	0.1508	0.0097	0.0000	8.94E-09	0.0000	0.0000	8.07E-05
263	0.00	0.000	0.056	0.1476	0.0098	0.0000	8.95E-09	0.0000	0.0000	8.06E-05
264	0.00	0.000	0.047	0.1452	0.0098	0.0000	8.97E-09	0.0000	0.0000	8.05E-05
265	0.00	0.000	0.042	0.1430	0.0099	0.0000	8.98E-09	0.0000	0.0000	8.04E-05
266	0.00	0.000	0.037	0.1410	0.0100	0.0000	8.99E-09	0.0000	0.0000	8.03E-05
267	0.07	0.000	0.035	0.1419	0.0100	0.0000	9.00E-09	0.0000	0.0000	8.02E-05
268	0.28	0.000	0.032	0.1519	0.0101	0.0000	9.02E-09	0.0000	0.0000	8.02E-05
269	0.19	0.000	0.031	0.1585	0.0101	0.0000	9.03E-09	0.0000	0.0000	8.01E-05
270	0.11	0.000	0.029	0.1614	0.0102	0.0000	9.04E-09	0.0000	0.0000	8.00E-05
271	0.02	0.000	0.203	0.1536	0.0103	0.0000	9.05E-09	0.0000	0.0000	7.99E-05

272		0.00	0.000	0.027	0.1525	0.0103	0.0000	9.06E-09	0.0000	0.0000	7.98E-05
273		0.00	0.000	0.026	0.1513	0.0104	0.0000	9.08E-09	0.0000	0.0000	7.98E-05
274	*	0.01	0.000	0.033	0.1501	0.0104	0.0000	9.09E-09	0.0000	0.0000	7.97E-05
275		0.01	0.000	0.024	0.1495	0.0105	0.0000	9.10E-09	0.0000	0.0000	7.96E-05
276	*	0.02	0.000	0.041	0.1485	0.0106	0.0000	9.11E-09	0.0000	0.0000	7.95E-05
277	*	0.12	0.000	0.043	0.1491	0.0106	0.0000	9.12E-09	0.0000	0.0000	7.94E-05
278		0.00	0.000	0.081	0.1480	0.0107	0.0000	9.14E-09	0.0000	0.0000	7.94E-05
279		0.05	0.000	0.022	0.1490	0.0107	0.0000	9.15E-09	0.0000	0.0000	7.93E-05
280		0.00	0.000	0.021	0.1478	0.0108	0.0000	9.16E-09	0.0000	0.0000	7.92E-05
281		0.00	0.000	0.021	0.1467	0.0109	0.0000	9.17E-09	0.0000	0.0000	7.91E-05
282		0.00	0.000	0.020	0.1457	0.0109	0.0000	9.18E-09	0.0000	0.0000	7.91E-05
283		0.04	0.000	0.020	0.1465	0.0110	0.0000	9.19E-09	0.0000	0.0000	7.90E-05
284		0.00	0.000	0.019	0.1454	0.0110	0.0000	9.21E-09	0.0000	0.0000	7.89E-05
285		0.00	0.000	0.019	0.1444	0.0111	0.0000	9.22E-09	0.0000	0.0000	7.88E-05
286		0.00	0.000	0.018	0.1435	0.0112	0.0000	9.23E-09	0.0000	0.0000	7.87E-05
287		0.00	0.000	0.018	0.1426	0.0112	0.0000	9.24E-09	0.0000	0.0000	7.87E-05
288		0.00	0.000	0.016	0.1417	0.0113	0.0000	9.25E-09	0.0000	0.0000	7.86E-05
289		0.17	0.000	0.017	0.1478	0.0113	0.0000	9.26E-09	0.0000	0.0000	7.85E-05
290		0.00	0.000	0.017	0.1469	0.0114	0.0000	9.27E-09	0.0000	0.0000	7.84E-05
291		0.00	0.000	0.017	0.1459	0.0115	0.0000	9.29E-09	0.0000	0.0000	7.83E-05
292		0.00	0.000	0.016	0.1450	0.0115	0.0000	9.30E-09	0.0000	0.0000	7.83E-05
293		0.00	0.000	0.016	0.1441	0.0116	0.0000	9.31E-09	0.0000	0.0000	7.82E-05
294	*	0.00	0.000	0.000	0.1440	0.0116	0.0000	9.32E-09	0.0000	0.0000	7.81E-05
295	*	0.00	0.000	0.000	0.1439	0.0117	0.0000	9.33E-09	0.0000	0.0000	7.80E-05
296	*	0.04	0.000	0.015	0.1446	0.0117	0.0000	9.34E-09	0.0000	0.0000	7.80E-05
297	*	0.00	0.000	0.008	0.1445	0.0118	0.0000	9.35E-09	0.0000	0.0000	7.79E-05
298	*	0.00	0.000	0.000	0.1443	0.0119	0.0000	9.36E-09	0.0000	0.0000	7.78E-05
299	*	0.00	0.000	0.000	0.1442	0.0119	0.0000	9.37E-09	0.0000	0.0000	7.77E-05
300	*	0.00	0.000	0.000	0.1440	0.0120	0.0000	9.39E-09	0.0000	0.0000	7.77E-05
301	*	0.00	0.000	0.000	0.1438	0.0120	0.0000	9.40E-09	0.0000	0.0000	7.76E-05
302	*	0.00	0.000	0.000	0.1437	0.0121	0.0000	9.41E-09	0.0000	0.0000	7.75E-05

303	*		0.00	0.000	0.003	0.1435	0.0121	0.0000	9.42E-09	0.0000	0.0000	7.74E-05
304	*		0.00	0.000	0.000	0.1433	0.0122	0.0000	9.43E-09	0.0000	0.0000	7.74E-05
305	*		0.00	0.000	0.000	0.1431	0.0122	0.0000	9.44E-09	0.0000	0.0000	7.73E-05
306	*		0.00	0.000	0.000	0.1430	0.0123	0.0000	9.45E-09	0.0000	0.0000	7.72E-05
307			0.00	0.000	0.016	0.1420	0.0124	0.0000	9.46E-09	0.0000	0.0000	7.71E-05
308			0.00	0.000	0.016	0.1412	0.0124	0.0000	9.47E-09	0.0000	0.0000	7.71E-05
309			0.12	0.000	0.015	0.1454	0.0125	0.0000	9.48E-09	0.0000	0.0000	7.70E-05
310			0.00	0.000	0.015	0.1446	0.0125	0.0000	9.49E-09	0.0000	0.0000	7.69E-05
311			0.00	0.000	0.015	0.1438	0.0126	0.0000	9.50E-09	0.0000	0.0000	7.68E-05
312			0.00	0.000	0.015	0.1430	0.0126	0.0000	9.52E-09	0.0000	0.0000	7.68E-05
313			0.01	0.000	0.015	0.1424	0.0127	0.0000	9.53E-09	0.0000	0.0000	7.67E-05
314	*		0.00	0.000	0.014	0.1417	0.0127	0.0000	9.54E-09	0.0000	0.0000	7.66E-05
315	*		0.00	0.000	0.000	0.1417	0.0128	0.0000	9.55E-09	0.0000	0.0000	7.65E-05
316	*		0.00	0.000	0.000	0.1416	0.0128	0.0000	9.56E-09	0.0000	0.0000	7.65E-05
317	*		0.00	0.000	0.000	0.1416	0.0129	0.0000	9.57E-09	0.0000	0.0000	7.64E-05
318	*	*	0.00	0.000	0.000	0.1416	0.0130	0.0000	9.58E-09	0.0000	0.0000	7.63E-05
319	*	*	0.00	0.000	0.000	0.1416	0.0130	0.0000	9.59E-09	0.0000	0.0000	7.62E-05
320	*	*	0.00	0.000	0.000	0.1416	0.0131	0.0000	9.60E-09	0.0000	0.0000	7.62E-05
321	*	*	0.00	0.000	0.000	0.1416	0.0131	0.0000	9.61E-09	0.0000	0.0000	7.61E-05
322	*	*	0.00	0.000	0.000	0.1416	0.0132	0.0000	9.62E-09	0.0000	0.0000	7.60E-05
323	*	*	0.00	0.000	0.000	0.1416	0.0132	0.0000	9.63E-09	0.0000	0.0000	7.59E-05
324	*	*	0.00	0.000	0.000	0.1416	0.0133	0.0000	9.64E-09	0.0000	0.0000	7.59E-05
325	*	*	0.00	0.000	0.000	0.1416	0.0133	0.0000	9.65E-09	0.0000	0.0000	7.58E-05
326	*	*	0.00	0.000	0.000	0.1416	0.0134	0.0000	9.66E-09	0.0000	0.0000	7.57E-05
327	*	*	0.23	0.000	0.041	0.1416	0.0134	0.0000	9.67E-09	0.0000	0.0000	7.57E-05
328		*	0.00	0.000	0.032	0.1483	0.0135	0.0000	9.68E-09	0.0000	0.0000	7.56E-05
329		*	0.01	0.000	0.000	0.1488	0.0135	0.0000	9.69E-09	0.0000	0.0000	7.55E-05
330		*	0.17	0.000	0.000	0.1558	0.0136	0.0000	9.70E-09	0.0000	0.0000	7.54E-05
331		*	0.00	0.000	0.000	0.1560	0.0136	0.0000	9.71E-09	0.0000	0.0000	7.54E-05
332		*	0.00	0.000	0.000	0.1560	0.0137	0.0000	9.72E-09	0.0000	0.0000	7.53E-05
333		*	0.00	0.000	0.000	0.1560	0.0137	0.0000	9.73E-09	0.0000	0.0000	7.52E-05

334	*	*	0.00	0.000	0.000	0.1560	0.0138	0.0000	9.74E-09	0.0000	0.0000	7.52E-05
335		*	0.00	0.000	0.000	0.1560	0.0138	0.0000	9.75E-09	0.0000	0.0000	7.51E-05
336	*	*	0.01	0.000	0.008	0.1560	0.0139	0.0000	9.76E-09	0.0000	0.0000	7.50E-05
337	*	*	0.00	0.000	0.000	0.1560	0.0139	0.0000	9.77E-09	0.0000	0.0000	7.49E-05
338	*	*	0.05	0.000	0.028	0.1560	0.0140	0.0000	9.78E-09	0.0000	0.0000	7.49E-05
339	*	*	0.00	0.000	0.020	0.1560	0.0140	0.0000	9.79E-09	0.0000	0.0000	7.48E-05
340		*	0.00	0.000	0.000	0.1560	0.0141	0.0000	9.80E-09	0.0000	0.0000	7.47E-05
341		*	0.00	0.000	0.000	0.1560	0.0141	0.0000	9.81E-09	0.0000	0.0000	7.47E-05
342		*	0.13	0.000	0.000	0.1615	0.0142	0.0000	9.82E-09	0.0000	0.0000	7.46E-05
343		*	0.01	0.000	0.000	0.1619	0.0142	0.0000	9.83E-09	0.0000	0.0000	7.45E-05
344		*	0.02	0.000	0.000	0.1627	0.0143	0.0000	9.84E-09	0.0000	0.0000	7.44E-05
345		*	0.00	0.000	0.000	0.1628	0.0143	0.0000	9.85E-09	0.0000	0.0000	7.44E-05
346	*	*	0.57	0.000	0.040	0.1628	0.0144	0.0000	9.86E-09	0.0000	0.0000	7.43E-05
347	*	*	0.24	0.000	0.015	0.1628	0.0144	0.0000	9.87E-09	0.0000	0.0000	7.42E-05
348	*	*	0.73	0.000	0.025	0.1628	0.0145	0.0000	9.88E-09	0.0000	0.0000	7.42E-05
349	*	*	0.05	0.000	0.010	0.1628	0.0145	0.0000	9.89E-09	0.0000	0.0000	7.41E-05
350	*	*	0.00	0.000	0.022	0.1628	0.0146	0.0000	9.90E-09	0.0000	0.0000	7.40E-05
351	*	*	0.00	0.000	0.025	0.1628	0.0146	0.0000	9.90E-09	0.0000	0.0000	7.40E-05
352		*	0.03	0.000	0.000	0.1727	0.0147	0.0000	9.91E-09	0.0000	0.0000	7.39E-05
353	*	*	0.00	0.000	0.041	0.1727	0.0147	0.0000	9.92E-09	0.0000	0.0000	7.38E-05
354		*	0.09	0.000	0.000	0.1794	0.0148	0.0000	9.93E-09	0.0000	0.0000	7.38E-05
355		*	0.00	0.000	0.000	0.2263	0.0148	0.0000	9.94E-09	0.0000	0.0000	7.37E-05
356		*	0.00	0.000	0.000	0.2263	0.0149	0.0000	9.95E-09	0.0000	0.0000	7.36E-05
357	*	*	0.00	0.000	0.000	0.2263	0.0149	0.0000	9.96E-09	0.0000	0.0000	7.35E-05
358	*	*	0.00	0.000	0.000	0.2263	0.0150	0.0000	9.97E-09	0.0000	0.0000	7.35E-05
359	*	*	0.00	0.000	0.000	0.2263	0.0150	0.0000	9.98E-09	0.0000	0.0000	7.34E-05
360	*	*	0.00	0.000	0.000	0.2263	0.0151	0.0000	9.99E-09	0.0000	0.0000	7.33E-05
361		*	0.22	0.000	0.000	0.2356	0.0151	0.0000	1.00E-08	0.0000	0.0000	7.33E-05
362		*	0.00	0.000	0.000	0.2356	0.0152	0.0000	1.00E-08	0.0000	0.0000	7.32E-05
363	*	*	0.00	0.000	0.000	0.2356	0.0152	0.0000	1.00E-08	0.0000	0.0000	7.31E-05
364		*	0.00	0.000	0.000	0.2356	0.0153	0.0000	1.00E-08	0.0000	0.0000	7.31E-05

365	*	0.05	0.000	0.000	0.2378	0.0153	0.0000	1.00E-08	0.0000	0.0000	7.30E-05

* = Frozen (air or soil)

Annual Totals for Year 2			
	inches	cubic feet	percent
Precipitation	34.27	124,383.8	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	26.081	94,672.2	76.11
Drainage Collected from Layer 3	0.0026	9.5604	0.01
Percolation/Leakage through Layer 4	0.000003	0.0115	0.00
Average Head on Top of Layer 4	0.0084	---	---
Percolation/Leakage through Layer 6	0.032435	117.7	0.09
Change in Water Storage	8.1499	29,584.3	23.78
Soil Water at Start of Year	32.6003	118,339.2	95.14
Soil Water at End of Year	40.7503	147,923.5	118.93
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0000	0.0000	0.00
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 3

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:51

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.000	0.2378	0.0154	0.0000	1.00E-08	0.0000	0.0000	7.29E-05
2		*	0.00	0.000	0.000	0.2378	0.0154	0.0000	1.01E-08	0.0000	0.0000	7.29E-05
3	*	*	0.00	0.000	0.000	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.28E-05
4	*	*	0.00	0.000	0.000	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.27E-05
5	*	*	0.01	0.000	0.010	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.27E-05
6	*	*	0.00	0.000	0.000	0.2378	0.0156	0.0000	1.01E-08	0.0000	0.0000	7.26E-05
7		*	0.00	0.000	0.000	0.2378	0.0156	0.0000	1.01E-08	0.0000	0.0000	7.25E-05
8	*	*	0.00	0.000	0.000	0.2378	0.0157	0.0000	1.01E-08	0.0000	0.0000	7.25E-05
9	*	*	0.00	0.000	0.000	0.2378	0.0157	0.0000	1.01E-08	0.0000	0.0000	7.24E-05
10	*	*	0.19	0.000	0.007	0.2378	0.0157	0.0000	1.01E-08	0.0000	0.0000	7.23E-05
11	*	*	0.12	0.000	0.003	0.2378	0.0157	0.0000	1.01E-08	0.0000	0.0000	7.23E-05
12	*	*	0.00	0.000	0.021	0.2378	0.0157	0.0000	1.01E-08	0.0000	0.0000	7.22E-05
13	*	*	0.02	0.000	0.000	0.2378	0.0156	0.0000	1.01E-08	0.0000	0.0000	7.21E-05
14	*	*	0.02	0.000	0.000	0.2378	0.0156	0.0000	1.01E-08	0.0000	0.0000	7.21E-05
15	*	*	0.21	0.000	0.000	0.2378	0.0156	0.0000	1.01E-08	0.0000	0.0000	7.20E-05
16	*	*	0.03	0.000	0.000	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.19E-05
17	*	*	0.00	0.000	0.033	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.19E-05
18	*	*	0.00	0.000	0.023	0.2378	0.0155	0.0000	1.01E-08	0.0000	0.0000	7.18E-05
19		*	0.00	0.000	0.013	0.2505	0.0154	0.0000	1.01E-08	0.0000	0.0000	7.17E-05
20		*	0.00	0.000	0.032	0.2565	0.0154	0.0000	1.00E-08	0.0000	0.0000	7.17E-05
21	*	*	0.03	0.000	0.028	0.2565	0.0154	0.0000	1.00E-08	0.0000	0.0000	7.16E-05
22	*	*	0.15	0.000	0.030	0.2565	0.0153	0.0000	1.00E-08	0.0000	0.0000	7.16E-05
23	*	*	0.00	0.000	0.036	0.2565	0.0153	0.0000	1.00E-08	0.0000	0.0000	7.15E-05

24		*	0.00	0.000	0.065	0.2574	0.0152	0.0000	1.00E-08	0.0000	0.0000	7.14E-05
25	*	*	0.00	0.000	0.000	0.2574	0.0152	0.0000	1.00E-08	0.0000	0.0000	7.14E-05
26	*	*	0.00	0.000	0.000	0.2574	0.0152	0.0000	1.00E-08	0.0000	0.0000	7.13E-05
27	*	*	0.00	0.000	0.000	0.2574	0.0151	0.0000	1.00E-08	0.0000	0.0000	7.12E-05
28	*	*	0.00	0.000	0.000	0.2574	0.0151	0.0000	9.99E-09	0.0000	0.0000	7.12E-05
29	*	*	0.00	0.000	0.000	0.2574	0.0151	0.0000	9.99E-09	0.0000	0.0000	7.11E-05
30		*	0.00	0.000	0.000	0.2574	0.0150	0.0000	9.98E-09	0.0000	0.0000	7.10E-05
31		*	0.00	0.000	0.000	0.2574	0.0150	0.0000	9.97E-09	0.0000	0.0000	7.10E-05
32	*	*	0.00	0.000	0.000	0.2574	0.0150	0.0000	9.97E-09	0.0000	0.0000	7.09E-05
33	*	*	0.00	0.000	0.000	0.2574	0.0149	0.0000	9.96E-09	0.0000	0.0000	7.08E-05
34	*	*	0.13	0.000	0.027	0.2574	0.0149	0.0000	9.96E-09	0.0000	0.0000	7.08E-05
35	*	*	0.00	0.000	0.021	0.2574	0.0149	0.0000	9.95E-09	0.0000	0.0000	7.07E-05
36		*	0.19	0.000	0.015	0.2681	0.0148	0.0000	9.94E-09	0.0000	0.0000	7.07E-05
37		*	0.00	0.000	0.000	0.2681	0.0148	0.0000	9.94E-09	0.0000	0.0000	7.06E-05
38		*	0.00	0.000	0.000	0.2681	0.0148	0.0000	9.93E-09	0.0000	0.0000	7.05E-05
39		*	0.00	0.000	0.000	0.2681	0.0147	0.0000	9.92E-09	0.0000	0.0000	7.05E-05
40		*	0.00	0.000	0.000	0.2681	0.0147	0.0000	9.92E-09	0.0000	0.0000	7.04E-05
41		*	0.00	0.000	0.000	0.2681	0.0147	0.0000	9.91E-09	0.0000	0.0000	7.03E-05
42	*	*	0.02	0.000	0.021	0.2681	0.0146	0.0000	9.90E-09	0.0000	0.0000	7.03E-05
43	*	*	0.00	0.000	0.000	0.2681	0.0146	0.0000	9.90E-09	0.0000	0.0000	7.02E-05
44	*	*	0.00	0.000	0.000	0.2681	0.0146	0.0000	9.89E-09	0.0000	0.0000	7.02E-05
45	*	*	0.00	0.000	0.000	0.2681	0.0145	0.0000	9.88E-09	0.0000	0.0000	7.01E-05
46	*	*	0.00	0.000	0.000	0.2681	0.0145	0.0000	9.88E-09	0.0000	0.0000	7.00E-05
47	*	*	0.25	0.000	0.033	0.2681	0.0145	0.0000	9.87E-09	0.0000	0.0000	7.00E-05
48		*	0.01	0.000	0.000	0.2757	0.0144	0.0000	9.86E-09	0.0000	0.0000	6.99E-05
49		*	0.01	0.000	0.053	0.2757	0.0144	0.0000	9.86E-09	0.0000	0.0000	6.98E-05
50		*	0.00	0.000	0.000	0.2757	0.0144	0.0000	9.85E-09	0.0000	0.0000	6.98E-05
51	*	*	0.00	0.000	0.000	0.2757	0.0143	0.0000	9.85E-09	0.0000	0.0000	6.97E-05
52		*	0.00	0.000	0.000	0.2757	0.0143	0.0000	9.84E-09	0.0000	0.0000	6.97E-05
53	*	*	0.00	0.000	0.000	0.2757	0.0143	0.0000	9.83E-09	0.0000	0.0000	6.96E-05
54	*	*	0.00	0.000	0.000	0.2757	0.0142	0.0000	9.83E-09	0.0000	0.0000	6.95E-05

55	*	*	0.00	0.000	0.000	0.2757	0.0142	0.0000	9.82E-09	0.0000	0.0000	6.95E-05
56		*	0.00	0.000	0.000	0.2757	0.0142	0.0000	9.81E-09	0.0000	0.0000	6.94E-05
57		*	0.00	0.000	0.000	0.2757	0.0141	0.0000	9.81E-09	0.0000	0.0000	6.94E-05
58	*	*	0.00	0.000	0.000	0.2757	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.93E-05
59		*	0.00	0.000	0.000	0.2757	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.92E-05
60		*	0.00	0.000	0.000	0.2757	0.0140	0.0000	9.79E-09	0.0000	0.0000	6.92E-05
61	*	*	0.00	0.000	0.004	0.2757	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.91E-05
62	*	*	0.03	0.000	0.030	0.2757	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.90E-05
63	*	*	0.42	0.000	0.010	0.2757	0.0139	0.0000	9.77E-09	0.0000	0.0000	6.90E-05
64	*	*	0.96	0.000	0.000	0.2757	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.89E-05
65	*	*	0.00	0.000	0.037	0.2757	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.89E-05
66	*	*	0.00	0.000	0.013	0.2757	0.0139	0.0000	9.75E-09	0.0000	0.0000	6.88E-05
67	*	*	0.00	0.000	0.022	0.2757	0.0138	0.0000	9.75E-09	0.0000	0.0000	6.87E-05
68	*	*	0.03	0.000	0.000	0.2757	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.87E-05
69		*	0.00	0.000	0.007	0.2881	0.0138	0.0000	9.73E-09	0.0000	0.0000	6.86E-05
70		*	0.00	0.000	0.000	0.3309	0.0137	0.0000	9.73E-09	0.0000	0.0000	6.86E-05
71		*	0.00	0.000	0.000	0.3309	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.85E-05
72		*	0.00	0.000	0.000	0.3309	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.84E-05
73	*	*	0.00	0.000	0.000	0.3309	0.0136	0.0000	9.71E-09	0.0000	0.0000	6.84E-05
74		*	0.32	0.000	0.000	0.3441	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.83E-05
75		*	0.10	0.000	0.000	0.3483	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.83E-05
76		*	0.01	0.000	0.000	0.3485	0.0135	0.0000	9.69E-09	0.0000	0.0000	6.82E-05
77		*	0.16	0.000	0.000	0.3551	0.0135	0.0000	9.69E-09	0.0000	0.0000	6.82E-05
78		*	0.00	0.000	0.000	0.3551	0.0135	0.0000	9.68E-09	0.0000	0.0000	6.81E-05
79		*	0.00	0.000	0.000	0.3551	0.0134	0.0000	9.67E-09	0.0000	0.0000	6.80E-05
80		*	0.00	0.000	0.000	0.3551	0.0134	0.0000	9.67E-09	0.0000	0.0000	6.80E-05
81		*	0.00	0.000	0.000	0.3551	0.0134	0.0000	9.66E-09	0.0000	0.0000	6.79E-05
82		*	0.16	0.000	0.000	0.3618	0.0134	0.0000	9.66E-09	0.0000	0.0000	6.79E-05
83		*	0.62	0.000	0.000	0.3875	0.0133	0.0000	9.65E-09	0.0000	0.0000	6.78E-05
84			0.13	0.000	0.185	0.2802	0.0133	0.0000	9.64E-09	0.0000	0.0000	6.77E-05
85			0.00	0.000	0.237	0.2399	0.0133	0.0000	9.65E-09	0.0000	0.0000	6.77E-05

86		0.00	0.000	0.187	0.2241	0.0134	0.0000	9.66E-09	0.0000	0.0000	6.76E-05
87		0.00	0.000	0.326	0.2058	0.0134	0.0000	9.67E-09	0.0000	0.0000	6.76E-05
88		0.00	0.000	0.132	0.1963	0.0135	0.0000	9.68E-09	0.0000	0.0000	6.75E-05
89		0.00	0.000	0.174	0.1852	0.0135	0.0000	9.69E-09	0.0000	0.0000	6.75E-05
90		0.00	0.000	0.177	0.1746	0.0136	0.0000	9.70E-09	0.0000	0.0000	6.74E-05
91		0.00	0.000	0.073	0.1689	0.0136	0.0000	9.71E-09	0.0000	0.0000	6.73E-05
92		0.00	0.000	0.056	0.1645	0.0137	0.0000	9.72E-09	0.0000	0.0000	6.73E-05
93	*	0.00	0.000	0.003	0.1623	0.0137	0.0000	9.73E-09	0.0000	0.0000	6.72E-05
94		0.02	0.000	0.047	0.1600	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.72E-05
95		0.10	0.000	0.042	0.1603	0.0138	0.0000	9.75E-09	0.0000	0.0000	6.71E-05
96		0.00	0.000	0.038	0.1577	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.71E-05
97		0.35	0.000	0.035	0.1700	0.0139	0.0000	9.77E-09	0.0000	0.0000	6.70E-05
98		0.05	0.000	0.032	0.1700	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.69E-05
99		0.00	0.000	0.030	0.1677	0.0140	0.0000	9.79E-09	0.0000	0.0000	6.69E-05
100	*	0.00	0.000	0.000	0.1667	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.68E-05
101		0.00	0.000	0.029	0.1644	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.68E-05
102		0.63	0.000	0.027	0.1887	0.0141	0.0000	9.80E-09	0.0000	0.0000	6.67E-05
103		1.34	0.000	0.196	0.2353	0.0141	0.0000	9.79E-09	0.0000	0.0000	6.67E-05
104	*	0.05	0.000	0.108	0.2326	0.0140	0.0000	9.79E-09	0.0000	0.0000	6.66E-05
105		0.00	0.000	0.156	0.2252	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.65E-05
106		0.00	0.000	0.194	0.2159	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.65E-05
107		0.17	0.000	0.158	0.2156	0.0139	0.0000	9.77E-09	0.0000	0.0000	6.64E-05
108	*	0.00	0.000	0.131	0.2100	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.64E-05
109		0.00	0.000	0.160	0.2033	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.63E-05
110		0.00	0.000	0.305	0.1895	0.0138	0.0000	9.75E-09	0.0000	0.0000	6.63E-05
111		0.00	0.000	0.113	0.1824	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.62E-05
112		0.00	0.000	0.159	0.1737	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.61E-05
113		0.00	0.000	0.073	0.1685	0.0138	0.0000	9.74E-09	0.0000	0.0000	6.61E-05
114		0.30	0.000	0.056	0.1768	0.0139	0.0000	9.75E-09	0.0000	0.0000	6.60E-05
115		0.31	0.000	0.047	0.1862	0.0139	0.0000	9.76E-09	0.0000	0.0000	6.60E-05
116	*	0.43	0.000	0.038	0.1855	0.0140	0.0000	9.77E-09	0.0000	0.0000	6.59E-05

117	*	0.00	0.000	0.023	0.1850	0.0140	0.0000	9.78E-09	0.0000	0.0000	6.59E-05
118	*	0.15	0.000	0.016	0.1846	0.0141	0.0000	9.79E-09	0.0000	0.0000	6.58E-05
119	*	0.19	0.000	0.000	0.1843	0.0141	0.0000	9.81E-09	0.0000	0.0000	6.58E-05
120	*	0.04	0.000	0.026	0.1841	0.0142	0.0000	9.82E-09	0.0000	0.0000	6.57E-05
121	*	0.00	0.000	0.000	0.1839	0.0142	0.0000	9.83E-09	0.0000	0.0000	6.57E-05
122		0.00	0.000	0.064	0.2046	0.0143	0.0000	9.84E-09	0.0000	0.0000	6.56E-05
123		0.00	0.000	0.107	0.1993	0.0143	0.0000	9.85E-09	0.0000	0.0000	6.55E-05
124		0.00	0.000	0.327	0.1845	0.0144	0.0000	9.86E-09	0.0000	0.0000	6.55E-05
125		0.00	0.000	0.421	0.1669	0.0144	0.0000	9.87E-09	0.0000	0.0000	6.54E-05
126		0.03	0.000	0.442	0.1488	0.0145	0.0000	9.88E-09	0.0000	0.0000	6.54E-05
127		0.09	0.000	0.177	0.1441	0.0145	0.0000	9.89E-09	0.0000	0.0000	6.53E-05
128		0.00	0.000	0.073	0.1405	0.0146	0.0000	9.90E-09	0.0000	0.0000	6.53E-05
129		0.35	0.000	0.056	0.1522	0.0147	0.0000	9.91E-09	0.0000	0.0000	6.52E-05
130		0.40	0.000	0.048	0.1664	0.0147	0.0000	9.92E-09	0.0000	0.0000	6.52E-05
131		0.00	0.000	0.107	0.1615	0.0148	0.0000	9.93E-09	0.0000	0.0000	6.51E-05
132		0.11	0.000	0.042	0.1640	0.0148	0.0000	9.94E-09	0.0000	0.0000	6.51E-05
133		0.02	0.000	0.405	0.1470	0.0149	0.0000	9.95E-09	0.0000	0.0000	6.50E-05
134		0.62	0.000	0.038	0.1712	0.0149	0.0000	9.96E-09	0.0000	0.0000	6.49E-05
135		0.99	0.000	0.331	0.1984	0.0150	0.0000	9.97E-09	0.0000	0.0000	6.49E-05
136		0.32	0.000	0.283	0.1997	0.0150	0.0000	9.98E-09	0.0000	0.0000	6.48E-05
137		0.22	0.000	0.082	0.2049	0.0151	0.0000	9.99E-09	0.0000	0.0000	6.48E-05
138	*	0.03	0.000	0.059	0.2031	0.0151	0.0000	1.00E-08	0.0000	0.0000	6.47E-05
139		0.03	0.000	0.075	0.2005	0.0152	0.0000	1.00E-08	0.0000	0.0000	6.47E-05
140	*	0.01	0.000	0.007	0.1999	0.0152	0.0000	1.00E-08	0.0000	0.0000	6.46E-05
141	*	0.00	0.000	0.142	0.1935	0.0153	0.0000	1.00E-08	0.0000	0.0000	6.46E-05
142		0.00	0.000	0.170	0.1860	0.0153	0.0000	1.00E-08	0.0000	0.0000	6.45E-05
143		0.00	0.000	0.281	0.1739	0.0154	0.0000	1.00E-08	0.0000	0.0000	6.45E-05
144		0.04	0.000	0.177	0.1677	0.0154	0.0000	1.01E-08	0.0000	0.0000	6.44E-05
145		0.00	0.000	0.178	0.1599	0.0155	0.0000	1.01E-08	0.0000	0.0000	6.44E-05
146		0.00	0.000	0.293	0.1473	0.0155	0.0000	1.01E-08	0.0000	0.0000	6.43E-05
147		0.00	0.000	0.177	0.1394	0.0156	0.0000	1.01E-08	0.0000	0.0000	6.43E-05

148	0.20	0.000	0.074	0.1439	0.0156	0.0000	1.01E-08	0.0000	0.0000	6.42E-05
149	0.07	0.000	0.057	0.1440	0.0157	0.0000	1.01E-08	0.0000	0.0000	6.42E-05
150	0.00	0.000	0.047	0.1416	0.0157	0.0000	1.01E-08	0.0000	0.0000	6.41E-05
151	0.00	0.000	0.042	0.1395	0.0158	0.0000	1.01E-08	0.0000	0.0000	6.41E-05
152	0.00	0.000	0.038	0.1376	0.0158	0.0000	1.01E-08	0.0000	0.0000	6.40E-05
153	0.00	0.000	0.035	0.1359	0.0159	0.0000	1.01E-08	0.0000	0.0000	6.39E-05
154	0.03	0.000	0.033	0.1354	0.0159	0.0000	1.01E-08	0.0000	0.0000	6.39E-05
155	1.17	0.000	0.031	0.1827	0.0160	0.0000	1.02E-08	0.0000	0.0000	6.38E-05
156	1.27	0.000	0.135	0.2299	0.0160	0.0000	1.02E-08	0.0000	0.0000	6.38E-05
157	0.01	0.000	0.165	0.2235	0.0161	0.0000	1.02E-08	0.0000	0.0000	6.37E-05
158	0.00	0.000	0.167	0.2164	0.0161	0.0000	1.02E-08	0.0000	0.0000	6.37E-05
159	0.00	0.000	0.165	0.2092	0.0161	0.0000	1.02E-08	0.0000	0.0000	6.36E-05
160	0.00	0.000	0.389	0.1929	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.36E-05
161	0.00	0.000	0.319	0.1796	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.35E-05
162	0.61	0.000	0.151	0.1989	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.35E-05
163	0.20	0.000	0.310	0.1941	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.34E-05
164	0.01	0.000	0.332	0.1791	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.34E-05
165	0.00	0.000	0.176	0.1696	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.33E-05
166	0.00	0.000	0.073	0.1648	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.33E-05
167	0.00	0.000	0.050	0.1613	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.32E-05
168	0.00	0.000	0.047	0.1580	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.32E-05
169	0.00	0.000	0.042	0.1550	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.31E-05
170	0.00	0.000	0.038	0.1523	0.0162	0.0000	1.02E-08	0.0000	0.0000	6.31E-05
171	0.16	0.000	0.035	0.1566	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.30E-05
172	1.24	0.000	0.033	0.2060	0.0163	0.0000	1.02E-08	0.0000	0.0000	6.30E-05
173	0.72	0.000	0.162	0.2284	0.0164	0.0000	1.02E-08	0.0000	0.0000	6.29E-05
174	0.59	0.000	0.374	0.2367	0.0165	0.0000	1.03E-08	0.0000	0.0000	6.29E-05
175	0.60	0.000	0.295	0.2487	0.0165	0.0000	1.03E-08	0.0000	0.0000	6.28E-05
176	0.07	0.000	0.167	0.2435	0.0166	0.0000	1.03E-08	0.0000	0.0000	6.28E-05
177	0.00	0.000	0.363	0.2277	0.0166	0.0000	1.03E-08	0.0000	0.0000	6.27E-05
178	0.03	0.000	0.342	0.2145	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.27E-05

179	0.07	0.000	0.174	0.2075	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.26E-05
180	0.06	0.000	0.183	0.1975	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.26E-05
181	0.45	0.000	0.349	0.1985	0.0166	0.0000	1.03E-08	0.0000	0.0000	6.25E-05
182	0.00	0.000	0.326	0.1829	0.0167	0.0000	1.03E-08	0.0000	0.0000	6.25E-05
183	0.39	0.000	0.178	0.1900	0.0168	0.0000	1.03E-08	0.0000	0.0000	6.24E-05
184	0.70	0.000	0.242	0.2074	0.0168	0.0000	1.03E-08	0.0000	0.0000	6.24E-05
185	0.51	0.000	0.172	0.2195	0.0169	0.0000	1.03E-08	0.0000	0.0000	6.23E-05
186	0.53	0.000	0.183	0.2321	0.0170	0.0000	1.04E-08	0.0000	0.0000	6.23E-05
187	0.04	0.000	0.171	0.2254	0.0171	0.0000	1.04E-08	0.0000	0.0000	6.22E-05
188	0.11	0.000	0.168	0.2221	0.0171	0.0000	1.04E-08	0.0000	0.0000	6.22E-05
189	0.00	0.000	0.167	0.2136	0.0172	0.0000	1.04E-08	0.0000	0.0000	6.21E-05
190	0.00	0.000	0.207	0.2030	0.0173	0.0000	1.04E-08	0.0000	0.0000	6.21E-05
191	0.18	0.000	0.176	0.2019	0.0173	0.0000	1.04E-08	0.0000	0.0000	6.20E-05
192	0.00	0.000	0.339	0.1875	0.0174	0.0000	1.04E-08	0.0000	0.0000	6.20E-05
193	0.41	0.000	0.166	0.1965	0.0175	0.0000	1.04E-08	0.0000	0.0000	6.19E-05
194	0.03	0.000	0.355	0.1821	0.0175	0.0000	1.05E-08	0.0000	0.0000	6.19E-05
195	0.26	0.000	0.185	0.1842	0.0176	0.0000	1.05E-08	0.0000	0.0000	6.18E-05
196	0.00	0.000	0.363	0.1687	0.0177	0.0000	1.05E-08	0.0000	0.0000	6.18E-05
197	0.00	0.000	0.175	0.1604	0.0178	0.0000	1.05E-08	0.0000	0.0000	6.17E-05
198	0.00	0.000	0.073	0.1568	0.0178	0.0000	1.05E-08	0.0000	0.0000	6.17E-05
199	0.00	0.000	0.056	0.1543	0.0179	0.0000	1.05E-08	0.0000	0.0000	6.16E-05
200	0.00	0.000	0.047	0.1519	0.0180	0.0000	1.05E-08	0.0000	0.0000	6.16E-05
201	0.01	0.000	0.042	0.1499	0.0180	0.0000	1.06E-08	0.0000	0.0000	6.15E-05
202	0.07	0.000	0.038	0.1503	0.0181	0.0000	1.06E-08	0.0000	0.0000	6.15E-05
203	0.00	0.000	0.035	0.1480	0.0182	0.0000	1.06E-08	0.0000	0.0000	6.14E-05
204	0.02	0.000	0.033	0.1467	0.0182	0.0000	1.06E-08	0.0000	0.0000	6.14E-05
205	0.70	0.000	0.031	0.1736	0.0183	0.0000	1.06E-08	0.0000	0.0000	6.14E-05
206	0.09	0.000	0.382	0.1603	0.0184	0.0000	1.06E-08	0.0000	0.0000	6.13E-05
207	0.01	0.000	0.029	0.1595	0.0184	0.0000	1.06E-08	0.0000	0.0000	6.13E-05
208	1.40	0.000	0.028	0.2156	0.0185	0.0000	1.06E-08	0.0000	0.0000	6.12E-05
209	0.00	0.000	0.364	0.1994	0.0186	0.0000	1.06E-08	0.0000	0.0000	6.12E-05

210	0.00	0.000	0.374	0.1832	0.0186	0.0000	1.07E-08	0.0000	0.0000	6.11E-05
211	0.00	0.000	0.349	0.1677	0.0187	0.0000	1.07E-08	0.0000	0.0000	6.11E-05
212	0.08	0.000	0.177	0.1623	0.0187	0.0000	1.07E-08	0.0000	0.0000	6.10E-05
213	0.00	0.000	0.074	0.1582	0.0188	0.0000	1.07E-08	0.0000	0.0000	6.10E-05
214	0.11	0.000	0.057	0.1597	0.0189	0.0000	1.07E-08	0.0000	0.0000	6.09E-05
215	0.00	0.000	0.047	0.1569	0.0189	0.0000	1.07E-08	0.0000	0.0000	6.09E-05
216	0.00	0.000	0.042	0.1545	0.0190	0.0000	1.07E-08	0.0000	0.0000	6.08E-05
217	0.40	0.000	0.038	0.1691	0.0191	0.0000	1.07E-08	0.0000	0.0000	6.08E-05
218	0.07	0.000	0.333	0.1578	0.0191	0.0000	1.08E-08	0.0000	0.0000	6.07E-05
219	0.00	0.000	0.035	0.1558	0.0192	0.0000	1.08E-08	0.0000	0.0000	6.07E-05
220	0.00	0.000	0.032	0.1539	0.0193	0.0000	1.08E-08	0.0000	0.0000	6.06E-05
221	0.23	0.000	0.031	0.1618	0.0193	0.0000	1.08E-08	0.0000	0.0000	6.06E-05
222	0.00	0.000	0.370	0.1461	0.0194	0.0000	1.08E-08	0.0000	0.0000	6.05E-05
223	0.00	0.000	0.029	0.1444	0.0195	0.0000	1.08E-08	0.0000	0.0000	6.05E-05
224	0.00	0.000	0.027	0.1428	0.0195	0.0000	1.08E-08	0.0000	0.0000	6.05E-05
225	0.06	0.000	0.026	0.1439	0.0196	0.0000	1.08E-08	0.0000	0.0000	6.04E-05
226	0.81	0.000	0.025	0.1764	0.0197	0.0000	1.09E-08	0.0000	0.0000	6.04E-05
227	0.37	0.000	0.174	0.1842	0.0197	0.0000	1.09E-08	0.0000	0.0000	6.03E-05
228	0.00	0.000	0.168	0.1768	0.0198	0.0000	1.09E-08	0.0000	0.0000	6.03E-05
229	0.00	0.000	0.150	0.1703	0.0199	0.0000	1.09E-08	0.0000	0.0000	6.02E-05
230	0.14	0.000	0.290	0.1637	0.0199	0.0000	1.09E-08	0.0000	0.0000	6.02E-05
231	0.01	0.000	0.274	0.1525	0.0200	0.0000	1.09E-08	0.0000	0.0000	6.01E-05
232	0.00	0.000	0.177	0.1449	0.0201	0.0000	1.09E-08	0.0000	0.0000	6.01E-05
233	0.00	0.000	0.073	0.1416	0.0201	0.0000	1.09E-08	0.0000	0.0000	6.00E-05
234	0.33	0.000	0.057	0.1527	0.0202	0.0000	1.10E-08	0.0000	0.0000	6.00E-05
235	0.00	0.000	0.047	0.1506	0.0202	0.0000	1.10E-08	0.0000	0.0000	5.99E-05
236	0.00	0.000	0.042	0.1488	0.0203	0.0000	1.10E-08	0.0000	0.0000	5.99E-05
237	0.24	0.000	0.038	0.1569	0.0204	0.0000	1.10E-08	0.0000	0.0000	5.99E-05
238	0.00	0.000	0.321	0.1435	0.0204	0.0000	1.10E-08	0.0000	0.0000	5.98E-05
239	0.15	0.000	0.035	0.1483	0.0205	0.0000	1.10E-08	0.0000	0.0000	5.98E-05
240	0.00	0.000	0.032	0.1468	0.0206	0.0000	1.10E-08	0.0000	0.0000	5.97E-05

241	0.00	0.000	0.030	0.1454	0.0206	0.0000	1.10E-08	0.0000	0.0000	5.97E-05
242	0.26	0.000	0.029	0.1549	0.0207	0.0000	1.10E-08	0.0000	0.0000	5.96E-05
243	0.00	0.000	0.028	0.1536	0.0208	0.0000	1.11E-08	0.0000	0.0000	5.96E-05
244	0.15	0.000	0.026	0.1584	0.0208	0.0000	1.11E-08	0.0000	0.0000	5.95E-05
245	0.24	0.000	0.134	0.1629	0.0209	0.0000	1.11E-08	0.0000	0.0000	5.95E-05
246	0.04	0.000	0.297	0.1522	0.0209	0.0000	1.11E-08	0.0000	0.0000	5.94E-05
247	0.01	0.000	0.177	0.1450	0.0210	0.0000	1.11E-08	0.0000	0.0000	5.94E-05
248	0.00	0.000	0.073	0.1417	0.0211	0.0000	1.11E-08	0.0000	0.0000	5.94E-05
249	0.16	0.000	0.056	0.1456	0.0211	0.0000	1.11E-08	0.0000	0.0000	5.93E-05
250	0.82	0.000	0.048	0.1775	0.0212	0.0000	1.11E-08	0.0000	0.0000	5.93E-05
251	0.00	0.000	0.086	0.1737	0.0212	0.0000	1.12E-08	0.0000	0.0000	5.92E-05
252	0.00	0.000	0.206	0.1651	0.0213	0.0000	1.12E-08	0.0000	0.0000	5.92E-05
253	0.00	0.000	0.152	0.1586	0.0214	0.0000	1.12E-08	0.0000	0.0000	5.91E-05
254	0.00	0.000	0.175	0.1512	0.0214	0.0000	1.12E-08	0.0000	0.0000	5.91E-05
255	0.00	0.000	0.137	0.1453	0.0215	0.0000	1.12E-08	0.0000	0.0000	5.90E-05
256	0.00	0.000	0.073	0.1420	0.0216	0.0000	1.12E-08	0.0000	0.0000	5.90E-05
257	0.00	0.000	0.056	0.1395	0.0216	0.0000	1.12E-08	0.0000	0.0000	5.90E-05
258	0.00	0.000	0.047	0.1373	0.0217	0.0000	1.12E-08	0.0000	0.0000	5.89E-05
259	0.00	0.000	0.042	0.1353	0.0217	0.0000	1.12E-08	0.0000	0.0000	5.89E-05
260	0.00	0.000	0.038	0.1336	0.0218	0.0000	1.13E-08	0.0000	0.0000	5.88E-05
261	0.00	0.000	0.035	0.1319	0.0218	0.0000	1.13E-08	0.0000	0.0000	5.88E-05
262	0.00	0.000	0.032	0.1304	0.0219	0.0000	1.13E-08	0.0000	0.0000	5.87E-05
263	0.00	0.000	0.030	0.1290	0.0220	0.0000	1.13E-08	0.0000	0.0000	5.87E-05
264	0.00	0.000	0.029	0.1276	0.0220	0.0000	1.13E-08	0.0000	0.0000	5.86E-05
265	0.00	0.000	0.027	0.1263	0.0221	0.0000	1.13E-08	0.0000	0.0000	5.86E-05
266	0.00	0.000	0.026	0.1251	0.0221	0.0000	1.13E-08	0.0000	0.0000	5.86E-05
267	0.18	0.000	0.025	0.1314	0.0222	0.0000	1.13E-08	0.0000	0.0000	5.85E-05
268	0.01	0.000	0.024	0.1306	0.0223	0.0000	1.13E-08	0.0000	0.0000	5.85E-05
269	0.14	0.000	0.023	0.1352	0.0223	0.0000	1.14E-08	0.0000	0.0000	5.84E-05
270	0.00	0.000	0.023	0.1342	0.0224	0.0000	1.14E-08	0.0000	0.0000	5.84E-05
271	0.10	0.000	0.022	0.1374	0.0224	0.0000	1.14E-08	0.0000	0.0000	5.83E-05

272		0.09	0.000	0.021	0.1399	0.0225	0.0000	1.14E-08	0.0000	0.0000	5.83E-05
273		0.01	0.000	0.021	0.1393	0.0225	0.0000	1.14E-08	0.0000	0.0000	5.83E-05
274		0.00	0.000	0.020	0.1383	0.0226	0.0000	1.14E-08	0.0000	0.0000	5.82E-05
275		0.00	0.000	0.020	0.1374	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.82E-05
276		0.00	0.000	0.019	0.1365	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.81E-05
277	*	0.00	0.000	0.000	0.1364	0.0228	0.0000	1.14E-08	0.0000	0.0000	5.81E-05
278	*	0.00	0.000	0.019	0.1355	0.0228	0.0000	1.14E-08	0.0000	0.0000	5.80E-05
279	*	0.00	0.000	0.018	0.1346	0.0229	0.0000	1.15E-08	0.0000	0.0000	5.80E-05
280	*	0.00	0.000	0.000	0.1345	0.0229	0.0000	1.15E-08	0.0000	0.0000	5.80E-05
281	*	0.00	0.000	0.004	0.1344	0.0230	0.0000	1.15E-08	0.0000	0.0000	5.79E-05
282	*	0.00	0.000	0.002	0.1343	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.79E-05
283	*	0.00	0.000	0.000	0.1343	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.78E-05
284	*	0.00	0.000	0.000	0.1342	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.78E-05
285		0.00	0.000	0.018	0.1333	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.77E-05
286		0.27	0.000	0.018	0.1439	0.0232	0.0000	1.15E-08	0.0000	0.0000	5.77E-05
287	*	0.00	0.000	0.017	0.1431	0.0232	0.0000	1.15E-08	0.0000	0.0000	5.77E-05
288	*	0.06	0.000	0.048	0.1435	0.0232	0.0000	1.15E-08	0.0000	0.0000	5.76E-05
289		0.22	0.000	0.017	0.1519	0.0232	0.0000	1.15E-08	0.0000	0.0000	5.76E-05
290	*	0.02	0.000	0.023	0.1518	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.75E-05
291		0.00	0.000	0.074	0.1487	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.75E-05
292	*	0.01	0.000	0.011	0.1487	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.74E-05
293	*	0.00	0.000	0.000	0.1486	0.0231	0.0000	1.15E-08	0.0000	0.0000	5.74E-05
294	*	0.00	0.000	0.000	0.1485	0.0230	0.0000	1.15E-08	0.0000	0.0000	5.74E-05
295	*	0.00	0.000	0.000	0.1484	0.0230	0.0000	1.15E-08	0.0000	0.0000	5.73E-05
296		0.00	0.000	0.017	0.1478	0.0229	0.0000	1.15E-08	0.0000	0.0000	5.73E-05
297		0.04	0.000	0.016	0.1488	0.0229	0.0000	1.15E-08	0.0000	0.0000	5.72E-05
298		0.00	0.000	0.016	0.1481	0.0228	0.0000	1.14E-08	0.0000	0.0000	5.72E-05
299	*	0.01	0.000	0.022	0.1474	0.0228	0.0000	1.14E-08	0.0000	0.0000	5.71E-05
300		1.10	0.000	0.016	0.1924	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.71E-05
301		0.00	0.000	0.123	0.1873	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.71E-05
302		0.00	0.000	0.065	0.1845	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.70E-05

303		0.00	0.000	0.083	0.1811	0.0227	0.0000	1.14E-08	0.0000	0.0000	5.70E-05
304		0.00	0.000	0.075	0.1780	0.0226	0.0000	1.14E-08	0.0000	0.0000	5.69E-05
305		0.00	0.000	0.087	0.1743	0.0226	0.0000	1.14E-08	0.0000	0.0000	5.69E-05
306		0.00	0.000	0.138	0.1686	0.0225	0.0000	1.14E-08	0.0000	0.0000	5.69E-05
307		0.00	0.000	0.159	0.1619	0.0225	0.0000	1.14E-08	0.0000	0.0000	5.68E-05
308		0.00	0.000	0.160	0.1553	0.0224	0.0000	1.14E-08	0.0000	0.0000	5.68E-05
309		0.04	0.000	0.121	0.1518	0.0224	0.0000	1.14E-08	0.0000	0.0000	5.67E-05
310		0.07	0.000	0.108	0.1501	0.0223	0.0000	1.13E-08	0.0000	0.0000	5.67E-05
311		0.00	0.000	0.080	0.1467	0.0223	0.0000	1.13E-08	0.0000	0.0000	5.67E-05
312		0.00	0.000	0.065	0.1439	0.0222	0.0000	1.13E-08	0.0000	0.0000	5.66E-05
313	*	0.00	0.000	0.000	0.1438	0.0221	0.0000	1.13E-08	0.0000	0.0000	5.66E-05
314	*	0.00	0.000	0.052	0.1416	0.0221	0.0000	1.13E-08	0.0000	0.0000	5.65E-05
315	*	0.00	0.000	0.048	0.1395	0.0220	0.0000	1.13E-08	0.0000	0.0000	5.65E-05
316	*	0.28	0.000	0.031	0.1402	0.0220	0.0000	1.13E-08	0.0000	0.0000	5.64E-05
317		0.00	0.000	0.061	0.1472	0.0219	0.0000	1.13E-08	0.0000	0.0000	5.64E-05
318		0.00	0.000	0.047	0.1451	0.0219	0.0000	1.13E-08	0.0000	0.0000	5.64E-05
319		0.00	0.000	0.042	0.1433	0.0218	0.0000	1.13E-08	0.0000	0.0000	5.63E-05
320	*	0.00	0.000	0.000	0.1432	0.0218	0.0000	1.13E-08	0.0000	0.0000	5.63E-05
321		0.00	0.000	0.038	0.1416	0.0217	0.0000	1.12E-08	0.0000	0.0000	5.62E-05
322		0.00	0.000	0.035	0.1401	0.0217	0.0000	1.12E-08	0.0000	0.0000	5.62E-05
323		0.00	0.000	0.032	0.1386	0.0216	0.0000	1.12E-08	0.0000	0.0000	5.62E-05
324		0.00	0.000	0.030	0.1373	0.0216	0.0000	1.12E-08	0.0000	0.0000	5.61E-05
325		0.00	0.000	0.028	0.1361	0.0215	0.0000	1.12E-08	0.0000	0.0000	5.61E-05
326		0.00	0.000	0.027	0.1349	0.0215	0.0000	1.12E-08	0.0000	0.0000	5.60E-05
327		0.00	0.000	0.026	0.1337	0.0215	0.0000	1.12E-08	0.0000	0.0000	5.60E-05
328		0.73	0.000	0.025	0.1632	0.0214	0.0000	1.12E-08	0.0000	0.0000	5.60E-05
329		0.02	0.000	0.065	0.1615	0.0214	0.0000	1.12E-08	0.0000	0.0000	5.59E-05
330		0.00	0.000	0.070	0.1586	0.0213	0.0000	1.12E-08	0.0000	0.0000	5.59E-05
331		0.10	0.000	0.115	0.1580	0.0213	0.0000	1.12E-08	0.0000	0.0000	5.58E-05
332		0.03	0.000	0.158	0.1527	0.0212	0.0000	1.11E-08	0.0000	0.0000	5.58E-05
333		0.00	0.000	0.079	0.1494	0.0212	0.0000	1.11E-08	0.0000	0.0000	5.58E-05

334		0.00	0.000	0.076	0.1462	0.0211	0.0000	1.11E-08	0.0000	0.0000	5.57E-05
335		0.00	0.000	0.122	0.1410	0.0211	0.0000	1.11E-08	0.0000	0.0000	5.57E-05
336		0.00	0.000	0.073	0.1379	0.0210	0.0000	1.11E-08	0.0000	0.0000	5.56E-05
337		0.00	0.000	0.056	0.1355	0.0210	0.0000	1.11E-08	0.0000	0.0000	5.56E-05
338		0.00	0.000	0.047	0.1335	0.0209	0.0000	1.11E-08	0.0000	0.0000	5.56E-05
339	*	0.00	0.000	0.000	0.1334	0.0209	0.0000	1.11E-08	0.0000	0.0000	5.55E-05
340		0.00	0.000	0.042	0.1317	0.0208	0.0000	1.11E-08	0.0000	0.0000	5.55E-05
341		0.00	0.000	0.038	0.1300	0.0208	0.0000	1.11E-08	0.0000	0.0000	5.54E-05
342		0.00	0.000	0.033	0.1286	0.0207	0.0000	1.11E-08	0.0000	0.0000	5.54E-05
343		0.00	0.000	0.032	0.1272	0.0207	0.0000	1.10E-08	0.0000	0.0000	5.54E-05
344		0.00	0.000	0.030	0.1259	0.0206	0.0000	1.10E-08	0.0000	0.0000	5.53E-05
345		0.00	0.000	0.029	0.1247	0.0206	0.0000	1.10E-08	0.0000	0.0000	5.53E-05
346	*	0.00	0.000	0.027	0.1235	0.0205	0.0000	1.10E-08	0.0000	0.0000	5.52E-05
347	*	0.00	0.000	0.026	0.1224	0.0205	0.0000	1.10E-08	0.0000	0.0000	5.52E-05
348		0.00	0.000	0.025	0.1213	0.0204	0.0000	1.10E-08	0.0000	0.0000	5.52E-05
349		0.07	0.000	0.024	0.1232	0.0204	0.0000	1.10E-08	0.0000	0.0000	5.51E-05
350		0.02	0.000	0.023	0.1229	0.0204	0.0000	1.10E-08	0.0000	0.0000	5.51E-05
351		0.00	0.000	0.022	0.1219	0.0203	0.0000	1.10E-08	0.0000	0.0000	5.51E-05
352		0.00	0.000	0.022	0.1210	0.0203	0.0000	1.10E-08	0.0000	0.0000	5.50E-05
353		0.00	0.000	0.021	0.1201	0.0202	0.0000	1.10E-08	0.0000	0.0000	5.50E-05
354		0.08	0.000	0.021	0.1227	0.0202	0.0000	1.10E-08	0.0000	0.0000	5.49E-05
355		0.25	0.000	0.018	0.1324	0.0201	0.0000	1.09E-08	0.0000	0.0000	5.49E-05
356		0.00	0.000	0.017	0.1316	0.0201	0.0000	1.09E-08	0.0000	0.0000	5.49E-05
357	*	0.00	0.000	0.019	0.1308	0.0200	0.0000	1.09E-08	0.0000	0.0000	5.48E-05
358		0.00	0.000	0.019	0.1300	0.0200	0.0000	1.09E-08	0.0000	0.0000	5.48E-05
359	*	0.00	0.000	0.000	0.1300	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.47E-05
360	*	0.04	0.000	0.011	0.1308	0.0199	0.0000	1.09E-08	0.0000	0.0000	5.47E-05
361	*	0.00	0.000	0.030	0.1301	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.47E-05
362		0.00	0.000	0.018	0.1293	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.46E-05
363		0.00	0.000	0.018	0.1285	0.0198	0.0000	1.09E-08	0.0000	0.0000	5.46E-05
364	*	0.00	0.000	0.000	0.1285	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.46E-05

365	*	0.06	0.000	0.019	0.1293	0.0197	0.0000	1.09E-08	0.0000	0.0000	5.45E-05

* = Frozen (air or soil)

Annual Totals for Year 3			
	inches	cubic feet	percent
Precipitation	33.46	121,472.2	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.913	104,955.4	86.40
Drainage Collected from Layer 3	0.0056	20.2	0.02
Percolation/Leakage through Layer 4	0.000004	0.0139	0.00
Average Head on Top of Layer 4	0.0178	---	---
Percolation/Leakage through Layer 6	0.022943	83.3	0.07
Change in Water Storage	4.5216	16,413.3	13.51
Soil Water at Start of Year	40.7503	147,923.5	121.78
Soil Water at End of Year	45.2526	164,267.0	135.23
Snow Water at Start of Year	0.0000	0.0000	0.00
Snow Water at End of Year	0.0192	69.8	0.06
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 4

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:51

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*		0.11	0.000	0.007	0.1301	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.45E-05
2	*		0.00	0.000	0.004	0.1309	0.0196	0.0000	1.08E-08	0.0000	0.0000	5.44E-05
3	*		0.00	0.000	0.012	0.1318	0.0195	0.0000	1.08E-08	0.0000	0.0000	5.44E-05
4	*		0.05	0.000	0.000	0.1326	0.0195	0.0000	1.08E-08	0.0000	0.0000	5.44E-05
5	*		0.00	0.000	0.009	0.1334	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.43E-05
6	*	*	0.00	0.000	0.018	0.1334	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.43E-05
7	*	*	0.02	0.000	0.029	0.1334	0.0194	0.0000	1.08E-08	0.0000	0.0000	5.43E-05
8		*	0.00	0.000	0.028	0.1334	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.42E-05
9		*	0.00	0.000	0.000	0.1334	0.0193	0.0000	1.08E-08	0.0000	0.0000	5.42E-05
10		*	0.00	0.000	0.000	0.1334	0.0192	0.0000	1.08E-08	0.0000	0.0000	5.41E-05
11	*	*	0.00	0.000	0.000	0.1334	0.0192	0.0000	1.08E-08	0.0000	0.0000	5.41E-05
12		*	0.00	0.000	0.000	0.1334	0.0191	0.0000	1.08E-08	0.0000	0.0000	5.41E-05
13		*	0.15	0.000	0.000	0.1397	0.0191	0.0000	1.07E-08	0.0000	0.0000	5.40E-05
14	*	*	0.00	0.000	0.000	0.1397	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.40E-05
15		*	0.00	0.000	0.000	0.1397	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.40E-05
16		*	0.00	0.000	0.000	0.1397	0.0190	0.0000	1.07E-08	0.0000	0.0000	5.39E-05
17		*	0.00	0.000	0.000	0.1397	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.39E-05
18	*	*	0.10	0.000	0.022	0.1397	0.0189	0.0000	1.07E-08	0.0000	0.0000	5.38E-05
19	*	*	0.00	0.000	0.009	0.1397	0.0188	0.0000	1.07E-08	0.0000	0.0000	5.38E-05
20	*	*	0.00	0.000	0.004	0.1397	0.0188	0.0000	1.07E-08	0.0000	0.0000	5.38E-05
21	*	*	0.00	0.000	0.002	0.1397	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.37E-05
22	*	*	0.00	0.000	0.010	0.1397	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.37E-05
23	*	*	0.00	0.000	0.012	0.1397	0.0187	0.0000	1.07E-08	0.0000	0.0000	5.37E-05

24	*	*	0.01	0.000	0.000	0.1397	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.36E-05
25	*	*	0.12	0.000	0.006	0.1397	0.0186	0.0000	1.07E-08	0.0000	0.0000	5.36E-05
26	*	*	0.00	0.000	0.010	0.1397	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.35E-05
27	*	*	0.02	0.000	0.000	0.1397	0.0185	0.0000	1.06E-08	0.0000	0.0000	5.35E-05
28	*	*	0.00	0.000	0.036	0.1397	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.35E-05
29	*	*	0.00	0.000	0.018	0.1397	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.34E-05
30	*	*	0.00	0.000	0.017	0.1397	0.0184	0.0000	1.06E-08	0.0000	0.0000	5.34E-05
31	*	*	0.00	0.000	0.018	0.1397	0.0183	0.0000	1.06E-08	0.0000	0.0000	5.34E-05
32	*	*	0.00	0.000	0.017	0.1397	0.0183	0.0000	1.06E-08	0.0000	0.0000	5.33E-05
33	*	*	0.00	0.000	0.029	0.1397	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.33E-05
34	*	*	0.01	0.000	0.011	0.1397	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.33E-05
35	*	*	0.00	0.000	0.005	0.1397	0.0182	0.0000	1.06E-08	0.0000	0.0000	5.32E-05
36	*	*	0.09	0.000	0.010	0.1397	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.32E-05
37	*	*	0.04	0.000	0.000	0.1397	0.0181	0.0000	1.06E-08	0.0000	0.0000	5.31E-05
38	*	*	0.01	0.000	0.000	0.1397	0.0180	0.0000	1.05E-08	0.0000	0.0000	5.31E-05
39	*	*	0.01	0.000	0.026	0.1397	0.0180	0.0000	1.05E-08	0.0000	0.0000	5.31E-05
40	*	*	0.00	0.000	0.033	0.1397	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.30E-05
41	*	*	0.00	0.000	0.014	0.1397	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.30E-05
42	*	*	0.00	0.000	0.019	0.1397	0.0179	0.0000	1.05E-08	0.0000	0.0000	5.30E-05
43	*	*	0.00	0.000	0.016	0.1397	0.0178	0.0000	1.05E-08	0.0000	0.0000	5.29E-05
44	*	*	0.00	0.000	0.004	0.1397	0.0178	0.0000	1.05E-08	0.0000	0.0000	5.29E-05
45	*	*	0.19	0.000	0.005	0.1397	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.29E-05
46	*	*	0.21	0.000	0.000	0.1397	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.28E-05
47	*	*	0.00	0.000	0.005	0.1397	0.0177	0.0000	1.05E-08	0.0000	0.0000	5.28E-05
48	*	*	0.00	0.000	0.000	0.1397	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.27E-05
49	*	*	0.12	0.000	0.007	0.1397	0.0176	0.0000	1.05E-08	0.0000	0.0000	5.27E-05
50	*	*	0.19	0.000	0.000	0.1397	0.0175	0.0000	1.05E-08	0.0000	0.0000	5.27E-05
51	*	*	0.19	0.000	0.000	0.1397	0.0175	0.0000	1.04E-08	0.0000	0.0000	5.26E-05
52	*	*	0.03	0.000	0.000	0.1397	0.0175	0.0000	1.04E-08	0.0000	0.0000	5.26E-05
53		*	0.04	0.000	0.000	0.1815	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.26E-05
54		*	0.06	0.000	0.000	0.1838	0.0174	0.0000	1.04E-08	0.0000	0.0000	5.25E-05

55		*	0.01	0.000	0.000	0.1842	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.25E-05
56		*	0.00	0.000	0.000	0.1844	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.25E-05
57		*	0.01	0.000	0.000	0.1849	0.0173	0.0000	1.04E-08	0.0000	0.0000	5.24E-05
58		*	0.00	0.000	0.000	0.1849	0.0172	0.0000	1.04E-08	0.0000	0.0000	5.24E-05
59		*	0.00	0.000	0.000	0.1849	0.0172	0.0000	1.04E-08	0.0000	0.0000	5.24E-05
60		*	0.00	0.000	0.000	0.1849	0.0171	0.0000	1.04E-08	0.0000	0.0000	5.23E-05
61	*	*	0.00	0.000	0.000	0.1849	0.0171	0.0000	1.04E-08	0.0000	0.0000	5.23E-05
62		*	0.00	0.000	0.000	0.1849	0.0171	0.0000	1.04E-08	0.0000	0.0000	5.23E-05
63		*	0.00	0.000	0.000	0.1849	0.0170	0.0000	1.04E-08	0.0000	0.0000	5.22E-05
64		*	0.00	0.000	0.000	0.1849	0.0170	0.0000	1.04E-08	0.0000	0.0000	5.22E-05
65		*	0.00	0.000	0.000	0.1849	0.0169	0.0000	1.03E-08	0.0000	0.0000	5.21E-05
66	*	*	0.13	0.000	0.041	0.1849	0.0169	0.0000	1.03E-08	0.0000	0.0000	5.21E-05
67	*	*	0.07	0.000	0.037	0.1849	0.0169	0.0000	1.03E-08	0.0000	0.0000	5.21E-05
68		*	0.55	0.000	0.024	0.2117	0.0168	0.0000	1.03E-08	0.0000	0.0000	5.20E-05
69		*	0.00	0.000	0.000	0.2117	0.0168	0.0000	1.03E-08	0.0000	0.0000	5.20E-05
70		*	0.00	0.000	0.000	0.2117	0.0168	0.0000	1.03E-08	0.0000	0.0000	5.20E-05
71		*	0.13	0.000	0.000	0.2170	0.0167	0.0000	1.03E-08	0.0000	0.0000	5.19E-05
72			0.08	0.000	0.299	0.2078	0.0167	0.0000	1.03E-08	0.0000	0.0000	5.19E-05
73			0.11	0.000	0.092	0.2086	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.19E-05
74			0.04	0.000	0.149	0.2041	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.18E-05
75			0.26	0.000	0.163	0.2078	0.0166	0.0000	1.03E-08	0.0000	0.0000	5.18E-05
76	*		0.00	0.000	0.000	0.2078	0.0165	0.0000	1.03E-08	0.0000	0.0000	5.18E-05
77	*		0.01	0.000	0.006	0.2077	0.0165	0.0000	1.03E-08	0.0000	0.0000	5.17E-05
78	*		0.02	0.000	0.015	0.2081	0.0165	0.0000	1.03E-08	0.0000	0.0000	5.17E-05
79	*		0.00	0.000	0.000	0.2081	0.0164	0.0000	1.02E-08	0.0000	0.0000	5.17E-05
80	*		0.17	0.000	0.005	0.2090	0.0164	0.0000	1.02E-08	0.0000	0.0000	5.16E-05
81	*		0.29	0.000	0.000	0.2098	0.0163	0.0000	1.02E-08	0.0000	0.0000	5.16E-05
82	*		0.00	0.000	0.012	0.2106	0.0163	0.0000	1.02E-08	0.0000	0.0000	5.16E-05
83	*	*	0.01	0.000	0.015	0.2106	0.0163	0.0000	1.02E-08	0.0000	0.0000	5.15E-05
84	*	*	0.05	0.000	0.018	0.2106	0.0162	0.0000	1.02E-08	0.0000	0.0000	5.15E-05
85		*	0.01	0.000	0.015	0.2268	0.0162	0.0000	1.02E-08	0.0000	0.0000	5.15E-05

86		*	0.00	0.000	0.000	0.2268	0.0162	0.0000	1.02E-08	0.0000	0.0000	5.14E-05
87		*	0.00	0.000	0.000	0.2268	0.0161	0.0000	1.02E-08	0.0000	0.0000	5.14E-05
88		*	0.00	0.000	0.000	0.2268	0.0161	0.0000	1.02E-08	0.0000	0.0000	5.14E-05
89		*	0.00	0.000	0.000	0.2269	0.0160	0.0000	1.02E-08	0.0000	0.0000	5.13E-05
90		*	0.65	0.000	0.000	0.2540	0.0160	0.0000	1.02E-08	0.0000	0.0000	5.13E-05
91		*	0.03	0.000	0.000	0.2554	0.0160	0.0000	1.02E-08	0.0000	0.0000	5.13E-05
92		*	0.03	0.000	0.000	0.2568	0.0159	0.0000	1.02E-08	0.0000	0.0000	5.12E-05
93		*	0.00	0.000	0.000	0.2568	0.0159	0.0000	1.01E-08	0.0000	0.0000	5.12E-05
94		*	0.00	0.000	0.000	0.2568	0.0159	0.0000	1.01E-08	0.0000	0.0000	5.12E-05
95		*	0.00	0.000	0.000	0.2568	0.0158	0.0000	1.01E-08	0.0000	0.0000	5.11E-05
96		*	0.00	0.000	0.000	0.2568	0.0158	0.0000	1.01E-08	0.0000	0.0000	5.11E-05
97	*	*	0.00	0.000	0.000	0.2568	0.0158	0.0000	1.01E-08	0.0000	0.0000	5.11E-05
98		*	0.00	0.000	0.000	0.2568	0.0157	0.0000	1.01E-08	0.0000	0.0000	5.10E-05
99		*	0.00	0.000	0.000	0.2568	0.0157	0.0000	1.01E-08	0.0000	0.0000	5.10E-05
100			0.00	0.000	0.141	0.2508	0.0156	0.0000	1.01E-08	0.0000	0.0000	5.10E-05
101			0.00	0.000	0.354	0.2346	0.0156	0.0000	1.01E-08	0.0000	0.0000	5.09E-05
102			0.06	0.000	0.416	0.2131	0.0156	0.0000	1.01E-08	0.0000	0.0000	5.09E-05
103			0.57	0.000	0.221	0.2220	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.09E-05
104			0.86	0.000	0.609	0.2270	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.08E-05
105			0.00	0.000	0.673	0.1954	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.08E-05
106			0.09	0.000	0.365	0.1810	0.0154	0.0000	1.01E-08	0.0000	0.0000	5.08E-05
107			0.07	0.000	0.177	0.1744	0.0154	0.0000	1.00E-08	0.0000	0.0000	5.07E-05
108			0.01	0.000	0.073	0.1693	0.0154	0.0000	1.00E-08	0.0000	0.0000	5.07E-05
109			0.00	0.000	0.056	0.1648	0.0153	0.0000	1.00E-08	0.0000	0.0000	5.07E-05
110			0.02	0.000	0.047	0.1616	0.0155	0.0000	1.01E-08	0.0000	0.0000	5.06E-05
111			0.00	0.000	0.042	0.1583	0.0205	0.0000	1.10E-08	0.0000	0.0000	5.06E-05
112			0.01	0.000	0.038	0.1557	0.0273	0.0000	1.23E-08	0.0000	0.0000	5.06E-05
113	*		0.00	0.000	0.035	0.1531	0.0340	0.0000	1.35E-08	0.0000	0.0000	5.05E-05
114			0.60	0.000	0.032	0.1758	0.0405	0.0000	1.47E-08	0.0000	0.0000	5.05E-05
115			0.33	0.000	0.205	0.1799	0.0470	0.0000	1.58E-08	0.0000	0.0000	5.05E-05
116	*		0.41	0.000	0.052	0.1801	0.0534	0.0000	1.69E-08	0.0000	0.0000	5.04E-05

117		0.54	0.000	0.119	0.2111	0.0597	0.0001	1.81E-08	0.0000	0.0000	5.04E-05
118		0.02	0.000	0.076	0.2081	0.0658	0.0001	1.97E-08	0.0000	0.0000	5.04E-05
119		0.00	0.000	0.156	0.2008	0.0719	0.0001	2.15E-08	0.0000	0.0000	5.03E-05
120		0.32	0.000	0.184	0.2057	0.0779	0.0001	2.32E-08	0.0000	0.0000	5.03E-05
121		0.00	0.000	0.203	0.1968	0.0838	0.0001	2.49E-08	0.0000	0.0000	5.03E-05
122		0.00	0.000	0.115	0.1914	0.0896	0.0001	2.65E-08	0.0000	0.0000	5.02E-05
123		0.55	0.000	0.255	0.2033	0.0954	0.0001	2.81E-08	0.0000	0.0000	5.02E-05
124		0.22	0.000	0.365	0.1966	0.1010	0.0001	2.97E-08	0.0000	0.0000	5.02E-05
125		0.09	0.000	0.222	0.1905	0.1066	0.0001	3.13E-08	0.0000	0.0000	5.02E-05
126		0.02	0.000	0.251	0.1803	0.1121	0.0001	3.29E-08	0.0000	0.0000	5.01E-05
127		0.23	0.000	0.289	0.1772	0.1175	0.0001	3.44E-08	0.0000	0.0000	5.01E-05
128		0.00	0.000	0.194	0.1686	0.1228	0.0001	3.59E-08	0.0000	0.0000	5.01E-05
129		0.02	0.000	0.101	0.1649	0.1280	0.0001	3.74E-08	0.0000	0.0000	5.00E-05
130		0.58	0.000	0.314	0.1757	0.1332	0.0001	3.89E-08	0.0000	0.0000	5.00E-05
131		0.14	0.000	0.103	0.1764	0.1383	0.0001	4.03E-08	0.0000	0.0000	5.00E-05
132		0.00	0.000	0.319	0.1625	0.1433	0.0001	4.17E-08	0.0000	0.0000	4.99E-05
133		0.10	0.000	0.400	0.1496	0.1483	0.0001	4.31E-08	0.0000	0.0000	4.99E-05
134		0.06	0.000	0.177	0.1445	0.1532	0.0001	4.45E-08	0.0000	0.0000	4.99E-05
135		0.00	0.000	0.073	0.1413	0.1580	0.0001	4.59E-08	0.0000	0.0000	4.98E-05
136		0.00	0.000	0.056	0.1388	0.1628	0.0001	4.72E-08	0.0000	0.0000	4.98E-05
137		0.13	0.000	0.048	0.1418	0.1675	0.0001	4.85E-08	0.0000	0.0000	4.98E-05
138		0.00	0.000	0.042	0.1398	0.1721	0.0001	4.98E-08	0.0000	0.0000	4.98E-05
139	*	0.00	0.000	0.000	0.1396	0.1767	0.0002	5.11E-08	0.0000	0.0000	4.97E-05
140	*	0.00	0.000	0.000	0.1394	0.1812	0.0002	5.24E-08	0.0000	0.0000	4.97E-05
141		0.47	0.000	0.038	0.1570	0.1856	0.0002	5.37E-08	0.0000	0.0000	4.97E-05
142	*	0.03	0.000	0.061	0.1552	0.1900	0.0002	5.49E-08	0.0000	0.0000	4.96E-05
143		0.29	0.000	0.033	0.1658	0.1943	0.0002	5.61E-08	0.0000	0.0000	4.96E-05
144		0.00	0.000	0.203	0.1570	0.1986	0.0002	5.73E-08	0.0000	0.0000	4.96E-05
145		3.72	0.000	0.031	0.2219	0.2028	0.0002	5.85E-08	0.0000	0.0000	4.95E-05
146		0.00	0.000	0.119	0.2812	0.2070	0.0002	5.97E-08	0.0000	0.0000	4.95E-05
147		0.00	0.000	0.286	0.2933	0.2111	0.0002	6.09E-08	0.0000	0.0000	4.95E-05

148	0.00	0.000	0.376	0.2482	0.2135	0.0002	6.16E-08	0.0000	0.0000	4.94E-05
149	0.00	0.000	0.329	0.2264	0.2138	0.0002	6.17E-08	0.0000	0.0000	4.94E-05
150	0.00	0.000	0.185	0.2134	0.2178	0.0002	6.28E-08	0.0000	0.0000	4.94E-05
151	0.00	0.000	0.131	0.2027	0.2219	0.0002	6.40E-08	0.0000	0.0000	4.94E-05
152	1.20	0.000	0.123	0.2428	0.2260	0.0002	6.51E-08	0.0000	0.0000	4.93E-05
153	0.00	0.000	0.136	0.2335	0.2301	0.0002	6.63E-08	0.0000	0.0000	4.93E-05
154	0.70	0.000	0.203	0.2515	0.2341	0.0002	6.74E-08	0.0000	0.0000	4.93E-05
155	0.05	0.000	0.149	0.2449	0.2380	0.0002	6.85E-08	0.0000	0.0000	4.92E-05
156	0.00	0.000	0.272	0.2306	0.2419	0.0002	6.96E-08	0.0000	0.0000	4.92E-05
157	0.00	0.000	0.274	0.2185	0.2458	0.0002	7.07E-08	0.0000	0.0000	4.92E-05
158	0.26	0.000	0.346	0.2139	0.2496	0.0002	7.18E-08	0.0000	0.0000	4.91E-05
159	0.39	0.000	0.198	0.2183	0.2533	0.0002	7.29E-08	0.0000	0.0000	4.91E-05
160	0.00	0.000	0.318	0.2012	0.2570	0.0002	7.39E-08	0.0000	0.0000	4.91E-05
161	1.01	0.000	0.148	0.2339	0.2606	0.0002	7.50E-08	0.0000	0.0000	4.91E-05
162	0.33	0.000	0.376	0.2298	0.2642	0.0002	7.60E-08	0.0000	0.0000	4.90E-05
163	1.00	0.000	0.348	0.2542	0.2678	0.0002	7.70E-08	0.0000	0.0000	4.90E-05
164	0.00	0.000	0.322	0.2384	0.2713	0.0002	7.80E-08	0.0000	0.0000	4.90E-05
165	0.00	0.000	0.386	0.2208	0.2748	0.0002	7.90E-08	0.0000	0.0000	4.89E-05
166	0.00	0.000	0.320	0.2074	0.2782	0.0002	8.00E-08	0.0000	0.0000	4.89E-05
167	0.00	0.000	0.285	0.1914	0.2808	0.0002	8.08E-08	0.0000	0.0000	4.89E-05
168	0.00	0.000	0.177	0.1795	0.2812	0.0002	8.09E-08	0.0000	0.0000	4.88E-05
169	0.00	0.000	0.073	0.1727	0.2845	0.0002	8.18E-08	0.0000	0.0000	4.88E-05
170	0.00	0.000	0.056	0.1672	0.2880	0.0002	8.28E-08	0.0000	0.0000	4.88E-05
171	0.00	0.000	0.047	0.1626	0.2915	0.0002	8.38E-08	0.0000	0.0000	4.88E-05
172	0.00	0.000	0.042	0.1597	0.2949	0.0003	8.48E-08	0.0000	0.0000	4.87E-05
173	0.00	0.000	0.038	0.1568	0.2983	0.0003	8.58E-08	0.0000	0.0000	4.87E-05
174	0.00	0.000	0.035	0.1536	0.3016	0.0003	8.67E-08	0.0000	0.0000	4.87E-05
175	0.13	0.000	0.033	0.1559	0.3049	0.0003	8.77E-08	0.0000	0.0000	4.86E-05
176	0.13	0.000	0.031	0.1585	0.3081	0.0003	8.86E-08	0.0000	0.0000	4.86E-05
177	0.00	0.000	0.029	0.1557	0.3113	0.0003	8.95E-08	0.0000	0.0000	4.86E-05
178	0.00	0.000	0.028	0.1533	0.3145	0.0003	9.04E-08	0.0000	0.0000	4.85E-05

179	0.92	0.000	0.025	0.1892	0.3176	0.0003	9.13E-08	0.0000	0.0000	4.85E-05
180	0.17	0.000	0.160	0.1885	0.3207	0.0003	9.22E-08	0.0000	0.0000	4.85E-05
181	0.03	0.000	0.171	0.1815	0.3238	0.0003	9.31E-08	0.0000	0.0000	4.85E-05
182	0.11	0.000	0.179	0.1776	0.3268	0.0003	9.40E-08	0.0000	0.0000	4.84E-05
183	0.15	0.000	0.194	0.1756	0.3297	0.0003	9.48E-08	0.0000	0.0000	4.84E-05
184	0.00	0.000	0.368	0.1595	0.3327	0.0003	9.57E-08	0.0000	0.0000	4.84E-05
185	0.00	0.000	0.169	0.1516	0.3356	0.0003	9.65E-08	0.0000	0.0000	4.83E-05
186	0.00	0.000	0.066	0.1484	0.3384	0.0003	9.73E-08	0.0000	0.0000	4.83E-05
187	0.09	0.000	0.057	0.1487	0.3413	0.0003	9.81E-08	0.0000	0.0000	4.83E-05
188	0.00	0.000	0.047	0.1459	0.3440	0.0003	9.89E-08	0.0000	0.0000	4.83E-05
189	0.23	0.000	0.042	0.1530	0.3468	0.0003	9.97E-08	0.0000	0.0000	4.82E-05
190	0.00	0.000	0.038	0.1503	0.3495	0.0003	1.01E-07	0.0000	0.0000	4.82E-05
191	0.00	0.000	0.035	0.1481	0.3522	0.0003	1.01E-07	0.0000	0.0000	4.82E-05
192	0.00	0.000	0.032	0.1461	0.3549	0.0003	1.02E-07	0.0000	0.0000	4.81E-05
193	0.02	0.000	0.031	0.1454	0.3575	0.0003	1.03E-07	0.0000	0.0000	4.81E-05
194	2.50	0.000	0.029	0.2094	0.3601	0.0003	1.04E-07	0.0000	0.0000	4.81E-05
195	0.08	0.000	0.367	0.2354	0.3627	0.0003	1.04E-07	0.0000	0.0000	4.81E-05
196	0.00	0.000	0.380	0.2193	0.3652	0.0003	1.05E-07	0.0000	0.0000	4.80E-05
197	0.04	0.000	0.350	0.2054	0.3677	0.0003	1.06E-07	0.0000	0.0000	4.80E-05
198	2.50	0.000	0.250	0.2677	0.3702	0.0003	1.07E-07	0.0000	0.0000	4.80E-05
199	0.00	0.000	0.174	0.2912	0.3726	0.0003	1.07E-07	0.0000	0.0000	4.79E-05
200	0.00	0.000	0.345	0.2555	0.3738	0.0003	1.08E-07	0.0000	0.0000	4.79E-05
201	0.02	0.000	0.168	0.2398	0.3732	0.0003	1.07E-07	0.0000	0.0000	4.79E-05
202	0.00	0.000	0.224	0.2216	0.3753	0.0003	1.08E-07	0.0000	0.0000	4.78E-05
203	0.28	0.000	0.170	0.2199	0.3780	0.0003	1.09E-07	0.0000	0.0000	4.78E-05
204	0.00	0.000	0.166	0.2096	0.3807	0.0003	1.10E-07	0.0000	0.0000	4.78E-05
205	0.00	0.000	0.329	0.1925	0.3833	0.0003	1.10E-07	0.0000	0.0000	4.78E-05
206	0.00	0.000	0.177	0.1820	0.3859	0.0003	1.11E-07	0.0000	0.0000	4.77E-05
207	0.00	0.000	0.073	0.1764	0.3885	0.0003	1.12E-07	0.0000	0.0000	4.77E-05
208	0.07	0.000	0.057	0.1748	0.3911	0.0003	1.13E-07	0.0000	0.0000	4.77E-05
209	0.15	0.000	0.048	0.1771	0.3936	0.0003	1.13E-07	0.0000	0.0000	4.76E-05

210	0.00	0.000	0.042	0.1734	0.3961	0.0003	1.14E-07	0.0000	0.0000	4.76E-05
211	0.00	0.000	0.038	0.1702	0.3985	0.0003	1.15E-07	0.0000	0.0000	4.76E-05
212	0.00	0.000	0.035	0.1673	0.4009	0.0003	1.15E-07	0.0000	0.0000	4.76E-05
213	0.00	0.000	0.032	0.1646	0.4033	0.0003	1.16E-07	0.0000	0.0000	4.75E-05
214	0.05	0.000	0.031	0.1642	0.4057	0.0003	1.17E-07	0.0000	0.0000	4.75E-05
215	0.14	0.000	0.029	0.1679	0.4080	0.0003	1.18E-07	0.0000	0.0000	4.75E-05
216	0.00	0.000	0.027	0.1658	0.4104	0.0004	1.18E-07	0.0000	0.0000	4.74E-05
217	0.20	0.000	0.027	0.1721	0.4126	0.0004	1.19E-07	0.0000	0.0000	4.74E-05
218	0.00	0.000	0.025	0.1702	0.4149	0.0004	1.20E-07	0.0000	0.0000	4.74E-05
219	0.00	0.000	0.024	0.1684	0.4171	0.0004	1.20E-07	0.0000	0.0000	4.74E-05
220	0.00	0.000	0.023	0.1668	0.4193	0.0004	1.21E-07	0.0000	0.0000	4.73E-05
221	0.00	0.000	0.022	0.1652	0.4215	0.0004	1.21E-07	0.0000	0.0000	4.73E-05
222	0.00	0.000	0.022	0.1637	0.4236	0.0004	1.22E-07	0.0000	0.0000	4.73E-05
223	0.00	0.000	0.021	0.1622	0.4257	0.0004	1.23E-07	0.0000	0.0000	4.72E-05
224	0.09	0.000	0.021	0.1644	0.4278	0.0004	1.23E-07	0.0000	0.0000	4.72E-05
225	0.25	0.000	0.020	0.1736	0.4299	0.0004	1.24E-07	0.0000	0.0000	4.72E-05
226	0.71	0.000	0.153	0.1965	0.4319	0.0004	1.25E-07	0.0000	0.0000	4.72E-05
227	0.00	0.000	0.257	0.1851	0.4334	0.0004	1.25E-07	0.0000	0.0000	4.71E-05
228	0.28	0.000	0.310	0.1834	0.4354	0.0004	1.26E-07	0.0000	0.0000	4.71E-05
229	0.00	0.000	0.312	0.1700	0.4373	0.0004	1.26E-07	0.0000	0.0000	4.71E-05
230	0.24	0.000	0.273	0.1681	0.4384	0.0004	1.26E-07	0.0000	0.0000	4.70E-05
231	0.00	0.000	0.296	0.1554	0.4403	0.0004	1.27E-07	0.0000	0.0000	4.70E-05
232	0.28	0.000	0.177	0.1592	0.4423	0.0004	1.28E-07	0.0000	0.0000	4.70E-05
233	0.00	0.000	0.073	0.1562	0.4442	0.0004	1.28E-07	0.0000	0.0000	4.70E-05
234	0.10	0.000	0.057	0.1578	0.4460	0.0004	1.29E-07	0.0000	0.0000	4.69E-05
235	0.00	0.000	0.047	0.1556	0.4476	0.0004	1.29E-07	0.0000	0.0000	4.69E-05
236	0.00	0.000	0.042	0.1536	0.4485	0.0004	1.29E-07	0.0000	0.0000	4.69E-05
237	0.00	0.000	0.038	0.1516	0.4477	0.0004	1.29E-07	0.0000	0.0000	4.69E-05
238	0.00	0.000	0.035	0.1497	0.4466	0.0004	1.29E-07	0.0000	0.0000	4.68E-05
239	0.00	0.000	0.032	0.1479	0.4456	0.0004	1.29E-07	0.0000	0.0000	4.68E-05
240	0.24	0.000	0.031	0.1562	0.4446	0.0004	1.28E-07	0.0000	0.0000	4.68E-05

241	0.37	0.000	0.029	0.1700	0.4436	0.0004	1.28E-07	0.0000	0.0000	4.67E-05
242	0.10	0.000	0.335	0.1601	0.4428	0.0004	1.28E-07	0.0000	0.0000	4.67E-05
243	0.00	0.000	0.027	0.1585	0.4433	0.0004	1.28E-07	0.0000	0.0000	4.67E-05
244	0.00	0.000	0.026	0.1570	0.4423	0.0004	1.28E-07	0.0000	0.0000	4.67E-05
245	0.00	0.000	0.025	0.1555	0.4413	0.0004	1.27E-07	0.0000	0.0000	4.66E-05
246	0.00	0.000	0.024	0.1543	0.4403	0.0004	1.27E-07	0.0000	0.0000	4.66E-05
247	0.00	0.000	0.024	0.1533	0.4393	0.0004	1.27E-07	0.0000	0.0000	4.66E-05
248	0.08	0.000	0.023	0.1555	0.4383	0.0004	1.26E-07	0.0000	0.0000	4.65E-05
249	0.07	0.000	0.022	0.1574	0.4373	0.0004	1.26E-07	0.0000	0.0000	4.65E-05
250	0.00	0.000	0.021	0.1562	0.4363	0.0004	1.26E-07	0.0000	0.0000	4.65E-05
251	0.03	0.000	0.021	0.1564	0.4353	0.0004	1.26E-07	0.0000	0.0000	4.65E-05
252	0.00	0.000	0.020	0.1553	0.4343	0.0004	1.25E-07	0.0000	0.0000	4.64E-05
253	0.09	0.000	0.020	0.1579	0.4333	0.0004	1.25E-07	0.0000	0.0000	4.64E-05
254	1.06	0.000	0.019	0.2010	0.4324	0.0004	1.25E-07	0.0000	0.0000	4.64E-05
255	0.00	0.000	0.151	0.1945	0.4314	0.0004	1.24E-07	0.0000	0.0000	4.63E-05
256	0.63	0.000	0.177	0.2134	0.4306	0.0004	1.24E-07	0.0000	0.0000	4.63E-05
257	0.00	0.000	0.210	0.2045	0.4297	0.0004	1.24E-07	0.0000	0.0000	4.63E-05
258	0.00	0.000	0.229	0.1949	0.4287	0.0004	1.24E-07	0.0000	0.0000	4.63E-05
259	0.00	0.000	0.158	0.1881	0.4277	0.0004	1.23E-07	0.0000	0.0000	4.62E-05
260	0.00	0.000	0.241	0.1779	0.4267	0.0004	1.23E-07	0.0000	0.0000	4.62E-05
261	0.00	0.000	0.235	0.1678	0.4258	0.0004	1.23E-07	0.0000	0.0000	4.62E-05
262	0.00	0.000	0.177	0.1600	0.4248	0.0004	1.22E-07	0.0000	0.0000	4.61E-05
263	0.15	0.000	0.073	0.1630	0.4238	0.0004	1.22E-07	0.0000	0.0000	4.61E-05
264	0.33	0.000	0.056	0.1740	0.4228	0.0004	1.22E-07	0.0000	0.0000	4.61E-05
265	0.00	0.000	0.114	0.1690	0.4219	0.0004	1.22E-07	0.0000	0.0000	4.61E-05
266	0.00	0.000	0.151	0.1625	0.4209	0.0004	1.21E-07	0.0000	0.0000	4.60E-05
267	0.00	0.000	0.177	0.1549	0.4200	0.0004	1.21E-07	0.0000	0.0000	4.60E-05
268	0.00	0.000	0.073	0.1516	0.4190	0.0004	1.21E-07	0.0000	0.0000	4.60E-05
269	0.00	0.000	0.055	0.1491	0.4180	0.0004	1.20E-07	0.0000	0.0000	4.59E-05
270	0.00	0.000	0.047	0.1470	0.4171	0.0004	1.20E-07	0.0000	0.0000	4.59E-05
271	0.00	0.000	0.042	0.1453	0.4161	0.0004	1.20E-07	0.0000	0.0000	4.59E-05

272		0.00	0.000	0.038	0.1437	0.4152	0.0004	1.20E-07	0.0000	0.0000	4.59E-05
273		0.00	0.000	0.035	0.1421	0.4142	0.0004	1.19E-07	0.0000	0.0000	4.58E-05
274		0.00	0.000	0.032	0.1406	0.4133	0.0004	1.19E-07	0.0000	0.0000	4.58E-05
275		0.00	0.000	0.030	0.1394	0.4123	0.0004	1.19E-07	0.0000	0.0000	4.58E-05
276		0.60	0.000	0.029	0.1633	0.4114	0.0004	1.19E-07	0.0000	0.0000	4.58E-05
277		0.00	0.000	0.027	0.1622	0.4105	0.0004	1.18E-07	0.0000	0.0000	4.57E-05
278		0.00	0.000	0.026	0.1611	0.4095	0.0004	1.18E-07	0.0000	0.0000	4.57E-05
279		0.00	0.000	0.025	0.1600	0.4086	0.0004	1.18E-07	0.0000	0.0000	4.57E-05
280	*	0.24	0.000	0.036	0.1608	0.4077	0.0003	1.17E-07	0.0000	0.0000	4.56E-05
281		0.00	0.000	0.081	0.1652	0.4067	0.0003	1.17E-07	0.0000	0.0000	4.56E-05
282		0.00	0.000	0.193	0.1566	0.4058	0.0003	1.17E-07	0.0000	0.0000	4.56E-05
283		0.00	0.000	0.024	0.1555	0.4049	0.0003	1.17E-07	0.0000	0.0000	4.56E-05
284		0.00	0.000	0.023	0.1544	0.4039	0.0003	1.16E-07	0.0000	0.0000	4.55E-05
285		0.00	0.000	0.022	0.1532	0.4030	0.0003	1.16E-07	0.0000	0.0000	4.55E-05
286		0.01	0.000	0.022	0.1525	0.4021	0.0003	1.16E-07	0.0000	0.0000	4.55E-05
287		0.00	0.000	0.021	0.1514	0.4012	0.0003	1.16E-07	0.0000	0.0000	4.55E-05
288		0.00	0.000	0.021	0.1502	0.4003	0.0003	1.15E-07	0.0000	0.0000	4.54E-05
289		0.00	0.000	0.020	0.1489	0.3994	0.0003	1.15E-07	0.0000	0.0000	4.54E-05
290		0.00	0.000	0.020	0.1477	0.3984	0.0003	1.15E-07	0.0000	0.0000	4.54E-05
291		0.00	0.000	0.019	0.1466	0.3975	0.0003	1.14E-07	0.0000	0.0000	4.53E-05
292	*	0.05	0.000	0.029	0.1470	0.3966	0.0003	1.14E-07	0.0000	0.0000	4.53E-05
293	*	0.00	0.000	0.002	0.1467	0.3957	0.0003	1.14E-07	0.0000	0.0000	4.53E-05
294	*	0.00	0.000	0.000	0.1464	0.3953	0.0003	1.14E-07	0.0000	0.0000	4.53E-05
295		0.00	0.000	0.019	0.1453	0.3984	0.0003	1.15E-07	0.0000	0.0000	4.52E-05
296	*	0.01	0.000	0.011	0.1450	0.4042	0.0003	1.16E-07	0.0000	0.0000	4.52E-05
297	*	0.00	0.000	0.021	0.1439	0.4099	0.0004	1.18E-07	0.0000	0.0000	4.52E-05
298	*	0.43	0.000	0.039	0.1444	0.4191	0.0004	1.21E-07	0.0000	0.0000	4.52E-05
299		0.00	0.000	0.024	0.1585	0.4326	0.0004	1.25E-07	0.0000	0.0000	4.51E-05
300		0.00	0.000	0.018	0.1575	0.4472	0.0004	1.29E-07	0.0000	0.0000	4.51E-05
301		0.00	0.000	0.018	0.1565	0.4630	0.0004	1.34E-07	0.0000	0.0000	4.51E-05
302		0.07	0.000	0.017	0.1584	0.4814	0.0004	1.39E-07	0.0000	0.0000	4.51E-05

303			0.00	0.000	0.086	0.1545	0.4989	0.0004	1.44E-07	0.0000	0.0000	4.51E-05
304			0.00	0.000	0.017	0.1536	0.5185	0.0004	1.50E-07	0.0000	0.0000	4.50E-05
305	*		0.00	0.000	0.017	0.1527	0.5445	0.0005	1.58E-07	0.0000	0.0000	4.50E-05
306			0.01	0.000	0.016	0.1522	0.5698	0.0005	1.66E-07	0.0000	0.0000	4.50E-05
307			0.21	0.000	0.016	0.1601	0.5950	0.0005	1.73E-07	0.0000	0.0000	4.50E-05
308	*		0.00	0.000	0.000	0.1599	0.6195	0.0005	1.81E-07	0.0000	0.0000	4.50E-05
309	*		0.00	0.000	0.057	0.1572	0.6405	0.0005	1.87E-07	0.0000	0.0000	4.49E-05
310	*		0.00	0.000	0.000	0.1571	0.6621	0.0006	1.94E-07	0.0000	0.0000	4.49E-05
311	*		0.00	0.000	0.000	0.1570	0.6899	0.0006	2.02E-07	0.0000	0.0000	4.49E-05
312	*		0.23	0.000	0.015	0.1577	0.7155	0.0006	2.10E-07	0.0000	0.0000	4.49E-05
313	*		0.56	0.000	0.016	0.1583	0.7393	0.0006	2.18E-07	0.0000	0.0000	4.49E-05
314	*		0.00	0.000	0.025	0.1590	0.7627	0.0007	2.25E-07	0.0000	0.0000	4.49E-05
315	*	*	0.00	0.000	0.027	0.1590	0.7886	0.0007	2.33E-07	0.0000	0.0000	4.48E-05
316	*	*	0.00	0.000	0.024	0.1590	0.8182	0.0007	2.42E-07	0.0000	0.0000	4.48E-05
317	*	*	0.07	0.000	0.022	0.1590	0.8455	0.0007	2.51E-07	0.0000	0.0000	4.48E-05
318	*	*	0.00	0.000	0.033	0.1590	0.8710	0.0007	2.59E-07	0.0000	0.0000	4.48E-05
319		*	0.00	0.000	0.000	0.1857	0.8949	0.0008	2.67E-07	0.0000	0.0000	4.48E-05
320		*	0.00	0.000	0.000	0.1857	0.9175	0.0008	2.74E-07	0.0000	0.0000	4.47E-05
321		*	0.00	0.000	0.000	0.1857	0.9391	0.0008	2.81E-07	0.0000	0.0000	4.47E-05
322		*	0.00	0.000	0.000	0.1857	0.9597	0.0008	2.88E-07	0.0000	0.0000	4.47E-05
323		*	0.00	0.000	0.000	0.1857	0.9797	0.0008	2.94E-07	0.0000	0.0000	4.47E-05
324	*	*	0.02	0.000	0.024	0.1857	0.9991	0.0009	3.01E-07	0.0000	0.0000	4.47E-05
325		*	0.21	0.000	0.000	0.1945	1.0181	0.0009	3.07E-07	0.0000	0.0000	4.46E-05
326		*	0.00	0.000	0.000	0.1945	1.0368	0.0009	3.13E-07	0.0000	0.0000	4.46E-05
327		*	0.00	0.000	0.000	0.1945	1.0553	0.0009	3.19E-07	0.0000	0.0000	4.46E-05
328		*	0.00	0.000	0.000	0.1945	1.0737	0.0009	3.25E-07	0.0000	0.0000	4.46E-05
329		*	0.00	0.000	0.000	0.1945	1.0920	0.0009	3.31E-07	0.0000	0.0000	4.46E-05
330	*	*	0.00	0.000	0.000	0.1945	1.1104	0.0010	3.38E-07	0.0000	0.0000	4.45E-05
331	*	*	0.25	0.000	0.014	0.1945	1.1289	0.0010	3.44E-07	0.0000	0.0000	4.45E-05
332		*	0.00	0.000	0.018	0.2036	1.1476	0.0010	3.50E-07	0.0000	0.0000	4.45E-05
333		*	0.09	0.000	0.000	0.2075	1.1665	0.0010	3.56E-07	0.0000	0.0000	4.45E-05

334		*	0.00	0.000	0.000	0.2075	1.1855	0.0010	3.63E-07	0.0000	0.0000	4.45E-05
335	*	*	0.00	0.000	0.000	0.2075	1.2049	0.0010	3.70E-07	0.0000	0.0000	4.44E-05
336		*	0.00	0.000	0.000	0.2075	1.2246	0.0010	3.76E-07	0.0000	0.0000	4.44E-05
337		*	0.00	0.000	0.000	0.2075	1.2446	0.0011	3.83E-07	0.0000	0.0000	4.44E-05
338		*	0.00	0.000	0.000	0.2075	1.2649	0.0011	3.90E-07	0.0000	0.0000	4.44E-05
339		*	0.00	0.000	0.000	0.2075	1.2856	0.0011	3.97E-07	0.0000	0.0000	4.44E-05
340			0.00	0.000	0.094	0.2034	1.3021	0.0011	4.03E-07	0.0000	0.0000	4.43E-05
341	*		0.00	0.000	0.000	0.2033	1.3177	0.0011	4.08E-07	0.0000	0.0000	4.43E-05
342			0.00	0.000	0.073	0.2002	1.3365	0.0011	4.15E-07	0.0000	0.0000	4.43E-05
343	*		0.00	0.000	0.000	0.2000	1.3556	0.0012	4.22E-07	0.0000	0.0000	4.43E-05
344	*		0.00	0.000	0.001	0.1998	1.3736	0.0012	4.28E-07	0.0000	0.0000	4.43E-05
345	*		0.20	0.000	0.010	0.2004	1.3930	0.0012	4.35E-07	0.0000	0.0000	4.43E-05
346	*		0.00	0.000	0.011	0.2010	1.4126	0.0012	4.42E-07	0.0000	0.0000	4.42E-05
347	*		0.05	0.000	0.018	0.2015	1.4338	0.0012	4.49E-07	0.0000	0.0000	4.42E-05
348	*		0.00	0.000	0.019	0.2021	1.4569	0.0012	4.57E-07	0.0000	0.0000	4.42E-05
349			0.00	0.000	0.046	0.2050	1.4820	0.0013	4.66E-07	0.0000	0.0000	4.42E-05
350	*		0.00	0.000	0.044	0.2030	1.5097	0.0013	4.76E-07	0.0000	0.0000	4.42E-05
351	*		0.00	0.000	0.004	0.2028	1.5397	0.0013	4.87E-07	0.0000	0.0000	4.41E-05
352			0.21	0.000	0.067	0.2086	1.5735	0.0013	4.99E-07	0.0000	0.0000	4.41E-05
353			0.39	0.000	0.097	0.2207	1.6097	0.0014	5.12E-07	0.0000	0.0000	4.41E-05
354			0.16	0.000	0.092	0.2234	1.6476	0.0014	5.26E-07	0.0000	0.0000	4.41E-05
355			0.21	0.000	0.089	0.2282	1.6842	0.0014	5.40E-07	0.0000	0.0000	4.41E-05
356			0.00	0.000	0.071	0.2252	1.7200	0.0015	5.53E-07	0.0000	0.0000	4.41E-05
357			0.00	0.000	0.050	0.2231	1.7568	0.0015	5.67E-07	0.0000	0.0000	4.41E-05
358			0.00	0.000	0.051	0.2204	1.7887	0.0015	5.79E-07	0.0000	0.0000	4.41E-05
359			0.00	0.000	0.056	0.2176	1.8122	0.0016	5.88E-07	0.0000	0.0000	4.40E-05
360	*		0.00	0.000	0.041	0.2159	1.8431	0.0016	5.99E-07	0.0000	0.0000	4.40E-05
361	*		0.00	0.000	0.000	0.2159	1.8828	0.0016	6.15E-07	0.0000	0.0000	4.40E-05
362	*		0.00	0.000	0.043	0.2140	1.9203	0.0016	6.29E-07	0.0000	0.0000	4.40E-05
363	*		0.05	0.000	0.028	0.2136	1.9472	0.0017	6.39E-07	0.0000	0.0000	4.40E-05
364	*	*	0.23	0.000	0.010	0.2136	1.9758	0.0017	6.50E-07	0.0000	0.0000	4.40E-05

365	*	*	0.11	0.000	0.012	0.2136	2.0141	0.0017	6.65E-07	0.0000	0.0000	4.40E-05

* = Frozen (air or soil)

Annual Totals for Year 4			
	inches	cubic feet	percent
Precipitation	37.76	137,058.7	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	28.461	103,312.0	75.38
Drainage Collected from Layer 3	0.1226	445.1	0.32
Percolation/Leakage through Layer 4	0.000044	0.1586	0.00
Average Head on Top of Layer 4	0.3910	---	---
Percolation/Leakage through Layer 6	0.017790	64.6	0.05
Change in Water Storage	9.1562	33,237.0	24.25
Soil Water at Start of Year	45.2526	164,267.0	119.85
Soil Water at End of Year	54.1256	196,475.9	143.35
Snow Water at Start of Year	0.0192	69.8	0.05
Snow Water at End of Year	0.3024	1,097.9	0.80
Annual Water Budget Balance	0.0000	0.0000	0.00

Daily Output for Year 5

Column key: Head #1: drainage from Layer 4
Drain #1: drainage from Layer 3
Leak #1: leakage thru Layer 4
Leak #2: leakage thru Layer 6

Title: Pilgrim Landfill
Simulated On: 9/17/2026 8:51

Day	Freezing Status* Air	Freezing Status* Soil	Rain (inches)	Runoff (inches)	ET (inches)	Evap. Zone Water (in/in)	Head #1 (inches)	Drain #1 (inches)	Leak #1 (inches)	Head #2 (inches)	Drain #2 (inches)	Leak #2 (inches)
1	*	*	0.00	0.000	0.036	0.2136	2.0843	0.0018	6.93E-07	0.0000	0.0000	4.39E-05
2		*	0.00	0.000	0.030	0.2183	2.1168	0.0018	7.06E-07	0.0000	0.0000	4.39E-05
3		*	0.00	0.000	0.041	0.2218	2.1479	0.0018	7.18E-07	0.0000	0.0000	4.39E-05
4		*	0.01	0.000	0.000	0.2224	2.1777	0.0019	7.30E-07	0.0000	0.0000	4.39E-05
5	*	*	0.00	0.000	0.000	0.2224	2.2065	0.0019	7.41E-07	0.0000	0.0000	4.39E-05
6	*	*	0.00	0.000	0.000	0.2224	2.2343	0.0019	7.53E-07	0.0000	0.0000	4.39E-05
7	*	*	0.00	0.000	0.000	0.2224	2.2614	0.0019	7.64E-07	0.0000	0.0000	4.39E-05
8	*	*	0.00	0.000	0.000	0.2224	2.2877	0.0020	7.74E-07	0.0000	0.0000	4.38E-05
9	*	*	0.05	0.000	0.010	0.2224	2.3135	0.0020	7.85E-07	0.0000	0.0000	4.38E-05
10	*	*	0.00	0.000	0.000	0.2224	2.3387	0.0020	7.95E-07	0.0000	0.0000	4.38E-05
11		*	0.00	0.000	0.039	0.2224	2.3635	0.0020	8.05E-07	0.0000	0.0000	4.38E-05
12		*	0.00	0.000	0.000	0.2224	2.3880	0.0020	8.15E-07	0.0000	0.0000	4.38E-05
13	*	*	0.00	0.000	0.000	0.2224	2.4121	0.0021	8.25E-07	0.0000	0.0000	4.38E-05
14		*	0.00	0.000	0.000	0.2224	2.4360	0.0021	8.35E-07	0.0000	0.0000	4.37E-05
15	*	*	0.00	0.000	0.000	0.2224	2.4597	0.0021	8.45E-07	0.0000	0.0000	4.37E-05
16	*	*	0.00	0.000	0.000	0.2224	2.4832	0.0021	8.55E-07	0.0000	0.0000	4.37E-05
17	*	*	0.00	0.000	0.000	0.2224	2.5066	0.0021	8.65E-07	0.0000	0.0000	4.37E-05
18	*	*	0.00	0.000	0.000	0.2224	2.5299	0.0022	8.74E-07	0.0000	0.0000	4.37E-05
19	*	*	0.00	0.000	0.000	0.2224	2.5531	0.0022	8.84E-07	0.0000	0.0000	4.37E-05
20		*	0.00	0.000	0.000	0.2226	2.5762	0.0022	8.94E-07	0.0000	0.0000	4.36E-05
21		*	0.00	0.000	0.000	0.2226	2.5994	0.0022	9.04E-07	0.0000	0.0000	4.36E-05
22	*	*	0.00	0.000	0.000	0.2226	2.6225	0.0022	9.14E-07	0.0000	0.0000	4.36E-05
23		*	0.00	0.000	0.000	0.2226	2.6456	0.0023	9.24E-07	0.0000	0.0000	4.36E-05

24		*	0.00	0.000	0.000	0.2226	2.6688	0.0023	9.34E-07	0.0000	0.0000	4.36E-05
25		*	0.00	0.000	0.000	0.2226	2.6920	0.0023	9.43E-07	0.0000	0.0000	4.36E-05
26		*	0.00	0.000	0.000	0.2226	2.7152	0.0023	9.53E-07	0.0000	0.0000	4.36E-05
27		*	0.00	0.000	0.000	0.2227	2.7384	0.0023	9.64E-07	0.0000	0.0000	4.35E-05
28		*	0.00	0.000	0.000	0.2227	2.7617	0.0024	9.74E-07	0.0000	0.0000	4.35E-05
29		*	0.00	0.000	0.000	0.2227	2.7851	0.0024	9.84E-07	0.0000	0.0000	4.35E-05
30		*	0.00	0.000	0.000	0.2227	2.8085	0.0024	9.94E-07	0.0000	0.0000	4.35E-05
31	*	*	0.00	0.000	0.001	0.2227	2.8320	0.0024	1.00E-06	0.0000	0.0000	4.35E-05
32		*	0.00	0.000	0.000	0.2228	2.8555	0.0024	1.01E-06	0.0000	0.0000	4.35E-05
33	*	*	0.00	0.000	0.000	0.2228	2.8791	0.0025	1.03E-06	0.0000	0.0000	4.34E-05
34	*	*	0.00	0.000	0.000	0.2228	2.9028	0.0025	1.04E-06	0.0000	0.0000	4.34E-05
35	*	*	0.00	0.000	0.000	0.2228	2.9265	0.0025	1.05E-06	0.0000	0.0000	4.34E-05
36	*	*	0.00	0.000	0.000	0.2228	2.9503	0.0025	1.06E-06	0.0000	0.0000	4.34E-05
37	*	*	0.00	0.000	0.000	0.2228	2.9741	0.0025	1.07E-06	0.0000	0.0000	4.34E-05
38	*	*	0.00	0.000	0.000	0.2228	2.9981	0.0026	1.08E-06	0.0000	0.0000	4.34E-05
39	*	*	0.00	0.000	0.000	0.2228	3.0220	0.0026	1.09E-06	0.0000	0.0000	4.34E-05
40	*	*	0.01	0.000	0.007	0.2228	3.0460	0.0026	1.10E-06	0.0000	0.0000	4.33E-05
41	*	*	0.00	0.000	0.003	0.2228	3.0701	0.0026	1.11E-06	0.0000	0.0000	4.33E-05
42	*	*	0.10	0.000	0.009	0.2228	3.0942	0.0027	1.12E-06	0.0000	0.0000	4.33E-05
43	*	*	0.07	0.000	0.000	0.2228	3.1183	0.0027	1.13E-06	0.0000	0.0000	4.33E-05
44	*	*	0.00	0.000	0.023	0.2228	3.1425	0.0027	1.14E-06	0.0000	0.0000	4.33E-05
45	*	*	0.00	0.000	0.009	0.2228	3.1667	0.0027	1.15E-06	0.0000	0.0000	4.33E-05
46	*	*	0.00	0.000	0.024	0.2228	3.1910	0.0027	1.17E-06	0.0000	0.0000	4.33E-05
47	*	*	0.00	0.000	0.019	0.2228	3.2152	0.0028	1.18E-06	0.0000	0.0000	4.32E-05
48	*	*	0.00	0.000	0.007	0.2228	3.2395	0.0028	1.19E-06	0.0000	0.0000	4.32E-05
49	*	*	0.00	0.000	0.011	0.2228	3.2639	0.0028	1.20E-06	0.0000	0.0000	4.32E-05
50	*	*	0.00	0.000	0.024	0.2228	3.2882	0.0028	1.21E-06	0.0000	0.0000	4.32E-05
51		*	0.00	0.000	0.042	0.2228	3.3126	0.0028	1.22E-06	0.0000	0.0000	4.32E-05
52		*	0.00	0.000	0.000	0.2228	3.3369	0.0029	1.23E-06	0.0000	0.0000	4.32E-05
53	*	*	0.00	0.000	0.000	0.2228	3.3613	0.0029	1.24E-06	0.0000	0.0000	4.31E-05
54		*	0.00	0.000	0.000	0.2228	3.3857	0.0029	1.26E-06	0.0000	0.0000	4.31E-05

55		*	0.00	0.000	0.000	0.2228	3.4100	0.0029	1.27E-06	0.0000	0.0000	4.31E-05
56		*	0.30	0.000	0.000	0.2354	3.4344	0.0029	1.28E-06	0.0000	0.0000	4.31E-05
57	*	*	0.00	0.000	0.000	0.2354	3.4588	0.0030	1.29E-06	0.0000	0.0000	4.31E-05
58	*	*	0.00	0.000	0.000	0.2354	3.4831	0.0030	1.30E-06	0.0000	0.0000	4.31E-05
59	*	*	0.00	0.000	0.000	0.2354	3.5075	0.0030	1.31E-06	0.0000	0.0000	4.31E-05
60	*	*	0.00	0.000	0.000	0.2354	3.5318	0.0030	1.33E-06	0.0000	0.0000	4.31E-05
61	*	*	0.00	0.000	0.000	0.2354	3.5561	0.0030	1.34E-06	0.0000	0.0000	4.30E-05
62	*	*	0.00	0.000	0.000	0.2354	3.5804	0.0031	1.35E-06	0.0000	0.0000	4.30E-05
63	*	*	0.00	0.000	0.000	0.2354	3.6046	0.0031	1.36E-06	0.0000	0.0000	4.30E-05
64	*	*	0.01	0.000	0.006	0.2354	3.6288	0.0031	1.37E-06	0.0000	0.0000	4.30E-05
65	*	*	0.00	0.000	0.000	0.2354	3.6530	0.0031	1.38E-06	0.0000	0.0000	4.30E-05
66	*	*	0.00	0.000	0.000	0.2354	3.6772	0.0032	1.40E-06	0.0000	0.0000	4.30E-05
67		*	0.00	0.000	0.000	0.2355	3.7013	0.0032	1.41E-06	0.0000	0.0000	4.30E-05
68	*	*	0.03	0.000	0.029	0.2355	3.7254	0.0032	1.42E-06	0.0000	0.0000	4.29E-05
69	*	*	0.00	0.000	0.000	0.2355	3.7495	0.0032	1.43E-06	0.0000	0.0000	4.29E-05
70	*	*	0.00	0.000	0.000	0.2355	3.7735	0.0032	1.44E-06	0.0000	0.0000	4.29E-05
71	*	*	0.00	0.000	0.000	0.2355	3.7975	0.0033	1.45E-06	0.0000	0.0000	4.29E-05
72	*	*	0.00	0.000	0.000	0.2355	3.8214	0.0033	1.47E-06	0.0000	0.0000	4.29E-05
73	*	*	0.00	0.000	0.000	0.2355	3.8453	0.0033	1.48E-06	0.0000	0.0000	4.29E-05
74		*	0.20	0.000	0.000	0.2438	3.8691	0.0033	1.49E-06	0.0000	0.0000	4.29E-05
75		*	0.00	0.000	0.000	0.2438	3.8929	0.0033	1.50E-06	0.0000	0.0000	4.28E-05
76		*	0.00	0.000	0.000	0.2438	3.9166	0.0034	1.51E-06	0.0000	0.0000	4.28E-05
77		*	0.06	0.000	0.000	0.2461	3.9403	0.0034	1.53E-06	0.0000	0.0000	4.28E-05
78		*	0.10	0.000	0.000	0.2504	3.9639	0.0034	1.54E-06	0.0000	0.0000	4.28E-05
79	*	*	0.00	0.000	0.000	0.2504	3.9875	0.0034	1.55E-06	0.0000	0.0000	4.28E-05
80	*	*	0.00	0.000	0.000	0.2504	4.0109	0.0034	1.56E-06	0.0000	0.0000	4.28E-05
81	*	*	0.15	0.000	0.035	0.2504	4.0344	0.0035	1.57E-06	0.0000	0.0000	4.28E-05
82	*	*	0.09	0.000	0.011	0.2504	4.0578	0.0035	1.59E-06	0.0000	0.0000	4.27E-05
83	*	*	0.00	0.000	0.022	0.2504	4.0811	0.0035	1.60E-06	0.0000	0.0000	4.27E-05
84		*	0.00	0.000	0.134	0.2522	4.1043	0.0035	1.61E-06	0.0000	0.0000	4.27E-05
85		*	0.01	0.000	0.000	0.2525	4.1275	0.0035	1.62E-06	0.0000	0.0000	4.27E-05

86	*	0.08	0.000	0.000	0.2559	4.1506	0.0036	1.63E-06	0.0000	0.0000	4.27E-05
87	*	0.27	0.000	0.000	0.2669	4.1737	0.0036	1.64E-06	0.0000	0.0000	4.27E-05
88	*	0.00	0.000	0.000	0.2669	4.1966	0.0036	1.66E-06	0.0000	0.0000	4.27E-05
89	*	0.11	0.000	0.000	0.2716	4.2195	0.0036	1.67E-06	0.0000	0.0000	4.26E-05
90	*	0.00	0.000	0.000	0.2716	4.2424	0.0036	1.68E-06	0.0000	0.0000	4.26E-05
91	*	0.03	0.000	0.000	0.2727	4.2651	0.0037	1.69E-06	0.0000	0.0000	4.26E-05
92	*	0.13	0.000	0.000	0.2780	4.2878	0.0037	1.70E-06	0.0000	0.0000	4.26E-05
93	*	0.01	0.000	0.000	0.2783	4.3105	0.0037	1.72E-06	0.0000	0.0000	4.26E-05
94	*	0.11	0.000	0.000	0.2828	4.3330	0.0037	1.73E-06	0.0000	0.0000	4.26E-05
95	*	0.40	0.000	0.000	0.2993	4.3555	0.0037	1.74E-06	0.0000	0.0000	4.26E-05
96	*	0.00	0.000	0.000	0.2993	4.3779	0.0038	1.75E-06	0.0000	0.0000	4.26E-05
97		0.22	0.000	0.189	0.2854	4.3993	0.0038	1.76E-06	0.0000	0.0000	4.25E-05
98		0.16	0.000	0.215	0.2511	4.4187	0.0038	1.77E-06	0.0000	0.0000	4.25E-05
99		0.08	0.000	0.160	0.2390	4.4402	0.0038	1.78E-06	0.0000	0.0000	4.25E-05
100		0.10	0.000	0.113	0.2329	4.4862	0.0038	1.81E-06	0.0000	0.0000	4.25E-05
101		0.04	0.000	0.084	0.2263	4.5336	0.0039	1.83E-06	0.0000	0.0000	4.25E-05
102		0.00	0.000	0.257	0.2130	4.5763	0.0039	1.86E-06	0.0000	0.0000	4.25E-05
103		0.00	0.000	0.234	0.2005	4.6149	0.0040	1.88E-06	0.0000	0.0000	4.25E-05
104		0.00	0.000	0.332	0.1848	4.6500	0.0040	1.90E-06	0.0000	0.0000	4.25E-05
105		0.00	0.000	0.443	0.1647	4.6820	0.0040	1.91E-06	0.0000	0.0000	4.25E-05
106		0.00	0.000	0.176	0.1555	4.7113	0.0040	1.93E-06	0.0000	0.0000	4.25E-05
107		0.00	0.000	0.073	0.1519	4.7381	0.0041	1.94E-06	0.0000	0.0000	4.25E-05
108		0.00	0.000	0.056	0.1482	4.7627	0.0041	1.96E-06	0.0000	0.0000	4.24E-05
109		0.00	0.000	0.047	0.1449	4.7854	0.0041	1.97E-06	0.0000	0.0000	4.24E-05
110		0.00	0.000	0.042	0.1415	4.8063	0.0041	1.98E-06	0.0000	0.0000	4.24E-05
111		0.00	0.000	0.038	0.1380	4.8256	0.0041	1.99E-06	0.0000	0.0000	4.24E-05
112		0.20	0.000	0.035	0.1431	4.8434	0.0041	2.00E-06	0.0000	0.0000	4.24E-05
113		0.08	0.000	0.032	0.1424	4.8598	0.0042	2.01E-06	0.0000	0.0000	4.24E-05
114		0.08	0.000	0.028	0.1425	4.8750	0.0042	2.02E-06	0.0000	0.0000	4.24E-05
115		0.05	0.000	0.029	0.1416	4.8891	0.0042	2.03E-06	0.0000	0.0000	4.23E-05
116		0.34	0.000	0.027	0.1531	4.9021	0.0042	2.03E-06	0.0000	0.0000	4.23E-05

117		0.00	0.000	0.026	0.1508	4.9142	0.0042	2.04E-06	0.0000	0.0000	4.23E-05
118		0.00	0.000	0.025	0.1488	4.9253	0.0042	2.05E-06	0.0000	0.0000	4.23E-05
119		0.00	0.000	0.024	0.1469	4.9356	0.0042	2.05E-06	0.0000	0.0000	4.23E-05
120		0.00	0.000	0.023	0.1451	4.9451	0.0042	2.06E-06	0.0000	0.0000	4.22E-05
121		2.07	0.000	0.023	0.2064	4.9538	0.0042	2.06E-06	0.0000	0.0000	4.22E-05
122	*	0.01	0.000	0.067	0.2267	4.9619	0.0043	2.07E-06	0.0000	0.0000	4.22E-05
123	*	0.03	0.000	0.029	0.2263	4.9693	0.0043	2.07E-06	0.0000	0.0000	4.22E-05
124	*	0.00	0.000	0.086	0.2224	4.9761	0.0043	2.08E-06	0.0000	0.0000	4.22E-05
125		0.20	0.000	0.160	0.2236	4.9823	0.0043	2.08E-06	0.0000	0.0000	4.21E-05
126		0.00	0.000	0.139	0.2172	4.9880	0.0043	2.08E-06	0.0000	0.0000	4.21E-05
127		0.08	0.000	0.372	0.2048	4.9932	0.0043	2.09E-06	0.0000	0.0000	4.21E-05
128		0.00	0.000	0.314	0.1916	4.9978	0.0043	2.09E-06	0.0000	0.0000	4.21E-05
129		0.00	0.000	0.211	0.1828	5.0021	0.0043	2.09E-06	0.0000	0.0000	4.20E-05
130		0.00	0.000	0.257	0.1720	5.0059	0.0043	2.09E-06	0.0000	0.0000	4.20E-05
131		0.00	0.000	0.158	0.1646	5.0065	0.0043	2.09E-06	0.0000	0.0000	4.20E-05
132		0.00	0.000	0.073	0.1598	4.9960	0.0043	2.09E-06	0.0000	0.0000	4.20E-05
133		0.00	0.000	0.056	0.1563	4.9852	0.0043	2.08E-06	0.0000	0.0000	4.19E-05
134		0.20	0.000	0.048	0.1619	4.9859	0.0043	2.08E-06	0.0000	0.0000	4.19E-05
135		0.00	0.000	0.042	0.1589	4.9791	0.0043	2.08E-06	0.0000	0.0000	4.19E-05
136	*	0.01	0.000	0.005	0.1574	4.9677	0.0043	2.07E-06	0.0000	0.0000	4.18E-05
137	*	0.01	0.000	0.048	0.1543	4.9564	0.0042	2.06E-06	0.0000	0.0000	4.18E-05
138	*	0.00	0.000	0.000	0.1529	4.9484	0.0042	2.06E-06	0.0000	0.0000	4.18E-05
139		0.51	0.000	0.035	0.1714	4.9513	0.0042	2.06E-06	0.0000	0.0000	4.18E-05
140		0.02	0.000	0.193	0.1628	4.9588	0.0042	2.07E-06	0.0000	0.0000	4.17E-05
141	*	0.04	0.000	0.075	0.1606	4.9666	0.0043	2.07E-06	0.0000	0.0000	4.17E-05
142		0.28	0.000	0.031	0.1703	4.9740	0.0043	2.07E-06	0.0000	0.0000	4.17E-05
143		0.00	0.000	0.161	0.1622	4.9771	0.0043	2.08E-06	0.0000	0.0000	4.17E-05
144		0.13	0.000	0.029	0.1664	4.9819	0.0043	2.08E-06	0.0000	0.0000	4.17E-05
145		0.30	0.000	0.288	0.1662	4.9858	0.0043	2.08E-06	0.0000	0.0000	4.16E-05
146		0.04	0.000	0.265	0.1557	4.9824	0.0043	2.08E-06	0.0000	0.0000	4.16E-05
147		0.37	0.000	0.125	0.1659	4.9829	0.0043	2.08E-06	0.0000	0.0000	4.16E-05

148	0.00	0.000	0.146	0.1591	4.9852	0.0043	2.08E-06	0.0000	0.0000	4.16E-05
149	0.00	0.000	0.073	0.1553	4.9894	0.0043	2.08E-06	0.0000	0.0000	4.15E-05
150	0.00	0.000	0.056	0.1521	4.9907	0.0043	2.08E-06	0.0000	0.0000	4.15E-05
151	0.07	0.000	0.048	0.1521	4.9876	0.0043	2.08E-06	0.0000	0.0000	4.15E-05
152	0.04	0.000	0.042	0.1511	4.9872	0.0043	2.08E-06	0.0000	0.0000	4.15E-05
153	1.55	0.000	0.038	0.2075	4.9908	0.0043	2.08E-06	0.0000	0.0000	4.14E-05
154	0.12	0.000	0.358	0.2029	4.9950	0.0043	2.09E-06	0.0000	0.0000	4.14E-05
155	0.01	0.000	0.406	0.1858	4.9989	0.0043	2.09E-06	0.0000	0.0000	4.14E-05
156	0.04	0.000	0.316	0.1736	4.9996	0.0043	2.09E-06	0.0000	0.0000	4.14E-05
157	0.00	0.000	0.338	0.1590	5.0018	0.0043	2.09E-06	0.0000	0.0000	4.13E-05
158	0.00	0.000	0.177	0.1510	5.0038	0.0043	2.09E-06	0.0000	0.0000	4.13E-05
159	0.00	0.000	0.073	0.1473	5.0041	0.0043	2.09E-06	0.0000	0.0000	4.13E-05
160	0.77	0.000	0.057	0.1763	5.0046	0.0043	2.09E-06	0.0000	0.0000	4.13E-05
161	0.18	0.000	0.196	0.1754	5.0065	0.0043	2.09E-06	0.0000	0.0000	4.12E-05
162	0.20	0.000	0.343	0.1688	5.0083	0.0043	2.09E-06	0.0000	0.0000	4.12E-05
163	0.00	0.000	0.318	0.1550	5.0020	0.0043	2.09E-06	0.0000	0.0000	4.12E-05
164	0.00	0.000	0.177	0.1472	4.9940	0.0043	2.09E-06	0.0000	0.0000	4.12E-05
165	0.00	0.000	0.073	0.1437	4.9889	0.0043	2.08E-06	0.0000	0.0000	4.11E-05
166	0.00	0.000	0.056	0.1410	4.9850	0.0043	2.08E-06	0.0000	0.0000	4.11E-05
167	0.58	0.000	0.048	0.1631	4.9811	0.0043	2.08E-06	0.0000	0.0000	4.11E-05
168	0.00	0.000	0.269	0.1516	4.9766	0.0043	2.08E-06	0.0000	0.0000	4.11E-05
169	0.00	0.000	0.042	0.1496	4.9724	0.0043	2.07E-06	0.0000	0.0000	4.10E-05
170	0.34	0.000	0.038	0.1619	4.9692	0.0043	2.07E-06	0.0000	0.0000	4.10E-05
171	0.00	0.000	0.386	0.1456	4.9616	0.0043	2.07E-06	0.0000	0.0000	4.10E-05
172	0.16	0.000	0.035	0.1507	4.9534	0.0042	2.06E-06	0.0000	0.0000	4.09E-05
173	0.38	0.000	0.033	0.1652	4.9476	0.0042	2.06E-06	0.0000	0.0000	4.09E-05
174	0.03	0.000	0.342	0.1520	4.9381	0.0042	2.05E-06	0.0000	0.0000	4.09E-05
175	0.17	0.000	0.031	0.1576	4.9302	0.0042	2.05E-06	0.0000	0.0000	4.09E-05
176	0.71	0.000	0.304	0.1744	4.9200	0.0042	2.04E-06	0.0000	0.0000	4.08E-05
177	0.00	0.000	0.299	0.1619	4.9089	0.0042	2.04E-06	0.0000	0.0000	4.08E-05
178	0.93	0.000	0.147	0.1943	4.8977	0.0042	2.03E-06	0.0000	0.0000	4.08E-05

179	0.28	0.000	0.332	0.1921	4.8865	0.0042	2.03E-06	0.0000	0.0000	4.07E-05
180	0.36	0.000	0.217	0.1978	4.8753	0.0042	2.02E-06	0.0000	0.0000	4.07E-05
181	0.11	0.000	0.333	0.1885	4.8642	0.0042	2.01E-06	0.0000	0.0000	4.07E-05
182	0.00	0.000	0.353	0.1736	4.8531	0.0042	2.01E-06	0.0000	0.0000	4.07E-05
183	0.42	0.000	0.278	0.1792	4.8420	0.0041	2.00E-06	0.0000	0.0000	4.06E-05
184	0.32	0.000	0.162	0.1854	4.8309	0.0041	2.00E-06	0.0000	0.0000	4.06E-05
185	0.00	0.000	0.286	0.1732	4.8199	0.0041	1.99E-06	0.0000	0.0000	4.06E-05
186	0.08	0.000	0.370	0.1608	4.8089	0.0041	1.98E-06	0.0000	0.0000	4.05E-05
187	0.16	0.000	0.345	0.1529	4.7979	0.0041	1.98E-06	0.0000	0.0000	4.05E-05
188	0.01	0.000	0.167	0.1462	4.7869	0.0041	1.97E-06	0.0000	0.0000	4.05E-05
189	0.21	0.000	0.074	0.1516	4.7760	0.0041	1.97E-06	0.0000	0.0000	4.04E-05
190	0.02	0.000	0.057	0.1496	4.7651	0.0041	1.96E-06	0.0000	0.0000	4.04E-05
191	0.00	0.000	0.047	0.1472	4.7542	0.0041	1.95E-06	0.0000	0.0000	4.04E-05
192	0.00	0.000	0.042	0.1452	4.7434	0.0041	1.95E-06	0.0000	0.0000	4.04E-05
193	0.00	0.000	0.038	0.1434	4.7333	0.0041	1.94E-06	0.0000	0.0000	4.03E-05
194	0.09	0.000	0.035	0.1452	4.7262	0.0040	1.94E-06	0.0000	0.0000	4.03E-05
195	0.00	0.000	0.032	0.1437	4.7222	0.0040	1.94E-06	0.0000	0.0000	4.03E-05
196	0.00	0.000	0.030	0.1421	4.7192	0.0040	1.93E-06	0.0000	0.0000	4.02E-05
197	0.00	0.000	0.029	0.1407	4.7197	0.0040	1.93E-06	0.0000	0.0000	4.02E-05
198	0.00	0.000	0.027	0.1394	4.7236	0.0040	1.94E-06	0.0000	0.0000	4.02E-05
199	0.00	0.000	0.026	0.1381	4.7286	0.0041	1.94E-06	0.0000	0.0000	4.02E-05
200	0.00	0.000	0.025	0.1369	4.7336	0.0041	1.94E-06	0.0000	0.0000	4.02E-05
201	0.00	0.000	0.024	0.1357	4.7404	0.0041	1.95E-06	0.0000	0.0000	4.01E-05
202	0.00	0.000	0.023	0.1345	4.7490	0.0041	1.95E-06	0.0000	0.0000	4.01E-05
203	0.00	0.000	0.022	0.1334	4.7590	0.0041	1.96E-06	0.0000	0.0000	4.01E-05
204	0.41	0.000	0.022	0.1496	4.7703	0.0041	1.96E-06	0.0000	0.0000	4.01E-05
205	0.47	0.000	0.360	0.1540	4.7825	0.0041	1.97E-06	0.0000	0.0000	4.01E-05
206	0.00	0.000	0.257	0.1432	4.7992	0.0041	1.98E-06	0.0000	0.0000	4.01E-05
207	1.27	0.000	0.164	0.1891	4.8192	0.0041	1.99E-06	0.0000	0.0000	4.01E-05
208	0.00	0.000	0.162	0.1823	4.8375	0.0041	2.00E-06	0.0000	0.0000	4.00E-05
209	0.00	0.000	0.341	0.1682	4.8547	0.0042	2.01E-06	0.0000	0.0000	4.00E-05

210	0.00	0.000	0.325	0.1546	4.8718	0.0042	2.02E-06	0.0000	0.0000	4.00E-05
211	0.00	0.000	0.344	0.1403	4.8880	0.0042	2.03E-06	0.0000	0.0000	4.00E-05
212	0.67	0.000	0.178	0.1607	4.9017	0.0042	2.03E-06	0.0000	0.0000	4.00E-05
213	0.00	0.000	0.179	0.1532	4.9124	0.0042	2.04E-06	0.0000	0.0000	4.00E-05
214	0.00	0.000	0.169	0.1460	4.9237	0.0042	2.05E-06	0.0000	0.0000	3.99E-05
215	0.14	0.000	0.178	0.1443	4.9358	0.0042	2.05E-06	0.0000	0.0000	3.99E-05
216	0.00	0.000	0.073	0.1410	4.9464	0.0042	2.06E-06	0.0000	0.0000	3.99E-05
217	0.45	0.000	0.057	0.1572	4.9571	0.0042	2.07E-06	0.0000	0.0000	3.99E-05
218	0.21	0.000	0.173	0.1586	4.9727	0.0043	2.07E-06	0.0000	0.0000	3.99E-05
219	0.00	0.000	0.211	0.1496	4.9896	0.0043	2.08E-06	0.0000	0.0000	3.99E-05
220	0.00	0.000	0.219	0.1403	5.0039	0.0043	2.09E-06	0.0000	0.0000	3.99E-05
221	0.16	0.000	0.154	0.1404	5.0228	0.0043	2.10E-06	0.0000	0.0000	3.98E-05
222	0.00	0.000	0.073	0.1372	5.0470	0.0043	2.12E-06	0.0000	0.0000	3.98E-05
223	0.00	0.000	0.056	0.1347	5.0694	0.0043	2.13E-06	0.0000	0.0000	3.98E-05
224	0.05	0.000	0.048	0.1349	5.0922	0.0044	2.14E-06	0.0000	0.0000	3.98E-05
225	0.14	0.000	0.042	0.1388	5.1157	0.0044	2.15E-06	0.0000	0.0000	3.98E-05
226	0.00	0.000	0.038	0.1371	5.1400	0.0044	2.17E-06	0.0000	0.0000	3.98E-05
227	0.00	0.000	0.035	0.1355	5.1649	0.0044	2.18E-06	0.0000	0.0000	3.98E-05
228	0.00	0.000	0.032	0.1340	5.1904	0.0044	2.20E-06	0.0000	0.0000	3.98E-05
229	0.00	0.000	0.030	0.1326	5.2165	0.0045	2.21E-06	0.0000	0.0000	3.98E-05
230	0.00	0.000	0.029	0.1313	5.2430	0.0045	2.23E-06	0.0000	0.0000	3.98E-05
231	0.00	0.000	0.027	0.1301	5.2698	0.0045	2.24E-06	0.0000	0.0000	3.98E-05
232	0.05	0.000	0.026	0.1310	5.2968	0.0045	2.26E-06	0.0000	0.0000	3.97E-05
233	0.00	0.000	0.025	0.1298	5.3240	0.0046	2.27E-06	0.0000	0.0000	3.97E-05
234	0.00	0.000	0.024	0.1287	5.3516	0.0046	2.29E-06	0.0000	0.0000	3.97E-05
235	0.00	0.000	0.023	0.1276	5.3792	0.0046	2.31E-06	0.0000	0.0000	3.97E-05
236	0.02	0.000	0.023	0.1276	5.4069	0.0046	2.32E-06	0.0000	0.0000	3.97E-05
237	0.02	0.000	0.022	0.1275	5.4346	0.0047	2.34E-06	0.0000	0.0000	3.97E-05
238	0.00	0.000	0.021	0.1265	5.4621	0.0047	2.35E-06	0.0000	0.0000	3.97E-05
239	0.00	0.000	0.021	0.1255	5.4896	0.0047	2.37E-06	0.0000	0.0000	3.97E-05
240	0.04	0.000	0.020	0.1263	5.5169	0.0047	2.39E-06	0.0000	0.0000	3.97E-05

241	0.00	0.000	0.020	0.1254	5.5447	0.0048	2.40E-06	0.0000	0.0000	3.97E-05
242	0.01	0.000	0.019	0.1250	5.5723	0.0048	2.42E-06	0.0000	0.0000	3.97E-05
243	0.00	0.000	0.019	0.1242	5.5996	0.0048	2.44E-06	0.0000	0.0000	3.97E-05
244	0.00	0.000	0.018	0.1233	5.6268	0.0048	2.45E-06	0.0000	0.0000	3.97E-05
245	0.00	0.000	0.018	0.1225	5.6537	0.0048	2.47E-06	0.0000	0.0000	3.97E-05
246	0.00	0.000	0.018	0.1217	5.6809	0.0049	2.48E-06	0.0000	0.0000	3.96E-05
247	0.00	0.000	0.017	0.1209	5.7083	0.0049	2.50E-06	0.0000	0.0000	3.96E-05
248	0.00	0.000	0.017	0.1201	5.7356	0.0049	2.52E-06	0.0000	0.0000	3.96E-05
249	0.04	0.000	0.017	0.1211	5.7626	0.0049	2.53E-06	0.0000	0.0000	3.96E-05
250	0.00	0.000	0.016	0.1204	5.7895	0.0050	2.55E-06	0.0000	0.0000	3.96E-05
251	0.00	0.000	0.016	0.1196	5.8163	0.0050	2.57E-06	0.0000	0.0000	3.96E-05
252	0.00	0.000	0.016	0.1190	5.8429	0.0050	2.58E-06	0.0000	0.0000	3.96E-05
253	0.00	0.000	0.016	0.1183	5.8692	0.0050	2.60E-06	0.0000	0.0000	3.96E-05
254	0.00	0.000	0.015	0.1176	5.8955	0.0051	2.61E-06	0.0000	0.0000	3.96E-05
255	0.00	0.000	0.015	0.1169	5.9220	0.0051	2.63E-06	0.0000	0.0000	3.96E-05
256	0.00	0.000	0.015	0.1162	5.9484	0.0051	2.65E-06	0.0000	0.0000	3.96E-05
257	0.00	0.000	0.015	0.1155	5.9746	0.0051	2.66E-06	0.0000	0.0000	3.96E-05
258	0.10	0.000	0.015	0.1189	6.0007	0.0051	2.68E-06	0.0000	0.0000	3.96E-05
259	0.21	0.000	0.015	0.1269	6.0268	0.0052	2.69E-06	0.0000	0.0000	3.96E-05
260	0.00	0.000	0.014	0.1262	6.0528	0.0052	2.71E-06	0.0000	0.0000	3.95E-05
261	0.00	0.000	0.014	0.1256	6.0786	0.0052	2.73E-06	0.0000	0.0000	3.95E-05
262	0.00	0.000	0.014	0.1250	6.1042	0.0052	2.74E-06	0.0000	0.0000	3.95E-05
263	0.00	0.000	0.014	0.1244	6.1301	0.0053	2.76E-06	0.0000	0.0000	3.95E-05
264	0.00	0.000	0.013	0.1238	6.1558	0.0053	2.77E-06	0.0000	0.0000	3.95E-05
265	0.00	0.000	0.013	0.1231	6.1815	0.0053	2.79E-06	0.0000	0.0000	3.95E-05
266	0.00	0.000	0.013	0.1226	6.2071	0.0053	2.81E-06	0.0000	0.0000	3.95E-05
267	0.00	0.000	0.013	0.1220	6.2327	0.0053	2.82E-06	0.0000	0.0000	3.95E-05
268	0.00	0.000	0.013	0.1214	6.2582	0.0054	2.84E-06	0.0000	0.0000	3.95E-05
269	0.00	0.000	0.013	0.1208	6.2837	0.0054	2.85E-06	0.0000	0.0000	3.95E-05
270	0.05	0.000	0.013	0.1224	6.3091	0.0054	2.87E-06	0.0000	0.0000	3.95E-05
271	0.08	0.000	0.013	0.1250	6.3344	0.0054	2.89E-06	0.0000	0.0000	3.95E-05

272		0.00	0.000	0.012	0.1244	6.3597	0.0054	2.90E-06	0.0000	0.0000	3.95E-05
273		0.00	0.000	0.012	0.1239	6.3849	0.0055	2.92E-06	0.0000	0.0000	3.95E-05
274		0.00	0.000	0.012	0.1233	6.4100	0.0055	2.93E-06	0.0000	0.0000	3.94E-05
275		0.00	0.000	0.012	0.1228	6.4351	0.0055	2.95E-06	0.0000	0.0000	3.94E-05
276		0.00	0.000	0.012	0.1222	6.4603	0.0055	2.97E-06	0.0000	0.0000	3.94E-05
277		0.00	0.000	0.012	0.1217	6.4854	0.0056	2.98E-06	0.0000	0.0000	3.94E-05
278	*	0.00	0.000	0.000	0.1217	6.5102	0.0056	3.00E-06	0.0000	0.0000	3.94E-05
279	*	0.00	0.000	0.012	0.1211	6.5350	0.0056	3.01E-06	0.0000	0.0000	3.94E-05
280	*	0.00	0.000	0.012	0.1206	6.5600	0.0056	3.03E-06	0.0000	0.0000	3.94E-05
281	*	0.00	0.000	0.000	0.1206	6.5848	0.0056	3.05E-06	0.0000	0.0000	3.94E-05
282		0.00	0.000	0.011	0.1200	6.6095	0.0057	3.06E-06	0.0000	0.0000	3.94E-05
283	*	0.00	0.000	0.000	0.1200	6.6343	0.0057	3.08E-06	0.0000	0.0000	3.94E-05
284		0.00	0.000	0.011	0.1195	6.6590	0.0057	3.09E-06	0.0000	0.0000	3.94E-05
285	*	0.00	0.000	0.011	0.1190	6.6839	0.0057	3.11E-06	0.0000	0.0000	3.94E-05
286		0.00	0.000	0.011	0.1185	6.7087	0.0057	3.13E-06	0.0000	0.0000	3.94E-05
287		0.00	0.000	0.011	0.1180	6.7335	0.0058	3.14E-06	0.0000	0.0000	3.93E-05
288		0.00	0.000	0.011	0.1175	6.7581	0.0058	3.16E-06	0.0000	0.0000	3.93E-05
289		0.00	0.000	0.011	0.1170	6.7826	0.0058	3.17E-06	0.0000	0.0000	3.93E-05
290		0.04	0.000	0.011	0.1183	6.8070	0.0058	3.19E-06	0.0000	0.0000	3.93E-05
291		0.00	0.000	0.011	0.1178	6.8314	0.0059	3.21E-06	0.0000	0.0000	3.93E-05
292		0.02	0.000	0.011	0.1181	6.8556	0.0059	3.22E-06	0.0000	0.0000	3.93E-05
293		0.83	0.000	0.011	0.1520	6.8798	0.0059	3.24E-06	0.0000	0.0000	3.93E-05
294		0.00	0.000	0.185	0.1443	6.9046	0.0059	3.26E-06	0.0000	0.0000	3.93E-05
295		0.01	0.000	0.164	0.1377	6.9296	0.0059	3.27E-06	0.0000	0.0000	3.93E-05
296		0.00	0.000	0.177	0.1303	6.9549	0.0060	3.29E-06	0.0000	0.0000	3.93E-05
297		0.00	0.000	0.073	0.1272	6.9786	0.0060	3.30E-06	0.0000	0.0000	3.93E-05
298		0.03	0.000	0.056	0.1260	7.0004	0.0060	3.32E-06	0.0000	0.0000	3.93E-05
299		0.01	0.000	0.048	0.1243	7.0225	0.0060	3.33E-06	0.0000	0.0000	3.93E-05
300		0.05	0.000	0.042	0.1244	7.0449	0.0060	3.35E-06	0.0000	0.0000	3.92E-05
301		0.08	0.000	0.038	0.1261	7.0676	0.0061	3.36E-06	0.0000	0.0000	3.92E-05
302		0.18	0.000	0.035	0.1323	7.0905	0.0061	3.38E-06	0.0000	0.0000	3.92E-05

303		0.00	0.000	0.032	0.1309	7.1135	0.0061	3.39E-06	0.0000	0.0000	3.92E-05
304		0.09	0.000	0.030	0.1332	7.1366	0.0061	3.41E-06	0.0000	0.0000	3.92E-05
305		0.03	0.000	0.029	0.1333	7.1599	0.0061	3.43E-06	0.0000	0.0000	3.92E-05
306		0.00	0.000	0.027	0.1321	7.1831	0.0062	3.44E-06	0.0000	0.0000	3.92E-05
307		0.00	0.000	0.026	0.1310	7.2065	0.0062	3.46E-06	0.0000	0.0000	3.92E-05
308		0.00	0.000	0.025	0.1299	7.2298	0.0062	3.47E-06	0.0000	0.0000	3.92E-05
309		0.00	0.000	0.024	0.1289	7.2531	0.0062	3.49E-06	0.0000	0.0000	3.92E-05
310		0.00	0.000	0.023	0.1278	7.2764	0.0062	3.51E-06	0.0000	0.0000	3.92E-05
311		0.00	0.000	0.022	0.1269	7.2997	0.0063	3.52E-06	0.0000	0.0000	3.92E-05
312		0.00	0.000	0.022	0.1259	7.3229	0.0063	3.54E-06	0.0000	0.0000	3.91E-05
313		0.10	0.000	0.021	0.1290	7.3460	0.0063	3.55E-06	0.0000	0.0000	3.91E-05
314		1.00	0.000	0.021	0.1698	7.3690	0.0063	3.57E-06	0.0000	0.0000	3.91E-05
315		0.01	0.000	0.073	0.1672	7.3920	0.0063	3.58E-06	0.0000	0.0000	3.91E-05
316	*	0.17	0.000	0.025	0.1680	7.4149	0.0064	3.60E-06	0.0000	0.0000	3.91E-05
317	*	0.03	0.000	0.000	0.1688	7.4377	0.0064	3.62E-06	0.0000	0.0000	3.91E-05
318	*	0.43	0.000	0.016	0.1696	7.4604	0.0064	3.63E-06	0.0000	0.0000	3.91E-05
319	*	0.00	0.000	0.033	0.1704	7.4829	0.0064	3.65E-06	0.0000	0.0000	3.91E-05
320	*	0.33	0.000	0.000	0.1712	7.5054	0.0064	3.66E-06	0.0000	0.0000	3.91E-05
321		0.00	0.000	0.000	0.2041	7.5278	0.0065	3.68E-06	0.0000	0.0000	3.91E-05
322	*	0.00	0.000	0.000	0.2041	7.5500	0.0065	3.69E-06	0.0000	0.0000	3.91E-05
323		0.00	0.000	0.053	0.2019	7.5722	0.0065	3.71E-06	0.0000	0.0000	3.91E-05
324		0.00	0.000	0.067	0.1990	7.5942	0.0065	3.72E-06	0.0000	0.0000	3.90E-05
325		0.00	0.000	0.061	0.1964	7.6161	0.0065	3.74E-06	0.0000	0.0000	3.90E-05
326	*	0.00	0.000	0.045	0.1945	7.6378	0.0065	3.75E-06	0.0000	0.0000	3.90E-05
327	*	0.00	0.000	0.000	0.1945	7.6595	0.0066	3.77E-06	0.0000	0.0000	3.90E-05
328	*	0.02	0.000	0.052	0.1930	7.6810	0.0066	3.79E-06	0.0000	0.0000	3.90E-05
329	*	0.00	0.000	0.000	0.1930	7.7024	0.0066	3.80E-06	0.0000	0.0000	3.90E-05
330	*	0.00	0.000	0.000	0.1930	7.7237	0.0066	3.82E-06	0.0000	0.0000	3.90E-05
331		0.00	0.000	0.078	0.1897	7.7455	0.0066	3.83E-06	0.0000	0.0000	3.90E-05
332		0.00	0.000	0.127	0.1844	7.7679	0.0067	3.85E-06	0.0000	0.0000	3.90E-05
333		0.00	0.000	0.103	0.1801	7.7899	0.0067	3.86E-06	0.0000	0.0000	3.90E-05

334			0.00	0.000	0.102	0.1758	7.8114	0.0067	3.88E-06	0.0000	0.0000	3.90E-05
335			0.00	0.000	0.082	0.1724	7.8325	0.0067	3.89E-06	0.0000	0.0000	3.90E-05
336			0.00	0.000	0.087	0.1688	7.8532	0.0067	3.91E-06	0.0000	0.0000	3.89E-05
337			0.01	0.000	0.068	0.1664	7.8735	0.0067	3.92E-06	0.0000	0.0000	3.89E-05
338			0.04	0.000	0.067	0.1651	7.8936	0.0068	3.94E-06	0.0000	0.0000	3.89E-05
339			0.03	0.000	0.074	0.1634	7.9133	0.0068	3.95E-06	0.0000	0.0000	3.89E-05
340			0.00	0.000	0.057	0.1610	7.9329	0.0068	3.96E-06	0.0000	0.0000	3.89E-05
341			0.10	0.000	0.051	0.1629	7.9521	0.0068	3.98E-06	0.0000	0.0000	3.89E-05
342			0.01	0.000	0.096	0.1591	7.9712	0.0068	3.99E-06	0.0000	0.0000	3.89E-05
343			0.43	0.000	0.128	0.1715	7.9881	0.0068	4.00E-06	0.0000	0.0000	3.89E-05
344			0.00	0.000	0.092	0.1673	8.0027	0.0069	4.01E-06	0.0000	0.0000	3.89E-05
345			0.10	0.000	0.062	0.1683	8.0172	0.0069	4.02E-06	0.0000	0.0000	3.88E-05
346	*		0.00	0.000	0.000	0.1677	8.0328	0.0069	4.04E-06	0.0000	0.0000	3.88E-05
347	*		0.00	0.000	0.000	0.1672	8.0492	0.0069	4.05E-06	0.0000	0.0000	3.88E-05
348	*		0.02	0.000	0.011	0.1670	8.0663	0.0069	4.06E-06	0.0000	0.0000	3.88E-05
349	*		0.00	0.000	0.000	0.1667	8.0842	0.0069	4.07E-06	0.0000	0.0000	3.88E-05
350	*		0.00	0.000	0.000	0.1663	8.1026	0.0069	4.09E-06	0.0000	0.0000	3.88E-05
351	*		0.00	0.000	0.000	0.1658	8.1215	0.0070	4.10E-06	0.0000	0.0000	3.88E-05
352	*		0.09	0.000	0.006	0.1662	8.1409	0.0070	4.11E-06	0.0000	0.0000	3.88E-05
353	*		0.06	0.000	0.013	0.1666	8.1607	0.0070	4.13E-06	0.0000	0.0000	3.88E-05
354	*	*	0.00	0.000	0.014	0.1666	8.1846	0.0070	4.15E-06	0.0000	0.0000	3.87E-05
355	*	*	0.11	0.000	0.006	0.1666	8.2138	0.0070	4.17E-06	0.0000	0.0000	3.87E-05
356	*	*	0.00	0.000	0.008	0.1666	8.2409	0.0071	4.19E-06	0.0000	0.0000	3.87E-05
357	*	*	0.00	0.000	0.004	0.1666	8.2661	0.0071	4.21E-06	0.0000	0.0000	3.87E-05
358	*	*	0.00	0.000	0.007	0.1666	8.2896	0.0071	4.22E-06	0.0000	0.0000	3.87E-05
359	*	*	0.00	0.000	0.000	0.1666	8.3118	0.0071	4.24E-06	0.0000	0.0000	3.87E-05
360	*	*	0.00	0.000	0.034	0.1666	8.3328	0.0071	4.25E-06	0.0000	0.0000	3.87E-05
361	*	*	0.01	0.000	0.037	0.1666	8.3526	0.0072	4.27E-06	0.0000	0.0000	3.87E-05
362	*	*	0.10	0.000	0.016	0.1666	8.3715	0.0072	4.28E-06	0.0000	0.0000	3.87E-05
363	*	*	0.00	0.000	0.007	0.1666	8.3895	0.0072	4.30E-06	0.0000	0.0000	3.87E-05
364	*	*	0.00	0.000	0.010	0.1666	8.4068	0.0072	4.31E-06	0.0000	0.0000	3.87E-05

365	*	*	0.00	0.000	0.017	0.1666	8.4234	0.0072	4.32E-06	0.0000	0.0000	3.87E-05

* = Frozen (air or soil)

Annual Totals for Year 5			
	inches	cubic feet	percent
Precipitation	25.46	92,408.5	100.00
Runoff	0.000	0.0000	0.00
Evapotranspiration	23.104	83,868.9	90.76
Drainage Collected from Layer 3	1.6332	5,928.5	6.42
Percolation/Leakage through Layer 4	0.000834	3.0284	0.00
Average Head on Top of Layer 4	5.2222	---	---
Percolation/Leakage through Layer 6	0.014961	54.3	0.06
Change in Water Storage	0.7043	2,556.8	2.77
Soil Water at Start of Year	54.1256	196,475.9	212.62
Soil Water at End of Year	54.9683	199,534.8	215.93
Snow Water at Start of Year	0.3024	1,097.9	1.19
Snow Water at End of Year	0.1641	595.7	0.64
Annual Water Budget Balance	0.0000	0.0000	0.00

Average Annual Totals Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:51

	Average Annual Totals for Years 1 - 5*			
	(inches)	[std dev]	(cubic feet)	(percent)
Precipitation	31.43	[5.36]	114,107.4	100.00
Runoff	0.000	[0]	0.0000	0.00
Evapotranspiration	26.106	[2.598]	94,764.0	83.05
Subprofile1				
Lateral drainage collected from Layer 3	0.3533	[0.7174]	1,282.3	1.12
Percolation/leakage through Layer 4	0.000178	[0.000367]	0.6447	0.00
Average Head on Top of Layer 4	1.1293	[2.2939]	---	---
Subprofile2				
Percolation/leakage through Layer 6	0.028662	[0.016248]	104.0	0.09
Water storage				
Change in water storage	4.9468	[3.6637]	17,957.0	15.74

* Note: Average inches are converted to volume based on the user-specified area.

Peak Values Summary

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:51

	Peak Values for Years 1 - 5*		
	(inches)		(cubic feet)
Precipitation	3.72		13,503.6
Runoff	0.000		0.0000
Subprofile1			
Drainage collected from Layer 3	0.0072		26.2
Percolation/leakage through Layer 4	0.000004		0.0157
Average head on Layer 4	8.4234		---
Maximum head on Layer 4	14.3076		---
Location of maximum head in Layer 3	49.04	(feet from drain)	
Subprofile2			
Percolation/leakage through Layer 6	0.000216		0.7835
Other Parameters			
Snow water	1.4979		5,437.3
Maximum vegetation soil water	0.3875	(vol/vol)	
Minimum vegetation soil water	0.1155	(vol/vol)	

Final Water Storage in Landfill Profile at End of Simulation Period

Title: Pilgrim Landfill
Simulated on: 9/17/2026 8:52
Simulation period: 5 years

	Final Water Storage	
Layer	(inches)	(vol/vol)
1	1.5866	0.2644
2	47.0334	0.1568
3	3.9066	0.3255
4	0.0000	0.0000
5	0.1475	0.5900
6	2.1075	0.3513
Snow water	0.1641	---

BLUE EARTH COUNTY

Property & Environmental Resources
Government Center, 410 South Fifth Street
P.O. Box 3566, Mankato, Minnesota 56002-3566
Phone: (507) 304-4251

Septic, Well, and Shoreland-Wetland Review

Project Information: Request of Mark Pahl, on behalf or property owner, OMG Midwest Inc., for an amedment to the previously approved Conditional Use Permit for the existing demolition landfill in 2026

Date Printed:	September 17, 2026	**Review Number:**	PR20260483
Property Owner:	OMG MIDWEST INC	**Applicant:**	OMG MIDWEST INC
Parcel Number:	R40.04.30.300.001/R40.04.30.300.007/R40.04.31.100.014/R40.04.31.200.039	**Location Address:**	

Septic Review

Status: Complete-Condition Required

Comments: R40.04.30.300.001 - No septic system currently or proposed on parcel. If there are any bathrooms, laundry, shower/sink waste, or any culinary activities, the sewage from these must go into a code compliant septic system designed for the use. No additional information needed at this time.
R40.04.31.200.039 - The septic system (holding tank) serving 57032 231st LN is compliant. The septic tank serving 57077 231st (old Limestone building) is non-compliant. Building has been demolished but no tank abnadonment form has been recieved. The MPCA tank abandonment form is required.
R40.04.31.100.014 - No septic system currently or proposed on parcel. If there are any bathrooms, laundry, shower/sink waste, or any culinary activities, the sewage from these must go into a code compliant septic system designed for the use. No additional information needed at this time.
R40.04.30.300.007 - No septic system currently or proposed on parcel. If there are any bathrooms, laundry, shower/sink waste, or any culinary activities, the sewage from these must go into a code compliant septic system designed for the use. No additional information needed at this time.
Anderson Jesse 09/17/2026 9:40 AM

Well Review

Status: Complete-Condition Required

Comments: The enclosed site packet does not provide any well information. A review of the records indicates that these properties contain one in-use well located next to the compost facility building, one in-use well, unique # 818514, on the east piece of Parcel # R0.04.31.200.009, one sealed well, unique # H412111, on the south piece of # R0.04.31.200.009, and several

monitoring wells scattered around the demolition landfill. All wells located on these properties which are not in-use are required to be properly sealed as required by MN Statutes, Chapter 103I.301. A condition of this request is that all not in--use wells must be properly sealed, issued annual maintenance permits, or put back into use. The proposed landfill expansion and improvements does not appear to negatively impact the known well situation on these properties. grant 09/17/2026 11:38 AM

Shoreland-Wetland Review

Status: Complete

Comments: The proposed project is concerning regarding its proximity to the Lime 30 Calcareous Fen. Attached project documents do not show anticipated direct impacts, but indirect impacts appear likely. Any development from this project must meet the Minnesota Wetland Conservation Act. If indirect impacts are discovered from the development of this projects, a restoration order will be issued to address the identified impacts. Lynch Dane 09/16/2026 3:24 PM

Lime Township Planning Commission **4. 2.**

Meeting Date: 09/24/2026

Title

CYL-0013-26

Request of Lime Township Board for review of Lime Township Zoning Ordinance.

Applicant

The applicant is the Lime Township Board.

Request

The applicant, Lime Township Board, is requesting for a review of the Lime Township Zoning Ordinance.

Review

The Lime Township Board is requesting for a review of the Lime Township Zoning Ordinance. The proposed draft illustrates an updated numbering system to the previously approved ordinance.

Findings

Staff respectfully submits the finding that the proposed ordinance conforms to the goals of the Lime Township Land Use Plan.

Recommendation

Staff recommends approval of the proposed Lime Township Zoning Ordinance.

Attachments

Draft Ordinance

ARTICLE 1. TITLE AND APPLICATION.

1.1. **Title.** This Ordinance shall be known and may be cited and referred to as the Lime Township Zoning Ordinance. Where referred to herein, it shall be known as this Ordinance.

1.2. **Purpose.** Pursuant to the authority conferred by the State of Minnesota in Chapters 462, as amended from time to time, the purpose of this Ordinance is:

1.2.1. To promote and protect the health, safety, comfort, convenience and general welfare of the unincorporated areas of Lime Township.

1.2.2. To provide for orderly development of Lime Township while protecting the character and preserving the social and economic stability of agricultural, residential, commercial, industrial and other use areas in the Township.

1.2.3. To provide for the most appropriate use of land within the Township.

1.2.4. To ensure the adequate and economical provision of transportation, water supply and sewage disposal.

1.2.5. To ensure the conservation of natural resources and the prevention of pollution through policy and regulation provisions.

1.2.6. To effectuate the purpose and goals of the Joint Resolution for Orderly Annexation, as may be amended from time to time. Lime Township and the City of Mankato deem it necessary and appropriate that the governing bodies of these two jurisdictions work together having a common interest in the orderly growth of Lime Township and the City of Mankato.

1.3. **Legal Authority.** This Ordinance is enacted in accordance with authority granted by Minnesota Statutes §462.357 as amended.

1.4. **Jurisdiction.** The jurisdiction of the Ordinance shall apply to all of Lime Township.

1.5. **Application of provisions.**

1.5.1. **Minimum standards.** In their interpretation and application, the provisions of this Ordinance shall be held to be the minimum requirements for the promotion of the public health, safety and general welfare.

1.5.2. **Prevailing standards.** Where the conditions imposed by any provision of this Ordinance are either more restrictive or less restrictive than comparable conditions imposed by any other law, ordinance, statute, resolution, or regulation of any kind, the regulations which are more restrictive, or which impose higher standards or requirements shall prevail.

1.5.3. **Conformity.** Subject to the limitations of Minnesota Statutes §462.357, subdivision 1(e), as amended, no structure shall be erected, converted, enlarged, reconstructed or altered, and no

structure or land shall be used for any purpose nor in any manner which is not in conformity with the provisions of this Ordinance, unless a variance from these regulations is granted by the Board of **A**ppeals.

1.5.4. **Uses not provided for within zoning districts.** Whenever in any zoning district a use is not specifically allowed as a permitted accessory, Conditional Use, or Interim Use, the use shall be considered prohibited. In such cases, the Board or the Planning Commission, on their own initiative or upon request by an owner or applicant, may conduct a study to determine if the use is acceptable and if so, what zoning district would be most appropriate and the determination as to conditions and standards relating to development of the use. The Board, Planning Commission or property owner, upon receipt of the staff study may, if appropriate, initiate an amendment to this Ordinance to provide for the use under consideration or may find that the use is not compatible for development within the Township.

1.5.5. Applications Required. Where an application is required by this ordinance, the applicant shall apply on forms provided by the Township and shall include with the application all items noted on the application form and checklist unless any such item is waived by the Zoning Administrator.

1.6. **Relation to the Land Use Plan and Orderly Annexation Agreement.** It is the policy of the Board that the enactment, amendment and administration of this Ordinance be accomplished with due consideration of the purposes and objectives of the Lime Township Land Use Plan as adopted, approved and amended from time to time by the Township. The Board recognizes the Lime Township Land Use Plan, in conjunction with the Joint Resolution for Orderly Annexation Agreement, as guides for the future development of the Township and the basis for the enactment of this Ordinance.

1.7. **Lots of Record and Substandard Lots.** All lots, parcels, tracts and other legally described land duly recorded at the Land Records Office as shown on the map entitled "1997 Lots of Record" shall be a Lot of Record.

1.7.1. Substandard Lots of Record which otherwise conform to the applicable regulations of this Ordinance may be approved for development, provided the following:

1.7.1.1. The setback and lot coverage requirements of this Ordinance shall be satisfied; and

1.7.1.2. Adequate sites are available on the lot for onsite sewage treatment in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

1.7.1.3. The development of the lot conforms to the provisions of the Blue Earth County Water Well Code.

1.7.1.4. In cases where two or more substandard Lots of Record are contiguous and under single ownership upon enactment of this Ordinance, ~~said~~ **those** Lots of Record shall be combined for development purposes in order to satisfy the sewage treatment and water well standards of this Ordinance.

1.7.1.5. Every lot or plot of land on which a structure is erected shall have an approved access to a public right-of-way.

1.8. **Non-Conformities.**

1.8.1. **Non-Conforming Uses.**

1.8.1.1. Any legally established use or occupancy, which upon enactment of this Ordinance does not conform to the provisions of this Ordinance, shall be considered a legal non-conforming use. A legal non-conforming use, and Accessory Uses, shall not be structurally or physically enlarged or expanded. Legal non-conformities may be continued or restored in accordance with this Section. Any use not legally established before or after the effective date of this Ordinance shall be considered in violation of this Ordinance.

1.8.1.2. Any non-conforming use, which is abandoned or discontinued for a period of twelve (12) continuous months or more shall not be resumed. Any future use or occupancy of said lot shall conform to the requirements in this Ordinance.

1.8.2. **Non-Conforming Structures.**

1.8.2.1. Any legally established structure existing upon enactment of this Ordinance which does not conform to the provisions of this Ordinance shall be considered a legal non-conforming structure. A legal non-conforming structure shall not be structurally or physically enlarged or expanded in a manner which would increase the level of non-conformity. Legal non-conforming structures may be maintained or restored in accordance with this Section. Any structure not legally established before or after the effective date of this Ordinance shall be considered in violation of this Ordinance.

1.8.2.2**.** A nonconforming building or structure that is destroyed by fire or other peril to the extent of greater than ~~50~~ **fifty** percent **(50%)** of its market value, may be restored under the following conditions:

1.8.2.2.1. A land development permit is applied for within 180 days of when the property is damaged;

1.8.2.2.2. The restoration shall be permitted provided that it repairs and restores the existing structure; and

1.8.2.2.3. Any changes that would result in an increase in nonconformity or enlargement of the structure shall not be permitted. However, if a proposed change would result in a decrease in the degree of nonconformity the proposed restoration may be permitted at the discretion of the ~~zoning administrator~~ **Township Board** unless the property is located within a shoreland district.

1.8.2.3. Legal non-conforming structures with a building line which is not setback in conformance with this Ordinance, may expand the structure in conformance with the following:

1.8.2.3.1. The use of the structure is conforming to the zoning district.

1.8.2.3.2. The expansion of the structure shall not be located closer to the lot line than the existing building line, and at least one-half of the required setback is provided between the building line of the expansion and the lot line.

1.8.2.3.3. The expansion of the structure will not reduce any other required setback below the minimum standards of this Chapter.

1.8.2.3.4. The expansion of the structure will conform to all other restrictions of this Chapter, including, but not limited to, density, lot coverage, building height, and parking and loading requirements.

1.8.2.3.5. The building height of the expansion shall not exceed the height of the existing structure at the building line.

1.8.2.3.6. Adequate drainage shall be provided and drainage shall be directed away from adjacent properties.

1.8.2.3.7. This provision shall not apply to nonconforming building lines located in a required yard along the property's street frontage.

1.8.2.3.8. This provision shall not apply to structures subject to feedlot, shoreland, floodplain, or Airport Regulations.

1.9. **Essential Services.** Essential services have an effect upon land uses, highway locations, park and recreational areas, and the preservation of natural environmental areas. Plans for the construction or modification of essential services shall be filed with the Zoning Administrator prior to the commencement of any condemnation action or construction.

1.9.1. **Application for Services.** Application for essential services not located within a highway or street right-of-way shall require a Conditional Use Permit as regulated in Article 3 of this Ordinance and shall be governed by the following procedures:

1.9.1.1**.** Application shall be filed with the Zoning Administrator on forms supplied by the Zoning Administrator, with maps indicating location, alignment and type of service requested, together with the status of any applications made or required to be made to any State or Federal Agency.

1.9.1.2. The application with accompanying data shall be submitted to the **Planning Commission and Township** Board for review and approval.

1.9.1.3. As-built plans shall be submitted upon completion of construction.

1.9.2. Application for essential services located within highway or street right-of-way shall be governed by the following procedures:

1.9.2.1. Application shall be made on forms supplied by the Zoning Administrator, with maps indicating location, alignment, and type of service requested together with the status of any applications made or required to be made to any State or Federal Agency.

1.9.2.2. Upon receipt of application, the **Planning Commission and Township** Board shall consider the application and accompanying data and shall indicate to the applicant its approval or recommendations for modification.

1.9.2.3. As-built plans shall be submitted upon completion of construction.

1.9.2.4. In the case of pipelines and other station-to-station utilities not providing local services, the Board may require modification to protect existing agricultural drainage systems, tiles or ditches and may require the applicant to modify the depth or routing of the utilities to accommodate future drainage systems, tiles or ditches if such information on future drainage systems, tiles or ditches is provided to the applicant within sixty (60) days of the start of construction. The Board may also require compensation to landowners for future additional installation costs, which can be directly attributable to the presence of such station-to-station utilities.

1.9.3. **Required Lot Area.** A lot used exclusively for an essential utility structure or facility is exempt from the minimum lot area and width requirements of this Chapter, provided the lot has an approved access to a public right-of-way.

1.10. **Severability.** It is hereby declared to be the intention of the Board that the several provisions of this Ordinance are severable in accordance with the following:

1.10.1. If any court of competent jurisdictions shall adjudge any provision of this Ordinance to be invalid, such judgment shall not affect any other provisions of this Ordinance not specifically included in said judgment.

1.10.2. If any court of competent jurisdictions shall adjudge invalid the application of any provision of this Ordinance to a particular property, building, or other structure, such judgment shall not affect the application of ~~said~~ **that** provision to any other property, building, or structure not specifically included in ~~said~~ **that** judgment.

ARTICLE 2. RULES AND DEFINITIONS.

2.1. **Word Usage.** For the purpose of this Ordinance, words used in the present tense shall include the future; words in the singular shall include the plural and the plural the singular; the word "building" shall include the word "structure"; the word "lot" shall include the words "parcel", "plot" and "tract"; the word "shall" is mandatory, not discretionary.

2.2. **Permitted Uses.** Permitted uses of land or structures as hereinafter listed shall be allowed in the districts indicated under the provisions of this Ordinance. No structure or land shall be devoted to any use other than a use permitted hereafter in the Zoning District in which such structure or land is located.

2.3. **Conditional Uses.** Conditional Uses of land or structures, as hereinafter listed, may be allowed in the districts indicated, subject to the issuance of a Conditional Use Permit, in accordance with the provisions of Article 3 of this Ordinance. Whenever a Conditional Use Permit is approved, it shall be deemed to include only those itemized uses listed within ~~said~~ **that** Conditional Use Permit.

2.4. **Interim Uses**. Interim Uses of land or structures, as hereinafter listed, may be allowed in the districts indicated, subject to the issuance of an Interim Use Permit, in accordance with the provisions of Article 3 of this Ordinance. Whenever an Interim Use Permit is approved, it shall be deemed to include only those itemized uses listed within ~~said~~ **that** Interim Use Permit.

2.5. **Definitions.**

For the purpose of this Ordinance, the terms listed herein shall have the meanings given them:

Abutting. Lots or areas, whose boundaries at least touch one another at a single point, including areas whose boundaries would touch but for an intervening roadway, railroad, waterway or parcel of publicly owned land.

Accessory Structure. A structure detached from but located on the same lot as the principal structures or principal use. The use of an Accessory Structure is incidental and accessory to that of the Principal Structure or principal use.

Accessory Use. A use located on the same lot as the principal use. The Use is clearly secondary, incidental, and functionally related to the principal use of land.

Adult Establishment. Any business that either**:**

A) devotes **ten percent (**10%**)** or more of its floor area (not including storerooms, stock areas, bathrooms, basements or any portion of the business not open to the public) to, or derives **ten percent (**10%**)** or more of its revenues from, items, merchandise, devices or other materials distinguished or characterized by an emphasis on material depicting, exposing, simulating, describing, discussing or relating to specified sexual activities or specified anatomical areas or

B) engages in adult use as defined by this Ordinance.

Adult Use. Includes: adult body painting studio (applying paint or substance to the nude body); adult bookstore (sells or rents items emphasizing sexual activities or anatomical areas); adult cabaret (provides dancing or live entertainment focused on sexual or anatomical themes); adult companionship establishment (offers conversation or services emphasizing sexual activities or anatomical areas); adult conversation/rap parlor (provides services focused on sexual themes); adult health/sport club (a health club with a focus on sexual activities or anatomical areas); adult hotel or motel (offers material emphasizing sexual activities or anatomical areas); adult massage parlor/health club (provides massage services with a focus on sexual activities); adult modeling studio (provides live models for sexual stimulation or anatomical display); adult motion picture arcade (displays films focusing on sexual activities or anatomical areas for small groups); adult motion picture theater (presents films focusing on sexual activities or anatomical areas); adult novelty business (sells items emphasizing sexual activities or anatomical areas); adult sauna (a sauna with an emphasis on sexual activities or anatomical areas); adult steam room/bathhouse facility (provides steam baths with an emphasis on sexual activities). Within the context of adult use, nude or specified anatomical areas means: genitals, pubic regions, buttocks, or female breasts below the areola; male genitals in a turgid state, even if covered. Premises means the real property and all structures on it. Specified sexual activities include: sexual intercourse (actual or simulated), sadomasochistic abuse or physical restriction, masturbation or lewd exhibitions of the genitals, and physical contact or simulated contact with sexual or anatomical areas. Substantial or significant portion means **ten percent (**10%**)** or more.

Agricultural Development. Improvements, structures, or fixtures, existing or proposed, suitable for use in farming, including one single-family dwelling, that is or will be occupied by a farmer and structures attached to or incidental to the use of the dwelling. Also referred to as "Agricultural Uses". Agricultural uses do not include cannabis businesses, which are regulated separately herein this Ordinance.

Agricultural Land. Land used or to be used for farming.

Airport Zones. The areas subject to Airport Regulations.

Animal Unit. A unit of measure used to compare animals, based upon differences in the production of manure. Refer to the Blue Earth County Livestock and Manure Management Ordinance as may be amended from time to time for Animal Unit measurements.

Bluff. "Bluff" means a topographic feature such as a hill, cliff, or embankment having the following characteristics (an area with an average slope of less than 18 percent over a distance of 50 feet or more shall not be considered part of the bluff):

(1) The slope rises at least 25 feet from the apparent toe of the bluff to the apparent top of the bluff;

(2) The grade of the slope from the apparent toe of the bluff to the apparent top of the bluff averages 30 percent or greater; and
(3) If the above qualifications are met, any adjacent slope of 18% or more is also a p art of the bluff.

Bluff impact zone. "Bluff impact zone" means a bluff and land located within 30 feet from the top of a bluff.

Board. The Lime Township Board of Supervisors.

Bonus Dwelling. See Dwelling, Bonus.

Buildable Area. The contiguous area of a lot which is not a slope in excess of 18 degrees, a roadway, an impact zone as defined by the Blue Earth County Shoreland Ordinance, protected waters as defined by the Blue Earth County Shoreland Ordinance, or a nonexempt wetland as defined in the Wetland Conservation Act of 1991 of the Federal Clean Water Act.

Building. Refer to "Structure".

Building Line. A parallel to or concentric with the street right-of-way, centerline of a roadway, ordinary high-water line, or any other property line, at the foundation level of a structure and representing the distance which the structure is setback from the street right-of-way line, centerline of a roadway, ordinary high-water line, bluff line, wetland, or other property line.

Building Setback Line. Lines parallel to or concentric with the street right-of-way, centerline of a roadway, ordinary high-water line, bluff line, wetland, or lot lines indicating the minimum horizontal setback beyond which the building line shall not extend.

Bulk and Density Controls. Regulations or controls, which specify setback lines, lot size, building height, maximum ground coverage, lot width, and lot depth.

Cannabis Businesses. Any cannabis microbusiness, cannabis mezzobusiness, cannabis cultivator, cannabis manufacturer, cannabis retailer, cannabis wholesaler, cannabis transporter, cannabis testing facility, cannabis event organizer, cannabis delivery service, medical cannabis combination business, or other businesses licensed under Minn. Stat. Ch. 342 as amended from time to time. Cannabis businesses are allowed only where expressly permitted by this Ordinance. No cannabis business, cannabis activity, or cannabis related land use shall be considered permitted, accessory, interim, or conditional based on similarity to, or inclusion within, any other use classification, including but not limited to agriculture, cultivation, greenhouse, nursery, retail sales, manufacturing, processing, warehousing, wholesaling, laboratory, or commercial business uses. Cannabis businesses shall be regulated solely under the cannabis business use categories established in this Ordinance.

Cannabis Cultivation. A cannabis business licensed to grow cannabis plants within the approved amount of space from seed or immature plant to mature plant, harvest cannabis flower from mature plants, package and label immature plants, seedlings, and cannabis flower for sale to other cannabis businesses, transport cannabis flower to a cannabis manufacturer located on the same premises, and perform other actions approved by the OCM.

Cannabis Delivery Service. A cannabis business licensed by the Office of Cannabis Management ("OCM") to deliver cannabis products directly to consumers in accordance with Minn. Stat. Ch. 342.

Cannabis Event Organizer. A cannabis business licensed by the OCM to organize, manage, or host a cannabis event as authorized under Minn. Stat. Ch. 342.

Cannabis Manufacturer. A cannabis business licensed by the OCM to extract, concentrate, compound, infuse, or otherwise manufacture cannabis products for sale to other cannabis businesses.

Cannabis Microbusiness. A cannabis business licensed by the OCM to engage in a limited combination of cultivation, manufacturing, wholesaling, and retail operations within the size and activity limits established under Minn. Stat. Ch. 342.

Cannabis Mezzobusiness. A cannabis business licensed by the OCM to engage in a broader combination of cultivation, manufacturing, wholesaling, and retail operations than a microbusiness, within the size and activity limits established under Minn. Stat. Ch. 342.

Cannabis Processing. A business with a medical cannabis processor license or processing endorsement from the OCM.

Cannabis Retail Business. A retail location operated by a cannabis retailer, a microbusiness with a retail operations endorsement, a mezzobusiness with a retail operations endorsement, or a medical cannabis combination business operating a retail location.

Cannabis Retailer. Any person, partnership, firm, corporation, or association, foreign or domestic, selling cannabis products to a consumer and not for the purpose of resale in any form.

Cannabis Testing Facility. A cannabis business licensed by the OCM to test cannabis and cannabis products for potency, contaminants, and compliance with state standards.

Cannabis Transportation. A cannabis business licensed by the OCM to transport cannabis and cannabis products between licensed cannabis businesses.

Cannabis Wholesaler. A cannabis business licensed by the OCM to purchase cannabis and cannabis products from cannabis businesses and sell them to other cannabis businesses.

Commercial message (or commercial speech). Any sign, wording, logo, or other visual representation that directly or indirectly identifies, names, advertises, or directs attention to a business operated for profit, or to a product, commodity commercial interest or activity, or is otherwise intended to induce the purchase of goods, commodities, products, property, or services. For purposes of this Ordinance, this term includes commercial speech.

Community Solar Energy System (also called a "Solar Garden"). A solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) to multiple community members or businesses residing or located off-site from the location of the solar energy system, under the provisions of Minn. Statutes 216B.1641 or successor statute.

Conditional Use. See Use, Conditional.

Conditional Use Permit. See Use, Conditional; Permit.

County Recorder. When referred to herein, the Blue Earth County Recorder. Also known as the Land Records Department.

Cul-de-sac. A street which terminates in a circular or rectangular fashion.

Daycare. A location licensed with the Minnesota Department of Children, Youth, and Families or other relevant State or County authority to provide the care of a child in a residence outside the child's own home for gain or otherwise, on a regular basis, for any part of a 24-hour day.

Deck. A horizontal platform type of structure attached to, or within six feet of a Principal Structure, that may or may not have access to the ground but does not contain walls or a roof. For the purposes of this Chapter, decks are considered part of the Principal Structure.

Development. All structures and other human modifications of natural landscape. Does not include Farming.

Dwelling. A structure or portion thereof designed exclusively for residential occupancy. This shall not include motels, tents, tent trailers, travel trailers or recreational vehicles.

Dwelling, Bonus. When permitted within a zoning district, an additional lot that is subdivided from the lot of record to permit an additional dwelling(s) in exceedance of the standard density regulations in the applicable zoning district. The lot of record from which the bonus lot is divided from must be greater than 20 acres in a single quarter-quarter section.

Dwelling, Single-Family. A detached dwelling designed exclusively for occupancy by one family.

Dwelling Unit. One or more rooms physically arranged so as to create an independent space for occupancy by one (1) family.

Essential Services. Overhead or underground electric, gas communication, hydrocarbon, steam or water transmission or distribution systems and structures as located by public utilities or governmental agencies as required for protection of the public health, safety or general welfare. This includes communication towers, poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, police call boxes and accessories including Accessory Structures.

Family. Any number of individuals related by blood, marriage, adoption or certified legal instrument or not more than five (5) persons not so related, maintaining a common household and using common bath and kitchen facilities.

Farming. The cultivation of land for the production of agricultural crops, the raising of poultry, the production of eggs, the production of milk, the production of fruit or other horticultural crops, grazing, the production of livestock, aquacultural, hydroponics, or the production of forest products.

Farm Dwelling. In regards to property used for Agricultural Development, the area occupied by a single-family dwelling and other Accessory Structures in close proximity.

Feedlot. Land, Structures or enclosures intended for the confined feeding, breeding, raising or holding of animals specifically designed as a confinement area in which manure may accumulate or where the concentration of animals is such that vegetative cover cannot be maintained. Pastures shall not be considered animal feedlots provided the pasture maintains a uniform and natural vegetative cover.

Fence. An artificially constructed barrier with vertical dimensions for the purpose of restricting access to land, landscaping element, or screening device. A fence shall not be considered or used as a Structure.

Flood Plain. The areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.

Floor Area, Gross. The sum of the gross horizontal area of the floors of a structure measured from the exterior face of exterior walls or party walls separating two Structures. This shall not include parking areas.

Frontage. The boundary between private property and the public road right-of-way.

Full Cutoff Fixture. An exterior light source constructed or shielded to direct all light towards the ground.

Garage. An Accessory Structure situated on the same lot as the principal use and designed for the private storage of motor vehicles owned by the occupant or operator of the principal use. Such garage may be attached or detached to the Principal Structure. When a garage is attached to the Principal Structure, it shall be considered part of the Principal Structure for the purpose of bulk and density controls. When detached, it shall be considered an Accessory Structure for the purpose of bulk and density controls. May also be referred to as a machine shed or carport.

Grade. The elevation of the ground surface. For building height, the average elevation of the finished ground levels measured at the center of all exterior walls.

Ground Sign. A freestanding sign, including the supporting structure.

Hazardous By-Product. Any waste that cannot be handled by routine waste management techniques due to the potential harm to humans or the natural environment.

Home Occupation. An occupation clearly secondary to the principal residential use of the property or structure.

Illuminated Sign. A sign that is lighted by an exterior or interior light source.

Individual Sewage Treatment System. A sewage treatment system or part thereof serving a dwelling or other use.

Interim Use. See Use, Interim.

Interim Use Permit. See Use, Interim; Permit.

Joint Identification Sign. A sign which serves as common or collective identification for a group of persons or businesses operating on the same lot.

Junk Yard. Land or Structures where waste, discarded or salvaged materials are bought, sold, exchanged, stored, cleaned, packed, disassembled or handled. This includes scrap metal, rags, paper, rubber, glass, lumber and products resulting from the wrecking of automobiles or other vehicles.

Junked Motor Vehicle. A motor vehicle which is inoperable and does not have a current license.

Kennel. A principal commercial use of property devoted to the care, boarding, breeding or sale of dogs or cats or any combination of ten (10) or more thereof.

Lineal Frontage. The lineal distance or measurement of a property's frontage.

Lot. A parcel of land occupied or intended to be occupied by a principal structure and Accessory Structures together with such yards and open spaces within the lot width and depth and area requirements of this Ordinance. A lot shall have access to or frontage on a public road or street and be identifiable by lot number on a plat of record or considered as a unit of property as described by metes and bounds or other description.

Lot Area. The area located within the lot lines not including that portion of the lot dedicated or used for street or public right-of-way.

Lot, Corner. A lot abutting, and at the intersection, of two (2) or more streets. A corner lot shall be considered as having primary frontage abutting the required front yard and secondary frontage abutting a corner side yard.

Lot Depth. The horizontal distance from the midpoint of the front lot line to the midpoint of the rear lot line, or to the most distant point on any other lot line where there is no distinct rear lot line.

Lot Frontage. The portion of a lot boundary abutting the street right-of-way.

Lot, Interior. An interior lot is a lot other than a through lot or a corner lot.

Lot Width. The shortest horizontal distance between the side lot lines.

Lot, Multiple Frontage. A lot having frontage on two or more streets or roads.

Lot Lines. The lines bounding a lot as defined herein.

Lot Lines, Front. The property line along a properties frontage.

Lot Lines, Rear. The property line opposite of the front property line.

Lot Lines, Side. The property lines connecting the front property line to the rear property line, or in instances where no rear property line is present the most distance point for the front property line.

Lot of Record. A lot that has been recorded in the office of the Blue Earth County Recorder prior to November 24, 1997.

Lot, Through. A lot having frontage along the front and rear property lines.

Lot, Zoning. One or more lots which are used or intended for a principal use, and incidental Accessory Uses, as permitted in this Chapter.

Lower-potency Hemp Edible. As defined under Minn. Stat. § 342.01, subd. 50.

Lower-potency Hemp Edible Manufacturer. A business with a lower-potency hemp edible manufacturer license from the OCM.

Lower-potency Hemp Edible Retailer. A retail location with a lower-potency hemp edible retailer license from the OCM, including on-site consumption as allowed by State of Minnesota regulations.

Manufactured Home. A single-family dwelling less than twenty (20) feet in width at the narrowest dimension, without a permanent foundation. A dwelling built upon a frame or chassis with wheels that are, or may be, attached for transportation on public roads or streets, a manufactured home arrives on site ready for occupancy except for incidental assembly, blocking, anchoring and connection to utilities.

Manufactured Home Park. A parcel of land which has been planned for the placement of two (2) or more manufactured homes.

Maximum Height. A horizontal plane above and parallel to the average finished grade at the front of the Structure at the height shown in the district regulations. No part of any Structure shall project through such plane.

Medical Cannabis Combination Business. A cannabis business licensed by the OCM to cultivate, manufacture, and dispense medical cannabis as authorized under Minn. Stat. Ch. 342.

Mini-storage. A Structure or group of Structures in a controlled access or fenced area that contains varying sizes of individual compartmentalized units, which are accessed by separate doorways for each unit, designed for the storage of property for individuals, organizations, and businesses. These are also known as "self-storage facilities".

Mining. The process of extraction and removal of sand, gravel, rock, aggregate, minerals, or similar materials for financial gain.

Mining, Accessory Use. Uses customarily incidental to mining located on the same site, such as stockpiling, sorting and screening, washing, crushing, batching, scale-house, driveways, parking, storage, and related maintenance activities and facilities.

Mining Operation. The Mining and Mining Accessory Uses collectively.

Motor Vehicle. Means any vehicle that is self-propelled, or towed, and designed to travel along the ground. Shall include automobiles, buses, motorbikes, motorcycles, trucks, campers, and trailers. Agricultural machinery used as part of a farming operation shall not be considered a motor vehicle for the purposes of this Ordinance.

Municipal Sanitary Sewer System. A system of sanitary sewage collection and disposal as provided by a city or other government entity as an essential service.

Municipal Water System. A source of water and water distribution service as provided by a city or other government entity as an essential service.

Nameplate. A sign indicating the name and address of a Structure or the name of an occupant hereof and the practice of a permitted occupation therein.

Noncommercial message (or noncommercial speech). The dissemination of messages not classified as commercial messages which includes, but is not limited to, messages containing political, religious, ideological, and social and public service topics. For purposes of this Ordinance, this term includes noncommercial speech.

Non-Conforming. Means not in compliance with this Ordinance.

Non-Conforming Sign. A sign that is not in conformance with this Ordinance.

Non-Conforming Structure. A structure that is not conforming to the bulk and density regulations of this Chapter.

Non-Conforming Use. A use not conforming to this Ordinance.

Non-Conforming or Substandard Lot. A lot or parcel that is not in conformance with the minimum area, width, or frontage requirements of this Ordinance.

Notice of Imminent Public Threat. A notice given and signed by a licensed inspector as regulated in State of Minnesota Rules, Chapter 7080 or other similar statute that an individual sewage treatment system presents an imminent threat to public health or safety due to system failure or imminent system failure.

Off-Premises Sign. A sign advertising a business, commodity, service or entertainment not related to the zoning lot on which the sign is located.

Office of Cannabis Management (OCM). The State of Minnesota Office of Cannabis Management.

On-Premises Sign. A sign advertising a business, commodity, service or entertainment related to the zoning lot on which the sign is located.

Open Space. Land and water areas retained for use as active or passive recreation areas or for resource protection in an essentially undeveloped state.

Operator. An owner or lessee or person or entity authorized by the owner or lessee that engages in a land use activity.

Ordinary High-Water Level. The boundary of lakes, wetlands and water courses which delineates the highest sustainable water level, commonly the point where natural vegetation changes from predominately aquatic to predominately terrestrial.

Overburden. Those materials which lie between the surface of the earth and the mineral deposit to be mined.

Owner or Property Owner. Any Person, agent, firm, corporation or partnership or other organized entity that alone, jointly, or severally with others: (1) has legal or equitable title to any premises, dwelling, or Dwelling Unit, with or without accompanying actual possession thereof, or (2) has charge, care, or control of any premises, Dwelling Unit, as agent of the owner or as executor, administrator, trustee, or guardian of the estate of the beneficial owner. The Person shown on the records of the recorder of deeds of Blue Earth County to be the owner of a particular property shall be presumed to be the Person in control of that property.

Parking Area or Space. An area maintained or used for the storage of a motor vehicle.

Parking Lot. The lot or portion thereof used as a parking area.

Persons. Any individual, firms, partnership, corporation, company, association, joint stock association or body politic. This includes any trustee, receiver, assignee or other representative thereof.

Planning Commission. When referred to herein, the Planning Commission shall be the ~~City of Mankato~~ **Lime Township** Planning Commission pursuant to the terms of the Orderly Annexation Agreement.

Portable Sign. A sign so designed as to be movable from one location to another and which is not permanently attached to any structure, device or the ground. Also referred to as a temporary sign.

Preliminary License Approval. OCM pre-approval for a cannabis business license for applicants who qualify under Minn. Stat. § 342.17.

Principal Use or Principal Structure. The permitted or Conditional Use of property. Also may be defined as the main or predominate use of land or structures and distinguished from a secondary or Accessory Use of property.

Public Waters. Any water basin assigned a shoreland management classification by the Commissioner of the Department of Natural Resources; water of the state; meandering lakes; public water wetlands and other waters as defined in State of Minnesota Statute 103G.005.

Quarter and Quarter-Quarter Section. Divisions of a section of land according to the rules of the original United States Government Public Land Survey. A Quarter Section contains approximately one hundred-sixty (160) acres; a Quarter-Quarter Section contains approximately forty (40) acres.

Real Estate Sign. A sign advertising the sale, lease or development of the premises upon which it stands, or directing attention to the opening or location of residential development.

Reclamation Plan. A document detailing the activities to be completed during and following a use operating under an Interim Use Permit or Conditional Use Permit to mitigate adverse environmental effects and return land to a condition for which it can be utilized for typical uses permitted in the zoning district and in a manner consistent with the Comprehensive Plan.

Refuse. Means all solid waste or waste products having the character of solids rather than liquids in that such products will not flow readily without additional liquid and which products are composed wholly or partly of such material as garbage, will, sweepings, cleanings, trash, rubbish, liter, industrial solid wastes or domestic solid waste; organic wastes or residue of animals sold as meat, fruit or other vegetable or animal matter from kitchen, dining room, market, food establishment or any place dealing in or handling meat, fowl, fruit, grain or vegetables, offal animal excreta or the carcass of animals; tree or shrub trimmings; grass clippings; brick, plaster, or another waste matter resulting from the demolition, alteration or construction of any structure; or accumulated waste materials, cans, containers, tires, appliances, or other discarded material.

Residential Treatment Facility. As defined under Minn. Stat. § 245.462, subd. 23.

School. A public school as defined under Minn. Stat. § 120A.05 or a nonpublic school that must meet the reporting requirements under Minn. Stat. § 120A.24.

Sensitive Resource Management. The preservation and management of areas in a natural state that have been determined to be unsuitable for development due to shallow soils over groundwater or bedrock, erosive or expansive soil composition, steep slopes, wetlands, susceptibility to flooding or the occurrence of flora or fauna requiring special protection.

Setback. Refer to "Building Setback Line".

Screening. The use of plant material, fencing or earthen berms to partially conceal and separate a land use from the surrounding land uses. Screening must be 80% opaque to a height of six feet, or as otherwise referenced in this Ordinance.

Shoreland. Land located:

a. 1,000 feet from the normal high-water mark of a lake, pond, wetland or flowage;

b. Three hundred (300) feet from a river or stream; or

c. The landward extensions of a designated flood plain; whichever is greater.

Sign. Any name, identification, description, display, illustration, structure, emblem or device which is affixed to, painted or represented upon a bench, structure, vehicles or piece of land which is intended to direct attention to an object, product, place, activity, person, organization or business. Any supporting structure shall be considered part of the sign.

Sign Area. The net geometric area enclosed by the display surface of the sign. Only one face of a multiple face sign shall be considered in calculating display surface area.

Sign Height. The vertical distance measured from the lot elevation to the highest point of said sign.

Sign Setback. The horizontal distance measured from the lot line to the nearest point of a sign or its structure.

Slope. An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude to vertical magnitude or as a percentage of grade.

Solar Energy System. A complete design or assembly consisting of a solar energy collector, an energy storage facility (where used), and components to the distribution of transformed energy (to the extent they cannot be used jointly with a conventional energy system).

State. When referred to herein, the State of Minnesota.

State License. An approved license issued by the State of Minnesota's Office of Cannabis Management to a cannabis retail business.

Street. A right-of-way or approved private road intended as the primary access by pedestrians and vehicles to abutting properties, whether referred to as a street, highway, parkway, road, avenue, boulevard, place or other designation.

Structure. Anything constructed, placed, or erected that requires permanent location on the ground or is attached to something having permanent location on the ground including but not limited to fences, signs, and sheds.

Structural Alterations. Any change in the supporting members of a structure such as weight-bearing walls, columns, beams or girders.

Subdivision. A parcel of land divided into two or more parcels, any of which result in parcels of twenty (20) acres in size or less. Division of parcels after the enactment of this Ordinance shall be subject to the regulations and requirements of this Ordinance and the Joint Resolution for Orderly Annexation.

Temporary Sign. Any sign, banner, pennant, post or advertising which is intended to be displayed for a limited period of time and is not permanently affixed to any structure, device or the ground. All other signs shall be considered permanent signs.

Trademark Sign. Any sign designating a design or emblem of a product, manufacturer or organization.

Township. When referred to herein, Lime Township of Blue Earth County, Minnesota.

Use. The purpose for which land, premises or a structure is designed, arranged, occupied, maintained, or intended.

Use, Conditional. A land use as defined by this Ordinance that may be allowed with restrictions, which are site specific and conforms to the purposes, objectives, requirements, regulations and performance standards of a particular zoning district.

Use, Conditional; Permit. A permit issued by the Board in accordance with the procedures specified in Article 3, Section 9 of this Ordinance enabling the Board to assign site specific conditions and dimensions to a proposed use.

Use, Interim. A temporary use prescribed in a particular zoning district, allowable by permit until a certain date established by the Board or until the use is no longer permitted by this Ordinance. An Interim Use is subject to all performance standards of this Ordinance, including additional standards and regulations established by the Planning Commission during the permitting process.

Use, Interim; Permit. A permit issued by the Board for an allowable Interim Use in accordance with the provisions required in Article 3, Section 9 of this Ordinance.

Use, Permitted. A use which conforms with the purposes, objectives, requirements, regulations and performance standards of a particular zoning district, and is listed as a permitted use in this Ordinance.

Urban, Non-Farm Development. Any development, existing or proposed, not defined as Agricultural Development.

Vacation. The act of relinquishing a recorded dedication or easement (e.g. a street right-of-way or utility easement).

Variance. The waiving by the Board of Appeals of the literal provisions of this Ordinance. Variances shall be limited to height, bulk, density, and yard requirements.

Wall Sign. A sign affixed flush on the exterior wall of a Structure.

Wind Energy Conversion System (WECS). Any device, such as a wind charger, windmill, or wind turbine and associated facilities that convert wind energy to electrical energy.

Wind Energy Conversion System (*WECS*), Commercial. A *WECS* or combination of *WECS* that is designed to have a capacity in excess of the amount needed for residential and agricultural uses and that has a combined nameplate capacity of 125 KW or more.

Wind Energy Conversion System (*WECS*), Non-commercial. A *WECS* or combination of *WECS* that is designed to have a capacity for residential and agricultural uses and has a combined nameplate capacity of less than 125 KW.

Yard. An open space unoccupied and unobstructed from the ground upward, except for landscaping, driveway curbcuts, fences and as otherwise provided in this Ordinance.

Yard, Front. The area extending across the full lot width and having a depth equal to the shortest distance between the frontage line or centerline of the street, and the building line of the Principal Structure, including any enclosed or covered porches. The front yard depth shall be measured and right angles to the frontage or centerline of the street and the nearest line of the Principal Structure.

Yard, Rear. A yard extending across the full width of a lot and having a depth equal to the shortest distance between the rear lot line and the building line of the Principal Structure or a depth equal to the shortest distance between the most distant point on any other lot line and the rear building line of the Principal Structure in instances where there is no rear lot line. The rear yard depth shall be measured at right angles to the Principal Structure.

Yard, Side. A side yard between the side lot line and the building line of the Principal Structure, which extends from the front yard to the rear yard and has a width equal to the shortest distance between the side lot line and the building line of the Principal Structure. The required side yard width shall be calculated at the front building line and the side yard width shall be measured at right angles to the side lot line.

Yard, Corner Side. A yard extending across the full depth of a corner lot and having as width equal to the shortest distance between the frontage or centerline of the street along the property's secondary frontage and the building line of the Principal Structure.

Zoning Administrator. When referred to herein, the person appointed by the Board to perform the duties of Zoning Administrator.

Zoning Map. The map or maps that are a part of this Ordinance and that delineate the boundaries adopted or amended by the Town from time to time of all Zoning Districts within the corporate limits of the Town.

ARTICLE 3. GENERAL ADMINISTRATION.

3.1. **Zoning Administrator.** The Zoning Administrator shall be responsible for administering ~~and enforcing~~ this Chapter.

Specific duties of the Zoning Administrator shall include the following:

3.1.1. ~~Enforcement and~~ Administration of this Ordinance;

3.1.2. Issue Land Development Permits and maintain records thereof;

3.1.3. Receive and forward to the Planning Commission all applications for Conditional Use Permits and Interim Use Permits;

3.1.4. Receive and forward to the Board of Appeals all applications for variances, appeals, or interpretations;

3.1.5. Receive and forward to the Planning Commission all applications for amendments to this Ordinance;

3.1.6. Maintain the Official Zoning Map;

~~Conduct inspections as necessary to assure compliance with this Ordinance; and~~

3.1.7. Accept and review Land Use Development Applications and determine when they are complete and in compliance with this Chapter.

3.1.8. Accept and review land division applications.

3.2. **Fees, Costs and Expenses.** The Board shall establish fees by resolution as necessary for the administration of this Ordinance. The fees shall be collected by the Zoning Administrator as part of the application process. No land use application shall be deemed complete until such time as all required fees have been collected by the Zoning Administrator.

3.2.1. **Responsibility for Fees and Costs.** The property owner of the property subject to the land use application shall be responsible for all costs incurred by the Township in processing ~~said~~ **the** land use application.

3.2.2. **Escrow.** When a land use application has been submitted, the applicant shall deposit funds in an escrow account with the Township from time to time an amount determined by the Zoning Administrator to be necessary to cover such costs prior to commencement of the review stage of the application. The applicant shall reimburse the escrow account for any deficits caused if the amount actually expended or billed to the Township by the consultants exceeds the fund balance. The Township shall refund any amount deposited in the escrow account not expended within thirty (30) calendar days after final action on the application. The Township shall not pay interest on such security fund deposits.

3.2.3. **Certification of Unpaid Costs and Expenses.** All unpaid expenses incurred by the Township under this Chapter and this Ordinance not covered by the escrow will be charged against ~~said~~ **the** parcel and will be the responsibility of the property owner pursuant to M.S.A Chapter 462 and M.S.A § 366.012 and any other relevant statutes. The property owner shall be invoiced for the Township's costs to where property tax statements are sent by the County. The invoice shall advise the property owner of their right to request a hearing by the Board regarding ~~said~~ **these** costs. Unless a hearing is granted by the Board, the invoice shall be paid within 30 days of the date of the invoice, should property owner not reimburse the Township within ~~said~~ **that** time, the Township shall be authorized to certify ~~said~~ **these** unreimbursed costs to the County Auditor for payment with the property owner's property taxes. This cost recovery shall be in addition to any penalty or legal or equitable remedy the Township may seek or receive for the violation of this Ordinance.

3.3. **Planning Commission.** A Planning Commission is hereby established per the Joint Resolution for Orderly Annexation and vested with such authority as is hereinafter provided and as provided by Minnesota Statutes 462, as amended.

3.3.1. **Duties.** The Planning Commission, shall review, and either recommend approval or denial, the following:

3.3.1.1. Conditional Use Permits.

3.3.1.2. Interim Use Permits.

3.3.1.3. Plans for subdivisions of land.

3.3.1.4. Comprehensive plans, official controls and amendments thereto.

3.3.1.5. Variance, Appeal, and Interpretation Requests.

3.3.1.6. Amendments to the Zoning Ordinance or Official Zoning Map.

3.4. **Board of Appeals.** A Board of Appeals is hereby established and vested with such authority as is hereinafter provided and as provided by Minnesota Statutes 462, as amended. The Board of Appeals shall consist of the Board.

3.4.1. **Duties**. The duties of the Board of Appeals shall be:

3.4.1.1. To hear and decide appeals where it is alleged that there is an error in any order, requirement, decision, or determination made by the Zoning Administrator in the ~~enforcement,~~ interpretation or application of this Ordinance.

3.4.1.2. To hear and decide requests for variances from the requirements of this Ordinance including restrictions placed on nonconformities.

3.4.1.3. To hear and decide requests for permits that have been denied on properties that have been identified as being needed for public purposes on an official map adopted in accordance with M.S.A. § 462.359. Appeals for this reason shall be conducted as provided in M.S.A. § 462.359 as amended from time to time.

3.4.2. **Proceedings**. The Board of Appeals may adopt rules necessary to the conduct of its affairs and in keeping with the provisions of this Ordinance. Meetings shall be held at the call of the Board Chair and at such other times as the board may determine. The Chair, or in his/her absence, the acting Chair, may request the attendance of witnesses. All meetings shall be open to the public.

3.4.2.1. **Records**. The Board of Appeals shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or failing to vote indicating such fact, and shall keep records of its examinations and other official actions, all of which shall be a public record and be immediately filed in the office of the Town Clerk.

3.5. **Appeals**. Appeals to the Board of Appeals may be taken by any person aggrieved by any decision of the Zoning Administrator related to the enforcement, interpretation or application of this Ordinance. ~~Such a~~ **A**ppeals shall be taken within 60 days of ~~such~~ **any** decision by filing with the ~~Zoning Administrator~~ **Township Clerk** a notice of appeal specifying the grounds ~~thereof~~ **for the appeal.** The Zoning Administrator shall forthwith transmit to the **B**oard all papers constituting the record upon which the action appealed from was taken. New or additional information may not be submitted. The Planning Commission shall make a recommendation to the **B**oard. The **B**oard shall fix a reasonable time for the hearing of appeal, given public notice thereof as well as due notice to the parties in interest, and decide the same within a reasonable time. At the hearing, any party may appear in person or by agent or attorney.

3.6. **Variances.**

3.6.1. **When granted.** Variances from the provisions of this Ordinance may be granted by the Board of Appeals where practical difficulties in complying with such provisions are determined to exist. The board may impose such restrictions and conditions upon the premises benefited by a variance as it considers necessary so that the public health, safety and general welfare may be secured and substantial justice done.

3.6.2. **Exhibits.** Application for variances shall be accompanied by the certificate of survey and land development permit application.

3.6.3. Procedure. The procedure for applying for a variance from the regulations of this Ordinance shall be as follows:

3.6.3.1. The person applying for a variance shall fill out and submit to the Zoning Administrator the variance application form signed by the owner, site plan, and other such information necessary to review the application for compliance with this Ordinance, and such submittal shall include all information as required on the application form unless a waiver of certain information is granted by the Zoning Administrator.

3.6.3.2. The Zoning Administrator shall determine if the application is complete and, if complete, refer the application to the Planning Commission.

3.6.3.3. The Planning Commission shall hold a public hearing on the application. Notice of the public hearing shall be published in the official newspaper designated by the Township at least ten days prior to the hearing. All property owners of record within one-half (1/2) mile of the affected property or to the ten (10) properties nearest to the affected property, whichever would provide notice to the greatest number of owners shall be notified by depositing a written notice in the U.S. Mail, postage prepaid, as to the time and place of the public hearing. The notice shall include a description of the land and the proposed variance.

3.6.3.4. The report of the Planning Commission shall be placed on the agenda of the Board of Appeals following referral from the Planning Commission. In the event that the Planning Commission does not make a recommendation on an application within 60 days of the date that the application was determined to be complete under **Minnesota Statues** §15.99, then the application shall automatically be referred to the Board of Appeals for a public hearing if a public hearing was not previously completed and a recommendation made.

3.6.3.5. No application for a variance shall be resubmitted for the same property and for the same type of variance for a period of one year from the date of a decision of the Board of Appeals to deny an application. Failure by the owner or applicant to complete the improvements for which the variance was sought, or to comply with the conditions attached to the variance within twelve (12) months of the date of its approval shall void the variance. The Board of Adjustment, solely at its discretion, may extend the date for variance compliance.

3.6.3.6. Variances shall be recorded with the Blue Earth County Recorder or if Torrens property with the Registrar of Titles.

3.6.4. **Standards for granting a variance.** The Board of Appeals may grant a variance from this Ordinance when supporting evidence in each specific case indicates that:

3.6.4.1. The proposed variance is in harmony with the general purposes and intent of the Ordinance.

3.6.4.2. The proposed variance is consistent with the comprehensive plan, as amended from time to time.

3.6.4.3. The applicant or owner establishes that there are practical difficulties in complying with this Ordinance. Practical difficulties, as used in connection with the granting of a variance, requires an affirmative finding of the following criteria:

3.6.4.3.1. The property owner or applicant proposes to use the property in a reasonable manner not permitted by this Ordinance;

3.6.4.3.2. The plight of the property owner or applicant is due to circumstances unique to the property and not created by any persons presently or formerly having an interest in the parcel of land.

3.6.4.3.3. The variance, if granted, will not alter the essential character of the locality.

3.6.4.3.4. Economic considerations alone do not constitute practical difficulties.

3.6.4.4. No variance may be granted that would allow a use that is not permitted in the zoning district in which the property is located.

3.6.5. **Other considerations.** Per ~~M.S.A.~~ **Minnesota Statute** §462.359, the following shall also be considered:

3.6.5.1. Inadequate access to direct sunlight for solar energy systems does constitute a practical difficulty.

3.6.5.2. Variances shall be granted for earth sheltered construction as defined in ~~M.S.A~~. **Minnesota Statute** §216C.06, subdivision 14, when in harmony with this Ordinance.

3.7. **Amendments**.

3.7.1. **Criteria for granting zoning amendments.** The Board may adopt amendments to this Ordinance and zoning map. Such amendments shall not be issued indiscriminately but shall only be used as a means to reflect change in the goals and policies of the community as reflected in the comprehensive plan, Orderly Annexation Agreement or changes in conditions in the Township.

3.7.2. **Procedure**.

3.7.2.1. An amendment to the text of this Ordinance or the Official Zoning Map may be initiated by the Board, the Planning Commission, Zoning Administrator or by application of a property owner. Any amendment not initiated by the Planning Commission shall be referred to the Planning Commission for review and may not be acted upon by the Board until it has received the Planning Commission recommendations. Individuals wishing to initiate an amendment to this Ordinance or to the Official Zoning Map shall fill out a zoning amendment application form and submit it to the Zoning Administrator.

3.7.2.2. A public hearing on the rezoning application shall be held by the Planning Commission. Notice of ~~said~~ **this** hearing shall be published in the official newspaper designated by the Board at least ten days prior to the public hearing. A notice shall be mailed by the Zoning Administrator at least ten days before the day of the hearing to each owner of affected property and property situated wholly or partly within one-half (1/2) mile of the property to which the amendment relates. The notice shall include the description of the land and the proposed changes in zoning. In the event that the Planning Commission does not make a recommendation on an application within 60 days of the date that the application was determined to be complete under ~~M.S.A.~~ **Minnesota Statute** §15.99, then the application shall automatically be referred to the Board for a public hearing and decision if a public hearing was not previously completed and a recommendation made.

3.7.2.3. The Board must take action on the application following referral by the Planning Commission. The person making the application shall be notified of the action taken. The Zoning Administrator shall maintain records of amendments to the text and official zoning map.

3.7.2.4. No application of a property owner for an amendment to the text of this Ordinance or the Official Zoning Map shall be considered by the Planning Commission within the one-year period following a denial of such request, except the Planning Commission may permit a new application, if in the opinion of the Planning Commission, new evidence or a change of circumstances warrant it.

3.8. Land Development Permit.

3.8.1. **Land Development Permit Required.** After the effective date of this Ordinance no person or entity shall conduct any development activity as defined or regulated by this Ordinance without securing a Land Development Permit. No Land Development Permit shall be issued until the Zoning Administrator determines that the proposed use of property complies with the provisions of this Section.

3.8.2. **Application.** A Land Use Development Application shall be submitted to the Zoning Administrator on forms to be furnished by the Zoning Administrator. Each application to construct or alter a Structure, shall be accompanied by the following information, unless deemed unnecessary for the purpose of this Chapter by the Zoning Administrator:

3.8.2.1. **General Information.**

3.8.2.1.1. The applicant's name, address, telephone number, and interest in the property.

3.8.2.1.2. The owner's name, address, and telephone number if different than the applicant, and the owner's signed consent to the filing of the application.

3.8.2.1.3. The street address and legal description of the subject property.

3.8.2.1.4. The zoning classification and present use of the property.

3.8.2.1.5. The proposed title of the project, and the names, addresses, and telephone numbers of the architect, landscape architect, planner or engineer for the project.

3.8.2.2. **Site Plan.**

3.8.2.2.1. The location, dimensions, and total area of the site.

3.8.2.2.2. The location, dimensions, floor area, type of construction, and use of each proposed structure.

3.8.2.2.3. Floor plan showing specific uses within the Structure.

3.8.2.2.4. The number, the size and type of dwelling units in each Structure, and the overall dwelling unit density.

3.8.2.2.5. The proposed treatment of open spaces and the exterior surfaces of all structures, with sketches of proposed landscaping and structures.

3.8.2.2.6. Architectural graphics, including typical floor plans, elevations, profiles, and cross-sections.

3.8.2.2.7. The number, location, and dimensions of parking spaces and loading docks, with means of ingress and egress.

3.8.2.2.8. The proposed traffic circulation pattern within the area of the development, including the location and description of public improvements to be installed, including any streets and access easements.

3.8.2.2.9. The location of all fire hydrants on the property and the location of all fire hydrants within one-hundred fifty (150) feet of the property.

3.8.2.2.10. The location and dimensions of all accesses for fire and emergency vehicles.

3.8.2.2.11. Statement of whether or not the Structure will be sprinkled and fire flow availability for the sprinkler system and fire hydrants.

3.8.2.2.12. The location and intensity of safety and security lighting.

3.8.2.2.13. The location and purpose of any existing or proposed dedication or easement.

3.8.2.2.14. The general drainage plan for the development tract prepared and signed by a registered engineer in the State of Minnesota.

3.8.2.2.15. The location and dimensions of adjacent properties, abutting public right-of-ways and easements, and utilities serving the site.

3.8.2.2.16. Significant topographical or physical features of the site, including bluff zones, existing vegetation, and topographic contours.

3.8.2.2.17. Shoreland and floodplain designations.

3.8.2.2.18. Wetland delineation for all wetlands present on the site.

3.8.2.2.19. The location and proposed treatment of any historical structure or other historical design element or feature.

3.8.2.2.20. Location of existing and proposed individual sewage treatment areas or municipal sanitary sewage treatment facilities.

3.8.2.2.21. Location of existing and proposed water wells or other water supply.

3.8.2.2.22. The applicant for a Conditional Use Permit which, in the opinion of the Zoning Administrator may result in a material adverse effect on the environment, may be required to demonstrate the nature and extent of the effect.

3.8.2.3. **Additional Information.** The site plan shall also contain the following information and be accompanied by the following submissions, as well as ~~such~~ **any** additional information, drawings, plans or documentation as may be requested by the Zoning Administrator or Board, if determined necessary or appropriate for a full and proper consideration and disposition of the application.

3.8.2.3.1. A certificate of disclosure of ownership interest.

3.8.2.3.2. When a proposed planned development includes provisions for common open space or recreational facilities, a statement describing the provision that is to be made for the care and maintenance of ~~such~~ **the** open space or recreational facilities. If it is proposed that ~~such~~ **the** open space be owned ~~and/~~or maintained by an entity other than a government authority, copies of the proposed articles of incorporation and bylaws of ~~such~~ **the** entity shall be submitted.

3.8.2.3.3. Copies of any restrictive covenants that are to be recorded with respect to property in a proposed planned development or subdivision.

3.8.2.3.4. When the development is to be constructed in stages, a schedule for the development of ~~such~~ **the** stages shall be submitted stating the approximate beginning and completion time for each stage. When the development provides for common open space provided at any stage of development shall, at a minimum, bear the same relationship to the total open space to be provided in the entire development as the stages completed or under development bear to the entire development.

3.8.2.3.5. If requested by the Blue Earth County Sheriff, a personal safety risk assessment for employees, visitors, and customers of the development.

3.8.2.3.6. For development in the bluff zone, a plan showing existing topography, proposed topography, and erosion and sedimentation controls. The plan shall be prepared and signed by a registered engineer in the State of Minnesota.

3.8.2.3.7. A traffic study showing the impact of the development on public streets which serve the development. A registered professional traffic operations engineer shall undertake the study.

3.8.2.3.8. If the Planning Commission or Zoning Administrator determines that the proposed development or activity may result in a material adverse environmental effect, the applicant may be requested by the Township to demonstrate the nature and extent of the effect.

3.8.2.3.9. Pursuant to the terms of Section 10, if State Law or the Planning Commission requires an Environmental Assessment Worksheet (EAW) or

Environmental Impact Statement (EIS); the applicant shall be responsible for all costs associated with EAW or EIS.

3.8.3. **Issuance of Permit.** The Zoning Administrator shall issue the Land Development Permit only after determining that the application is complete, all necessary information has been submitted, the lot is buildable, and that the plan complies with the provisions of this Ordinance and that all of the Township's costs in processing the permit request has been paid.

3.8.4. **Double Permit Fee.** Hereafter any person who shall erect, alter, or move any Structure or part thereof without first securing a Land Development Permit shall pay two times the regular Land Development Permit fee.

3.8.5. **Structures to be Moved.** Any structure which has been wholly or partially erected on any premises, located either within or outside of the Township shall not be moved to a lot within the Township until a land development permit has been issued. Any such structure shall conform to all the provisions of this Ordinance, in the same manner as a new structure.

3.8.6. **Exemption.** No Land Development Permit shall be required for the erection of a structure that is 120 square feet or less in area. The erection of ~~a such a~~ **this size** structure shall comply with all the other provisions of this Ordinance.

3.8.7. **Structure Demolition.** No Land Development Permit is required for the demolition of a structure unless otherwise required by law or permit.

3.9. **Conditional and Interim Use Permits.**

3.9.1. **Purpose.** Certain uses identified as Conditional Uses for a particular zoning district, while generally not suitable in a particular zoning district, may under some circumstances be suitable if conditions are attached. When such circumstances exist, a Conditional Use Permit or an Interim Use Permit may be granted. Conditions may be applied to issuance of the permit and a periodic review of the permit may be required. The permit shall be granted for a particular use and not for a particular person.

3.9.2. **Criteria for granting Conditional Use or Interim Use Permits.** In granting a Conditional Use or Interim Use Permit, the Board shall consider the advice and recommendations of the Planning Commission and the effect of the proposed use upon the health, safety, morals and general welfare of occupants of surrounding lands. Among other things, the Board shall make the following findings where applicable:

3.9.2.1. The establishment, maintenance, or operation of the Conditional Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

3.9.2.2. The Conditional Use or Interim Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purpose already permitted, nor substantially diminish and impair property values within the neighborhood.

3.9.2.3. The establishment of the Conditional Use or Interim Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.

3.9.2.4. Adequate utilities, access roads, drainage and necessary facilities have been or will be provided.

3.9.2.5. Adequate measures have been or will be taken to provide ingress or egress so designated as to minimize traffic congestion in the public streets.

3.9.2.6. The use of the property shall, in all respects other than the Conditional Use or Interim Use, conform to the applicable regulations of the district in which it is located.

3.9.2.7. That the proposed use does not create a potential pollution hazard.

3.9.2.8. That the establishment of the Conditional Use or Interim Use will not impede the normal and orderly development and improvement of surrounding vacant property for predominant uses in the area.

3.9.2.9. That adequate measures have been or will be taken to prevent or control offensive odor, fumes, dust, noise, and vibration so that none of these will constitute a nuisance, and to control lighted signs and other exterior lights in such a manner that no disturbance to neighboring properties will result.

3.9.2.10. That the Conditional Use or Interim Use conforms to the Joint Resolution for Orderly Annexation.

3.9.2.11. That site specific conditions and such other conditions are established as required for the protection of the public's health, safety, morals, and general welfare.

3.9.3. **Additional conditions.** In permitting a new Conditional Use or Interim Use or the alteration of an existing Conditional Use or Interim Use, the Board may impose, in addition to these standards and requirements expressly specified by this Ordinance, additional conditions which the Board considers necessary to protect the best interest of the surrounding area or the community as a whole. These conditions may include, but are not limited, to the following:

3.9.3.1. Increasing the required zoning lot size and setback dimension.

3.9.3.2. Limiting the height, size or location of structures.

3.9.3.3. Controlling the location and number of vehicle access points.

3.9.3.4. Increasing the street width.

3.9.3.5. Increasing the number of required off-street parking spaces.

3.9.3.6. Limiting the number, size, location or lighting of signs.

3.9.3.7. Requiring diking, fencing, screening, landscaping or other facilities to protect adjacent or nearby property.

3.9.3.8. Designating sites for open space.

3.9.3.9. Placing hours of operation restrictions on the proposed use.

3.9.3.10. In the case of an Interim Use Permit, a date at which the Interim Use Permit expires shall be established which shall not be longer than five (5) years from the date of issuance.

3.9.4. **Additional mandatory conditions for cannabis businesses.**

3.9.4.1. No Interim Use Permit shall be granted unless the Town Board determines that all applicable specific standards contained in this section will be met. The cannabis business interim use permit performance standards are as follows:

3.9.4.1.1. General Requirements.

3.9.4.1.1.1. The applicant shall hold the appropriate license or endorsement from the State of Minnesota Office of Cannabis Management for the activity or activities proposed; and

3.9.4.1.1.2. Compliance with all State license requirements shall be maintained at all times.

3.9.4.1.2. **Minimum Buffer Requirements.** The Township shall prohibit the operation of a cannabis business within:

3.9.4.1.2.1. One thousand (1,000) feet to the nearest property line of a school, a church or place of worship, or another cannabis retail business.

3.9.4.1.2.2. Five hundred (500) feet to the nearest property line of a daycare, a residential treatment facility, an attraction within a public park that is regularly used by minors (including a playground or athletic field), or a single-family or multi-family residence.

3.9.4.1.3. **Hours of Operation.** Retail cannabis businesses shall be limited to the retail sale of cannabis, cannabis flower, cannabis products, lower-potency hemp edibles, or hemp-derived consumer products between the hours of 10:00 a.m. and 5:00 p.m., unless state administrative rules are more restrictive. Hours of operation for non-retail cannabis businesses shall be established in the interim use permit.

3.9.4.1.4. **Lighting.** Cultivation lighting used for any type of cannabis cultivation operation, be it indoor, mixed light, or outdoor, may not emit any light used for purposes of cultivation from sundown to sunrise. Any business which wishes to continue cultivation during evening hours using lighting must properly shade any lighting emitting from any structure so it is not visible from the outside.

3.9.4.1.5. The Town Board may impose additional conditions as it sees fit.

3.9.5. **Additional mandatory conditions for adult use establishments.** No interim use permit shall be granted unless the Town Board determines that all the applicable specific standards contained in this ordinance and this section will be met. Adult use establishment conditional use permit performance standards are as follows:

3.9.5.1. **Location**. No adult use shall be located within 1,000 feet of any of the following:

3.9.5.1.1. Any school, as defined in Minnesota Statutes § 120.101

3.9.5.1.2. Any church.

3.9.5.1.3. Any daycare facility.

3.9.5.1.4. Any residential or nonresidential program, as defined in Minnesota Statutes §245A.02.

3.9.5.1.5. Any hotel or motel.

3.9.5.1.6. Any public park.

3.9.5.1.7. Hospitals, as defined by Minnesota Statutes §144.50.

3.9.5.1.8. Nursing homes, as defined by Minnesota Statutes § 144.50.

3.9.5.2. **Additional Conditions.** The Town Board may attach additional conditions to the issuance of interim use permits, including setbacks to fulfill the purposes of this Ordinance.

3.9.5.2.1. **Hours of Operation.** Adult establishments must remain closed to the public between 10:00 p.m. and 8:00 a.m.

3.9.5.3. **Application.**

3.9.5.3.1. Applicants must provide the Planning Commission with any gross misdemeanor or felony convictions related to sex offenses or adult businesses.

3.9.5.3.2. The establishment must be in full compliance with the ordinance, state, and federal laws.

3.9.5.3.3. Investigative fees for background checks are $20 per applicant.

3.9.5.4. **Signage and Parking Restrictions.**

3.9.5.4.1. Only one sign per adult establishment is allowed, following standard signage rules.

3.9.5.4.2. No depiction of specified sexual activities or anatomical areas on signs.

3.9.5.4.3. Parking must comply with the Lime Township Zoning Ordinance.

3.9.5.4.4. A sign at the entrance must clearly state: "This business sells or displays material containing adult themes. Persons under 18 years of age shall not enter."

3.9.5.5. **Additional Requirements.**

3.9.5.5.1. Minors are prohibited from entering adult establishments.

3.9.5.5.2. Inspection officers, either law enforcement, an official or employee of the Town, or anyone deemed an inspection officer by the Town Board, may enter the premises during business hours.

3.9.5.5.3. Adult materials must not be visible to minors, nor sold to minors.

3.9.5.5.4. Records of transactions involving adult materials must be kept for at least one year.

3.9.5.5.5. Alcohol sales or consumption are prohibited on the premises.

3.9.5.6. **Off-Site Viewing.** Adult establishments must prevent off-site viewing of any materials related to specified sexual activities or anatomical areas by any visual or auditory means (e.g., displays, windows, sound transmission).

3.9.5.7. **Prohibition on Liquor.**

3.9.5.7.1. Adult establishments shall not sell or dispense intoxicating liquor or 3.2% malt liquor.

3.9.5.7.2. Alcohol is prohibited on the premises, including parking lots or areas owned/leased by the establishment.

3.9.5.8. **Entrances.** All entrances must be visible from a public right-of-way, excluding emergency fire exits.

3.9.5.9. **Layout.** Display areas must be designed so management and law enforcement can observe patrons while accessing any merchandise, including books, magazines, videos, or live entertainment.

3.9.5.10. **Illumination.** Exterior illumination must be sufficient to observe activities on the interior and exterior of premises.

3.9.5.11. **Additional Conditions for Adult Cabarets.**

3.9.5.11.1. No display of specified anatomical areas or sexual activities on the premises.

3.9.5.11.2. Dancers and performers must be 18 or older.

3.9.5.11.3. Performances must be on a raised platform at least 2 feet above the floor.

3.9.5.11.4. Dancers must remain at least 10 feet from patrons and cannot engage in physical contact with patrons.

3.9.5.11.5. Gratuities from patrons to performers are prohibited.

3.9.5.11.6. Operators must provide personal information about performers, including their names, addresses, phone numbers, and birth dates.

3.9.5.11.7. The Town Board may impose additional conditions as it sees fit.

3.9.6. **Amendment, when required.** Any change involving structural alterations, enlargement, intensification of use, or similar changes not specifically permitted by the Conditional Use or Interim Use Permit issued shall require an amended Conditional Use or Interim Use Permit and all procedures shall apply as if a new permit were being issued. Any change to the expiration date of an Interim Use Permit shall require an amended Interim Use permit and all procedures shall apply as if a new permit were being issued. The Zoning Administrator shall maintain a record of all Conditional Use Permits and Interim Use Permits issued including information on the use, location, and conditions imposed by the Board, time limits, review dates, and such other information as may be appropriate.

3.9.6.1. **Procedure**.

3.9.6.1.1. The person applying for a Conditional Use Permit or Interim Use Permit shall fill out and submit to the Zoning Administrator the Conditional Use Permit or Interim Use Permit application form signed by the owner, the information required for a land development permit, and other such information necessary to review the application for compliance with this Ordinance, and such submittal shall include all information as required on the application form unless a waiver of certain information is granted by the Zoning Administrator.

3.9.6.1.2. The Zoning Administrator shall determine if the application is complete and, if complete, refer the application to the Planning Commission.

3.9.6.1.3. The Planning Commission shall hold a public hearing on the application. Notice of the public hearing shall be published in the official

newspaper designated by the Township at least ten days prior to the hearing. All property owners of record within one-half (1/2) mile of the affected property or to the ten (10) properties nearest to the affected property, whichever would provide notice to the greatest number of owners shall be notified by depositing a written notice in the U.S. Mail, postage prepaid, as to the time and place of the public hearing. The notice shall include a description of the land and the proposed Conditional Use or Interim Use.

3.9.6.1.4. The report of the Planning Commission shall be placed on the agenda of the Board following referral from the Planning Commission. If the Planning Commission does not make a recommendation on an application within 60 days of the date that the application was determined to be complete under ~~M.S.A.~~ **Minnesota Statute** §15.99, then the application shall automatically be referred to the Board for a public hearing if a public hearing was not previously completed and a decision.

3.9.6.1.5. An amended Conditional Use Permit or Interim Use Permit application shall be administered in a manner similar to that required for a new Conditional Use Permit or Interim Use Permit. Amended Conditional Use Permits or Interim Use Permits shall include request for changes in conditions, and as otherwise described in this chapter.

3.9.6.1.6. No application for a Conditional Use Permit or Interim Use Permit shall be resubmitted for the same property and for the same type of Conditional Use or Interim Use for a period of one year from the date of a decision of the Board to deny an application. Failure by the owner or applicant to complete the improvements for which the Conditional Use Permit or Interim Use Permit was sought, or to comply with the conditions attached to the permit within twelve (12) months of the date of its approval shall void the permit. The Board, solely at its discretion, may extend the date for permit compliance.

3.9.6.1.7. Conditional Use Permits and Interim Use Permits shall be recorded with the Blue Earth County Recorder or if Torrens property with the Registrar of Titles.

3.9.6.1.8. If a time limit or periodic review is included as a condition by which a Conditional Use Permits or Interim Use Permit is granted, the Conditional Use Permit or Interim Use Permit may be reviewed at a hearing with notice of ~~said~~ **the** hearing provided to the current property owner of record by first class mail at least ten days prior to the hearing; it shall be the responsibility of the Zoning Administrator to schedule ~~such~~ **these** hearings and the owner of land having a Conditional Use Permit or Interim Use Permit shall not be required to pay a fee for said review. A hearing for annual review of a Conditional Use Permit or Interim Use Permit may be required at the discretion of the Board.

3.9.6.1.9. In the event that any of the conditions of the Conditional Use Permit or Interim Use Permit are violated, the Township has authority to revoke the Conditional Use Permit or Interim Use Permit.

3.9.6.1.10. A violation of any condition set forth in a Conditional or Interim Use Permit shall be a violation of this Ordinance. If within 30 days of written notice from the ~~zoning administrator~~ **the Board** the violation has not been corrected, the Township may pursue the following procedure to terminate the permit:

3.9.6.1.10.1. Written notice of revocation shall be served upon the owner at least ten working days prior to the Conditional or Interim Use Permit being revoked.

3.9.6.1.10.2. Notice to the owner on record shall be served personally or by first class mail addressed to where property tax statements are sent by the County. ~~Such~~ **This** written notice of revocation shall contain the effective date of the revocation, the nature of the violation constituting the basis of the revocation, the facts which support the conclusions that a violation has occurred and a statement that if the Owner desires to appeal, the appeal must, within ten working days, exclusive of the day of service, file a request for a hearing.

3.9.6.1.10.3. The hearing request shall be in writing, stating the grounds for appeal and served personally or received by first class mail by the ~~zoning administrator~~ **Township Clerk** not later than 4:30 p.m. of the tenth working day following notice of revocation.

3.9.6.1.10.4. Following the receipt of a request for hearing, the Board shall set a time and place for the hearing within thirty days of receipt of the hearing request.

3.9.6.1.11. Any use permitted under the terms of any Conditional Use Permit or Interim Use Permit shall be established and conducted in conformity to the terms of ~~such~~ **the** permit and of any conditions designated in connection therewith. The Township may, at its discretion, review the property periodically to determine compliance with the terms of the Conditional Use Permit or Interim Use Permit. Conditional Use Permits and Interim Use Permits shall remain in effect for so long as the conditions agreed upon are observed, provided that nothing in this section shall prevent the Board from enacting or amending official controls to change the status of Conditional Uses or Interim Uses.

3.10. ENVIRONMENTAL REVIEW

3.10.1. **Responsible Governmental Unit.** For proposed projects affected by Minnesota Rules 4410-4410.7800, the Board shall act as the Responsible Governmental Unit (RGU) when the local government is determined to be the RGU under Minnesota Rules 4410.0500.

3.10.2. **Adoption of Model Ordinance.** The model ordinance as outlined in Minnesota Rules, Chapter 4410.3700 is hereby adopted by reference, as amended from time to time.

3.10.3. **General Provisions.**

3.10.3.1. No decision on granting a permit or other approval required to commence a project may be issued until the environmental review process is completed. Procedures for Environmental Assessment Worksheet (EAWs) and Environmental Impact Statement (EISs) are set forth in the Minnesota Environmental Quality Review Board (EQB) regulations for the Environmental Review Program authorized by Minnesota Statute 116D.04 and 116D.04S and specified in Minnesota Rules Parts 4410.0200 to 4410.7800.

3.10.3.2. The Board at its discretion may contract with outside consultants for the preparation and review of projects for which environmental review is required. The applicant for a permit for any action for which an environmental review is ordered shall pay all costs incurred for the preparation and review of the environmental documents and project application. When an EAW or EIS is undertaken, the applicant shall deposit funds in an escrow account with the Township from time to time an amount determined by the Township to be necessary to cover such costs prior to commencement of the review stage of the Environmental Review. The applicant shall reimburse the escrow account for any deficits caused if the amount actually expended or billed to the Township by the consultants exceeds the fund balance. The Township shall refund any amount deposited in the escrow account not expended within thirty (30) calendar days after final action on the application. The Township shall not pay interest on such security fund deposits.

3.10.4. **Environmental Assessment Worksheets (EAWs):**

3.10.4.1. **Mandatory EAWs.** The preparation of an EAW shall be mandatory for those projects that meet or exceed the thresholds contained in the State Environmental Review Program regulations, Minnesota Rules 4410.4300, as may be amended. Upon identification of a project that requires a mandatory EAW, the Board shall order the preparation of an EAW.

3.10.4.2. **Discretionary EAWs.** A discretionary EAW may be required when it is determined that, because of the nature or location of a proposed project, the project may have the potential for significant environmental effects. The ~~Zoning Administrator~~ **Board** may recommend ~~and/~~ or the Board may order the preparation of a discretionary EAW if it is determined that a development project may have some significant environmental impact or when there is a perception of ~~such~~, **some significant environmental impact** provided that the project is not specifically exempted by Minnesota Rules 4410.4600, as may be amended.

3.10.4.3. **Procedures.**

3.10.4.3.1. **Preparation and Distribution.** Procedures for Environmental Assessment Worksheet (EAWs) are set forth in the Minnesota Environmental Quality Review Board (EQB) regulations for the Environmental Review Program specified in Minnesota Rules Parts 4410.0200 to 4410.7800.

3.10.4.3.2. **Neighboring Property Owner Notification.** Upon completion of the EAW for distribution, the Township shall provide mailed notice of the availability

of the EAW and date of the meeting at which the Planning Commission will consider the matter to all property owners within at least one-half (1/2) mile of the boundaries of the property which is the subject of the EAW. Said notice shall be mailed at minimum ten (10) days before the date of the Planning Commission meeting during which the EAW will be considered. Failure of a property owner to receive notice shall not invalidate any such proceedings as set forth within this Chapter.

3.10.4.3.3. **Review by Planning Commission.** During the thirty (30) day comment period that follows publication of the notice of availability of the EAW in the EQB Monitor, the Planning Commission shall review the EAW. The Planning Commission shall make recommendations to the Board regarding potential environmental impacts that may warrant further investigation before the project is commenced and the need for an EIS on the proposed project.

3.10.4.3.4. **Decision by the Board.** The Board shall make its decision on the need for an EIS for the proposed project at its first meeting more than ten (10) days but not more than thirty (30) days after the close of the comment period. The Board shall base its decision on the need for an EIS and the proposed scope of an EIS on the information gathered during the EAW process and on the comments received on the EAW.

3.10.4.3.5. **Mitigation Measures.** Any measures for mitigation that are considered by the Board in making their EIS need decision shall be incorporated as conditions for approval of Conditional Use Permits, Interim Use Permits, variances, and/or land development permits requests as required by this Ordinance unless otherwise determined by the Board.

3.10.5. **Environmental Impact Statements (EISs):**

3.10.5.1. **Mandatory EISs.** An EIS shall be prepared for any project that meets or exceeds the thresholds of any of the EIS categories listed in Minnesota Rules 4410.4400, as may be amended.

3.10.5.2. **Discretionary EISs.** An EIS shall be prepared when the Board determines that, based on the EAW and any comments or additional information received during the EAW comment period, the proposed project has the potential for significant environmental effects, or when the Board and the proposer of the project agree that an EIS should be prepared.

3.10.5.3. **Procedures.**

3.10.5.3.1. **Preparation and Distribution.** Procedures for Environmental Assessment Worksheet (EAWs) are set forth in the Minnesota Environmental Quality Review Board (EQB) regulations for the Environmental Review Program specified in Minnesota Rules Parts 4410.0200 to 4410.7800.

3.10.5.3.2. **Neighboring Property Owner Notification.** Upon completion of the EAW for distribution, the Township shall provide mailed notice of the availability of the EAW and date of the meeting at which the Planning Commission will consider the matter to all property owners within at least one-half (1/2) mile of the boundaries of the property which is the subject of the EAW. Said notice shall be mailed minimum ten (10) days before the date of the Planning Commission meeting during which the EAW will be considered. Failure of a property owner to receive notice shall not invalidate any such proceedings as set forth within this Chapter.

3.10.5.3.3. **Review by Planning Commission.** During the thirty (30) day comment period that follows publication of the notice of availability of the EAW in the EQB Monitor, the Planning Commission shall review the EAW. The Planning Commission shall make recommendations to the Board regarding potential environmental impacts that may warrant further investigation before the project is commenced and the need for an EIS on the proposed project.

3.10.5.3.4. **Mitigation Measures.** Mitigation measures identified in the EIS shall be incorporated as conditions for approval of Conditional Use Permits, Interim Use Permits, variances, ~~and/~~or land development permits requests as required by this Ordinance unless otherwise determined by the Board.

3.11. Violations, Penalties and Enforcement.

3.11.1. **Enforcement.** Any person, firm or corporation who shall violate any of the provisions of this Ordinance and fails to comply within thirty (30) days after receiving written notice shall be charged with a misdemeanor under Minnesota Statutes. Each day that a violation continues shall constitute a separate offense. It shall be the duty of the ~~Zoning Administrator~~ **Board** to enforce this Ordinance through the proper legal channels. The owner or tenant of any structure, premises, or part thereof, and any builder, contractor, agent, or other person who commits, participates in, assists in, or maintains such violation may be found guilty of a separate offense and suffer the penalties herein provided.

3.11.2. **Work Stop Order.** If the ~~Zoning Administrator~~ **Board** determines that a use or alteration of property is not in compliance with this Chapter, the ~~Zoning Administrator~~ **Board** may issue a Work Stop Order to the owner of the property. The Work Stop Order may be delivered by certified mail, personal service, or posted on the property. For the purpose of giving mailed notice under this chapter, owners shall be those shown to be such on the records of the county auditor or, in any county where tax statements are mailed by the county treasurer, on the records of the county treasurer. The owner or operator shall cause the use or alteration of property to cease and desist immediately after the Work Order is delivered or posted on the property. Failure to immediately cease and desist shall result in the owner or operator being charged with a misdemeanor.

3.11.3. **Immediate Violation.** In the event that the violation is deemed by the ~~Zoning Administrator~~ **Board** to constitute an immediate danger, the ~~Zoning Administrator~~ **Board** may initiate immediate removal of ~~such~~ **the** hazard without prior notification of the owner or occupant of ~~such~~ **the** property. As soon thereafter as practical the ~~Zoning Administrator~~ **Board** shall

provide written notice to the owner or occupant of the premises of the actions taken. Notice is deemed served when posted on the property or deposited in the U.S. Mail addressed to where property tax statements are sent by the County.

3.11.4. **Violation or a Threatened Violation of this Ordinance.** In the event of a violation or a threatened violation of this Ordinance, the ~~Zoning Administrator~~ **Board** may institute appropriate actions or proceedings to prevent, restrain, correct or abate ~~such~~ **the** violations or threatened violations, and it shall be the duty of the County Attorney ~~and/~~ or the Township Attorney to institute or assist in ~~such~~ **any** action.

3.11.5. **Writ of Mandamus.** Any taxpayer or taxpayers of the Lime Township may institute mandamus proceedings in District Court to compel specific performance by the proper official or officials of any duty required by this Ordinance.

3.11.6. **Judicial review.** Any person aggrieved by a decision or order of the Board or Board of Appeals acting pursuant to this Ordinance may have ~~such~~ **that** decision or order reviewed by an appropriate court, subject to the provisions of state law.

3.11.7. **Certification of Costs.** All unpaid expenses incurred by the Township under this Chapter and this Ordinance will be charged against said parcel and will be the responsibility of the property owner pursuant to ~~**M.S.A**~~ **Minnesota Statutes** Chapter 462 and ~~M.S.A~~ **Minnesota Statute** §366.012 and any other relevant statutes. The property owner shall be invoiced for the Township's costs to where property tax statements are sent by the County. The invoice shall advise the property owner of their right to request a hearing by the Board regarding said costs. Unless a hearing is requested and granted by the Board, the invoice shall be paid within 30 days of the date of the invoice, should property owner not reimburse the Township within said time, the Township shall be authorized to certify said unreimbursed costs to the County Auditor for payment with the property owner's property taxes. This cost recovery shall be in addition to any penalty or legal or equitable remedy the Township may seek or receive for the violation of this Ordinance.

ARTICLE 4. ZONING MAP AND DISTRICTS.

4.1. CLASSIFICATION OF DISTRICTS.

4.1.1. **Districts.** For the purpose of this Ordinance, Lime Township is hereby divided into classes of districts, which shall be designated as follows:

Agriculture District
A Agriculture District

Conservation Districts
RC Rural Conservation District
RC-R Rural Conservation - Residential District

Residential Districts
RR Rural Residential District
RF Residential Fringe District
RT Residential Transition District

Commercial
C Commercial District

Industry District
I Industry District

4.1.2. **Zoning Map.** The location and boundaries of the districts established by this Ordinance are hereby set forth on the Official Zoning Map. Amendments shall be recorded on the Official Zoning Map within thirty (30) days of official publication of amendments. The Official Zoning Map shall be kept on file with the Zoning Administrator.

4.1.3. **District Boundaries.** The boundaries between districts are, unless otherwise indicated on the Official Zoning Map, the centerline of highways, roads, streets, alleys, railroad right-of-ways or such lines extended, parallel or perpendicular thereto; or the section, half-section, quarter-section, quarter-quarter section or other fractional section lines of United States Public Land Survey. Where numerical figures are shown on the Official Zoning Map between a road and a district boundary line, they indicate that the district boundary line runs parallel to the road centerline at a distance indicated.

4.1.4. **Future Detachment.** Any land detached from an incorporated municipality and placed under the jurisdiction of this Ordinance in the future shall be placed in the Agriculture District until rezoned in another district by the Board.

4.1.5. **Vacation of Roads.** When any road, highway, street or other public right-of-way is vacated, the land use classification of land abutting the centerline of the public right-of-way shall not be affected by such proceedings, nor shall the district boundary be affected thereby.

4.1.6. **Uses not Provided for in Zoning Districts.** Whenever a use is not listed as a permitted, Conditional Use or Interim Use in a zoning district, the use shall be considered prohibited in the zoning district. The Board, on their own initiative or upon the request of a property owner, may conduct a study to determine if the use is acceptable and, if so, what zoning district, conditions and standards relating to the development of said use would be appropriate. The Board, upon receipt of the study shall, if appropriate, initiate an amendment to this Ordinance to provide for the particular use under consideration or shall find that the use is not compatible for development within the Township. All amendments and decisions of the Board shall conform to the purpose of the Joint Resolution for Orderly Annexation.

4.1.7. **Appeal of District Boundaries.** The Board shall hear appeals of any administrative officer's determination of the exact location of the district boundary lines.

4.2. AGRICULTURE DISTRICT.

4.2.1. **Purpose.** The Agriculture District is intended to allow extensive areas of Lime Township as depicted on the Official Zoning Map to remain in agricultural use and to prevent scattered, non-farm development.

4.2.2. **Permitted Uses.** The following uses shall be permitted within the A Agriculture District:

4.2.2.1. Agriculture and incidental agriculture related uses, including farm dwellings and agricultural Structures; non-farm dwellings as regulated in this Section.

4.2.2.2. Parks, recreational areas, wildlife areas, game refuges and forest preserves owned by government agencies.

4.2.2.3. Flood control and watershed structures.

4.2.2.4. Single family, non-farm dwellings as regulated in this Section.

4.2.2.5. Level I home occupations as regulated in Article 5 of this Ordinance.

4.2.2.6. Feedlots of less than one hundred (100) Animal Units as regulated by the Blue Earth County Feedlot Ordinance.

4.2.2.7. A state licensed residential facility or a housing with services establishment registered to serve six (6) or fewer persons, except those as provided for under Minnesota Statute 462.357, subdivision 7.

4.2.2.8. A state licensed day care facility serving twelve (12) or fewer persons or a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve fourteen (14) or fewer children.

4.2.3. **Conditional Uses.** The following uses may be permitted in the Agriculture District as a Conditional Use:

4.2.3.1. One bonus dwelling per quarter quarter Section, as regulated in this Section.

4.2.3.2. Cemeteries and/or memorial gardens.

4.2.3.3. Essential services.

4.2.3.4. Garden nurseries and green houses.

4.2.3.5. Community Solar Energy Systems per Section 15 of this Ordinance.

4.2.4. **Interim Uses.** The following uses may be permitted in the Agriculture District as an Interim Use:

4.2.4.1. Cannabis cultivation, whether by cultivator license, microbussiness license, or mezzobusiness license. Only cultivation components of these license types are allowed as an interim use in the Agriculture District.

4.2.4.2. Level II home occupations as regulated in Article 5 of this Ordinance.

4.2.4.3. Private landing fields and associated facilities.

4.2.4.4. Manufactured homes used for temporary housing, not to exceed two years, during the construction or repair of a permanent dwelling.

4.2.4.5. Manure storage lagoons for existing feedlots, as regulated by the Blue Earth County Feedlot Ordinance.

4.2.4.6. Kennels, provided any retail sales of related products shall be clearly accessory and secondary to the principal use.

4.2.5. **Permitted Accessory Uses.** The following Accessory Uses shall be permitted within the Agriculture District:

4.2.5.1. Accessory Structures or uses which are clearly incidental to any of the uses listed above, located upon the same property and as regulated in Article 5 of this Ordinance.

4.2.5.2. Solar Energy System, clearly incidental to the principal use of the property.

4.2.5.3. Wind Energy Conversion Systems, Non-Commercial, clearly incidental to the principal use of the property.

4.2.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein:

4.2.6.1. Height. No height restrictions outside of the Airport Zones.

4.2.6.2. Front Yard.

4.2.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.2.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet from the centerline of a township or incorporated municipal public right-of-way and all private roads.

4.2.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.2.6.2.4. There shall be a front yard setback of 30 feet from the frontage on a cul-de-sac.

4.2.6.2.5. Detached Accessory Structures shall not be allowed within the required front yard.

4.2.6.3. Side Yard.

4.2.6.3.1. There shall be a side yard having a width of not less than fifty (50) feet on each side of a principal dwelling.

4.2.6.3.2. The detached Accessory Structure shall be setback at least ten (10) feet from a side property line.

4.2.6.4. Rear Yard.

4.2.6.4.1. There shall be a rear yard having a depth of not less than fifty (50) feet from a Principal Structure.

4.2.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line.

4.2.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.2.6.5. Bluff Zone.

4.2.6.5.1. All Structures shall be setback at least 30 feet from the bluff line.

4.2.7. **Lot Requirements.**

4.2.7.1. For single-family dwellings conforming to the dwelling density regulations of this Section, a lot may be subdivided to contain the dwelling, provided the area of the lot is not less than one (1) acre and conforms to all other provisions of this Chapter.

4.2.7.2. Every lot or plot of land on which there shall be a habitable structure shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.2.7.3. Every lot or plot of land on which a dwelling is erected shall have a minimum width of not less than one hundred fifty (150) feet at the building setback line and a minimum depth of not less than one hundred seventy-five (175) feet.

4.2.7.4. No more than twenty-five (25) percent of the lot area shall be covered by principal and Accessory Structures.

4.2.7.5. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

4.2.7.6. Every lot on which a structure is erected shall contain sufficient buildable area to satisfy the bulk and density regulation of this Ordinance.

4.2.8. **Dwelling Density Regulations.**

4.2.8.1. Not more than one (1) principal dwelling shall be allowed per quarter-quarter section.

4.2.8.2. One bonus dwelling may be located on a parcel that has not been farmed (tilled) within the past (5) years prior to the date of the application for Conditional Use Permit. Not more than one (1) bonus dwelling shall be allowed per quarter-quarter section.

4.2.9. **Structural Standards.** Except as provided for the temporary use of manufactured homes, permitted single-family dwellings shall have a minimum width of twenty (20) feet at the structure's narrowest dimension and the structure shall be affixed to a continuous permanent perimeter foundation constructed of concrete block, poured concrete, or wood.

4.2.10. **Feedlot Regulations.**

4.2.10.1. No feedlot exceeding 100 Animal Units shall be allowed in the Agriculture District. Feedlots existing on the effective date of this Ordinance which exceed 100 Animal Units and are permitted under the Blue Earth County Feedlot Ordinance shall be considered legally nonconforming uses and may continue but shall not expand in a manner that will increase the number of Animal Units existing in the feedlot on the effective date of this Ordinance.

4.2.10.2. The Planning Commission through the issuance of a Conditional Use Permit may authorize improvements to legally nonconforming feedlots for the purpose of mitigating a potential or imminent pollution threat. The improvements shall not result in an increase in the number of Animal Units in the feedlot.

4.2.10.3. All feedlots shall conform to the provisions of the Blue Earth County Feedlot Ordinance as amended from time to time.

4.2.11. **General Regulations.** Additional regulations and requirements for the Agriculture District are set forth in Section 14 of this Ordinance.

4.3. RURAL CONSERVATION & RURAL CONSERVATION - RESIDENTIAL DISTRICTS.

4.3.1. **Purpose.** The Rural Conservation District is intended to preserve the rural character of certain areas in Lime Township which are not classified as prime agricultural and are characterized by scattered non-farm development, bluff zones, floodplains, and limiting development factors because of soil conditions and shallow bedrock depths. Permitted and Conditional Uses in the district should seek to preserve the rural character of the district and conserve natural ground cover and resources. Agricultural uses, residential development, and mineral extraction are allowed, but should seek to minimize adverse secondary effects and reclaim disturbed lands.

4.3.2. **Permitted Uses.** The following uses shall be permitted in RC, Rural Conservation, and RC-R, Rural Conservation Residential Districts:

4.3.2.1. Agriculture and incidental agriculture related uses, including agricultural Structures and farm dwellings, excluding feedlots.

4.3.2.2. Public parks, recreational areas, wildlife areas, game refuges and forest preserves.

4.3.2.3. Flood control and watershed structures.

4.3.2.4. Single family non-farm dwellings as regulated in this Section.

4.3.2.5. Level I home occupations as regulated in Article 5 of this Ordinance.

4.3.2.6. Feedlots of less than 10 Animal Units provided that a feedlot permit is not required under the Blue Earth County Feedlot Ordinance and the State of Minnesota.

4.3.2.7. Horse barns, riding academies and commercial stables provided the number of Animal Units is less than 10 and a feedlot permit is not required under the Blue Earth County Feedlot Ordinance and the State of Minnesota.

4.3.2.8. A state licensed residential facility or a housing with services establishment registered to serve six (6) or fewer persons, except those as provided for under Minnesota Statute 462.357, subdivision 7.

4.3.2.9. A state licensed day care facility serving twelve (12) or fewer persons or a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve fourteen (14) or fewer children.

4.3.3. **Conditional Uses.** The following uses may be permitted in the RC, Rural Conservation, and RC-R, Rural Conservation Residential Districts, as a Conditional Use:

4.3.3.1. Essential public utilities and service Structures, not including storage yards.

4.3.3.2. One bonus dwelling per quarter-quarter in the Rural Conservation District.

4.3.3.3. Community Solar Energy Systems in the Rural Conservation District, subject to Section 15 of this Ordinance.

4.3.4. **Interim Uses.** The following uses may be permitted in the RC Rural Conservation and RC-R Rural Conservation-Residential District as an Interim Use:

4.3.4.1. Horse barns, riding academies, and commercial stables with a total number of Animal Units in excess of 10 but less than 25. These uses may be approved as Interim Uses for a parcel containing at least 40 acres.

4.3.4.2. Garden nurseries and green houses.

4.3.4.3. Manufactured homes used for temporary housing, not to exceed two years, during the construction or repair of a permanent dwelling.

4.3.4.4. Level II home occupations, in the Rural Conservation District only.

4.3.4.5. Mining and mining Accessory Uses in the Rural Conservation District only, as regulated in Article 5 of this Ordinance.

4.3.4.6. Re-use of railroad sidings in existence in the Rural Conservation District.

4.3.5. **Permitted Accessory Uses.** The following Accessory Uses are permitted within the RC, Rural Conservation, and RC-R, Rural Conservation Residential Districts:

4.3.5.1. Accessory Structures or uses which are customarily incidental to any of the uses listed above and are located on the same property, as regulated in Article 5 of this Ordinance.

4.3.5.2. Solar Energy System, clearly incidental to the principal use of the property.

4.3.5.3. Wind Energy Conversion Systems, Non-Commercial, clearly incidental to the principal use of the property.

4.3.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.3.6.1. **Height.**

4.3.6.1.1. No height limitation for agricultural Structures.

4.3.6.1.2. Dwellings shall not exceed thirty-five (35) feet in height.

4.3.6.1.3. Detached Accessory Structures in the Rural Conservation – Residential District shall not exceed twenty (20) feet in height.

4.3.6.2. **Front Yard.**

4.3.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.3.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet front the centerline of all other public right-of-ways and private roads.

4.3.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.3.6.2.4. There shall be a front yard setback of 30 feet from the frontage on a cul-de-sac.

4.3.6.2.5. Detached Accessory Structure shall not be allowed within the required front yard.

4.3.6.3. **Side Yard.**

4.3.6.3.1. There shall be a side yard having a width of not less than fifty (50) feet on each side of a principal dwelling.

4.3.6.3.2. Detached Accessory Structures shall be setback at least ten (10) feet from the side property line.

4.3.6.4. **Rear Yard.**

4.3.6.4.1. There shall be a rear yard having a depth of not less than fifty (50) feet from the principal dwelling.

4.3.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line.

4.3.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.3.6.5. **Bluff Zone.** All Structures shall be setback at least 30 feet from the bluff line.

4.3.6.6. **Lot Requirements.**

4.3.6.6.1. For single family dwellings conforming to density regulations of this Section for the Rural Conservation District, a lot may be subdivided to contain a dwelling, provided the area of the lot is not less than 2.5 acres and the lot conforms to all other provisions of this Ordinance.

4.3.6.6.2. Every lot or plot of land on which there shall be a habitable structure shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.3.6.6.3. Every lot or plot of land on which a dwelling is erected shall have a minimum width of not less than one hundred fifty (150) feet at the building setback line and a minimum depth of not less than one hundred seventy-five (175) feet.

4.3.6.6.4. No more than twenty-five (25) percent of the lot area shall be covered by principal and Accessory Structures.

4.3.6.6.5. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

4.3.6.6.6. Every lot on which a structure is erected shall contain sufficient buildable area to satisfy the bulk and density regulation of this Ordinance.

4.3.6.7. **Dwelling Density Regulations.**

4.3.6.7.1. **RC, Rural Conservation District.** Not more than one (1) principal dwelling shall be allowed per quarter-quarter section.

4.3.6.7.2. One bonus dwelling may be located on a parcel that has not been farmed (tilled) within the past (5) years prior to the date of the application for Conditional Use Permit. Not more than one (1) bonus dwelling shall be allowed per quarter-quarter section.

4.3.6.7.3. **RC-R, Rural Conservation Residential District.** Existing lots of record located in the RC-R, Rural Conservation Residential District, may be developed for single-family purposes, provided an approved access is

provided and all the other requirements of this Ordinance and Blue Earth County Individual Sewage System Ordinance are satisfied. Further subdivision of the parcels located in the RC-R, Rural Conservation Residential District, shall be prohibited for the purpose of creating additional parcels for residential development.

4.3.7 **Structural Standards.** Except as provided for the temporary use of manufactured homes, permitted single-family dwellings shall have a minimum width of twenty (20) feet at the structure's narrowest dimension and the structure shall be affixed to a continuous permanent perimeter foundation constructed of concrete block, poured concrete, or wood.

4.3.8. **Feedlot Regulations.**

4.3.8.1. No feedlot shall be established that would exceed the Animal Units listed under the permitted or Conditional Uses in this section. Feedlots existing on the effective date of this Ordinance which exceed 100 Animal Units and are permitted under the Blue Earth County Feedlot Ordinance shall be considered legally nonconforming uses and may continue but shall not expand in a manner that will increase the number of Animal Units existing in the feedlot on the effective date of this Ordinance.

4.3.8.2. Improvements to legally nonconforming feedlots for the purpose of mitigating a potential or imminent pollution threat may be authorized by the Board via the issuance of a Conditional Use Permit. The improvements shall not result in an increase in the number of Animal Units in the feedlot.

4.3.8.3. All feedlots shall conform to the provisions of the Blue Earth County Feedlot Ordinance as amended from time to time.

4.3.9. **General Regulations.** Additional regulations and requirements for the RC, Rural Conservation District, and RC-R, Rural Conservation – Residential District are set forth in Article 5 of this Ordinance.

4.4. RURAL RESIDENCE DISTRICT.

4.4.1. **Purpose.** The Rural Residence District is intended to allow for the continued development of existing low-density residential developments in unincorporated areas of Lime Township as depicted on the Official Zoning Map.

4.4.2. **Permitted Uses.** The following uses shall be permitted in the R-R Rural Residence District:

4.4.2.1. **Single family, non-farm dwellings as regulated in this Section.**

4.4.2.2. Parks, recreational areas, wildlife areas, game refuges and forest preserves.

4.4.2.3. Flood control and watershed structures.

4.4.2.4. Level I home occupations as regulated in Article 5 of this Ordinance.

4.4.2.5. A state licensed residential facility or a housing with services establishment registered to serve six (6) or fewer persons, except those as provided for under Minnesota Statute 462.357, subdivision 7.

4.4.2.6. A state licensed day care facility serving twelve (12) or fewer persons or a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve fourteen (14) or fewer children.

4.4.3. **Conditional Uses.** The following uses may be permitted in the Rural Residence District as a Conditional Use as regulated in Section 20 of this Ordinance:

4.4.3.1. None.

4.4.4. **Interim Uses.** The following uses may be permitted in the Rural Residence District as an Interim Use, as regulated in Section 20.1 of this Ordinance:

4.4.4.1. Level II home occupations, in the Rural Conservation District only.

4.4.4.2. Manufactured homes used for temporary housing, not to exceed two years, during the construction or repair of a permanent dwelling.

4.4.5. **Permitted Accessory Uses.** Accessory Structures or uses are permitted provided the use is clearly incidental to any of the uses listed above, located upon the same property, as regulated in Article 5 of this Ordinance.

4.4.5.1. Accessory Structures or uses which are customarily incidental to any of the uses listed above and are located on the same property, as regulated in Article 5 of this Ordinance.

4.4.5.2. Solar Energy System, clearly incidental to the principal use of the property.

4.4.5.3. Wind Energy Conversion Systems, Non-Commercial, clearly incidental to the principal use of the property.

4.4.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.4.6.1. **Height.** Dwellings shall not exceed thirty-five (35) feet in height. Detached Accessory Structures to residential uses shall not exceed twenty (20) feet in height.

4.4.6.2. **Front Yard.**

4.4.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.4.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet from the centerline of a township or incorporated municipal public right-of-way and all private roads.

4.4.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.4.6.2.4. There shall be a front yard setback of 30 feet from the frontage on a cul-de-sac.

4.4.6.2.5. Detached Accessory Structures shall not be allowed within the required front yard.

4.4.6.3. **Side Yard.**

4.4.6.3.1. There shall be a side yard having a width of not less than fifteen (15) feet on each side of a principal dwelling.

4.4.6.3.2. Detached Accessory Structures shall be setback at least ten (10) feet from the side property line, provided they occupy not more than thirty (30) percent of any required side yard.

4.4.6.4. **Rear Yard.**

4.4.6.4.1. There shall be a rear yard having a depth of not less than thirty (30) feet.

4.4.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line, provided they occupy not more than thirty (30) percent of any rear yard.

4.4.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.4.6.5. **Bluff Zone.** All Structures shall be setback at least 30 feet from the bluff line.

4.4.6.6. **Lot Requirements.**

4.4.6.6.1. The minimum lot area for a principal use is one (1) acre.

4.4.6.6.2. Every lot or plot of land shall have a continuous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.4.6.6.3. Every lot or plot of land on which a dwelling is erected shall have a minimum width of not less than one hundred fifty (150) feet at the building setback line and a minimum depth of not less than one hundred seventy-five (175) feet.

4.4.6.6.2. No more than twenty-five (25) percent of the lot area shall be covered by principal and Accessory Structures.

4.4.6.6.3. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

4.4.6.6.4. Every lot on which a structure is erected shall contain sufficient buildable area to satisfy the bulk and density regulation of this Ordinance.

4.4.7. **Structural Standards.** Permitted single-family dwellings shall have a minimum width of twenty (20) feet on its narrowest dimension, and shall be affixed to a continuous permanent perimeter foundation of concrete block, poured concrete, or wood.

4.4.8. **Feedlot Regulations.** No feedlots are allowed in the Rural Residential District.

4.4.9. **General Regulations.** Additional regulations and requirements for the Rural Residence District are set forth in Article 5 of this Ordinance.

4.5. RESIDENTIAL FRINGE DISTRICT.

4.5.1. **Purpose.** The Residential Fringe District is intended to allow for the continued development of existing low density residential developments in unincorporated areas of Lime Township which may be annexed into the City of Mankato per the Joint Orderly Annexation Agreement, as amended from time to time. These properties will be serviced with municipal water and sanitary sewer services after annexation.

4.5.2. **Permitted Uses.** The following uses shall be permitted in the RF Residential Fringe District:

4.5.2.1. Single family, non-farm dwellings as regulated in this.

4.5.2.2. Parks, recreational areas, wildlife areas, game refuges and forest preserves.

4.5.2.3. Flood control and watershed structures.

4.5.2.4. Level I home occupations as regulated in Article 5 of this Ordinance.

4.5.2.5. A state licensed residential facility or a housing with services establishment registered to serve six (6) or fewer persons, except those as provided for under Minnesota Statute 462.357, subdivision 7.

4.5.2.6. A state licensed day care facility serving twelve (12) or fewer persons or a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve fourteen (14) or fewer children.

4.5.3. **Conditional Uses.** The following uses may be permitted in the Residential Fringe District as a Conditional Use:

4.5.3.1. Municipal administration Structures, police and fire stations, community centers, public libraries, museums, post offices and other municipal service Structures such as water supply Structures, reservoirs and elevated tanks, except those customarily considered industrial in use, provided that no Structure shall be located within fifty (50) feet of any lot line of any abutting lot in any residence district.

4.5.4. **Interim Uses.** The following uses may be permitted in the Residential Fringe District as an Interim Use:

4.5.4.1. None.

4.5.5. **Permitted Accessory Uses.**

4.5.5.1. Private garages.

4.5.5.2. Accessory Structures or uses are permitted provided the use is clearly incidental to any of the uses listed above and located upon the same property as regulated in Article 5 of this Ordinance.

4.5.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.5.6.1. **Height.** Dwellings shall not exceed thirty-five (35) feet. Detached residential Accessory Structures shall not exceed twenty (20) feet in height.

4.5.6.2. **Front Yard.**

4.5.6.2.1. There shall be a setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.5.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet from the centerline of public right-of-way and all private roads. In no case shall the front yard be less than 30 feet from the right-of-way line of all other roads or streets.

4.5.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.5.6.2.4. There shall be a front yard setback of 30 feet from the frontage along a cul-de-sac.

4.5.6.2.5. Detached Accessory Structures shall not be located in the front yard.

4.5.6.3. **Side Yard.**

4.5.6.3.1. There shall be a side yard having a width of not less than six (6) feet on each side of a principal dwelling.

4.5.6.3.2. Detached Accessory Structures shall not be located in the side yard.

4.5.6.4. **Rear Yard.**

4.5.6.4.1. There shall be a rear yard having a depth of not less than thirty (30) feet from a Principal Structure.

4.5.6.4.2. Detached Accessory Structures shall be setback at least three (3) feet from the rear property line, provided they occupy not more than thirty (30) percent of any required rear yard.

4.5.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.5.6.5. **Bluff Zone.** All Structures shall be setback at least 30 feet from the bluff line.

4.5.6.6**. Lot Requirements.**

4.5.6.6.1. The minimum lot area for a principal use is one (1) acre.

4.5.6.6.2. Every lot or plot of land on which there shall be a habitable structure shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.5.6.6.3. Every lot or plot of land on which a dwelling is erected shall have a minimum width of not less than one hundred fifty (150) feet at the building setback line and a minimum depth of not less than one hundred seventy-five (175) feet.

4.5.6.6.4. No more than twenty-five (25) percent of the lot area shall be covered by principal and Accessory Structures.

4.5.6.6.5. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

4.5.6.6.6. Every lot on which a structure is erected shall contain sufficient buildable area to satisfy the bulk and density regulation of this Ordinance.

4.5.7. **Structural Standards.** Permitted single-family dwellings shall have a minimum width of twenty (20) feet at the structure's narrowest dimension and the structure shall be affixed to a continuous permanent perimeter foundation constructed of concrete block, poured concrete, or wood.

4.5.8. **Feedlot Regulations.** No feedlots are allowed in the Residential Fringe District.

4.5.9. **General Regulations.** Additional regulations and requirements for the RF, Residential Fringe District are set forth in Article 5 of this Ordinance.

4.6. RESIDENTIAL – TRANSITION DISTRICT.

4.6.1. **Purpose.** The Residential Transition District is intended to allow for the continuation of residential uses in areas of the Township designated for industrial or commercial in the Land Use

Plan. It is the intent of this district that future rezoning in conformance of the Land Use Plan will occur as the properties are redeveloped and municipal water and sanitary sewer services become available.

4.6.2. **Permitted Uses.** The following uses shall be permitted in the RT, Residential Transition District:

4.6.2.1. Single-family, non-farm dwellings as regulated in this Section and Section 28 of this Ordinance.

4.6.2.2. Parks, recreational areas, wildlife areas, game refuges and forest preserves owned by government agencies.

4.6.2.3. Flood control and watershed structures.

4.6.2.4. Level I home occupations as regulated in Section 14 of this Ordinance.

4.6.2.5. A state licensed residential facility or a housing with services establishment registered to serve six (6) or fewer persons, except those as provided for under Minnesota Statute 462.357, subdivision 7.

4.6.2.6. A state licensed day care facility serving twelve (12) or fewer persons or a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve fourteen (14) or fewer children.

4.6.3. **Conditional Uses.** The following uses may be permitted in the Residential Transition District as a Conditional Use:

4.6.3.1. Municipal administration Structures, police and fire stations, community centers, public libraries, museums, post offices and other municipal service Structures such as water supply Structures, reservoirs and elevated tanks, except those customarily considered industrial in use, provided that no Structure shall be located within fifty (50) feet of any lot line abutting lot in any residence district.

4.6.4. I**nterim Uses.** The following uses may be permitted in the Residential Transition District as an Interim Use:

4.6.4.1. Level II home occupations as regulated in Article 5 of this Ordinance.

4.6.5. **Permitted Accessory Uses.** Accessory Structures or uses are permitted provided the use is clearly incidental to any of the uses listed above, located upon the same property, as regulated in Article 5 of this Ordinance.

4.6.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.6.6.1. **Height.** Dwellings shall not exceed thirty-five (35) feet in height. Detached Accessory Structures to residential uses shall not exceed twenty (20) feet in height.

4.6.6.2. **Front Yard.**

4.6.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.6.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet from the centerline of a township or incorporated municipal public right-of-way and all private roads.

4.6.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.6.6.2.4. There shall be a front yard setback of 30 feet from the frontage on a cul-de-sac.

4.6.6.2.5. Detached Accessory Structures shall not be allowed within the required front yard.

4.6.6.3. **Side Yard.**

4.6.6.3.1. There shall be a side yard having a width of not less than fifteen (15) feet on each side of a Principal Structure.

4.6.6.3.2. Detached Accessory Structures shall be setback at least ten (10) feet from the side property line, provided they occupy not more than thirty (30) percent of any required side yard.

4.6.6.4. **Rear Yard.**

4.6.6.4.1. There shall be a rear yard having a depth of not less than thirty (30) feet from a Principal Structure or Accessory Structure.

4.6.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line, provided they occupy not more than thirty (30) percent of any required rear yard.

4.6.6.4.3. Where a lot is classified as a through lot, a required front yard shall be required along the rear frontage.

4.6.6.5. **Bluff Zone.** All Structures shall be setback at least 30 feet from the bluff line.

4.6.6.6. **Lot Requirements.**

4.6.6.6.1. The minimum lot area for a principal use is one (1) acre.

4.6.6.6.2. Every lot or plot of land on which there shall be a habitable structure shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.6.6.6.3. Every lot or plot of land on which a dwelling is erected shall have a minimum width of not less than one hundred fifty (150) feet at the building setback line and a minimum depth of not less than one hundred seventy-five (175) feet.

4.6.6.6.4. No more than twenty-five (25) percent of the lot area shall be covered by principal and Accessory Structures.

4.6.6.6.5. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

4.6.6.6.6. Every lot on which a structure is erected shall contain sufficient buildable area to satisfy the bulk and density regulation of this Ordinance.

4.6.7. **Structural Standards.** Permitted single-family dwellings shall have a minimum width of twenty (20) feet at the structure's narrowest dimension and the structure shall be affixed to a continuous permanent perimeter foundation constructed of concrete block, poured concrete, or wood.

4.6.8. **Feedlot Regulations.** No feedlots are allowed in the RT, Residential Transition District.

4.6.9. **General Regulations.** Additional regulations and requirements for the RT Residential Transition District are set forth in Article 5 of this Ordinance.

4.7. BUSINESS DISTRICT.

4.7.1. **Purpose.** The Business District is intended to allow for commercial uses within Lime Township on properties as denoted on the Official Zoning Map.

4.7.2. **Permitted Uses.** The following uses shall be permitted in the Business District:

4.7.2.1. Any legally established commercial use or occupancy prior to the enactment of this Ordinance.
4.7.2.2. Antique store.
4.7.2.3. Apparel and accessory store.
4.7.2.4. Appliance and accessory store.
4.7.2.5. Art supply store.
4.7.2.6. Art gallery.
4.7.2.7. Artist studio or school.
4.7.2.8. Bank, including drive-in bank.
4.7.2.9. Business machines store.
4.7.2.10. Clinic, dental or medical.
4.7.2.11. Dairy store.
4.7.2.12. Drugstores.
4.7.2.13. Floral sales.
4.7.2.14. Furniture store and home furnishings.
4.7.2.15. Garden supplies store.
4.7.2.16. Gift, novelty or souvenir store.
4.7.2.17. Government or municipal Structures.
4.7.2.18. Grocery store.
4.7.2.19. Hardware store.
4.7.2.20. Hobby shop.
4.7.2.21. Laboratory, dental or medical.
4.7.2.22. Office of any type.
4.7.2.23. Optician and optical goods.
4.7.2.24. Photographic studio.
4.7.2.25. Repair, rental and servicing of any item if the sale is permitted in this district.
4.7.2.26. Sporting goods store.
4.7.2.27. Variety store.
4.7.2.28. Warehouses.

4.7.3. **Conditional Uses.** The following uses may be permitted in the Business District as a Conditional Use:

4.7.3.1. Community Solar Energy Systems, subject to Section 15 of this Ordinance.

4.7.4. **Interim Uses.** The following uses may be permitted in the Business District as an Interim Use:

4.7.4.1. None.

4.7.5. **Permitted Accessory Uses.** The following Accessory Uses shall be permitted within the Business District:

4.7.5.1. Accessory Structures or uses which are clearly incidental to any of the uses listed above, located upon the same property, as regulated in Article 5 of this Ordinance.

4.7.5.2. Solar Energy System, clearly incidental to the principal use of the property.

4.7.5.3. Wind Energy Conversion Systems, Non-Commercial, clearly incidental to the principal use of the property.

4.7.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.7.6.1. **Height Regulations.** No height limitations shall be imposed for commercial Structures except as regulated by Airport Zoning.

4.7.6.2. **Front Yard.**

4.7.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.7.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet from the centerline of a township or incorporated municipal public right-of-way and all private roads.

4.7.6.2.3. In no case shall the front yard be less than 30 feet from the right-of-way line of any road or street.

4.7.6.2.4. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.7.6.2.5. There shall be a front yard setback of 30 feet from the frontage along a cul-de-sac.

4.7.6.2.6. Detached Accessory Structures shall not be allowed within the required front yard.

4.7.6.3. **Side Yard.**

4.7.6.3.1. There shall be a side yard having a depth of not less than fifteen (15) feet on each side of a Principal Structure.

4.7.6.3.2. Detached Accessory Structures shall not be located in the sideyard.

4.7.6.3.4. No Structure shall be located within fifty (50) feet of any lot line of an abutting lot in any residence district.

4.7.6.4. **Rear Yard.**

4.7.6.4.1. There shall be a rear yard having a depth of not less than thirty (30) feet from a Principal Structure.

4.7.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line, provided they occupy not more than thirty (30) percent of any required rear yard.

4.7.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.7.6.4.4. No Structure shall be located within fifty (50) feet of any lot line of an abutting lot in any residence district.

4.7.6.5. **Lot Requirements.**

4.7.6.5.1. Every zoning lot on which a commercial Structure is erected shall have a width of not less than one (1) acre.

4.7.6.5.2. Every lot or plot of land on which a Structure is erected shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.7.6.5.3. Every zoning lot on which a commercial Structure is erected shall have a width of not less than one hundred fifty (150) feet at the building setback line and a depth of not less than one hundred fifty (150) feet.

4.7.6.5.4. No more than fifty (50) percent of the zoning lot shall be occupied by Structures, parking spaces or driveways.

4.7.6.5.5. Every zoning lot on which a structure is erected shall have an approved access to a public right-of-way.

4.7.7. **General Regulations.** Additional regulations and requirements for the Business District are set forth in Article 5 of this Ordinance.

4.8. INDUSTRY DISTRICT.

4.8.1**.** **Purpose.** The Industry District, as denoted on the Official Zoning Map, is intended to allow for industrial uses within Lime Township on properties as denoted on the Official Zoning Map.

4.8.2. **Permitted Uses.** The following uses shall be permitted in the I, Industry District

4.8.2.1. Any legally established industrial use or occupancy prior to the enactment of this Ordinance.

4.8.2.2. Bottling establishments.

4.8.2.3. Building materials sales and storage.

4.8.3.4. Crop production (no livestock).

4.8.3.5. Farm implement sales and storage.

4.8.3.6. General light manufacturing, assembly plants and facilities.

4.8.3.7. Wholesale business facilities.

4.8.3.8. Warehousing and storage facilities.

4.8.3. **Conditional Uses.** The following uses may be permitted in the Industry District as a Conditional Use:

4.8.3.1. Automotive, truck and other internal combustion engine equipment and repair.

4.8.3.2. Cabinet and woodworking establishments.

4.8.3.3. Community Solar Energy Systems, subject to Section 15 of this Ordinance.

4.8.3.4. Electrical products, manufacture and assembly.

4.8.3.5. Electrical substations.

4.8.3.6. Grain elevators.

4.8.3.7. Highway maintenance shops and yards.

4.8.3.8. Mini-storage.

4.8.4. **Interim Uses. The following uses may be permitted in the Industry District as an Interim Use:**

4.8.4.1. Adult Use.

4.8.4.2. Cannabis Delivery.

4.8.4.3. Cannabis Event Organizer.

4.8.4.4. Cannabis Manufacturing.

4.8.4.5. Cannabis Microbusiness, except the cannabis cultivation component which is allowed as an interim use in the Agriculture District.

4.8.4.6. Cannabis Mezzobusiness, except the cannabis cultivation component which is allowed as an interim use in the Agriculture District.

4.8.4.7. Cannabis Processing.

4.8.4.8. Cannabis Retail Business.

4.8.4.9. Cannabis Retailer.

4.8.4.10. Cannabis Testing.

4.8.4.11. Cannabis Wholesaling.

4.8.4.12. Lower-Potency Hemp Edible Manufacturer.

4.8.4.13. Lower-Potency Hemp Edible Retailer.

4.8.4.14. Medical Cannabis Combination Business.

4.8.4.15. Mining and mining Accessory Uses, as regulated in Article 5 of this Ordinance.

4.8.4.16. Re-use of railroad sidings and the extension or expansion of railroad sidings.

4.8.5. **Permitted Accessory Uses.** The following Accessory Uses shall be permitted within the Industry District:

4.8.5.1. Accessory Structures or uses which are clearly incidental to any of the uses listed above, located upon the same property, as regulated in Section 12 of this Ordinance.

4.8.5.2. Solar Energy System, clearly incidental to the principal use of the property.

4.8.5.3. Wind Energy Conversion Systems, Non-Commercial, clearly incidental to the principal use of the property.

4.8.6. **Height, Yard and Lot Regulations.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance.

4.8.6.1. Height. No height limitations shall be imposed for industrial Structures, except as regulated by Airport Zoning.

4.8.6.2. Front Yard.

4.8.6.2.1. There shall be a front yard setback of not less than one hundred thirty (130) feet from the centerline of all Federal, State, County and County-State Aid highways, except for divided highways which shall require a setback of one hundred (100) feet from the highway right-of-way line.

4.8.6.2.2. There shall be a front yard setback of not less than sixty-five (65) feet front the centerline of a township or incorporated municipal public right-of-way and all private roads. In no case shall the front yard be less than 30 feet from the right-of-way line of all other roads or streets.

4.8.6.2.3. Where a lot is classified as a corner lot, there shall be a front yard setback from each road or highway abutting the corner lot.

4.8.6.2.4. There shall be a front yard setback of 30 feet from the frontage along a cul-de-sac.

4.8.6.2.5. Detached Accessory Structures shall not be allowed within the required front yard.

4.8.6.3. **Side Yard.**

4.8.6.3.1. There shall be a side yard having a depth of not less than fifteen (15) feet on each side of a Principal Structure.

4.8.6.3.2. Detached Accessory Structures shall not be located in the side yard.

4.8.6.3.3. No Structure shall be located within fifty (50) feet of any lot line of an abutting lot in any residence district.

4.8.6.4. **Rear Yard.**

4.8.6.4.1. There shall be a rear yard having a depth of not less than thirty (30) feet from a Principal Structure.

4.8.6.4.2. Detached Accessory Structures shall be setback at least ten (10) feet from the rear property line, provided they occupy not more than thirty (30) percent of any required rear yard.

4.8.6.4.3. Where a lot is classified as a through lot, a required front yard setback shall be required along the rear frontage.

4.8.6.4.3. No Structure shall be located within fifty (50) feet of any lot line of an abutting lot in any residence district.

4.8.6.5. **Lot Area, Width and Depth.**

4.8.6.5.1. Every zoning lot on which an industrial Structure is erected shall have an area of not less than one (1) acre.

4.8.6.5.2. Every lot or plot of land on which an industrial Structure is erected shall have a contiguous lawn area free of limiting factors sufficient for the construction of a primary and secondary standard soil treatment septic system in conformance with Blue Earth County's Individual Sewage Disposal System Ordinance.

4.8.6.5.3. Every zoning lot on which an industrial Structure is erected shall have a width of not less than one hundred fifty (150) feet abutting a public right-of-way.

4.8.6.5.4. No more than fifty (50) percent of the zoning lot shall be occupied by Structures, parking spaces or driveways.

4.8.6.5.5. Every lot on which a structure is erected shall have an approved access to a public right-of-way.

4.8.6.6. **General Regulations.** Additional regulations and requirements for the Industry District are set forth in Article 5 of this Ordinance.

4.9. SHORT-TERM RENTAL UNITS.

4.9.1. **Definition.** Short-term rental unit - is a commercial use of a dwelling, where sleeping quarters are furnished in exchange for compensation, for any period of time less than 30 days and is not a Bed and Breakfast.

4.9.2. **General Purpose.** This section is established to protect and promote health, safety, general welfare and order within the Township through uniform standards, regulations, and procedures governing the short-term rental units. The use and operation of private rental homes, referred to as short-term rental units, and to mitigate possible adverse impacts to surrounding properties, maintain water and environmental quality, ensure on-site parking is sufficient to provide parking for patrons and visitors, and the general safety of occupants of short-term rental units, the following standards shall be conformed to:

4.9.2.1. **Uses.** Short-term rental units are allowed on all parcels that allow residential homes except Industry and Commercial Districts.

4.9.2.2. **Operational Standards.** To mitigate possible adverse impacts to surrounding properties, maintain water and environmental quality, and protect the general welfare of

the public and occupants of short-term rental units, the standards stated in the sections below shall apply to short term rental properties.

4.9.2.3. **Application Requirements.** Any person proposing to operate a short-term rental unit shall apply to the Lime Township planning staff for an Interim Use Permit. The application shall contain the items in Article 3, Section 9, after a preliminary meeting with staff and apply with the following:

4.9.2.3.1. A site plan which shows the following:

4.9.2.3.1.1. The property lines.

4.9.2.3.1.2. The dwelling unit proposed for use as the short-term rental unit.

4.9.2.3.1.3. Any Accessory Structures.

4.9.2.3.1.4. The square footage of parking areas and driveways.

4.9.2.3.1.5. The shoreland and recreational facilities (for example, gazebo, boat house, docks, and patios).

4.9.2.3.1.6. Location of outdoor garbage and recycling storage containers.

4.9.2.3.1.7. All wells and septic systems facilities and secondary septic system location, or water and wastewater facilities serving the property.

4.9.2.3.1.8. Pathways to a lake, river, pond, or creek, when applicable.

4.9.2.3.1.9. Fire pit for recreational fires.

4.9.2.3.1.10. Other site-specific considerations identified by the Township planning staff.

4.9.2.3.1.11. Floor plans of the structure, including the number of bedrooms and bathrooms, with dimensions.

4.9.2.3.2. All Other Information Required for an Interim Use Permit, including but not limited to:

4.9.2.3.2.1. The application and escrow fees.

4.9.2.3.2.2. Subsurface sewage treatment system (SSTS) compliance verification, and a commercial operating permit, if appropriate.

4.9.2.3.2.3. Proof of liability insurance.

4.9.2.3.2.4. A business plan that includes, but is not limited to, quiet hours, maximum occupancy, parking, pet policy, refuse disposal, other property rules, the duration of available rental dates, and the length of time the unit is available for rent by tenants.

4.9.2.3.2.5. Any licenses or permits required by other jurisdictions or agencies, including the Minnesota Department of Health.

4.9.2.3.3. **Performance Standards.**

4.9.2.3.3.1. **Occupancy.** The maximum occupancy at any given time shall be in compliance with the capacity of the subsurface sewage treatment system (SSTS) serving the unit. If the unit is served by a municipal or a sewer district system, the occupancy will be limited to the maximum occupancy identified in the applicant's business plan or the occupancy identified by a lodging license from the Minnesota Department of Health, whichever is lower.

4.9.2.3.3.2. **Units Per Tax Parcel.** There is a maximum of one (1) short-term rental unit per tax parcel.

4.9.2.3.3.3. **No Other Lodging Options.** The use of ice houses, fish houses, campers, recreational vehicles, tents, or accessory structures for overnight lodging by renters is prohibited on a short-term rental unit parcel.

4.9.2.3.3.4. **List of Occupants.** The short-term rental unit property manager and property owner shall maintain a list of all current occupants of the unit. The list shall be made available to Lime Township staff or law enforcement upon request.

4.9.2.3.3.5. **Recreational Fires.** Only one (1) location for recreational fires is allowed, provided it meets all requirements of the state fire code.

4.9.2.3.3.6. **Bathroom facilities.** All short-term rental units shall have at least one (1) full bathroom consisting of a sink, toilet, and tub or shower.

4.9.2.3.3.7. **Garbage Disposal.** The storage, collection, and disposal of refuse and garbage shall be conducted in accordance with State of Minnesota and Blue Earth County rules in a manner which will not create health hazards, rodent harborage, insect breeding areas, accident or fire hazards, or air pollution. The burning of garbage or refuse is specifically prohibited in Lime Township. Refuse and garbage collection shall occur at least once each week and more often where necessary to prevent nuisance conditions. Final disposal of refuse shall be accomplished at a waste management facility permitted by the State of Minnesota. Recycling is recommended.

4.9.2.3.3.8. **Property Lines.** The permit holder shall provide a physical visual demarcation of the property lines or property corners.

4.9.2.3.3.9. **No Other Uses.** No other commercial uses shall occur on the property. These include, but are not limited to, events such as reunions, luncheons, weddings, fund raisers, or other gatherings that exceed occupancy limits of the short-term rental dwelling. This applies for all short-term rental units in all zoning districts.

4.9.2.3.4. **Additional Conditions.** The Township may impose conditions that will reduce the impacts of the proposed use on neighboring properties, public services, and nearby water bodies. These conditions may include, but are not limited to, fencing or vegetative screening, a native buffer along a shoreline, noise standards, duration of permit, restrictions as to the docking of watercraft, and the number of renters which may occupy the unit.

4.9.2.3.4.1. **Lodging License.** Applicants for a short-term rental unit Interim Use Permit must contact the Minnesota Department of Health to determine if a lodging license is required pursuant to the standards contained in Minnesota Rules Chapter 4625. If a lodging license is required by the State of Minnesota for the short-term rental unit, it must be maintained as required by the Minnesota Department of Health, and evidence of the license maintenance shall be provided to the Lime Township Clerk each year on the anniversary of the date of issuance of the Interim Use Permit. If a Minnesota Department of Health lodging license is not required, the Applicant shall provide the Lime Township planning staff with written documentation from the Minnesota Department of Health that it is not required.

4.9.2.3.4.2. Required quiet hours. 10PM – 7AM.

4.9.2.3.4.3. Pets - if allowed by owner - are required to be restrained on a leash no longer than six (6) feet or enclosed within the boundaries of a Short Term Rental.

4.9.2.3.5. **Parking Requirements.**

4.9.2.3.5.1. **Minimum Parking Spaces.** A minimum of two (2) off-street parking spaces shall be provided for the short-term rental unit.

4.9.2.3.5.2. **Off-street Parking.** Off-street parking spaces must meet parking space requirements and size regulations stated in the Lime Township Ordinance Article 5.

4.9.2.3.5.3. **Use of Parking Spaces.** Parking for vehicles and trailers is only allowed in designated parking spaces.

4.9.2.3.5.4. Streets and Roads. Public streets and road rights-of-way shall not be used for parking trailers.

4.9.2.3.6. **Sewage and Treatment Requirements.**

4.9.2.3.6.1. **Sewage Treatment Required.** The rental unit must either be connected to a municipal sewage treatment facility, sanitary sewer district, or must have a compliant subsurface sewage treatment system.

4.9.2.3.6.2. **SSTS Requirements.** If a subsurface sewage treatment system is utilized, it must meet the following criteria.

4.9.2.3.6.3. **Size.** It must be sized properly to accommodate the maximum occupancy of the rental unit in accordance with Blue Earth County Regulations and State codes and regulations, as amended.

4.9.2.3.6.4. **Commercial Permit.** If required, the rental unit must have a valid commercial operating permit for the subsurface sewage treatment system.

4.9.2.3.6.5. **No Holding Tanks.** Holding tanks are not an allowed sewage management system for short-term rental units. Secondary Site. A secondary subsurface sewage treatment location must be identified and protected so that it is not impacted by parking of vehicles, trailers, or other heavy items which may compact the soil of the secondary site.

4.9.2.3.7. **Rental property manager.**

4.9.2.3.7.1. **Manager Requirements.** All short-term rental units shall have a designated rental property manager, who meets the following requirements:

4.9.2.3.7.1.1. **Availability.** The manager or owner must be available twenty-four (24) hours a day, seven (7) days per week.

4.9.2.3.7.1.2. **Response Time.** The manager or owner must be able to respond in person within 120 minutes of notification when patrons are present at the dwelling unit.

4.9.2.3.7.1.3. **Authority.** The manager must have administrative authority over the property.

4.9.2.3.7.1.4. **Knowledge.** The manager must have knowledge of the short-term rental unit, the property, and the Lime Township short-term rental ordinance rules, standards and procedures.

4.9.2.3.7.2. **Disclosure of Manager Information.** A short-term rental owner or designee must provide the name, address, phone number, and email address for the rental property manager and owner if not the same.

4.9.2.3.7.3. **Disclosure to Neighbors.** The Lime Township Clerk shall provide the property manager's and property owner's contact information to neighboring properties within one-quarter mile of the short-term rental unit property at the time of permit approval, and in the event of any changes in the manager information.

4.9.2.3.7.4. **Change of Information.** The property owner or designee shall notify the Lime Township Clerk within ten (10) days of a change of a property manager or a change in the property manager's contact information.

4.9.2.3.8. **Posting of Information.** The following information shall be posted within the short-term rental unit in a prominent location, so it is easily visible for guests:

4.9.2.3.8.1. **Owner's and Manager's Information.** The property owner's and property manager's full name, address, phone number, and email address.

4.9.2.3.8.2. **Occupancy Capacity.** The rental unit's maximum occupancy.

4.9.2.3.8.3. **Parking.** The location of parking stalls.

4.9.2.3.8.4. **Vehicle Capacity.** The maximum number of vehicles, recreational vehicles, and trailers allowed at the property, where they are to be parked, and their allowable uses.

4.9.2.3.8.5. **Property Lines.** A map, diagram, or survey showing the location of property lines.

4.9.2.3.8.6. **Fire Extinguishers.** The location of fire extinguishers.

4.9.2.3.8.7. **Property Rules and Regulations.** Property rules related to use of exterior features of the property, quiet hours, pets, refuse disposal, and recreational fires.

4.9.2.3.8.8. **License.** If required, a copy of the lodging license from the Minnesota Department of Health.

4.9.2.3.8.9. **Renter Behavior Conditions.** Conditions of the Interim Use Permit which may be impacted by the actions or behavior of the renters, such as quiet times, hours of operation, check out time.

4.9.2.3.8.10. **Emergency Information.** Emergency procedures for a fire, tornado, flood, or similar natural disaster.

4.9.2.3.9. **General Enforcement of Property Conditions.** Complaints and violations of the short-term rental ordinance shall be processed with the following procedures:

4.9.2.3.9.1. **Owner and Manager First.** Issues pertaining to a short-term rental unit should initially be directed to the designated property manager or property owner.

4.9.2.3.9.2. **Lack of Prompt Resolution.** If an issue is not acknowledged by the rental property manager or property owner within twenty-four (24) hours, or the issue is not resolved by the rental property manager or property owner, a complaint may be made to the Lime Township Clerk for non-emergency issues.

4.9.2.3.9.3. **Emergency Issues.** An emergency issue impacting the immediate safety of residents, visitors, or neighbors should be referred to the appropriate law enforcement agency.

4.9.2.3.9.4. **Investigation.** The Lime Township Board shall investigate all complaints and follow up with the designated owner or rental property manager and complainant. Any complaints substantiated by the Lime Board and not resolved with the owner or rental property manager within 30 days may result in the invalidation, suspension, or termination of the Interim Use Permit for the short-term rental unit as determined by the Lime Township Planning Commission and the Lime Township Board pursuant to Lime Township's Enforcement Ordinance.

4.9.2.3.10. **Non-conforming Uses.** Prior to the adoption of this Section, short-term rentals are not a permitted use within Lime Township. Therefore, all short-term rentals operating prior to the effective date of this Section shall be brought into compliance with this Section within six (6) months after adoption of this section, including submission of an application for an Interim Use Permit as described above.

4.9.2.3.11. **Density of use.** In all zoning districts other than the Agriculture District, no parcel or lot within 125 feet of a parcel or lot with an existing permitted short-term rental unit, as measured from the property line, shall be eligible for a short-term rental unit Interim Use Permit.

ARTICLE 5. GENERAL REGULATIONS.

5.1. Parking and Loading.

5.1.1. **Application of Parking and Loading Regulations.** Parking and loading regulations shall apply to all Structures and uses of land established or expanded from or after the enactment of this Ordinance.

5.1.2. **Land Development Permit.** All plans submitted for a land development permit or change of use requiring more than four (4) parking spaces or loading facilities shall include the information contained in Article 3.

5.1.3. **Size.** A width of not less than nine (9) feet and a depth of not less than twenty (20) feet is required for each parking stall. Each space shall be adequately served by access drives of at least 24 feet in width. All loading spaces shall be sufficient to meet the requirements of each use and shall provide adequate space for the storage and maneuvering of the vehicles intended to be served.

5.1.4. **Reduction and use.** On-site parking facilities existing at the enactment of this Ordinance shall not subsequently be reduced to an amount less than required under this Ordinance for a similar new Structure or use. On-site parking facilities provided to comply with the provisions of this Ordinance should not subsequently be reduced to an amount less than required under this Ordinance. Such required parking or loading space shall not be used for storage or sale of any items or for storage of vehicles that are inoperable or for sale or rent.

5.1.5. **Computing.** In the computation of the number of such parking spaces required, the following rules shall govern:

5.1.5.1. Floor space shall mean the usable floor area of the specific use.

5.1.5.2. Where fractional spaces result, the parking spaces required shall be construed to be the next whole number.

5.1.5.3. The parking space requirement for a use not specifically mentioned herein shall be the same as required for a use of similar nature.

5.1.6. **Yards.** On-site parking and loading facilities shall not be allowed in any required yard. In the business and industrial districts, no parking or loading space shall be located within fifty (50) feet of any property line that abuts any residential property.

5.1.7. **Screening and Landscaping.** All open automobile parking areas containing more than four (4) parking spaces shall be effectively screened from view on each side adjoining or affronting any property situated in a residence district or any institutional premises by a wall, fence or densely planted compact edge not less than four (4) feet in height. The screening and landscaping plan shall show plant materials, bed location and other necessary information. The Board may waive this requirement if the closest point of such parking area is at least seventy-five (75) feet from the nearest residential or institutional property line.

5.1.8. **Access.** Any parking and loading space shall have access from a public right-of-way or other approved access. The number and width of access drives shall be so located as to minimize traffic congestion and abnormal traffic hazard. Motorized vehicular access to business or industrial uses across a primarily residential area is prohibited.

5.1.9. **Location of Parking Facilities.** Required off-street parking space shall be provided on the same lot as the Principal Structure or use, with the following exceptions:

> 5.1.9.1. Combined or joint parking facilities may be provided for one (1) or more Structures or uses in the Business and Industry Districts, provided that the total number of spaces shall equal the sum of the requirements for each Structure or use.

5.1.10. **Construction and Maintenance.** Commercial and industrial parking areas and access drives shall be covered with a dust-free, all weather surface with proper surface drainage. Chemical dust control applied not less than monthly on gravel surfaces may be permissible at the discretion of the Board.

> 5.1.10.1. Parking and driving areas at **Commercial and Industrial sites** constructed after the effective date of this Ordinance shall be hard surfaced with bituminous or concrete for a distance of 200 feet from the point of access to a bituminous or concrete street.
>
> 5.1.10.2. Parking and loading areas, access drives and yard areas shall be maintained in a sightly and well-kept condition and have proper surface drainage.

5.1.11. **Lighting.** Any lighting intended for illumination of off-street parking areas shall be directed away from residential properties and public right-of-ways so as not to create a nuisance.

> 5.1.11.1. Lighting fixtures installed after the effective date of this Ordinance shall be full cutoff and shall not allow light to be projected above the elevation of the fixture.

5.1.12. **Parking of Commercial Vehicles or Equipment.** No commercial vehicles or equipment exceeding 9,000 pounds gross weight shall be parked, stored or otherwise contained in a residential or conservation district unless it is within a completely enclosed structure or unless they are being used in conjunction with a legitimate service being rendered for the benefit of the residential premises.

5.1.13. **Required Number of On-Site Parking Spaces.** On-site parking areas of sufficient size to accommodate patrons, customers, suppliers, visitors and employees shall be provided on the premises of each use. The expansion or alteration of existing uses requiring additional on-site parking spaces shall be calculated based upon the existing floor area to parking space ratio for said use, or the ratio of number of employees to parking spaces. Uses established after the effective date of this Ordinance shall comply with the on-site parking requirements outlined in the table below.

	USE	PARKING SPACES REQUIRED
A.	**RESIDENTIAL:**	
	One-Family, Two-Family and Multiple-Family	Two (2) spaces per dwelling unit.
B.	**COMMERCIAL:**	
	General	One (1) space per two hundred (200) sq. ft. of retail or sales floor area, unless specifically noted .
	Special Commercial	
	Banks	One (1) space per two hundred fifty (250) sq. ft. of gross floor area.
	Furniture and Appliance	One (1) space per four hundred (400) sq. ft. of gross sales floor area, and one (1) space per employee on major shift.
	Mini-Storage	One (1) parking stall for every two (2) storage units. A parking space adjacent to a storage unit may be counted as one (1) parking space.
D.	**OFFICES AND RELATED USES:**	
	General Standards	One (1) parking space per each two hundred fifty (250) sq. ft. of gross floor area.
	Other Office Uses	
	Medical and Dental Offices	One (1) parking space per each two hundred (200) sq. ft. of gross floor area.
E.	**RECREATIONAL USES:**	
	General Standards	One (1) space per four (4) persons of the maximum occupancy load.
F.	**INDUSTRIAL USES:**	
	Manufacturing, Testing, Research or Lab	Four (4) off-street parking spaces, plus one (1) space per employee on the major shift, or one (1) space for each three hundred (300) sq. ft. of floor area. (Ord. of 2-9-2004)

	Warehousing and Wholesale Business	Three (3) off-street parking spaces, plus one (1) space per employee on the largest working shift.
G.	**INSTITUTIONAL:**	
	Church and Other Religious Institutional	One (1) space per four (4) seats of maximum seating capacity in largest congregation area.
H.	**LIBRARIES / MUSEUMS:**	
	General Standards	One (1) space per two hundred fifty (250) sq. ft. of floor area or one (1) space per four (4) seats at the maximum occupancy load, whichever is greater, plus one (1) space per employee on the largest work shift.
I.	**SCHOOLS:**	
	Elementary and Junior High	One (1) space per staff member, plus one (1) space per each two (2) classrooms.
	Senior High School	One (1) space per staff member, plus one (1) space per five (5) students.
	Post Secondary	One (1) space per staff member, plus one (1) space per two (2) students. In an instance where the school restricts the number of vehicles used by students and faculty, the parking requirement shall be based on the number of vehicles allowed under the restriction and other uses found on school property.
J.	**CLINICS:**	
	General Standards	One (1) space per each twohundred fifty (250) sq. ft. of floor area plus, one (1) space per staff member.

5.1.14. **Required Number of On-Site Loading Spaces.** The minimum number of on-site loading and unloading spaces shall be determined by existing floor area to loading space ratios for an existing use. Uses established after the effective date of this Ordinance shall comply with the on-site loading space requirements shown in the table below.

USE	GROSS FLOOR AREA (Sq. Ft.)	NO. OF BERTHS & SIZE
Auditoriums, Cultural, & Conference Facilities	10,000 - 20,000	One (1) short
	20,001 - 100,000	One (1) short
each additional	100,000	One (1) long

Freight Facilities	5,000 - 40,000	One (1) long
	40,001 - 100,000	Two (2) long
each additional	100,000	One (1) long
Hotels & Institutional	10,000 - 200,000	One (1) short
each additional	100,000	One (1) short
Industrial & Manufacturing Uses	5,000 - 10,000	One (1) short
	10,001 - 40,000	One (1) long
	40,001 - 100,000	Two (2) long
each additional	100,000	One (1) long
Office Uses	10,000 - 200,000	One (1) short
each additional up to 500,000	100,000	One (1) short
each additional	500,000	One (1) short
each additional	200,000	One (1) long
Retail/Commercial	5,000 - 10,000	One (1) short
	10,001 - 25,000	Two (2) short
	25,001 - 60,000	Two (2) long
	60,001 - 100,000	Three (3) long
Transportation Facilities (Air/Bus/Rail)	10,000 - 40,000	One (1) short
each additional	40,001 - 100,000	One (1) long, One (1) short
	100,000	One (1) long
Utilities & Communication Facilities	10,000 - 40,000	One (1) short
	40,001 - 100,000	One (1) long, One (1) short
each additional	100,000	One (1) long
Gross Floor Area refers to structures on premises. Berth (loading dock): Short - 10 ft. wide × 35 ft. deep Long 12 ft. wide x 50 ft. deep		

5.2. **Utilities.**

5.2.1. **Subsurface Sewage Treatment Systems.**

5.2.1.1. All sewage and water systems hereafter constructed or maintained shall conform with the provisions of this Section, the Blue Earth County Subsurface Sewage Treatment Systems Ordinance as may be amended from time to time, and any other applicable County or State regulation.

5.2.1.2. A permit from Blue Earth County shall be required for each individual sewage treatment system installed in the Township. Such a permit shall be issued only when the Blue Earth County Sanitarian has determined that the system will conform to the applicable State and County regulations.

5.2.1.3. Compliance checks for each existing individual sewage treatment system are required for each new land development permit. If a system is found to be non-compliant, then the system shall be upgraded as a condition precedent to the issuance of a land development permit.

5.2.2. **Water Wells.**

5.2.2.1. All new water wells construction in the Township, whether public or municipal, shall be constructed in accordance with State of Minnesota Rules Chapters 4720 and 4725, and Blue Earth County's Water Well Code as amended from time to time.

5.2.2.2. A permit from Blue Earth County will be required for the construction, reconstruction, abandonment or sealing of a well on any land within Lime Township.

5.3. **Performance Standards.** To create a compatible relationship of land uses within and between the various zoning districts, certain standards shall be maintained. Permitted Uses, Conditional Uses, Interim Uses and Accessory Uses shall conform to these standards.

5.3.1. **Landscaping.** All required yards shall be landscaped or left in a natural state. Any areas left in a natural state shall be properly maintained in a well-kept condition. Commercial and industrial yards adjoining any residence district shall be landscaped with buffer planting screens or fencing. Planting screens or fencing shall effectively screen the commercial or industrial use from the residential property.

5.3.2. **Noise.** Noise shall be measured on the property line of the lot on which the operation is located and shall not exceed the standards as regulated in Minnesota Rules, Chapter 7030. Agricultural Uses shall be exempt from such provisions.

5.3.3. **Odors.** Any use hereafter established, enlarged or improved shall be so operated as to prevent the emission of odorous matter of such quantity as to be readily detectable at any point beyond the property line of the lot on which such use is located. Detailed plans for the prevention of odors crossing property lines may be required before the issuance of a land development permit. Agricultural Uses shall be exempt from such provisions.

5.3.4. **Exterior Lighting.** Any lights used for exterior illumination shall be directed away from adjoining properties. Glare, whether directed or reflected, such as from floodlights, shall not be directed at or illuminate adjacent properties. Exterior lighting fixtures erected after the effective date of this Ordinance on commercial or industrial property shall be Full Cutoff Fixtures. Security lighting required by state or federal regulation is exempt.

5.3.5. **Vibration.** Any use creating periodic earth-shaking vibrations perceptible beyond lot boundaries on which the use is located shall be prohibited. This provision shall not apply to vibrations due to construction or mining activities.

5.3.6. **Smoke and Particulate Matter.** Any use hereafter established, enlarged or improved shall be operated so as to control the emission of smoke or particulate matter to the degree that it is not detrimental or an endangerment to the public health, safety comfort or general welfare. All smoke and particulate matter emission shall comply with standards adopted by the State of Minnesota.

5.3.7. **Dust.** Solid or liquid particulate shall not be emitted in concentrations in excess of standards established by the State of Minnesota.

5.3.8. **Toxic or Noxious Matter.** Any use hereafter established, enlarged or improved shall be operated so as to not discharge across lot boundaries or through percolation into the subsoil toxic or noxious matter exceeding standards established by the State of Minnesota.

5.3.9. **Explosives.** Any use requiring the storage, utilization or manufacturing of explosive products which could degrade or become unstable, shall comply with the State of Minnesota Fire and Safety Rules and shall not be located within five hundred (500) feet of any Residence District.

5.4. **Home Occupations.** To prevent competition with business and industrial districts and to maintain the character of the residential districts, this Section establishes specific standards and procedures by which home occupations can be conducted in residential districts without jeopardizing the health, safety, and general welfare of surrounding uses. Permitted agricultural activities shall be exempt from such provisions.

5.4.1. **Level I Home Occupations.** Where specifically allowed in a zoning district, a Level I Home Occupation shall comply with the following:

5.4.1.1. Prohibited Level I home occupations include the repair of internal combustion engines, automobile repair, welding, ammunition manufacturing, building contractors, and other similar uses as determined by the Board.

5.4.1.2. Level I home occupations shall be conducted entirely within the dwelling or Accessory Structure to the extent permitted in paragraph 5, carried on by the inhabitants thereof with no more than one employee not residing on the premises.

5.4.1.3. The home occupation shall be clearly incidental and secondary to the use of the dwelling for dwelling purposes.

5.4.1.4. The home occupation shall not exceed 500 square feet of the floor space of the dwelling.

5.4.1.5. Accessory Structures and/or attached garages may be used as part of the home occupation, provided not more than 30 percent of the floor area is devoted to the occupation.

5.4.1.6. There shall be no outside storage or display of materials, equipment, or merchandise.

5.4.1.7. Signage shall be limited to one (1) sign, not more than six (6) square foot in area, and non-illuminated.

5.4.1.8. The home occupation shall not generate any offensive noise, vibration, smoke, dust, odors, heat, or glare at or beyond on the property line.

5.4.1.9. The hours of operation shall be limited to 8:00 a.m. to 6:00 p.m.

5.4.1.10. Only one vehicle shall be allowed which is devoted primarily to the home occupation. The vehicle shall not exceed 9,000 pounds.

5.4.2. **Level II Home Occupations.** Where specifically allowed in a zoning district, a Level II home occupation shall comply with the following:

5.4.2.1. Level II home occupations shall be conducted entirely within the dwelling or Accessory Structure carried on by the inhabitants thereof with no more than three (3) employees not residing on the premises.

5.4.2.2. The home occupation shall be clearly incidental and secondary to the use of the property for residential purposes. Total maximum floor area for the occupation shall be 2,500 feet.

5.4.2.3. Signage shall be limited to one (1) sign, not more than 32 square feet in area, and non-illuminated.

5.4.2.4. The home occupation shall not generate any offensive noise, vibration, smoke, dust, odors, heat, or glare at or beyond on the property line.

5.4.2.5. The hours of operation shall be limited from 7:00 a.m. to 6:00 p.m.

5.4.2.6. Materials, equipment, and merchandise shall be stored in an enclosed Structure or screened outside area on the property.

5.4.2.7. All vehicles or trailers or other equipment shall be parked on the property in a designated area, which is constructed with a dust-free, all-weather surface with proper surface drainage.

5.4.2.8. Junk/scrap yards and restaurants or other eating and drinking establishments are prohibited.

5.4.3. **General Standards.** All home occupations shall comply with the standards of the Blue Earth County's Individual Sewage Disposal System Ordinance.

5.5. **Water Retention, Erosion and Sedimentation Control.**

5.5.1. **Impervious Surfaces.** New development covering or replacing surface vegetation with an impervious surface equal or greater than one (1) acre must provide a storm water management plan in order to maintain the pre-development storm water drainage characteristics of the area. Linear projects such as sidewalks, paths, trails and the reconstruction, repair or resurfacing of existing roads or other impervious surfaces shall be exempt.

5.5.2. **Bluff Zones.** All development shall conform to the natural limitations presented by the topography and soil as to prevent soil erosion, and according to the following standards:

5.5.2.1. No structure shall be erected in any bluff impact zone as defined in Article 5 of this Ordinance. Essential services shall be exempt from this restriction.

5.5.2.2. Grade alterations in excess of five (5) cubic yards in any bluff impact zone shall be considered a Conditional Use, requiring a permit as regulated in Article 3 of this Ordinance.

5.5.2.3. No structure shall be erected within thirty (30) feet of a bluff line. If the adjacent bluff impact zone is actively eroding, the Board may at its discretion, increase the setback requirement.

5.6. **Erosion and Sedimentation Controls.** Erosion and sedimentation control measures shall be installed to insure appropriate control measures are installed prior to development when necessary. Storm water drainage and erosion control plans provided by a certified registered professional engineer may be required.

5.6.1. Best management practices shall conform to the following standards:

5.6.1.1. Land shall be developed in increments of a workable size such that adequate erosion and siltation controls can be provided as construction progresses. The smallest practical area of land shall be exposed at one time.

5.6.1.2. Drainage systems shall be constructed and operational as quickly as possible during construction.

5.6.1.3. Natural vegetation shall be retained and protected whenever possible.

5.6.1.4. If the topsoil is removed, sufficient arable soil shall be set aside for re-spreading over the developed area. The soil shall be restored to a depth of four (4) inches and shall be of a quality equal or greater than that of the soil prior to development.

5.6.1.5. When soil is exposed, the exposure shall be for the shortest period possible. Exposure shall not exceed sixty (60) days. Said time period may be extended only if the Planning Commission is satisfied that adequate control measures have been established and will remain in place.

5.6.1.6. Natural drainage systems shall be used whenever feasible for storage and flow of runoff. Storm water drainage may be discharged to marshlands, swamps, retention basins or other treatment facilities. Temporary storage areas or retention areas shall be scattered throughout developed areas to reduce peak flow and erosion damage.

5.6.1.7. Where wetlands are used for storm water retention, sedimentation controls shall be required per the standards of Minnesota Rules 8420.

5.6.2. **Exposed Slopes.** The following shall be met to control erosion during construction or development on or near slopes steeper in grade than three (3) feet horizontal to one (1) foot vertical:

5.6.2.1. A channel and berm shall be constructed at the foot of exposed slopes to control runoff. All runoff shall be diverted to a sedimentation basin before being returned to the natural drainage system.

5.6.2.2. A berm shall be constructed at the top of exposed slopes to prevent runoff from flowing over the edge. Where runoff collection behind said berm cannot be diverted, appropriate measures shall be taken to prevent erosion. The Township may require drop structures to conform to Soil and Water Conservation District construction standards.

5.6.2.3. Exposed slopes shall be protected by the most effective method considering the degree of slope, soils and expected length of exposure. Protection shall consist of a combination of the following:

5.6.2.3.1. Mulch (hay, straw, wood chips, corn stalks, bark, etc.).

5.6.2.3.2. Plastic sheets.

5.6.2.3.3. Burlap, erosion mats or jute netting.

5.6.2.3.4. Sod blankets, fast growing grasses or temporary seeding of annual grasses.

5.6.2.3.5. Other control measures if they shall protect the exposed slope as effectively as the methods listed hereto.

5.6.3. **Environmental Hazard Abatement.** Land development permits shall not be approved until all known environmental hazards situated on the property have been abated in a manner prescribed by law. Environmental hazards include:

5.6.3.1. Unused or improperly sealed wells, cisterns, pits and tanks.

5.6.3.2. Unapproved sites where man made articles are stored, abandoned or discarded.

5.6.3.3. Abandoned, dilapidated or burned out structures.

5.6.3.4. Other items similar in nature to those listed herein.

5.7. **Public Nuisance.**

5.7.1. Nuisance Declared. Unless otherwise allowed in this section, the parking, storage or leaving of Junked Motor Vehicles upon private or public property within the Township shall be within an enclosed structure, or on property lawfully zoned and permitted as a junkyard. Junked Motor Vehicles not stored in this manner shall constitute a public nuisance, which may be abated by the ~~Zoning Administrator~~ **Board** as ~~such~~ **a public nuisance**. Properties used for Agricultural Development in the Agricultural zoning district may contain up to twelve Junked Motor Vehicles, provided the vehicles are not stored in any required yard or setback and are screened from view from adjoining properties and roads.

5.7.2. The deposit or accumulations of refuse not stored in an approved container or containers shall constitute a hazard to public health and safety, which may be abated by the Township as such. Approved storage containers shall be weather and animal resistant and shall be completely emptied at least every two (2) weeks; except for the Agricultural District where they shall be completely emptied every four (4) weeks.

5.7.3. **Nuisance Abatement.** In the event that a public nuisance is located on any private or public property, The ~~Zoning Administrator~~ **Board** shall provide a notice ordering the real property owner or personal property owner to remove such nuisance within ten (10) days of ~~said~~ **service of the** notice. The notice shall be mailed to the address to which property tax statements are sent by the County. The invoice shall advise the property owner that in the event the owner does not comply, the necessary work to abate and~~/or~~ remove the nuisance may be authorized by ~~Zoning Administrator~~ **the Board** and the cost will be billed to the owner of the property. If the property owner does not pay for ~~such~~ **the abatement** expense, the cost of work shall be certified against the real property ~~pursuant to this Chapter~~.

5.7.4. **Certification of Costs.** All unpaid abatement expenses incurred by the Township under this Chapter will be charged against said parcel and will be the responsibility of the property owner pursuant to ~~M.S.A~~ **Minnesota Statutes** Chapters 429, 462 and ~~M.S.A~~ **Minnesota Statute** §366.012 and any other relevant statutes. The property owner shall be invoiced for the Township's costs to where property tax statements are sent by the County. The invoice shall advise the property owner of their right to request a hearing by the Board regarding ~~said~~ **these abatement** costs. Unless a hearing is requested and granted by the Board, the invoice shall be paid within 30 days of the date of the invoice, should property owner not reimburse the Township within ~~said~~ **that** time, the Township shall be authorized to certify said unreimbursed costs to the County Auditor for payment with the property owner's property taxes. This cost recovery shall be in addition to any penalty or legal or equitable remedy the Township may seek or receive for the violation of this ~~Chapter~~ **Ordinance**.

5.8. **Additional Requirements, Exceptions and Modifications.**

5.8.1. **Additional Requirements, Exceptions and Modifications.** The height of all structures shall conform to the provisions of Airport Zoning. Height limitations set forth elsewhere in this Ordinance may be increased with no limitation for the following uses:

5.8.1.1. Church spires, belfries or domes, which do not contain useable space.

5.8.1.2. Water towers.

5.8.1.3. Chimneys or smokestacks.

5.8.1.4. Radio, television or cellular transmission towers.

5.8.1.5. Essential service structures.

5.8.1.5.1. Windmills.

5.8.1.5.2. Flag Poles.

5.8.1.6. **Yard Regulations.** Measurements shall be taken from the nearest point of the wall of a Structure to the lot line, subject to the following qualifications:

5.8.1.6.1. Steps, landing places, or uncovered porches may extend into the required front yard to a distance not greater than eight (8) feet if the landing place or porch has a floor elevation no higher than the entrance floor of the Structure. The architectural features listed above may also extend into any rear yard to the same extent.

5.8.1.6.2. A wall, fence or hedge may occupy the front, side or rear yard. Boundary line fences shall be entirely located upon the private property of the person, firm or corporation constructing ~~such~~ **the** fence, unless the adjoining property owner agrees in writing that ~~such~~ **the** fence may be erected on the division line of the respective properties. No setback requirements shall apply.

5.8.1.6.3. All fences shall not exceed six (6) feet in height, except in the Business and Industry Districts security fences which shall not exceed eight (8) feet in height including barbed wire toppings.

5.8.1.6.4. The required front yard of a corner lot shall be unobstructed above a height of three (3) feet from the established street grades within the triangular area formed at the intersection of any streets right-of-way lines and a straight line drawn between the right-of-way lines at a point located on each right-of-way line that is twenty-five (25) feet from the point of intersection.

5.8.1.6.5. Not more than 35 percent of the required front or corner side yard area in the residential zoning districts shall be used for parking or driving surfaces.

5.8.1.7. **Dog Houses or Dog Runs**. Accessory dog runs or doghouses in residential zoning districts shall not be allowed in the required front or side yards. Accessory dog runs or doghouses may be located in the rear yard, provided all portions are setback at least three (3) feet from the property line~~(s)~~.

5.8.1.8. **Lot Area Regulations.** No lot shall be so reduced that the buildable lot area or dimensions of the open spaces shall be smaller than herein prescribed.

5.8.1.9. **Lot Access Standards.**

5.8.1.9.1. Every lot or plot of land on which a dwelling is erected shall have an approved access to a public right-of-way.

5.8.1.9.2. A permit shall be required for all new driveways. The Board prior to any development or construction shall approve the location and specification of access for a driveway or field access to any Township Road.

5.8.1.9.3. The County Highway Department prior to any development or construction shall approve the location and specification of access for a driveway or field access to any County Road.

5.8.1.9.4. The location and specification of access for a driveway or field access to any city street shall be approved by the City Council prior to any development or construction.

5.8.1.9.5. The location and specification of access for a driveway or field access to any State Highway shall be approved by the Minnesota Department of Transportation prior to any development or construction.

5.8.1.10. **Accessory Structures.** When an Accessory Structure is attached to the Principal Structure, it shall be made structurally a part of the Principal Structure and shall comply in all respects with the requirements of this Ordinance applicable to the Principal Structure.

5.8.2. **Swimming Pools.** Accessory swimming pools containing more than three thousand (3,000) gallons or with a depth of water over three and one-half (3-1/2) feet shall conform to the following standards. In addition, ~~such~~ pools **of this size** shall be subject to site plan review.

5.8.2.1. No pool shall be located within at least ten (10) feet of any side or rear lot line nor within six (6) feet of any principal structure or frost footing. No pool shall be located within any front yard.

5.8.2.2. No pool shall be located beneath overhead electrical lines or over underground utility lines of any type.

5.8.2.3. No pool shall be located within any private or public utility, walkway, drainage, or other easement.

5.8.2.4. All accessory mechanical apparatus shall be located at least thirty (30) feet from any adjacent residential structure and no closer than five (5) feet to any lot line.

5.8.2.5. Lighting for the pool shall be oriented so as not to cast light onto adjacent properties.

5.8.2.6. A security fence of at least six (6) feet in height shall completely enclose the pool area.

5.8.2.6.1. This fencing requirement does not apply in the Agricultural and Rural Residence Conservation Districts.

5.8.3. **Signs.**

5.8.3.1. **Purpose.** The regulation of signs in Lime Township is intended to protect and promote the health, safety and general welfare of the Township through the establishment of comprehensive and uniform standards, regulations and procedures for the governing of the type, number size, structure, location, height, lighting, erection, use or display of devices within or upon public rights of way or private properties. Hereafter, no sign shall be erected, constructed, altered or modified except as regulated by the provision of this Section.

5.8.3.2. **Scope of regulations.**

5.8.3.2.1. It shall be unlawful for any person to erect, construct, enlarge, move, alter or convert any sign or cause the same to be done within the Township except in accordance with the provisions of this Ordinance.

5.8.3.2.1. Any sign provided for in any zoning district may contain non-commercial messages. To the extent any conflict arises between this provision and any other language found in this Ordinance, this provision shall control.

5.8.3.2.2. For purposes of this Ordinance, a "non-commercial message" or "non-commercial speech" shall mean any message or speech that does not meet the definition of "commercial message or commercial speech" as set forth in this zoning ordinance. Nothing herein shall be construed to permit display of any message which is obscene, illegal or speech which is otherwise unprotected under the First Amendment of the United States Constitution. Nothing herein shall be construed to prohibit a prosecution for violation of a criminal statute by the Township or other duly constituted government authority or a civil action by the Township or other private person or entity.

5.8.3.3. **General Sign Requirements.**

5.8.3.3.1. **Maintenance.** The owner shall maintain all signs in a safe condition. A sign shall be repainted whenever its surface begins to fad, chip or discolor.

5.8.3.3.2. **Right-of-Way.** No signs other than governmental signs shall be erected or temporarily placed within any public right-of-way.

5.8.3.3.3. **Obsolete Signs.** The owner of ~~such~~ **any** property shall remove on-premises signs from a Structure and property within thirty (30) days of the termination of the use for which it was intended.

5.8.3.3.4. **Unsafe Signs.** No sign or sign structure shall be erected or maintained so as to prevent or deter free ingress and egress from any door, window or fire escape. If the ~~Zoning Administrator~~ **Board** finds any sign unsafe, a detriment to the public, not maintained, constructed, erected or maintained in violation of the provisions of this Section, the ~~Zoning Administrator~~ **Board** shall give written notice to the property owner ~~thereof~~**.**

5.8.3.3.5. **Required Signs.** All signs required by Township, County, State or Federal law shall be permitted in all Districts.

5.8.3.3.6. **Illumination.** All external illumination of signs shall be conducted so as to direct light sources away from adjacent properties.

5.8.3.4. **Sign Permits.** No sign shall be erected, re-erected or altered unless a permit has been obtained, unless exempt as regulated in this Section. Application for sign permits shall be made in writing on forms furnished by the Zoning Administrator. The Zoning Administrator may require the filing of plans where such information is necessary to ensure compliance with this Ordinance.

5.8.3.5. All signs for which a permit is required shall be subject to inspection by the Zoning Administrator. The Zoning Administrator may enter upon property or premises to ensure that the provisions of this Ordinance are being met. All permitted signs shall display in a conspicuous manner the permit number and ~~such~~ **any other** information as required by law.

5.8.3.6. **Non-Conforming Signs.** Any sign legally existing on the effective date of this Section, which does not conform, to the requirements set forth in this Section shall be considered a non-conforming sign.

5.8.3.7. Legally non-conforming signs shall not be moved or altered except for the changing of copy, repair of moveable parts or the repainting and general maintenance of the sign without being brought into compliance with the requirements of this Section.

5.8.3.8. **Exempt Signs.** The signs listed herein require no permit, but shall conform to the following standards:

5.8.3.8.1. One non-illuminated free-standing sign per property having an aggregate sign area of not more than six (6) square feet, provided that said sign shall not exceed three (3) feet in height or be set back less than ten (10) feet from the public right-of-way.

5.8.3.8.2. Signs for one (1) or two (2) family dwellings identifying the occupant, street address, provided that such signs are less than one (1) square foot in area.

5.8.3.8.3. Non-governmental traffic control devices that do not contain commercial messages provided that the sign shall not be larger than four square feet. The maximum height of the sign shall not exceed five feet from the ground. The placement of the directional signs shall be so located such that the sign does not adversely affect adjacent properties (including site lines or confusion of adjoining egress or ingress) or the general appearance of the site from the right-of-way. Such signs shall not be included in calculating allowable signage.

5.8.3.8.4. Public signs, street signs, warning signs, railroad crossing signs and signs of public service companies for the purpose of safety.

5.8.3.8.5. Signs placed upon construction sites denoting the architect, engineer, contractor or owners. Such signs shall be removed within ten (10) days of completion.

5.8.3.8.6. Signs in compliance with the Fair Campaign Practices Act contained in ~~M.S.A.~~ **Minnesota Statute** §211.B.045, as amended from time to time.

5.8.3.8.7. Signs or posters attached or painted upon the inside of a display window, including illuminated signs, excluding flashing signs.

5.8.3.8.8. Flags, badges or insignias of any government, governmental agency or any civic, religious, fraternal or similar organization.

5.8.3.8.9. Emergency signs as required by any government agency.

5.8.3.8.10. Temporary real estate signs pertaining only to the sale, rental or development of the lot upon which the sign is displayed. Such signs shall not exceed six (6) square feet for residential property and twenty-four (24) feet for other property. One (1) sign shall be permitted for each lot and must be removed within ten (10) days of the sale, rental or development of ~~said~~ **the** lot.

5.8.3.8.11. One Banner temporarily placed upon private property for advertisement of a special sales event or grand opening not exceeding thirty-two (32) square feet. Such signs may be displayed for a period not exceeding thirty (30) days.

5.8.3.8.12. Holiday signs or displays which contain or depict messages pertaining to a national or state holiday. Such signs may be displayed for a period not exceeding thirty (30) days.

5.8.3.8.13. Home occupation signs as regulated in Article 5 of this Ordinance.

5.8.3.9. **Prohibited Signs.** The following signs are prohibited in any District:

5.8.3.9.1. Signs that by reason of position, shape, color or language would interfere with the proper function of a traffic sign, signal or be misleading to vehicular traffic.

5.8.3.9.2. Signs within a public right-of-way or easement, except for signs installed by government agencies.

5.8.3.9.3. Off-premises signs, except for traffic directional signs not exceeding 32 square feet in area.

5.8.3.9.4. Signs affixed to trees or utility poles.

5.8.3.9.5. Signs with rotating beams or flashing illumination.

5.8.3.9.6. Signs advertising by letters, words or figures painted upon any road or sidewalk within the Township.

5.8.3.9.7. Advertising painted upon any exterior Structure surface, except those conforming to historical precedent as determined by the Board.

5.8.3.9.8. Trademark signs in excess of two (2) per business.

5.8.3.9.9. Signs painted or attached to a vehicle that is not intended to be moved.

5.8.3.10. **Agriculture, Rural Preservation and Residence Districts.** The following signs are permitted in the Agricultural District, Rural Preservation District and all Residence Districts:5.8.3.10.1.

5.8.3.10.1. One (1) non-illuminated nameplate or professional identification of not more than one and one-half square feet in size identifying the owner or occupant.

5.8.3.10.2. Signs temporarily advertising the sale of seasonal agricultural products not exceeding thirty-two (32) square feet in size. Such signs may be displayed for a period not exceeding thirty (30) days.

5.8.3.10.3. Signage for the identification of religious uses, public institutions, non-residential and residential development sites not exceeding thirty-two (32) square feet in size. Such signage may be wall or ground mounted or a combination thereof. A Ground Sign shall not exceed fifteen (15) feet in height. A second sign may be permitted if the lot abuts two (2) or more public roadways.

5.8.3.11. **Highway Business and Industrial Districts.** The total areas of all permitted signs shall not exceed two (2) times the lineal frontage of the lot. Lots abutting two (2) or more public roadways shall be permitted one hundred fifty (150) percent of the total allowable sign area, with no more than one hundred (100) percent on any one street. No more than four (4) signs shall be permitted on any lot, one (1) being a Ground Sign.

5.8.3.11.1. The following signs are permitted in the Highway Business and Industrial Districts:

5.8.3.11.1.1. Exempt signs as regulated in this Section.

5.8.3.11.1.2. Wall or Ground Signs identifying the name or type of business.

5.8.3.11.1.3. Parking signs as regulated in this Section.

5.8.3.11.1.4. On premises signs meeting the following requirements:

5.8.3.11.1.4.1. Ground Signs not exceeding forty (40) feet in height, setback not less than five (5) feet from the lot line.

5.8.3.11.1.4.2. Wall signs not projecting more than twelve (12) inches above the roof line.

5.8.3.11.1.4.3. Not more than one (1) projecting sign, not more than six (6) feet from the face of the Structure, with not less than fourteen (14) feet of clearance beneath.

5.8.3.11.1.4.4. Cluster or planned developments located on a single lot shall be permitted one (1) joint identification Ground Sign identifying the name of the development and/or the businesses located within, in addition to one (1) wall sign per business. The combined area of these signs shall not exceed the total allowable signage for the lot.

5.11. SHORELAND REGULATIONS.

5.11.1. **Purpose.** The Shoreland Regulations are intended to provide for the use and development of the shorelands of public waters in Lime Township, while preserving and enhancing the quality of surface waters, maintaining the economic and environmental value of shorelands and conserving water and related land resources.

5.11.2. **Classification of Shoreland.** Shoreland shall be classified as the land area abutting public waters within:

5.11.2.1. 1,000 feet of the normal high-water mark of a lake, pond, or wetland.

5.11.2.2. 300 feet of a river or stream, or the landward extension of a designated flood plain, whichever is greater.

5.11.3. The public waters listed herein have been classified according to the criteria of State of Minnesota Rules Section 6120.3300, and appear as identified herein upon the Official Zoning Map.

	Public Waters Identification Number
Natural Environment Lakes	
Wita	7-77
Recreational Development Lakes	
Eagle North	7-60
Wetlands	
Unnamed	7-76
Rivers and Streams	**Location**
Transition Rivers	
Minnnesota River	Sec. 36, T109N, R27W to Sec. 24, T109N, R27W
Tributary Streams	
Unnamed to Minnesota River	Sec. 34, T109N, R26W to Sec. 25, T109N, R27W
Unnamed to Minnesota River	Sec. 22, T109N, R26W to Sec. 19, T109N, R26W

5.11.4. **Shoreland Ordinance.** The Blue Earth County Shoreland Ordinance, as amended from time to time, is hereby adopted by reference.

5.12. **FLOODPLAIN ORDINANCE.** The Blue Earth County Floodplain Ordinance, as amended from time to time, is hereby adopted by reference.

5.13. **AIRPORT REGULATIONS.** The airport zoning regulations adopted by the Joint Airport Zoning Board of Mankato, Blue Earth County, St. Peter, Nicollet County, and Le Sueur County, and as may be amended from time to time, are hereby adopted by reference and referred to herein as Airport Regulations.

5.14. **EXTRACTION, STOCKPILING AND PROCESSING OF MINERALS AND MATERIALS.**

5.14.1. **Purpose.** This Section is adopted for the purposes of:

5.14.1.1. Identifying areas in the Township where mineral extraction is most appropriate and minimizes conflicts with agricultural, commercial, industrial, residential and other land uses.

5.14.1.2. Establish standards which prevent or minimize environmental and aesthetic impacts on extracted properties, adjacent properties and the community as a whole.

5.14.1.3. Providing for the economic availability and removal of sand, gravel, rock, soil and other materials.

5.14.1.4. Establishing regulations, safeguards and controls regarding noise, dust, traffic, drainage, groundwater quality and other factors which will minimize the environmental and aesthetic impacts on mined or adjacent property.

5.14.1.5. Reducing the potential for pollution caused by wind, soil erosion and sedimentation.

5.14.1.6. Establishing locations, orderly approval process and operating conditions under which Mining Operation will be allowed in the Township and to establish conditions which ensure the restoration of mined areas consistent with the existing and planned land use patterns.

5.14.1.7. Ensuring compliance with the regulations established in this ordinance on those Mining Operations presently operating in Lime Township.

5.14.1.8. Excavations for the purposes of residential, commercial or industrial development and land alterations for agricultural purposes shall be exempt from the provisions of this Section.

5.14.2. **Scope and Applicability.** No person, firm or corporation shall hereafter engage in mining on any land within Lime Township without first obtaining an Interim Use Permit as regulated in Article 3 of this Ordinance. For the purpose of this Section, mining consists of the mining and/or processing of sand, gravel, limestone or other minerals on any land within Lime Township, and includes any excavating, clearing, sodding, dirt moving, berm construction, pond construction, overburden removal, mining, drilling, stripping, filling, digging, dredging, crushing, screening, processing of mined aggregate, material loading, movement of materials, mobilization of equipment, or sale of sand or aggregate that is the subject of n Interim Use Permit. All activities proposed on a site that is subject to an Interim Use Permit for Mining Operations whether or not they are integral to the Mining Operations shall be identified within the Interim Use Permit and the approved site plans, and if not identified within the Interim Use Permit they shall be a violation of the Interim Use Permit. Prior to utilizing the property in a manner that is not consistent with the approved Interim Use Permit (or Conditional Use Permit as may be applicable for existing mines in operation prior to the enactment of this Ordinance), an application for an amendment to the Interim Use Permit must first be approved by the Board.

5.14.3. For the purposes of this Section, mining shall not include the removal of materials for a foundation, cellar or basement associated with the construction of a Structure, the removal of excess materials in accordance with approved plats, utility or highway construction, agricultural improvements within the property, sod removal and minor wetland impacts under 20,000 square feet of cumulative impacts (previous and proposed) that have received an approved “no loss” or “exemption” determination from the local government unit administering the Wetland Conservation Act, and excavation of less than 100 square feet in area or one foot in depth.

5.14.4. **Application**. In addition to the Interim Use Permit application required under Article 3, the following information shall be provided:

5.14.4.1. The name, address and phone number of the owner of the land.

5.14.4.2. The name, address and phone number of the operator of the land.

5.14.4.3. Complete legal description of the subject property suitable for recording the Interim Use Permit if granted by the Township.

5.14.4.4. Existing conditions survey indicating property boundaries, topographic data, including contours at 2-foot vertical intervals, water courses, marshes, wetlands, wooded areas, rock outcrops, power transmission poles and lines, existing structures, easements, encumbrances, and other significant features shall be shown.

5.14.4.5. Proposed topography of the subject property after mineral extraction has been completed, illustrated by contours not exceeding 2-foot intervals.

5.14.4.6. A narrative outlining the type of material to be excavated, mode of operation and processing, estimate of amount of material to be removed, plans for blasting, mode of transportation of materials including, but not limited to, a description of all vehicles and equipment expected to be used by operator in the operation of the facility, a description of the estimated daily and peak daily number of vehicles accessing the facility, including operator owned and non-operator owned vehicles, the use of explosives, and other pertinent information to explain the request in detail.

5.14.4.7. Site Plan showing details of the Mining Operation and any other uses of the site, Structures, screening, stockpile locations and heights, setbacks, landscaping, parking, storage and all other pertinent details to review the application. Activities that are not identified on the approved Site Plan that is incorporated into an Interim Use Permit, whether or not they are integral to he Mining Operation proposed, shall be a violation of the Interim Use Permit.

5.14.4.8. Grading plan.

5.14.4.9. A description of the haul routes within the Township to be used in the operation of the facility including a map showing access routes between the property and the nearest arterial road.

5.14.4.10. A traffic study showing the impact of the development on public streets which serve the development. A professional traffic operations engineer shall undertake the study.

5.14.4.11. Groundwater: A plan for groundwater quality protection shall be submitted with the application. The plan shall include a minimum of 3 borings showing depth to groundwater. If groundwater is not encountered at a depth of 15 feet below the bottom of the proposed pit floor, the applicant need not extend borings any further.

5.14.4.12. A general description of surface waters, existing drainage patterns and groundwater conditions within one-half (1/2) mile of the subject property.

5.14.4.13. A general description of any wells or private sewer systems of record, pipelines, power lines; and other utilities or appurtenances on the subject property and adjacent properties.

5.14.4.14. Cross-sections: a minimum of three cross-sections showing the extent of Overburden, extent of sand and gravel deposits, the water table, and any evidence of the water table in the past.

5.14.4.15. Processing areas including Structures and enclosures, settling basins and process water ponds shall be identified and boundaries shown to scale. A narrative description of the processing activities and plans for any processing shall be included in the application.

5.14.4.16. A phasing plan which illustrates the sequencing of mineral extraction, the locations of processing equipment, mineral stockpiles, staging areas, accessory uses and access routes including an estimate of duration of the Mining Operation, location and approximate acreage of each stage, and time schedule for reclamation.

5.14.4.17. Copies of MPCA all application documents and all operating permits, including but not limited to NPDES and air emission permits.

5.14.4.18. A description of the site hydrology and drainage characteristics during extraction for each phase. Identify any locations where drainage of any disturbed areas will not be controlled on the subject property and plans to control erosion, sedimentation and water quality of the runoff.

5.14.4.19. A description of the potential impacts to adjacent properties resulting from mineral extraction and off-site transportation, including but not limited to noise, dust, surface water runoff, groundwater contamination, traffic and aesthetics.

5.14.4.20. A description of the plan to mitigate potential impacts resulting from mineral extraction including, but not limited to, a plan for dust and noise control.

5.14.4.21. A description of site screening, landscaping and security fencing.

5.14.4.22. A description of site reclamation in each phase of operation and upon completion of mineral extraction on the subject property.

5.14.4.23. A description of the method in which complaints about any aspect of the facility operation or off-site transportation are to be received and the method which complaints are to be resolved.

5.14.4.24. Viewshed analysis.

5.14.4.25. Photometric plan.

5.14.4.26. Blast monitoring plan.

5.14.5. **Permit Application Procedure.** Mineral extraction permits shall be considered and processed by the Township as interim use permits. The procedures are defined in the Zoning Ordinance.

5.14.5.1. Applicants are encouraged to contact the Township for an administrative interpretation of the compatibility of the proposed mineral extraction activity with the Zoning Ordinance.

5.14.5.2. Applicants are encouraged to appear before the Planning Commission to make a preliminary presentation on the conceptual nature of the proposed extraction activity.

5.14.5.3. A copy of the application and required supporting information shall be forwarded to the Township or its designee. Within fifteen (15) business days of receipt of the information a determination of the completeness of the application and supporting documentation will be made. If the application is complete, the environmental review process will begin unless it has already been completed. If the application is incomplete, the Township will identify the information which must be submitted before formal review may commence.

5.14.5.4. Any application which is inconsistent with the Zoning Ordinance will be denied. The applicant has the right to submit an application to the Township to amend the Zoning Ordinance, according to procedures established by the Township.

5.14.5.5. Within thirty (30) days of receipt of a complete mineral extraction permit application, the Township will order an Environmental Assessment Worksheet to be prepared, according to Minnesota Rules, Chapter 4410.

5.14.5.6. Upon completion of the environmental review process, the Township will process the mineral extraction permit. The Township may require that the applicant submit additional information to address or clarify any issues raised in the environmental review. The formal review process will commence after completion of the environmental review or upon receipt of additional information required.

5.14.5.7. Upon receipt of all required information and upon completion of the environmental review process, the Planning Commission shall hold a public hearing for the mineral extraction permit. The hearing will satisfy the hearing requirements of the interim use permit.

5.14.5.8. After the public hearing, the Planning Commission shall make findings on the permit application and submit recommendations to the Town Board.

5.14.5.9. If the Planning Commission and the Town Board cannot act upon the permit application within sixty (60) days of the receipt of all required information and completion of the environmental review process, the Township shall notify the applicant in writing of the delay and extension of review. The Planning Commission and Town Board must act upon the application within one hundred twenty (120) days of the date the final application was submitted unless an extension of time is granted by the applicant.

5.14.5.10. The Town Board shall approve the permit application, deny the permit application or approve the permit application with modification.

5.14.5.11. A mineral extraction permit application denied by the Town Board may not be reapplied for, whether the same or modified application, for a period of twelve (12) months from the date of denial.

5.14.5.12. If there are any conflicts between this subsection and ~~either~~ Article 3, ~~Sections 9 or 10,~~ then Article 3, **Section 3.9** ~~, Sections 9 or 10~~ shall apply.

5.14.6. **Term of Permit.**

5.14.6.1. Each Interim Use Permit approved shall be effective for a period of five (5) years from the date of approval, provided the requirements of operation and reclamation as set by the Interim Use Permit are met. An examination of the premises by Board, the Planning Commission, and/or staff shall be allowed at any reasonable time during the term of the Interim Use Permit.

5.14.6.2. Each Interim Use Permit shall be renewable for a period of not more than five (5) years upon written application.

5.14.6.3. Upon determination by the Planning Commission, Board, ~~and/~~or staff that the operation is in violation of the provisions of the Interim Use Permit or other Township Ordinances, a hearing shall be held to review the existence of any alleged violations pursuant to 3.9.6.1.10. of this Ordinance.

5.14.7. **Annual Report, Inspections and Certificate of Compliance.**

5.14.7.1. **Annual Report.** An annual report of mining operations and reclamation shall be submitted to the Board no later than March 31st of each calendar year. At a minimum, the annual report must specify the following:

5.14.7.1.1. The amount of material removed from the mine site in the previous year.

5.14.7.2. Current survey prepared by a registered land surveyor showing the areas in which mining is complete and areas in which mining is ongoing, and areas of the mine which have been reclaimed or are ready to be reclaimed.

5.14.7.3. If mining into the groundwater, actual pumping rates and times, and actual groundwater discharge locations and quantities.

5.14.7.4. Groundwater and surface water monitoring results.

5.14.7.5. Restoration performed and restoration yet to be performed.

5.14.7.6. Area proposed to be mined within the next year.

5.14.7.7. Evidence that any required bond and/or insurance requirements remain valid.

5.14.7.8. All reports given to State or Federal agencies within the past year.

5.14.7.9. Operators shall also furnish the Township with the company's annual material sales reports for the permit facility.

5.14.7.10. Operators shall also furnish the Township with a record of any complaints received at the facility during the previous year and a summary of each complaint resolution.

5.14.7.11. Operators shall provide the Township with a list of violation notices and the current status or final outcome of each violation.

5.14.7.12. Any other items as necessary to demonstrate compliance with the Interim Use Permit, or as determined necessary for review by the Mine Review Committee.

5.14.8. **Annual Inspection.** Upon receiving the annual report, the Mine Review Committee ~~and/~~ or the Board may complete an annual inspection of the subject property at the discretion of the Board.

5.14.9. **Certificate of Compliance.** If the operation is in compliance with the Interim Use Permit based on the annual report and inspection, the Town Board will issue a Certificate of Compliance. Operating without a Certificate of Compliance is grounds for termination of an Interim Use Permit.

5.14.10. **Reclamation Plan.**

5.14.10.1 A Reclamation Plan shall be prepared to restore the property containing the Mining Operation to a condition whereby it can be utilized for the types of land use typical of those permitted within the zoning district in which the Mining Operation is located. Proposed land uses shall be consistent

with the Comprehensive Plan, zoning requirements, sanitary waste disposal and other Ordinance requirements in effect at the time the reclamation plan is submitted. A detailed plan at a scale of one (1) inch equals one hundred (100) feet or greater shall be included and must contain the following elements:

5.14.10.1.1. Intent of reclamation.

5.14.10.1.2. Methods and processes of reclamation.

5.14.10.1.3. Condition of site before mining operations commence.

5.14.10.1.4. Limits of various operational areas.

5.14.10.1.5. Phasing and timing of operations and reclamation.

5.14.10.1.6. Description of areas to be stripped of overburden.

5.14.10.1.7. Final condition of site, including proposed contours, depth of topsoil, type of fill, and potential development plan.

5.14.10.1.8. Relation of final site condition to adjoining land forms and drainage features.

5.14.10.1.9. A plan for maintenance of reclaimed area.

5.14.10.1.10. A detailed cost estimate of reclamation, including equipment costs, labor rates, and reclamation materials costs.

5.14.10.1.11. Showing future land uses, vegetation and proposed contours. A written statement shall be included containing an explanation of proposed depth of topsoil, type of fill and a time line for reclamation activities.

5.14.10.2. Proposed grading, back-fill areas or banks shall be covered with sufficient topsoil to provide for vegetation. When back sloping is proposed, the rate of slope shall be not less than three (3) feet horizontal to one (1) foot vertical. Proposed banks shall be seeded, except where such bank provides a sand beach area to a proposed recreational lake. Unless otherwise agreed to by the Town Board, seeding and mulching shall be consistent with the Minnesota Department of Transportation specifications for rights-of-way with a preference in utilizing seed mixes that are beneficial to pollinators.

5.14.10.3. Fill material specification. All fill material imported onto the site must meet the following requirements unless a different requirement is approved in writing by the Mine Review Committee.

5.14.10.4. All fill material brought to the site for placement in any location or depth shall be free of contamination. Recycled or salvaged aggregate, asphaltic pavement, crushed concrete, or scrap shingles shall not be used.

5.14.10.5. Fill materials shall only be used that are free of debris, rubbish, frozen clumps, boulders over 256 mm (10 inches) in size, organic soils, vegetation, or other materials. Do not use fill material that contains stumps,

roots and branches 40 mm (1.5 inches) in diameter or larger, logs, wood chips, or other objectionable material.

5.14.10.6. Use only fill material with a moisture content near the optimum moisture content (OMC) based on the Proctor moisture density relationship test. Dry the fill material, or add water as required.

5.14.10.7. Backfill Material: Only non-organic compactable material shall be used as fill and backfill materials. Soils shall qualify under the Unified Soil Classification System (USCS) (ASTM D2487) as lean clay (CL), clayey sand (SC), silty sand (SM or SP-SM); poorly graded sand (SP), well graded sand/poorly graded gravel (SW-GP), poorly graded sand/poorly graded gravel (SP-GP), or poorly graded gravel/well graded gravel (GP-GW).

5.14.10.8. Placement and Compaction: Place backfill and fill materials in horizontal layers not exceeding 12 inches in loose depth. Fill material shall be placed in lifts of 12 inches or less and compacted to achieve a minimum 95% Standard Proctor Density using ATM D698.

5.14.10.9. Reclamation activities shall progress on a phased basis. The acreage that is open for Mining Operation (including vegetation and overburden removal but not including Mining Accessory Uses) shall not exceed ten acres at any one time, unless otherwise specified in the approved Reclamation Plan. For every ten (10) acres of additional Mining area open (not including Mining Accessory Uses), the previously exhausted ten (10) acres must be reclaimed, unless otherwise specified in the approved Interim Use Permit. In order to open additional Mining area, including Overburden removal, progress toward the completion of the Reclamation Plan shall have been carried on as excavation progresses. Mining Accessory Uses may occupy up to an additional five (5) acres of the property but shall only be located in areas as shown in the approved Interim Use Permit. Reclamation that is in progress of being completed may occupy an additional five (5) acres of the property. The total area of the site that may be utilized for Mining, Mining Accessory Uses, and reclamation that is in progress shall not exceed twenty (20) acres at any one time unless otherwise permitted in the conditions of an Interim Use Permit. The site must be completely vegetated, except those portions of the site contained within the twenty (20) acres that are currently being utilized for either Mining, Mining Accessory Uses, or reclamation that is in progress.

5.14.10.10. Unless otherwise agreed to by the Town Board, soil erosion and sedimentation control measures shall be consistent with MPCA's "Protecting Water Quality in Urban Areas."

5.14.10.11. All equipment, machinery, structures, and plants incidental to the Mining Operation shall be dismantled and removed by, and at the sole expense of, the operator last operating the facility within six months after the expiration of the Interim Use Permit.

5.14.10.12. In the event that the operator finds characteristics of the mining area differing from that previously determined, changes may be made to the original Reclamation Plan by mutual written consent of the operator and the Town Board.

5.14.10.13. Unless otherwise amended or approved by the Township, all final grades and site restoration efforts shall be consistent with the Reclamation Plan.

5.14.10.14. All site reclamation must be completed within twelve (12) months after completion of mineral extraction or after termination of the Interim Use Permit.

5.14.11. **Operational Standards.** Each person, firm or corporation to whom an Interim Use Permit for mining is issued may engage in mining upon lands as described in the Interim Use Permit, subject to the following conditions:

5.14.11.1. Mining Operations shall be conducted in compliance with applicable Township, County, State and Federal ordinances, statutes, rules, regulations, agreements, best management practices and permits including, but not limited to, those of the U.S. Army Corps of Engineers, the United States Environmental Protection Agency, the U.S. Bureau of Mines, the Mine Safety and Health Administration, the Minnesota Pollution Control Agency, the Minnesota Department of Health, the Minnesota Department of Natural Resources, the Minnesota Department of Transportation and other regulations and standards applicable to use of the property and the Mining Operations.

5.14.11.2. Clearing of the mining site shall conform to the plans approved within the Interim Use Permit. Existing vegetation shall remain in a natural state whenever possible.

5.14.11.3. Screening Barrier. To minimize problems of dust and noise and to shield Mining Operations from public view, a screening barrier shall be required between the Mining Operations and adjacent properties. A screening barrier shall also be required between the Mining Operations and any public road. The screening barrier shall be installed on the property that is the subject of the Interim Use Permit, and any berms shall be located not less than one hundred (100) feet from the property line unless permitted otherwise by the discretion of the Board. A viewshed analysis shall be submitted with the application and shall include the development of a model of site specific conditions such as topography, vegetation, equipment, stockpiles, proposed site structures and other features of the Mining Operation. Key view areas as determined at the sole discretion of the Board shall be represented through drawings, photos, cross-sections or other imaging methods. The viewshed analysis shall determine the height and location of berms and screening necessary to effectively screen the Mining Operations from the key view areas, provided that no berm shall be less than ten feet in height. The key view areas shall be as determined by the Board, and during review of an application

for an Interim Use Permit the Board may identify additional key view areas to be modeled. To the extent that specific heights of stockpiles, Structures, or other aspects of the Mining Operations were analyzed as a part of the viewshed analysis, those items shall be restricted to a height not greater than that analyzed in the viewshed analysis as a condition within the Interim Use Permit. The screening barrier shall consist of berms which shall be planted with a species of fast growing vegetation. The species must be approved by the Board.

5.14.11.4. **Access:**

5.14.11.4.1. All mineral extraction facilities shall have direct access to a 10-ton or greater paved road.

5.14.11.4.2. All trucks traveling to or from the facility shall utilize 10-ton or greater paved roads within the Township. Operators may be granted a special permit to utilize roadways temporarily under 10-tons provided operator enters into an agreement with the Township and adequate security is provided to cover costs of repairing any damage to roadways. Both the agreement and the security are subject to the approval of the Town Board and Town Attorney.

5.14.11.4.3. Operators shall be responsible for providing dust control measures as approved by the Town Board on all gravel roads utilized by trucks hauling to or from the facility unless waived by the Town Board in lieu of other dust control remedies.

5.14.11.4.4. The applicant must obtain a permit from the road authority for all proposed new access points to public roads, or for the conversion of an existing access point. If the applicant is proposing access via an adjoining property, the applicant must submit an access agreement with the owner of the adjacent property for a term that is not less than the term of the Interim Use Permit.

5.14.11.4.5. The location of the intersection of access roads with any public roads shall be approved by the road authority.

5.14.11.4.6. All access points shall be located so as to avoid the routing of vehicles to and from the Mining Operation over streets that primarily serve abutting residential development.

5.14.11.4.7. The road authority may restrict the weight of vehicles allowed to use any permitted access.

5.14.11.4.8. All access roads intersecting a paved public road shall be paved a minimum of two hundred (200) feet back from the public road. Failure to maintain the pavement in acceptable condition may result in closure of access.

5.14.11.4.9. All access points from or onto any public road shall be clearly indicated and only those indicated access points shall be utilized

5.14.11.4.10. All access points shall, if possible, be located on a primary road. Turn lanes and acceleration or deceleration lanes may be required to be constructed at the sole expense of the project proposer.

5.14.11.4.12. A lockable gate shall be required across all access roads to the Mining Operation.

5.14.11.5. **Hours of Operation.** Those portions of the Mining Operation consisting of excavating, stockpiling, processing, loading/unloading or hauling shall be conducted only between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday excluding federal holidays, unless other hours or days of operation are specifically authorized by the Township. Blasting shall only take place between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday excluding federal holidays. A pre-blast notification provided by phone call and email at least 24 hours prior to any blast shall be provided to the Board, staff, and those persons owning or utilizing property within one (1) mile of the Mining Operation.

5.14.11.6. **Explosives.** When explosives are used, the operator shall take all necessary precautions not to endanger life or to inflict damage to property. The method of storage, use and handling of said explosives shall conform to Article 5 of this Ordinance in addition to all County, State and Federal regulations related thereto. Seismic blasting records shall be collected each time explosives are used and shall be submitted to the Zoning Administrator within ten (10) days of receiving the blast analysis.

5.14.11.7. **Offsite materials.** No vehicles, equipment, aggregate, or other off-site materials shall be brought to the site unless approved as part of the Interim Use Permit or an approved Reclamation Plan included within the Interim Use Permit.

5.14.11.8. **Erosion Control.** Upon replacement of the topsoil, trees, shrubs, grasses or other ground cover shall be planted upon the areas to prevent erosion, in accordance with the approved Reclamation Plan.

5.14.11.9. **Structure Removal.** Upon completion of excavation activities, all Structures and equipment shall be removed within six (6) months unless such items shall be utilized in the reclamation process.

5.14.11.10. **Dust Control.** Operating procedures shall be utilized to control dust and noise to meet performance standards as regulated in Article 5 of this Ordinance.

5.14.11.11. **Storage.** There shall be no unauthorized storage of vehicles, equipment or materials unrelated to mining activities allowed on the subject property.

5.14.11.12. **Vibration.** Operators shall use all practical means to eliminate adverse impacts on adjacent properties from vibration of equipment.

5.14.11.13. **Noise.** Maximum noise levels at the facility will be consistent with the standards established by the Minnesota Pollution Control Agency.

5.14.11.14. **Noxious Weeds.** Operators shall be required to control noxious weeds and mow or harvest other vegetation to maintain the reasonable appearance of the subject property.

5.14.11.15. **Other Conditions.** The Township may impose additional regulations and requirements to the mineral extraction permit, including but not limited to mitigation and monitoring requirements to protect the public health, safety, and welfare.

5.14.11.16. **Mitigation Plans.** Mitigation plans outlined in any environmental assessment worksheet (EAW) or environmental impact statement (EIS) shall be required as minimum conditions in any Interim Use Permit for mineral extraction. Mine operators shall be required to adequately fund mitigation measures as a condition of any Interim Use Permit for mineral extraction.

5.14.11.17. **Monitoring Plans.** Monitoring plans outlined in any environmental assessment worksheet (EAW) or environmental impact statement (EIS) shall be required as minimum conditions in any Interim Use Permit for mineral extraction. Mine operators shall be required to adequately fund monitoring measures as a condition of any Interim Use Permit for mineral extraction.

5.14.11.18. **Dust Control and Air Quality.**

5.14.11.18.1. Remedies to control dust may include methods such as berming, landscaping, enclosures for processing equipment, and watering stockpiled materials and all roads within site.

5.14.11.18.2. The Township may require that all equipment used for extraction operations shall be constructed, maintained, and operated in such a manner as to minimize, as far as practical, dust conditions which are injurious or substantially annoying to persons owning

properties within one thousand (1000) feet of the property containing the Mining Operations.

5.14.11.18.3. The Township may require air quality/particulate monitoring of a Mining Operation. Mining Operations that excavate, transfer, process, or stockpile silica sand shall be required to monitor air quality/air particulates as described herein. Monitoring equipment shall be in accordance with the Minnesota Pollution Control Agency's best practices standards. The operator shall begin air quality/air particulate and weather monitoring at least six months prior to the operation to create a baseline of the area. Stationary monitors shall be located at strategic locations along the Mining Operation site boundaries and within the site.

5.14.11.18.4. The Township may require continuous remote readings shall be taken and reported to the Township when requested. A summary report shall accompany the Annual Certificate of Permit Compliance.

5.14.11.18.5. All activities on the subject property shall be conducted at a minimum in a manner consistent with the Minnesota Pollution Control Agency's operating permits.

5.14.11.19. **Blasting.** A blast monitoring plan acceptable to the Township shall be submitted for approval with each application for an Interim Use Permit. The blast monitoring plan shall include the anticipated blast process, limits of ground and air blasts to provide protection to infrastructure and structures, and shall establish a monitoring program that will provide the framework for documentation of the existing condition of nearby structures. Methods of collecting and monitoring the ground vibration and air blast data and a plan for contingency actions to be followed in the event the blasting standards are not achieved or damage to infrastructure or structures occurs shall also be included in the plan. Pre-blast surveys shall be conducted

5.14.11.20. **Violations.** In the event that the premises containing the mining operation is cited for any violation under any permit or rule, the operator shall provide notice to the Mine Review Committee within ten business days of receipt of the notice of the violation.

5.14.12. **Setback and Location Requirements.** Screening barriers and access driveways may be located in the setback, but the setback shall otherwise be vegetated. Mining Operations shall be contained entirely outside the setback and location requirements listed herein:

5.14.12.1. Not less than one hundred (100) feet from the boundary of any adjoining zoning district where such operations are not permitted.

5.14.12.2. Not less than five hundred (500) feet from the property line of any property that either contains a dwelling or is located in a residential zoning district, and not less than one hundred (100) feet from any other property.

5.14..12.3. Not less than one hundred (100) feet from the property line of any public roadway.

5.14.12.4. Not less than three hundred (300) feet from the ordinary high-water level of any public water. Not within any location identified as a Special Flood Hazard Area on the current Flood Insurance Rate Map.

5.14.13. **Bond Requirements.** The bond herein required to be filed with the Board shall be in such form~~,~~ as the Board shall prescribe, payable to the Township on a form approved by the Town Attorney. ~~Such~~ **The** bond amount shall be set by the Board as a condition of the Interim Use Permit. The bond shall guarantee that upon termination of permit or operations, the property shall be restored in conformity with the approved Reclamation Plan. If and when reclamation of land in accordance with the Reclamation Plan is certified by the Board, said bond shall be returned.

5.14.14. **Mine Review Committee**. A Mine Review Committee shall be established for the purposes of ensuring the health and welfare of the Township and City residents, including, but not limited to, routinely reviewing the mining operations on the property, compliance with the Interim Use Permit, and recommending modification of the Interim Use Permit to the Board. The Committee shall consist of five (5) members, consisting of two (2) elected officials appointed by the Township, one (1) staff member appointed by the City, and two (2) representatives appointed by the mining operation for which the Interim Use Permit is issued. Committee members and staff shall be compensated at the rate determined by the Committee.

5.14.14.1. The Mine Review Committee is authorized to monitor the mining operations undertaken pursuant to the Interim Use Permit and to discuss health and safety issues presented by the mining operations including, but not limited to, ambient dust, operational noise, blasting, fencing and security at the mining site, end use Reclamation Plan, hours of operation, surface and ground water quality and air quality so as to make recommendations to the Township regarding the Interim Use Permit. The Committee is also authorized to cause reports, plans, studies, and recommendations to be prepared. All costs required to conduct the stated business of the Mine Review Committee shall be billed directly to the operator of the Mining Operation, which shall reimburse the Township for all reasonable costs incurred. If the operator fails to pay an invoice for costs incurred by the Township within sixty (60) days of mailing by the Township, the Township may, following ten (10) days prior notice to the operator, specially assess such unpaid invoices against the subject property, and/or take necessary legal action or utilize any other means available to recover costs incurred by the Township. Failure to timely pay any invoices provided by the Township may be deemed a violation of the Interim Use Permit and the Interim Use Permit may be revoked for this violation.

5.14.15. **Compliance.** Upon failure by the person, firm or corporation to whom an Interim Use Permit for Mining Operations is issued, to fully comply with the provisions contained herein, notice shall be given to ~~said~~ **the** permit holder setting

forth those provisions of this Section being violated, and the time and place of a hearing before the Town Board to consider ~~such~~ **the** violation shall be set. Permits may be suspended or terminated based upon the findings of the Town Board at ~~such~~ **the** hearing.

5.14.16. **Termination.** The Township shall have the authority to terminate the Interim Use Permit for mineral extraction on the happening of any of the following events:

5.14.16.1. The date of termination specified in the interim use permit.

5.14.16.2. Upon a violation of a condition under which the Interim Use Permit was issued, but only after the Township has first provided written notice to the operator (and the landowner, if different from the operator), describing with particularity the specific violation(s) and the steps necessary to cure the violation(s). Excepting threats to public health, safety and welfare or violations with simple remedy, the operator shall have a period not exceeding thirty (30) consecutive days to cure the specific violation(s). If the 30-day remedy period overlaps with or occurs within a period of seasonal shutdown, and the violation(s) are not easily remedied or do not pose a threat to public health, safety and welfare, the 30-day period may be extended to include the seasonal shutdown period. Upon notice of violation(s) which may threaten the public health, safety and welfare or are easily remedied, the operator shall respond promptly and cure the violation(s) in the shortest reasonable timeframe.

5.14.16.3. pon a determination that the facility has been inactive for a period of one (1) calendar year.

5.14.17. **Enforcement.**

5.14.17.1. Upon reasonable notice, the operator shall grant the Township's officers and representatives access to the facility during normal operation hours to inspect the mineral extraction facility and enforce the provisions of this Ordinance. Any ~~such~~ inspection must be in the company of an employee of the operator following all site safety regulations.

5.14.17.2. The operator shall be responsible for the repair and maintenance of public and private property in the Township which is acknowledged by the operator to be or proven to be damaged by it, its agents or employees in conducting business or any other activity associated with the mineral extraction facility.

5.14.17.3. A development agreement shall be required for all mineral extraction permits.

5.14.17.4. The operator shall hold the Township harmless against all claims by third parties for damage or costs incurred in the development of the subject property. The operator shall indemnify the Township for all costs, damages, or expenses incurred by the Township arising from such claims, including attorney's fees.

5.15**. GENERAL REQUIREMENTS – Community Solar Energy Systems:**
(Revised Lime Township Solar Ordinance – Section 15 Adopted in 2022.)

5.15.1. **Purpose.** This section is established to protect and promote health, safety and general welfare with the Township through uniform standards, regulations and procedures governing the type, size, structure, location, height, erection and use of Community Solar Energy Systems. The guidelines and regulations stated in this Section shall apply only to Community Solar Energy Systems proposed and permitted in Lime Township. For the purposes of this Section **5.**15, Permittee includes the property owner, applicant and ~~/or~~ system operator.

5.15.2. **Rooftop Community Solar Energy Systems**

5.15.2.1. **Land Development Permit**. A rooftop Community Solar Energy System is a permitted Accessory Use in all zoning districts. All rooftop systems shall be in compliance with any applicable local, state and federal regulatory standards, including the State of Minnesota Uniform Building Code, as amended, and the National Electric Code, as amended.

5.15.2.2. **Placement.** A rooftop Community Solar Energy System shall be placed on the roof to limit visibility from the public right-of-way or to blend into the roof design, provided that minimizing visibility still allows the owner to reasonably capture solar energy. Rooftop systems shall not exceed the maximum height in any zoning district. In addition to the building setback, the collector surface and mounting devices for roof-mounted solar energy systems that are parallel to the roof surface shall not extend beyond the exterior perimeter of the building on which the system is mounted or built. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.

5.15.2.3. **Pitched Roofs.** On pitched roofs with a slope greater than 15%, solar panels shall be flush-mounted and shall not extend above the peak of the roof.

5.15.2.4. **Glare.** All solar energy systems shall minimize glare that affects adjacent or nearby properties. Steps to minimize glare nuisance may include selective placement of the system,selective orientation of the panels, or rooftop screening. All proposed Solar Energy Systems shall conduct and submit a glare study to identify potential impacts and mitigation strategies. To complete this glare study, the applicant can use the Solar Glare Hazard Analysis Tool (SGHAT). Once installed, the solar energy system shall not reflect sunlight so as to create or cause glare on streets, highways and neighboring properties:

5.15.2.4.1. The solar energy system shall not reflect sunlight so as to create glare on neighboring properties. In the event the panels create glare on streets or highways and the Township determines that such glare presents a safety hazard to the traveling public, Permittee shall be given 90 days to eliminate such hazard. In the event that Permittee believes that no such hazard exists or believes that it has sufficiently mitigated such hazard and the Township continues to believe a hazard to the traveling public exists from the panels, Permittee shall commission and pay for a glare study to be performed by third-party consultant mutually acceptable to Permittee and the Township, which study shall determine whether such glare presents a hazard to the traveling public. The study must be completed by a Township appointed firm within sixty (60) days of the Township's request that Permittee commission the study. If such study concludes that the glare presents a hazard to the traveling public, Permittee shall take whatever

additional actions are necessary to eliminate such hazard at its sole expense within sixty (60) days of notification by the Township. If the study concludes that the glare does not present a hazard to the traveling public, such conclusion shall be binding upon the Township until such time as there is a change in conditions surrounding the property that would warrant further study in the sole determination of the Township, and Permittee shall have no obligation to further mitigate such glare unless there is a further study.

5.15.2.4.2. The solar energy system shall not reflect sunlight so as to create glare on neighboring properties. In the event the panels create glare onto neighboring properties and the Township determines that such glare constitutes a nuisance to the residents of such property, Permittee shall install additional screening on the property and/or, as permitted, the neighboring property in a manner that will substantially eliminate or block the glare from entering the neighboring property within sixty (60) days of notification by the Township. It is the intent of this section that additional screening be placed to the greatest extent possible on the system owner's property and only be placed on neighboring properties if no alternative is available. Where additional landscaping must be installed on a neighboring property to prevent glare in the sole determination of the Township, this obligation shall not apply if the owner of the neighboring property prohibits the installation of the additional screening on their property.

5.15.2.4.3. The solar energy system equipment or solar electric system shall not create interference with television, cable, radio, telephone, internet, computers or other electronic devices and services on neighboring properties, or otherwise constitute a public nuisance.

5.15.2.5**. Prohibition.** Roof mounted Community Solar Energy Systems are prohibited within any safety zones identified in an Airport Zoning Ordinance.

5.15.2.6. **Electrical Codes and Standards.** All roof mounted Community Solar Energy Systems and accessory equipment shall comply with the National Electrical Code and other applicable standards. Photovoltaic solar energy system components must have an Underwriters Laboratory (UL) listing or other third-party certification provided by an American National Standards Institute accredited organization. Testing of the electrical capacity and connections for the Community Solar Energy System shall occur prior to the Community Solar Energy System going on-line with the transmitting utility. This testing shall include checks for stray voltage and compliance with all Electrical Codes. The cost of this testing shall be paid by the Permittee. Test results shall be submitted to the Township Clerk within 30 days of completion.

5.15.2.7. **Utility Notification.** No grid-intertie photovoltaic system shall be installed until evidence is given to the Township or its designee that the Permittee has notified the utility company of the customer's intent to install an interconnected customer-owned generator. Off-rid systems are exempt from this requirement.

5.15.2.8. **Interconnection.** Permittee of the Community Solar Energy System must submit an executed interconnection agreement with the electric utility in whose service territory the system is located prior to final issuance of any Land Development Permits associated with the System. Off-grid systems are exempt from this requirement. The point of interconnection shall

require no more than two (2) on site utility poles and a ground utility cabinet or three (3) on site utility poles total.

5.15.3. **Ground Mounted Community Solar Energy Systems**

5.15.3.1**. Use.** A ground mounted Community Solar Energy System, as an accessory or a principal use, shall be allowed under an Interim Use Permit (IUP) in applicable zoning districts.

5.15.3.2. **Prohibitions.** Ground mounted Community Solar Energy Systems are prohibited in the following areas:

5.15.3.2.1. Shoreland and Floodplain Districts as designated by the Minnesota department of Natural Resources (DNR) and the Blue Earth County Zoning Ordinance.

5.15.3.2.2. Within 600 feet of any property designated or protected from development by Federal, State or County agencies as wildlife habitat and wildlife management areas. Property designated as public parkland or park reserve shall not be subject to this setback requirement.

5.15.3.2.3. Within wetlands to the extent prohibited by the Minnesota Wetlands Conservation Act.

5.15.3.2.4. Within any safety zones identified in an Airport Zoning Ordinance.

5.15.3.2.5. Within any recorded easement - such as but not limited to utility, ditch, conservation, or storm water - unless authorized in writing by the easement holder.

5.15.3.3. **Maximum Size and Capacity.** Except as provided below, no more than one (1) Community Solar Energy System per tax parcel in existence as of January 1, 1991 shall be permitted, and the one (1) System or co-location of Systems shall have a maximum area no greater than ten (10) acres in size or 1 megawatt of production, whichever is less.

5.15.4. **Standards for Community Solar Energy Systems.**

5.15.4.1. **Site Access**. The site must have an approved access to a public right-of-way, either directly or by means of at least a thirty-three foot (33') wide recorded access easement.

5.15.4.2. **Foundations.** The manufacturer's engineer or other qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.

5.15.4.3. **Impervious Surface.** For purposes of this Section **5.**15, the solar panel collector surface shall not be considered to be impervious surface, unless otherwise required by the Township.

5.15.4.4. **Water Retention, Erosion and Sedimentation Control.** Erosion and sediment control shall be the requirements of Section **5.5** of this Ordinance.

5.15.4.5. **Stormwater Management.** Stormwater management shall be the requirements of Section 5.6 of this Ordinance.

5.15.4.6. **Other Standards and Codes.** All Community Solar Energy Systems shall be in compliance with any applicable local, state and federal regulatory standards, including the State of Minnesota Uniform Building Code, as amended, and the National Electric Code, as amended.

5.15.4.7. **Wetland Review.** Community Solar Energy Systems must comply with the Wetland Conservation Act and will be reviewed by the Township for compliance. A wetland delineation shall be required unless otherwise determined by the Township.

5.15.4.8. **Signage.** No advertising signage is allowed. Manufacturer and equipment information, warning, security or indication of ownership signage on the site shall comply with this Ordinance, and other regulatory agency requirements.

5.15.4.9. **Power and Communication Lines.** All on-site power and communication lines running between banks of solar panels and structures, and lines running between the solar energy system to the point of interconnection, shall be buried underground. Exemptions may be granted in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines.

5.15.4.10. **Waste Disposal.** Solid and Hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site promptly and disposed of in accordance with all applicable local, state and federal regulations. Upon removal of panels from the site, or decommissioning of the site, all panels, wiring, and mounting systems shall be resold to subsequent users or recycled with appropriate recycling facilities and shall not be disposed of in general use landfills.

5.15.4.11. **Interconnection.** The Permittee of the Community Solar Energy System must submit an executed interconnection agreement with the electric utility in whose service territory the system is located prior to final issuance of any Land Development Permits associated with the System. Off-grid systems are exempt from this requirement. The point of interconnection shall require no more than two (2) on site utility poles and a ground utility cabinet or three (3) on site utility poles total.

5.15.4.12. **Decommissioning Plan.** A decommissioning plan shall be required to ensure that facilities are properly removed after their useful life and that the site is properly restored. Decommissioning of solar panels must occur in the event they are not in use for twelve (12) consecutive months. The plan shall include provisions for removal of all structures, foundations, electrical equipment and internal or perimeter access roads, restoration of soil and vegetation and a plan ensuring financial resources will be available to fully decommission the site. A financial guarantee in a form of a cash escrow or irrevocable letter of credit meeting the Township's requirements in the amount of 125% of the estimated cost to implement the decommissioning plan, without deductions for anticipated recycling or resale compensation, is required. The Township shall determine the amount of the security required. A work and material list shall be submitted to the Township to aid in determining the amount of the security to be required. The amount of the decommissioning security shall be reviewed by the Board at

least every five (5) years and may be increased or decreased as appropriate. Permittee shall notify the Township at least eighteen months prior to the decommissioning of the Community Solar Energy System, or eighteen (18) months of any lease relating to the Community Solar Energy System is set to expire, which ever event occurs first. At such time, an updated decommissioning estimate shall be provided and the decommissioning security may be adjusted by the Township. Permittee shall submit a financial guarantee as required by the Township to supplement the original irrevocable letter of credit or cash escrow. Any costs associated with these reviews shall be paid by the Permittee.

5.15.4.13. **Noise.** All Community Solar Energy Systems shall comply with Minnesota Rules 030 governing noise, any Minnesota Pollution Control Agency or government agencies relating to solar arrays.

5.15.4.14. **Electrical Codes and Standards.** All Community Solar Energy Systems and accessory equipment shall comply with the National Electrical Code and other applicable standards. Photovoltaic solar energy system components must have an Underwriters Laboratory (UL) listing or other third-party certification provided by an American National Standards Institute accredited organization. Testing of the electrical capacity and connections for the Community Solar Energy System shall occur prior to the Community Solar Energy System going on-line with the transmitting utility. This testing shall include checks for stray voltage and compliance with all Electrical Codes. The cost of this testing shall be paid by the Permittee. Test results shall be submitted to the Township Clerk within 30 days of completion.

5.15.4.15. **Minnesota State Building Code.** All Community Solar Energy System structures shall comply with the International Building Code as adopted or amended by the State of Minnesota Building Code.

5.15.4.16. **Maximum Height.** Ground mounted systems shall not exceed fifteen (15) feet in height at maximum design tilt.

5.15.4.17. **Glare.** All Community Solar Energy Systems shall minimize glare that affects adjacent or nearby properties. Steps to minimize glare nuisance may include selective placement of the system, selective orientation of the panels, and a berm (2:1 maximum slope with supplemental plant materials including trees, shrubs, and ground covers) and/or a continuous evergreen vegetative buffer. All proposed Community Solar Energy Systems shall conduct and submit a glare study to identify potential impacts and mitigation strategies. To complete this glare study, the Permittee will use the Solar Glare Hazard Analysis Tool (SGHAT), unless another method is deemed acceptable by the Township. Once installed, the Community Solar Energy System shall not reflect sunlight so as to create or cause glare on streets, highways and neighboring properties:

> 5.15.4.17.1. The Community Solar Energy System shall not reflect sunlight so as to create glare on streets or highways. In the event the panels create glare on streets or highways and the Township determines that such glare presents a safety hazard to the traveling public, Permittee shall be given 90 days to eliminate such hazard. In the event that Permittee believes that no such hazard exists or believes that it has sufficiently mitigated such hazard and the Township continues to believe a hazard to the traveling public exists from the panels, Permittee shall commission and pay for a glare study to be performed by third-party consultant mutually acceptable to Permittee and the Township,

which study shall determine whether such glare presents a hazard to the traveling public. The study must be completed within sixty (60) days of the Township's request that Permittee commission the study. If such study concludes that the glare presents a hazard to the traveling public, Permittee shall take whatever additional actions are necessary to eliminate such hazard at its sole expense within sixty (60) days of notification by the Township. If the study concludes that the glare does not present a hazard to the traveling public, such conclusion shall be binding upon the Township until such time as there is a change in conditions surrounding the property that would warrant further study in the sole determination of the Township, and Permittee shall have no obligation to further mitigate such glare unless there is a further study.

5.15.4.17.2. The Community Solar Energy System shall not reflect sunlight so as to create glare on neighboring properties. In the event the panels create glare onto neighboring properties and the Township determines that such glare constitutes a nuisance to the residents of such property, Permittee shall install additional screening on the property and/or, as permitted, the neighboring property in a manner that will substantially eliminate or block the glare from entering the neighboring property within sixty (60) days of notification by the Township. It is the intent of this section that additional screening be placed to the greatest extent possible on the system Permittee's property and only be placed on neighboring properties if no alternative is available. Where additional landscaping must be installed on a neighboring property to prevent glare in the sole determination of the Township, this obligation shall not apply if the owner of such property prohibits the installation of the additional screening on their property.

5.15.4.18. The Community Solar Energy System equipment or solar electric system shall not create interference with television, cable, radio, telephone, internet, computers or other electronic devices and services on neighboring properties, or otherwise constitute a public nuisance.

5.15.5. **Setbacks.** All screening, fencing, equipment and structures shall meet the following setbacks for each zoning district:

5.15.5.1. Agriculture District:

5.15.5.1.1. Side yard and Rear Yard setbacks: a minimum of 50 feet for principal structures, a minimum of 10 feet for accessory structures.

5.15.5.1.2. Bluff yard setback: a minimum of 30 feet from bluff line.

5.15.5.2. Commercial Business District:

5.15.5.2.1. Side yard setbacks: a minimum of 15 feet for principal structures, no accessory structures in the side yard.

5.15.5.2.2. Side yard setback abutting residence district: a minimum of 50 feet from lot line.

5.15.5.2.3. Rear yard setback – a minimum of 30 feet for principal structure, a minimum of 10 feet for accessory structures. Accessory structures cannot occupy more than 30% of the rear yard.

5.15.5.2.4. Rear yard setback abutting a residence district: a minimum of 50 feet from lot line.

5.15.5.3. Industry District:

5.15.5.3.1..Side yard setbacks: a minimum of 50 feet for principal structures, no accessory structures in the side yard.

5.15.5.3.2. Side yard setback abutting residence district: a minimum of 50 feet from lot line.

5.15.5.3.3.Rear yard setback – a minimum of 30 feet for principal structure, a minimum of 10 feet for accessory structures. Accessory structures cannot occupy more than 30% of the rear yard.

5.15.5.3.4. Rear yard setback abutting a residence district: a minimum of 50 feet from lot line.

5.15.5.4. Rural Conservation District:

5.15.5.4.1. Side yard and Rear Yard setbacks: a minimum of 50 feet for principal and accessory structures.

5.15.5.4.2. Bluff yard setback: a minimum of 30 feet from bluff line.

5.15.5.4.3. Additional Community Solar Energy Systems may be permitted by the Township on existing tax parcels upon submission of a request to the Township and the informed written consent signed by the adjoining property owners agreeing to more than one Community Solar Energy System per tax parcel.

5.15.5.5 Rural Conservation - Residential District:

5.15.5.5.1. Side yard and Rear Yard setbacks: All structures and screening shall be setback a minimum of 250 feet from the property line, or 750 feet from a residence, whichever is greater, subject to Section **5.**15.9 below. A setback may be reduced to a lower amount upon submission to Lime Township and the written consent signed by any residence owner within 750 feet agreeing to a lesser setback.

5.15.5.5.2. Bluff yard setback: a minimum of 30 feet from bluff line.

5.15.5.6. Rural Residential District: Community Solar is not permitted.

5.15.5.7. Residential Fringe District: Community Solar is not permitted.

5.15.5.8. Residential Transition District: Community Solar is not permitted.

5.15.5.9. In all districts the Community Solar Energy System must be at least 750 feet from an existing residence. This 750 foot setback requirement may be reduced if screening through landscape or existing terrain upon submission to Lime Township for the approval of a waiver and the informed written consent signed by the residence owner.

5.15.5.10. **Security Fencing.** All boundary line fencing shall be located entirely upon the property of the Community Solar Energy System. Fences shall consist of open fencing such as field fence, knotted fence, or cattle fencing. Fences shall not exceed eight (8) feet in height, with larger squares on the bottom, or the bottom of the fencing being at least five inches (5") off the ground. Barbed wire and chain link fencing are specifically prohibited.

5.15.5.11. **Screening.** Community Solar Energy Systems shall be screened from residential dwelling units and/or other land uses as required by the Township. At a minimum, a berm (2:1 maximum slope with supplemental plant materials including trees, shrubs, and ground covers) ~~and/~~ or a continuous evergreen vegetative buffer approved by the Township shall be provided and maintained at all times around the perimeter of the fencing that faces:

5.15.5.11.1. a public road right-of-way; or
5.15.5.11.2. an existing residence or farmstead not on the subject parcel; or
5.15.5.11.3. residentially zoned or platted property.
5.15.5.11.4. The evergreen vegetative buffer shall be composed of at least two offset rows of multiple varieties of evergreen trees or shrubs of a type which at time of planting shall be a minimum of four (4) feet in height and which shall be maintained at maturity at a height of at least eight (8) feet in height to screen the fence. The screening plan may include alternate types of vegetation and shall be prepared by a licensed landscape architect or engineer. The type and location of the required screening shall be subject to Township approval. A financial guarantee in the form of a cash escrow or irrevocable letter of credit meeting the Township's requirements in the amount of 125% of the cost to implement the screening plan is required. The Township shall determine the amount of the security required. A work and material list shall be submitted to the Township to aid in determining the amount of the security to be required.

5.15.5.12. **Inspections and Reports.** The Operator shall perform on-site inspections of the community Solar Energy System at least one time per quarter and shall provide quarterly reports to Township Zoning officials. Upon at least seven (7) days advance notice, the Operator shall permit an onsite inspection by any Township official or the Township's designee. No more than two onsite inspections shall be requested per quarter, except in the case of emergency or Permit violation.

5.15.5.13. **Tile Lines.** Prior to construction on any site the Permittee shall provide a map of all agricultural tile lines or drainage ditches on the parcel. An inspection shall be performed of any existing tile lines before commencement of construction. During operation of the site an inspection of the tile lines shall be performed every three (3) years, or earlier if standing water issues are observed on the site. In the event a deficiency is identified upon inspection, the deficiency shall be corrected within fifteen (15) days unless ground conditions prevent correction.

5.15.5.14. **Roads.** The condition of all public roads within one quarter of a mile of the access point to the Community Solar Energy System site shall be reviewed by a Township appointed representative prior to commencement of construction at the site. In the event the site is serviced by a gravel or crushed rock road, prior to construction, the Permittee shall pay for placement of one application of dust control on that road for a distance as determined appropriate by the Township, based on other uses in the area. Prior to construction Permittee shall post a financial guarantee in a form of a cash escrow or irrevocable letter of credit meeting the Township's requirements in the amount of 125% of the potential repair costs relating to any public roads which may adjoin the Community Solar Energy System. The Township shall determine the amount of the security required. Permittee shall be responsible for any damage caused to any public road by persons constructing, maintaining, or decommissioning the Community Solar Energy System. Upon inspection of the public roads by a Township appointed representative within six (6) months after the Community Solar Energy System goes online, this Road Security shall be released provided damage to the public roads, if any, has been paid by the Permittee.

5.15.5.15**. Vegetation Requirements & Management.** The following provisions shall be met related to the clearing of existing vegetation and establishment of vegetated ground cover. Additional requirements may apply as required by the Board.

5.15.5.16. **Tree Clearing.** Large-scale removal of mature trees on the site is discouraged. Restrictions on tree clearing, or mitigation for cleared trees, may be required by the Township.

5.15.5.17. **Ground Cover.** The Community Solar Energy System's site design shall include the installation and establishment of ground cover meeting the beneficial habitat standards consistent with Minnesota Statutes section 216B.1642, or successor statutes, or guidance as set by the Minnesota Board of Water and Soil Resources. A Solar Site Pollinator Habitat Assessment Form shall be completed and submitted along with the planting plan and the construction site permit application.

5.15.5.17.1. **Vegetation Bond.** A financial guarantee in a form of a cash escrow or irrevocable letter of credit meeting the Township's requirements in the amount of 125% of the cost to vegetate the Community Solar Energy System area is required. The Township shall determine the amount of the security required. A work and material list shall be submitted to the Township to aid in determining the amount of the security to be required. The security amount shall be kept for a minimum of three years or may be held longer if vegetation is not sufficiently established after three years. The Solar Site Pollinator Habitat Assessment Form for Established Plantings shall be completed prior to release of the letter of credit or escrow.

5.15.5.17.2. **Maintenance.** The ground cover shall be maintained for the life of the Community Solar Energy System and continue meeting the approved installation standards, which includes filling out the established Community Solar Energy System assessment form every three (3) years.

5.15.5.17.3 **Seeding Plan.** A pollinator friendly Seeding Plan shall be submitted for review and an inspection fee will be required to be paid prior to issuing the construction site permit. This fee will cover review of the seeding plan, inspections for the first three

(3) years after planting and every third (3rd) year after that to ensure the ground cover is being maintained in compliance with the Seeding Plan.

5.15.5.17.4. **Inspection.** Township officials shall be notified when the site is seeded and who the contact will be for inspections.

5.15.5.18. **Inspection Fees.** Permittee shall pay an Inspection fee to the Township every five (5) years in the amount of $1,000 to cover the anticipated costs of monitoring and inspecting the Community Solar Energy System and the Interim Use Permit issued by the Township. Permittee shall be required to reimburse the Township in the event this amount is insufficient to cover the actual costs, expenses, and labor charges related to the Township's monitoring and inspection of the Community Solar Energy System. In the event these costs and expenses are less than the $1,000 Inspection Fee, a credit shall be applied to reduce the next Inspection Fee due to the Township.

5.15.5.19. **Natural Heritage Information System Review.** Community Solar Energy Systems proposed within two (2) miles of a Natural Heritage Information System (NHIS) site will be reviewed by the Department of Natural Resources. Conditions may be added to the permit related to the Minnesota Department of Natural Resources review and comments to mitigate impacts to rare plants, animals, native plant communities, and other rare features.

5.15.5.20. **Utility Notification.** No grid-intertie photovoltaic system shall be installed until evidence is given to the Township or its designee that the Permittee has notified the utility company of the customer's intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

5.15.6. SUBMITTAL REQUIREMENTS – Community Solar Energy Systems

The following information shall be submitted with each application for a Permit for installation of a Community Solar Energy System:

5.15.6.1. The names of Community Solar Energy System applicant.

5.15.6.2. The name of the Community Solar Energy System owner.

5.15.6.3. The legal description and address of the parcel on which the Community Solar Energy System is to be located.

5.15.6.4. Documentation of land ownership or legal control of the property.

5.15.6.5. A description of the Community Solar Energy System including: ownership or lease arrangement, the proposed installed maximum capacity, in kilowatts, for the site, proposed type of mounting and racking systems, along with manufacturer's specifications or engineering designs for mounting and racking, the method of connecting the system to the electric load; the types of panels that will be installed.

5.15.6.6.. Site Plan, drawn to scale, including:

5.15.6.6.1. existing and proposed structures;

5.15.6.6.2. property lines;
5.15.6.6.3. existing and proposed fencing;
5.15.6.6.4. surface water drainage patterns;
5.15.6.6.5. the location of county and private tile drainage systems;
5.15.6.6.6. floodplains;
5.15.6.6.7. wetlands;
5.15.6.6.8. shore land zones;
5.15.6.6.9. topography at two (2) foot elevation intervals, and bluffs;
5.15.6.6.10. the location, size and spacing of solar panels;
5.15.6.6.11. the location of existing and proposed access roads;
5.15.6.6.12. the location of underground or overhead electric line connections;
5.15.6.6.13. existing easements on the property;
5.15.6.6.14. in-use wells and sewage treatment systems;
5.15.6.6.15. abandoned and sealed wells, sewage treatment sites and dumpsites;
5.15.6.6.16. existing tile lines or sewage treatment lines;
5.15.6.6.17. existing public and private roads, showing widths of the roads and associated
5.15.6.6.18. easements;
5.15.6.6.19. existing buildings and any impervious surfaces;
5.15.6.6.20. location and spacing of solar panels;
5.15.6.6.21. location of access roads with the property;
5.15.6.6.22. planned location of underground or overheard electric lines connecting the community solar energy system to the building, substation or other electric load;
5.15.6.6.23. new electrical equipment other than at the existing building or substation that is the connection point for the system;
5.15.6.6.24. sketch elevation of the property accurately depicting the proposed community solar energy system and its relationship to structures on adjacent lots (if any);
5.15.6.6.25. acreage of solar array;
5.15.6.6.26. acreage of solar array within fenced area;
proposed erosion and sediment control measures;
5.15.6.6.27. proposed stormwater management measures;
5.15.6.6.28. any other characteristics requested by the Township;

5.15.6.7. Existing vegetation (list type and percentage of coverage) and soils information for the proposed site.

5.15.6.7. Landscape, Screening, and Vegetation Plans prepared by a licensed landscape architect or engineer to include a narrative describing the overarching landscape architecture elements and how the design and placement of plant types and materials will complement the form and function of the developed site and blend into the surrounding environment, and any long term management plans and methods proposed to protect the site from pesticide drift which may adversely affect the vegetation.

5.15.6.8. Erosion/Sediment Control Plan or Resource Management Plan, if required. Include details on any proposed native grasses or plantings on the site.

5.15.6.9. Glare Study.

5.15.6.8.1. Aviation Analysis. If the project is within two miles of an airport, the applicant must complete and provide the results of the Solar Glare Hazard Analysis Tool (SGHAT) for

the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federally Obligated Airports, or successor

policy. The applicant must also complete the Air Space Case Analysis (Form 7460) and provide the results.

5.15.6.9. Decommissioning Plan.

5.15.6.10. A State Historic Preservation and Natural Heritage Information System analysis, which shall identify the onsite location of historic assets or natural heritage resources, and suggest potential conditions to include in any Land Use permit which could be taken to avoid, minimize, or mitigate adverse effects to existing historical, cultural, natural heritage, and archaeological features identified by the Minnesota State Historic Preservation Office, the County's databases, and those discovered onsite.

5.16. Recreation and Campgrounds Ordinance Layout:

Purpose.
Locations.
Definitions.
Interim Use, Scope and Applicability.
Permitted Accessory Uses.
Setback and Location Requirements.
Campground Performance Standards.
Recreation including Campground Areas - General Performance Standards and Conduct.
Submittal Requirements– Recreation or Campground Areas.
Permit Application Procedure.
Term of Permit.

5.16. **Recreation and Campgrounds**

5.16.1. **Purpose.** The purpose of this chapter, which is enacted pursuant to state statutes, is to create a reclamation option for aggregate and dimensional stone mining areas, to secure the quiet, orderly, and suitable use of recreation and campground areas established for enjoyment and to protect and promote health, safety and general welfare with the township and county through uniform standards, regulations and procedures. This Section is adopted for the purposes of:

5.16..1.1. Identifying areas in the Township where recreation and campground areas are most appropriate, and minimizes conflicts with agricultural, commercial, industrial, residential and other land uses.

5.16.1.2. Establish standards which prevent or minimize environmental and aesthetic impacts on recreation and campground properties, adjacent properties, and the community.

5.16.1.3. Providing for the economic availability of recreation and campground areas in Lime Township.

5.16.1.4. Establishing regulations, safeguards and controls regarding noise, dust, traffic, drainage, groundwater quality and other factors which will minimize the environmental and aesthetic impacts on recreation and campground parcels or adjacent property.

5.16.1.5. Establishing locations, orderly approval process and operating conditions under which recreation and campground areas will be allowed in the township and to establish conditions which ensure the restoration of mined areas are consistent with the existing and planned land use patterns.

5.16.2. **Locations.**

5.16.2.1. Recreation or campground areas are an allowed use on parcels which have been previously issued a land use permit for aggregate and dimensional stone mining operations, or parcels on which mining or setback operations related to a mining permit were installed and such parcels have not already reclaimed pursuant to a reclamation plan, in the Industry and Rural Conservation Zones in Lime Township with an interim use permit. The recreation or campground use may not occur until completion of the aggregate and dimensional stone mining operation.

5.16.2.2. Limited Recreation or Limited Campground Uses may be permitted on any land that adjoins recreation or campground areas as part of the Interim Use Permit provided that such Limited Recreation or Limit Campground use area shall not exceed ten (10%) of the total Campground subject to the Interim Use Permit not exceeding three (3) acres. The adjoining property must be in the same zoning district.

5.16.3**.** **Definitions.** The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

5.16.3.1. **Best Management Practices (BMP)**. Means the most effective and practicable means of erosion prevention and sediment control, and water quality management practices that are the most effective and practicable means to control, prevent, and minimize degradation of surface water and ground water, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, pollution prevention through good housekeeping, and other management practices published by state or designated area-wide planning agencies including, to the extent practical Minnesota Department of Transportation's Wildlife Friendly Erosion Control, Facility Lighting, and Perimeter Fencing Practices.

5.16.3.2. **Campground.** Means any area, whether privately or publicly owned, used on a daily, nightly, or longer basis for the placement of three or more Recreational Campground Vehicles or tents for the purpose of people occupying the unit on an overnight basis or Campground Site or Camp Site.

5.16.3.3. **Campground Site.** Means a space on a campground designed and promoted for the purpose of locating a trailer, tent, tent trailer or other similar device used for camping not meeting the definition of a Recreational Campground Vehicle.

5.16.3.4. **Camp Site.** Means the areas where Campground Sites Recreational Campground Vehicles are located.

5.16.3.5. **Leisure Activities.** Leisure activities includes human powered non-motorized sports such as badminton, volleyball, archery, horseshoes, slacklining/ninja line, baseball cage, ropes course, rock

skipping, rock climbing, swimming, canoeing, rope swinging, ladder toss, bocce ball, corn hole, tag, playground, shuffle board, pickleball, basketball, tetherball, croquet, disk golf, large Jenga, mini golf, golf driving range, paintball, dog park, ping pong, gaga ball, triple shoot, zipline, sledding, snow tubing, ice fishing, ice climbing, and hockey/ice skating, or some other use which the Township Board deems is substantially similar to the above activities. (see also Recreational Use)

5.16.3.6. **Large Group Gatherings.** Large group gatherings are defined as uses and activities which during the course of their operation are likely to attract two hundred (200) or more people.

5.16.3.7. **Limited Recreation Use** or **Limited Campground Uses.** Means any uses that are clearly incidental to Recreation or Campground uses, including, but not limited to, parking lots; access roads, trail heads, check-in facilities, trails for walking, hiking, mountain biking and similar use (which must occur within a boundary fence) maintenance facilities; a caretaker residence (which residence shall be a permanent single family dwelling or a Recreational Campground Vehicle located within a designated Camp Site); provided that Limited Recreation Use or Limited Campground Uses shall expressly exclude Campground Sites.

5.16.3.8. **Mining**. The process of extraction and removal of sand, gravel, rock, aggregate~~,~~ dimension stone, minerals, or similar materials for financial gain.

5.16.3.9**.** **Mining, Accessory Use.** Uses customarily incidental to mining located on the same site, such as stockpiling, sorting and screening, washing, crushing, batching, scale-house, driveways, parking, storage, berming, fencing**,** and related maintenance activities and facilities.

5.16.3.10. **Mining Operation**. The Mining and Mining Accessory Uses collectively.

5.16.3.11. **Noise.** Maximum noise level at the perimeter of the property subject to the Interim Use Permit shall comply with the limits or standards established by the Minnesota Pollution Control Agency.

5.16.3.12. **Recreational Campground Vehicle**. Recreational Campground Vehicle means any of the following:

5.16.3.12.1. Any vehicular, portable structure built on a chassis, designed to be used as a temporary dwelling for travel, recreational, and vacation use.

5.16.3.12.2. Any structure designed to be mounted on a truck chassis for use as a temporary dwelling for travel, recreation, and vacation, not including a manufactured mobile home.

5.16.3.12.3. Any portable, temporary dwelling to be used for travel, recreation, and vacation, constructed as an integral part of a self-propelled vehicle; and

5.16.3.13. **Recreational Use**. Recreational Uses includes all uses relating to outdoor sports listed under leisure activities and recreation uses such as trails for hiking, pedal-assist E-bikes or scooters (maximum 750 watts) and human powered biking or human powered mountain biking and adaptive bikes, horseback riding, cross country skiing, snow showing, winter hiking, water activities; campground; rock climbing; kayaking/standup paddle boarding; fishing; or similar uses that are privately owned and operated with or without the intention of earning a profit by providing entertainment for the public. Sporting apparatus requiring power shall be manual or electric powered, including electrically powered personal mobility devices. This Recreational Use definition does not include bowling alleys, firing ranges, campgrounds, (see separate Campground definition) or racetracks or driving tracks. (see also Leisure activities).

5.16.3.14. **Recreation Areas**. Means those areas where Campground, Leisure Activities, Large Group Gathering, Recreational Use, Limited Recreation Use and Limited Campground Use may occur on the property subject to the Interim Use Permit.

5.16.3.15. **Rock Climbing.** Means activities associated with a person moving upon, along, or across a nonhorizontal rock surface, including but not limited to scrambling, bouldering, free climbing, assisted climbing, and technical climbing.

5.16.3.16. **Tent.** Means a covering or shelter, or portable lodge, made of some flexible material, as skin or cloth, or canvas, supported by one or more poles, and stretched by means of cords secured to tent pegs, on in some other way.

5.16.3.17. **Tent Trailer.** Means a towed recreational trailer towed behind a vehicle with a collapsible or folding roof and walls usually made canvas, fabric or other material allowing it to expand into a larger living space that can be converted into a tent for camping. They are also commonly known as a pop-up camper or folding camper.

5.16.3.18. **Wildlife.** Means all living creatures, not human, wild by nature, endowed with sensation and power or voluntary motion, including quadrupeds, mammals, birds, fish, amphibians, reptiles, crustaceans and mollusks.

Cross reference—Definitions generally SEE ARTICLE 2. RULES AND DEFINITIONS.

5.16.4. **Interim Use, Scope and Applicability.** No person, firm or corporation shall hereafter engage in recreation or campground use on any land within Lime Township without first obtaining an Interim Use permit as regulated in Article 3 of this Ordinance. All activities proposed on a site that is subject to an Interim Use Permit for recreation and campground use, whether or not they are integral to the recreation or campground operations, shall be identified within the Interim Use Permit and the approved site and development plans, and if not identified within the Interim Use Permit, they shall be a violation of the Interim Use Permit. Prior to utilizing the property in a manner that is not consistent with the approved Interim Use Permit, an application for an amendment to the Interim Use Permit must first be approved by the Town Board.

Hold Harmless: The Township Board of Supervisors shall not be liable for any loss, damage or injury sustained by a recreation or campground area visitor. Moved closer to the end of this section.

5.16.5. **Permitted Accessory Uses.** The following Accessory Uses may be permitted as part of the Interim Use Permit within the Recreational and Campground Use area: Accessory Structures or uses which are clearly incidental to Recreation or Campground and the uses noted above in definitions, located upon the same property, as regulated in Section 5 of this Ordinance.

5.16.6. **Setback and Location Requirements.** Structure height, yards and lots shall conform to the regulations herein and as regulated in Article 5 of this Ordinance. Screening and safety barriers, and access driveways may be located in the setback, but the setback shall otherwise be landscaped or vegetated. Boundaries, screening, and setbacks shall, when practical, take advantage of natural and constructed features established in the original mining permit, when applicable. Consideration of vegetation retention is of importance in the event of requests to relocate existing berms or vegetation. Campground and Recreation Area operations, campground spaces, and structural amenities shall be contained entirely outside the setback and location requirements listed herein:

5.16.6.1. Structure Height.

5.16.6.1.1. Industry District structures shall have no height limitation.

5.16.6.1.2. Rural Conservation District commercial structures shall not exceed thirty-five (35) feet in height.

5.16.6.1.2.1. Accessory structure height shall not exceed thirty-five (35) feet in height in the Rural Conservation District.

5.16.6.2. Fencing.

5.16.6.2.1. Entire Recreation Areas must be fenced wherever possible with a minimum six (6) foot high fence. MN Department of Natural Resources (MNDNR) shall review the fencing plan to assure wildlife safety and access.

5.16.6.2.2. Fencing must be set back a minimum of fifty (50) feet from residential property lines.
5.16.6.2.3. Fencing must be setback sixty-five (65) feet from the centerline of township roads.
5.16.6.2.4. Fencing must be set back one hundred and thirty (130) feet from the centerline of state, federal or county highways.
5.16.6.2.5. Fencing adjoining day care or school facilities shall be solid type of barrier to not allow children to climb through or over fencing and may be on the property line with written permission from the property owner.
5.16.6.2.6. Fencing shall be setback a minimum of ten (10) feet from property lines from non-residential property to permit maintenance and allow for a wildlife corridor wherever possible.
5.16.6.2.7. Each Interim Use Permit application shall include a proposed fencing plan for review.

5.16.6.3. Leisure Activities Setback.

5.16.6.3.1. All leisure activities must occur within the boundary fenced area, and at least one hundred (100) feet from residential property lines.
5.16.6.3.2. Recreational Uses such as hiking and biking trails must be set back at least 10 feet from the interior of the fence in order to allow fencing maintenance, and safety of use inside the fence.
5.16.6.3.3. Lime Township Board has the right to require greater setback based on viewshed and acoustic studies.

5.16.6.4. Campground Setbacks.

5.16.6.4.1. Camp site setbacks shall be a minimum of two hundred (200) feet from residential property line, or two hundred and fifty (250) feet from a permanent residence, whichever is greater.
5.16.6.4.2. Camp sites must be setback at least 10 feet from interior side of fence adjoining non-residential zoned areas to allow for maintenance of the boundary.

5.16.6.5. **Screening.**

5.16.6.5.1. Screening by berms, trees, shrubs, or fencing shall be required when adjacent to residential lots.
5.16.6.5.2. Screening can be located within the boundary of the property and may be within the setback areas
5.16.6.5.3. Each Interim Use Permit application shall include a development plan which shall show proposed screening and include height, location, width, species, and

maintenance plan prepared by a landscape architect or arborist for review. Proposed berms shall show slope height and planting plans. Cross sections may be requested for review as part of the IUP application.

5.16.6.5.4. Each Interim Use Permit application shall include viewshed analysis from residential structures to ensure that visual and acoustical impacts from activities, structures, lighting and activities are mitigated.

5.16.6.6. **Special Flood Hazard Area.** No Campground and Recreation Area operations, campground spaces, structural amenities, fencing, or screening shall be allowed within any location identified as a Special Flood Hazard Area on the current Flood Insurance Rate Map.

5.16.6.7. **Height.** Recreational amenity structures shall be a minimum of two (2) feet below offsite adjacent residential viewsheds from the highest level of adjoining structures. New building structures shall not exceed thirty-five (35) feet in height.

5.16.6.8. **Impervious Surface.** No more than fifty (50) percent of the zoning lot site plan shall be occupied by impervious man-made surfaces.

5.16.6.9. **Existing Berms & Vegetation.** Boundaries, screening and setbacks shall, when practical, take advantage of natural and constructed features established in the original mining permit. Consideration of vegetation retention is of importance in the event of requests to relocate existing berms or vegetation.

5.16.7. **Hold Harmless:** The Township Board of Supervisors shall not be liable for any loss, damage or injury sustained by a recreation or campground area visitor.

5.16.8. **Campground Performance Standards.**

5.16.8.1. **Purpose.** This section is established to protect the health, safety, and general welfare within the county and township through uniform standards and regulations for campgrounds. Campgrounds in Recreation Areas are established for the convenience and pleasure of the tourist and vacationer for overnight campground use. They are not intended as a place for permanent or semipermanent residence, a base for the operation of business, or a facility for noncamper use. Campground roads and facilities are for the use of the campers and guests of the campers and shall not be used for just driving through. All campgrounds shall conform to the following standards:

5.16.8.1.1. All sewage and wastewater must be discharged into an approved municipal sewage treatment system if one is available or a subsurface sewage treatment system that meets the requirements of Minnesota Rules Chapter 7080 and the County Code, chapter 6, subsurface sewage treatment systems. No wastewater from Recreational Campground Vehicles shall be deposited on the surface of the ground.

5.16.8.1.2. Toilet facilities must be provided within 400 feet of any campsite in accordance with Minnesota Rules Chapter 4630.0900.

5.16.8.1.3. Toilet and shower facilities must be provided in all campgrounds which house Recreational Campground Vehicles which are not equipped with toilet and

bathing facilities, in accordance with the schedule and standards in Minnesota Rules Chapter 4630.0900.

5.16.8.1.4. Sewage dumping station. Campgrounds accommodating Recreational Campground Vehicles having a self-contained liquid waste system with a waste reservoir shall provide a sanitary station for the disposal of wastewater. Sewage dumping stations shall be separated from any Camp Site by a distance of at least 50 feet. Final disposal of sewage from such dumping stations shall be by a method acceptable to the Minnesota Pollution Control Agency and Department of Health.

5.16.8.1.5. Water supply. The water supply for all campgrounds must meet all Minnesota Department of Health requirements for public water supplies and water wells. Drinking water from the water supply must be available within 400 feet of every campsite in accordance with Minnesota Rules Chapter 4630.0600

5.16.8.1.6. All plumbing must be installed in accordance with the Minnesota Plumbing Code, Minnesota Rules Chapter 4715.

5.16.8.1.7. Setbacks. All Camp Sites shall meet the setbacks noted in F. Setback and Location Requirements above and project conditions. All Camp Sites must also be outside the bluff impact zone.

5.16.8.1.8. Floodplain. All campsites must be located outside of the flood fringe, floodway, or general floodplain district.

5.16.8.1.9. All Recreational Campground Vehicles and their attachments shall be separated from each other or other structures by at least ten feet as required by Minnesota Rules Chapter 4630.0400.

5.16.8.1.10. Minimum Camp Site size. All Camp Sites for Recreational Campground Vehicles shall have a minimum size of 2,000 square feet as required by Minnesota Rules Chapter 4630.0400. Only one Recreational Campground Vehicle may be located on a designated Camp Site space.

5.16.8.1.11. The storage, collection, and disposal of refuse and garbage in the campground shall be conducted in accordance with chapter 16 (solid waste management) of the Blue Earth County Code so as to create no health hazards, rodent harborage, insect breeding areas, accident or fire hazards, or air pollution.

5.16.8.1.12. Refuse and garbage collection shall be made at least twice each week and more often where necessary to prevent nuisance conditions. Final disposal of refuse and shall be accomplished at a waste management facility permitted by the state and licensed by Blue Earth County or as otherwise agreed to by the Township.

5.16.8.1.13. Adequate number of fly tight, watertight and rodent proof containers must be provided for all garbage and refuse. Garbage or refuse may not be burned, incinerated or buried on site.

5.16.8.1.14. All interior streets and roadways in the campground shall be maintained to allow safe passage of normal traffic and emergency vehicles.

5.16.8.1.15. Each Campground shall have signage identifying the site with a non-duplicated number or letter. The Campground operator shall notify the Township of any changes so that the 911-emergency response system maps are current.

5.16.8.1.16. Campgrounds adjacent to private land shall indicate the property boundary through signage, fencing, or other means.

5.16.8.1.17. All Recreational Campground Vehicles shall have a current state vehicle license for those states that require a license.

5.16.8.1.18. All Campgrounds shall have a property manager, which shall be onsite or within two (2) miles of the boundary of the parcel. Instructions shall be posted and made available to users of the campground on how to contact that person. Campgrounds may have onsite staff, or a host camper designated to be on call to address issues within the campground.

5.16.8.1.19. Campgrounds which require permanent stormwater management facilities or best management practices shall be designed in accordance with the MPCA NPDES construction stormwater permit and Blue Earth County stormwater standards.

5.16.8.1.20. Signage for the campground must meet the standards contained in section 24-311, signs of the Blue Earth County Code, and Lime Township Zoning Ordinance Section 10. Signs.

5.16.8.1.21. Parking for the campground must be off-street and meet the standards contained in section 24-310, parking and loading regulations of the Blue Earth County Code. Vehicle parking per site shall be limited to a maximum of two (2) four wheeled vehicles.

5.16.8.1.22. A permanent single-family dwelling for caretaker may be allowed provided the dwelling meets all density and applicable zoning district standards.

5.16.8.1.23. Campgrounds shall be operated on a seasonal basis and may only be open seven (7) months a year, excluding December, January, and February.

5.16.8.1.24. No storage of Tents, Tent Trailers, boats, boat trailers or Recreational Campground Vehicles may remain on-site outside the seven (7) months of operation.

5.16.8.1.25. Areas where swimming is permitted must be tested for E. coli, coliform, arsenic, nitrates, or toxic algae blooms and shall comply with Minnesota Department of Health regulations. Any test results shall be provided to Lime Township on at least an annual basis, or when requested by the Township.

5.16.8.1.26. Tents shall have no more than five (5) occupants or a family per tent or 2 tents per Camp Site. Tent only Camp Sites shall be a minimum of 2000 square feet.

5.16.8.1.27. Campers and guests shall not cause, create or make any noise which disturbs the peace, quiet and tranquility of the campground area. Each Campground shall have signage identifying that the hours between 10:00 p.m. and 8:00 a.m. are for outdoor solitude.

5.16.8.1.28. No person shall remain within any recreation or Campground area within the hours of 10:00 p.m. and 8:00 a.m., except registered campers in designated campground areas.

5.16.8.1.29. No person shall kindle, build, maintain or use a fire except in places provided for such purposes. Any fire shall be continuously under the care and direction of a competent person from the time it is kindled until it is extinguished. Campfires many not exceed three feet in diameter and should be enclosed by some sort of fire ring or stone ring. Firewood used onsite must comply with State and County ordinance.

5.16.8.1.30. Campers shall not dig trenches or make any other excavations in a recreation or campground areas, except that the placement of tent stakes or anchors in the ground for the erection of tents is permitted.

5.16.9. Recreation including Campground Areas - General Performance Standards and Conduct.

5.16.9.1. **All Recreation Areas shall meet the following standards.**

5.16.9.1.1. In Recreation Areas that do have a Campground refer to campgrounds and camping above for pertinent regulatory rules.

5.16.9.1.2. Radios, televisions, and other devices that create sound, including but not limited to music shall not be heard beyond the border of a camper's individual campsite during quiet hours.

5.16.9.1.3. Amplified Sound. It shall be unlawful to operate any loudspeaker or amplifier or other device by which sounds are magnified without having first secured a permit therefore or included in the interim use permit.

5.16.9.1.4. Large Group Gatherings for Events: Large group gatherings of more than 200 persons (not including registered campers) are prohibited except as provided the Interim Use Permit or approved in writing by the Township Board.

5.16.9.1.5. Any food service shall be catered, or pre-packaged, except where on-site prepara-tion is specifically allowed in writing by the Township Board, subject to evidence that all Township, County, State or Federal permits and licenses have been obtained and are current.

5.16.9.1.6. The on-site subsurface sewage treatment system shall meet all Township, County and State design requirements at all times.

5.16.9.2. No person utilizing a Recreation Area, including Campground areas shall:

5.16.9.2.1. Remain within any recreation or campground area within the hours of 10:00 p.m. and 8:00 a.m., except registered campers in designated campground areas.

5.16.9.2.2. Use threatening, abusive, insulting or obscene language, or to act in an indecent manner, or to do any act which constitutes a breach of the peace in a recreation or campground area.

5.16.9.2.3. Be under the influence of intoxicating liquors (blood alcohol concentration above 0.08) or to use, be in possession of, or be under the influence of drugs.

5.16.9.2.4. Disturb, harass, or interfere with any recreation or campground area visitor or any visitor's property.

5.16.9.2.4. Deposit, scatter, drop or abandon in any recreation or campground area any bottles, cans, broken glass, sewage, waste, or other material, except in receptacles provided for such purposes.

5.16.9.2.5. Throw, discharge or place in or upon any lake, stream, creek, pond or other body of water in or adjacent to a recreation or campground area, or any tributary, stream, storm sewer, or drain flowing into such waters, any substance, liquid, solid or gas.

5.16.9.2.6. Use any land or body of water within a recreation or campground area for a starting or landing field for aircraft, balloons or parachutes without a permit from the Township Board.

5.16.9.2.7. Start a fire in a recreation or campground area, except a fire in a designated area such as a fire pit or fail to fully extinguish such a fire.

5.16.9.2.8. Drop, throw or otherwise leave unattended in a recreation or campground area lighted matches, burning cigars, cigarettes, tobacco, paper or other combustible material.

5.16.9.2.9. Bring or permit any pet within a Recreation or Campground Area, unless the animal is restrained on a leash no longer than six (6) feet or restrained within a visitor’s campground lot. Pets are not allowed unattended in autos and trucks.

5.16.9.2.10. Fail to pick up and properly dispose of the refuse left by any pet under the person's control.

5.16.9.2.11. Kill, trap, hunt, pursue or in any manner disturb or cause to be disturbed any species of wildlife within a recreation or campground area, except that fishing may be permitted in designated areas.

5.16.9.2.12. Discharge any weapon in or into a recreation or campground area or from beyond the recreation or campground area boundaries including, but not limited to firearms, archery equipment, BB guns and slingshot. Archery is allowed only within a Recreation Area that is defined and solely for that use.

5.16.9.2.13. Release within a Recreation or Campground Area any insect, fish or other wildlife, or introduce within a recreation or campground area any plant, chemical or other agent potentially harmful to the vegetation or wildlife of the Recreation or Campground Area.

5.16.9.2.14. Wade or swim within a permitted recreation or campground area except in areas designated for that purpose, and then only between sunrise and sunset, or such hours as may be approved in the interim use permit.

5.16.9.2.15. Operate any motorized vehicles within a recreation or campground area except upon roadways, parking areas or other designated locations therefor, except for maintenance vehicles.

5.16.9.2.16. Operate a motorized vehicle in a recreation or campground area without a valid driver's license or operator’s permit, operate a vehicle at a speed in excess of posted speed limits, or operate a vehicle which emits excessive or unusual noise, noxious fumes, dense smoke or other polluting matter.

5.16.9.2.17. Park or leave a vehicle standing within a recreation or campground area except in a designated parking area.

5.16.9.2.18. Operate any non-licensed motorized vehicles such as dirt bikes, minibikes, or other off-road motorized vehicle within the boundaries of any Recreation or Campground Area, except for maintenance purposes.

5.16.9.2.19. Operate any watercraft in a Recreation Area in violation of state statutes or any other law, statute or ordinance dealing with water and watercraft safety.

5.16.9.2.20. Operate any motor vehicle on roads which are posted, chained or gated prohibiting vehicular traffic.

5.16.9.2.21.Dispose of the fish or animal remains except at facilities provided for such disposal.

5.16.9.2.22. Fish in a recreation or campground area in violation of any provision of state statutes or in an area designated as a "no fishing area." or designated as a "swimming area."

5.16.9.2.23. Water supply. The water supply for all campgrounds must meet all Minnesota Department of Health requirements for public water supplies and water wells. Drinking water from the water supply must be available within 400 feet of every campsite in accordance with Minnesota Rules Chapter 4630.0600.

5.16.10. **Submittal Requirements – Recreation** or **Campground Areas.** In addition to the Interim Use Permit application required under Article 3, the following information shall be provided along with a checklist:

5.16.10.1. The name, address and phone number of the owner of the land.

5.16.10.2. The name, address and phone number of the proposed operator of the recreation or campground area if different from owner.

5.16.10.3. Complete legal description of the subject property suitable for recording the Interim Use Permit if granted by the Township.

5.16.10.4. A site plan showing the location of existing wells, sewage treatment systems, buildings, driveways, bluffs, berms, rock outcrops, vegetation, steep slopes, lakes, rivers, streams, floodplain boundaries, wetlands, marshes, wooded areas, power transmission poles and lines, existing structures, easements, encumbrances, contours at 2-foot vertical intervals, and other significant features shall be shown.

5.16.10.5. A site plan showing the proposed location of all improvements including, but not limited to, storage areas, Recreation Areas, bathroom facilities, solid waste and recycling collection facilities, roadways, entrances and exits, trails, parking areas, wells, sewage treatment facilities, stormwater storage, and Camp Sites with dimensions on detailed grading plan with two-foot contour intervals.

5.16.10.6. Written description of the operating plan for the campground and recreational areas, including all services and activities like large group events that are proposed in the campground.

5.16.10.7. A State Historic Preservation and Natural Heritage Information System analysis, which shall identify the onsite location of historic assets or natural heritage re-sources, and suggest potential conditions to include in the interim use permit which could be taken to avoid, minimize, or mitigate adverse effects to existing historical, cultural, natural heritage, and archaeological features identified by the Minnesota State Historic Preservation Office, the County's databases, and those discovered onsite.

5.16.10.8. Plans for sanitary sewage disposal, water supply systems, emergency shelter and evacuation, electrical service, gas services and other utilities, lighting, landscaping, screening, and collection of garbage and refuse.

5.16.10.9. Stormwater pollution prevention plan and operation and maintenance plans for all permanent and temporary stormwater control measures, when applicable.

5.16.10.10. Location and size of all proposed streets and parking areas servicing the recreation or campground area. Construction plans and specifications for roadways within the campground.

5.16.10.11. Grading and site plan showing details of the recreation or Camp Sites and any other uses of the site, structures, screening, setbacks, landscaping, parking, storage and all other pertinent details to review the application. Activities that are not identified on the approved site plan or narrative that is incorporated into an Interim Use Permit, whether or not they are integral to the operation proposed, shall be a violation of the Interim Use Permit.

5.16.10.12. A description of the proposed access routes within the township to be used in the recreation or campground operation including a map showing access to the nearest arterial road.

5.16.10.13. A traffic study showing the impact of the development on public streets which serve the development. A professional traffic operations engineer shall undertake the study.

5.16.10.14. Groundwater: A plan for groundwater quality protection shall be submitted with the application.

5.16.10.15. A general description of surface waters, existing drainage patterns and groundwater conditions within 200 feet of the subject property.

5.16.10.16. A general description of any wells or private sewer systems of record, pipelines, power lines; and other utilities or appurtenances on the subject property and include 200 feet of the adjacent properties.

5.16.10.17. A narrative description of the recreational amenities and activities proposed shall be included in the application.

5.16.10.18. A phasing plan which illustrates the plans and areas should the entire project not be constructed at one time.

5.16.10.19. Copies of all MPCA application documents, including but not limited to NPDES and air emission permits.

5.16.10.20. A description of the site hydrology and drainage characteristics identifying any locations where drainage of any graded areas will not be controlled on the subject property and plans to control erosion, sedimentation and water quality of the runoff.

5.16.10.21. A description of the potential impacts to adjacent properties resulting from the proposed plans and on-site and off-site transportation, including but not limited to noise, dust, surface water runoff, groundwater contamination, traffic and aesthetics.

5.16.10.22. A description of the plan to mitigate potential impacts resulting from grading, including, but not limited to, a plan for dust.

5.16.10.23. A description of site screening, landscaping and security fencing.

5.16.10.24. A description of site reclamation in each phase of existing mining operations and upon completion of mineral extraction on the subject property if site plan is also a mining reclamation plan.

5.16.10.25. A description of the method in which complaints about any aspect of the proposed operation or off-site transportation are to be received and the method which complaints are to be resolved.

5.16.10.26. Viewshed analysis.

5.16.10.27. Acoustical Study incorporating the operating and marketing plan utilizing the activities and potential noise of the uses noted in the development permit application to determine proposed decibels (dBA) at residential property lines, prepared by a Licensed Acoustical Engineer.

5.16.10.28. Screening and fencing shall be designed to minimize the projects noise at property lines adjacent to residential parcels. SEE:
https://www.pca.state.mn.us/sites/default/files/p-gen6-01.pdf

5.16.10.29. Photometric plan. All light fixtures shall be down lit and not be visible offsite in adjacent residential areas and to the extent practical follow the Minnesota Department of Transportation's Wildlife Friendly Facility Lighting Practices. Night lighting shall be for safety purposes only.

5.16.10.30. Other site-specific information may be required or requested by the county and township.

5.16.10.31. Application fees.

5.16.11. **Permit Application Procedure.** Recreation or campground permits shall be considered and processed by the Township as Interim Use Permits as regulated in Article 3 of this Ordinance. The procedures are defined in the Zoning Ordinance.

5.16.11.1. Applicants are encouraged to contact the Township for an administrative interpretation of the compatibility of the proposed recreation or campground activity with the Zoning Ordinance.

5.16.11.2. Applicants are encouraged to appear before the Lime Township Planning Commission to make a preliminary presentation on the conceptual nature of the proposed recreation or campground activity.

5.16.11.3. A copy of the application and required supporting information shall be forwarded to the Township or its designee. Within fifteen (15) business days of receipt of the information a determination of the completeness of the application and supporting documentation will be made as required by Minnesota Statute. 15.99. If the application is complete, the environmental review process will begin, if necessary, unless it has already been completed. If the application is

incomplete, the Township will identify the information which must be submitted before formal review may commence.

5.16.11.4. Any application which is inconsistent with the Zoning Ordinance will be denied. The applicant has the right to submit an application to the Township to amend the Zoning Ordinance, according to procedures established by the Township.

5.16.11.5. Within thirty (30) days of receipt of a complete recreation or campground area permit application, the Township will order an Environmental Assessment Worksheet to be prepared, according to Minnesota Rules, Chapter 4410, if necessary.

5.16.11.6. Upon completion of the environmental review process, the Township will process the recreation or campground area permit. The Township may require that the applicant submit additional information to address or clarify any issues raised in the environmental review. The formal review process will commence after completion of the environmental review or upon receipt of additional information required.

5.16.11.7. Upon receipt of all required information and upon completion of the environmental review process, the Planning Commission shall hold a public hearing for the recreation or campground permit. The hearing will satisfy the hearing requirements of the Interim Use Permit.

5.16.11.8. After the public hearing, the Planning Commission shall make findings on the permit application and submit recommendations to the Town Board. If the Planning Commission and the Town Board cannot act upon the permit application within sixty (60) days of the receipt of all required information and completion of the environmental review process, the Township shall notify the applicant in writing of the delay and extension of review. Unless otherwise agreed between the Township and the Applicant, the Planning Commission and Town Board must act upon the application within one hundred twenty (120) days of the date the final application was submitted unless an extension of time is granted by the applicant.

5.16.11.9. The Town Board shall approve the permit application, deny the permit application or approve the permit application with modification.

5.16.11.10. A recreation or campground permit application denied by the Town Board may not be reapplied for, whether the same or modified application, for a period of twelve (12) months from the date of denial.

5.16.11.11. If there are any conflicts between this subsection and ~~either~~ Article 3, ~~Sections 9 or 10,~~ then Article 3~~, Sections 9 or 10~~ shall apply.

5.16.12. **Term of Permit**

5.16.12.1. Each Interim Use Permit approved shall be effective for a period of five (5) years from the date of approval, provided the requirements and conditions of operation as set by the Interim Use Permit are met. Upon at least 24 hours advance notice, an examination of the premises by the Town Board, the Planning Commission, or staff shall be allowed at any reasonable time during the term of the Interim Use Permit.

5.16.12.2. Upon determination by the Planning Commission, Township Board, or staff that the operation is in violation of the provisions of the Interim Use Permit or other Township Ordinances, a hearing shall be held to review the existence of any alleged violations pursuant to Article 3, 3.9.6.1.10. of this Ordinance.

5.16.13. **Compliance.**

5.16.13.1. Operator shall prepare an annual report for the facility for submission to the Town Board within three (3) months of calendar year-end. Potential topics to be covered in the annual report include, but are not limited to, the following: Summary and discussion of permit compliance in past year, any noise related issues, and summary and discussion of all citizen complaints received by Operator or conveyed to the Operator by the Township, including the subject of the complaint and action taken to address complaint. All complaints must be dated when received and date of actions taken. Discuss if complaint was resolved.

5.16.13.2. Upon failure by the person, firm or corporation to whom an Interim Use Permit is issued pursuant to the terms of this Ordinance, to fully comply with the provisions contained herein, notice shall be given to said permit holder setting forth those pro-visions of the Interim Use Permit being violated, and the time and place of a hearing before the Town Board to consider such violation shall be set. The Interim Use Permit may be suspended or terminated based upon the findings of the Town Board at ~~such~~ **the** hearing.

5.16.14. **Termination.**

5.16.14.1. The Township shall have the authority to terminate the Interim Use Permit on the happening of any of the following events:

5.16.14.1.1. The date of termination specified in the Interim Use Permit.

5.16.14.1.2. Upon a violation of a condition under which the Interim Use Permit was issued, but only after the Township has first provided written notice to the operator (and the landowner, if different from the operator), describing with particularity the specific violation(s) and the steps necessary to cure the violation(s). Excepting threats to public health, safety and welfare or violations with simple remedy, the operator shall have a period not exceeding thirty (30) consecutive days to cure the specific violation(s). If the 30-day remedy period overlaps with or occurs within a period of seasonal shutdown, and the violation(s) are not easily remedied or do not pose a threat to public health, safety and welfare, the 30-day period may be extended to include the seasonal shutdown period. Upon notice of violation(s) which may threaten the public health, safety and welfare or are easily remedied, the operator shall respond promptly and cure the violation(s) in the shortest reasonable timeframe.

5.16.14.1.3. Upon a determination that the facility permitted under this Ordinance has been in-active for a period of one (1) calendar year.

5.16.15. **Enforcement.**

5.16.15.1. Upon reasonable notice, the operator (and the landowner, if different from the operator) shall grant the Township's officers and representatives access to the facility during normal operation hours to inspect the facility and enforce the provisions of this Ordinance. Any

~~such~~ inspection must be in the company of an employee of the operator following all site safety regulations.

5.16.15.2. The operator (and the landowner, if different from the operator) shall be responsible for the repair and maintenance of public and private property in the Township which is acknowledged by the operator to be or proven to be damaged by it, its agents or employees in conducting business or any other activity associated with the facility.

5.16.15.3. The operator (and the landowner, if different from the operator) shall hold the Township harmless against all claims by third parties for damage or costs incurred in the development and operation of the facility. The operator shall indemnify the Township for all costs, damages, or expenses incurred by the Township arising from such claims, including attorney's fees and other professional costs.