

City of Ramsey 2040 Comprehensive Plan Update

Natural Resources Plan

Background on this Document

This document is a draft of the narrative to be used in the 2040 Comprehensive Plan Update. This is not a final version or actual layout. This document will be reviewed and revised multiple times. The City will try to add additional maps and figures to better tell the story of this vision.

Add existing background info from current Comp Plan here.

Our Vision

Ramsey will evolve through citizen-driven, collaborative processes that respect the balance and connectivity between its unique urban, rural, and natural environment for current and future generations.

Goals and Strategies

The following represents goals and strategies for the management of natural resources. Subsequent chapters will include their own goals and strategies that integrate with the above. Resources above and beyond current budget approvals are indicated in the 'Additional Resources' column.

Comprehensive Plan Strategic Imperatives

- A Balance of Rural Character and Urban Growth
- An Active Community (Parks, Recreation, and Open Space)
- A Connected Community (Transportation)
- A Positive Learning Environment

Initiatives for the Natural Resources Plan

A Balance of Rural Character and Urban Growth

- Ensure sustainability of food supply and food web
- Maintain and enhance the public community forest (boulevard tree program)
- Reduce erosion along both the Mississippi and Rum Rivers
- Preserve significant ecological resources through conservation design.
- Improve Sustainability and Resilience

An Active Community

- Improve recreation opportunities along the City's Priority Greenway Plan
- Improve water quality of Mississippi River

A Connected Community

- Improve connections to significant ecological resources

A Positive Learning Environment

- Improve awareness for groundwater planning
- Improve awareness for solid waste reduction

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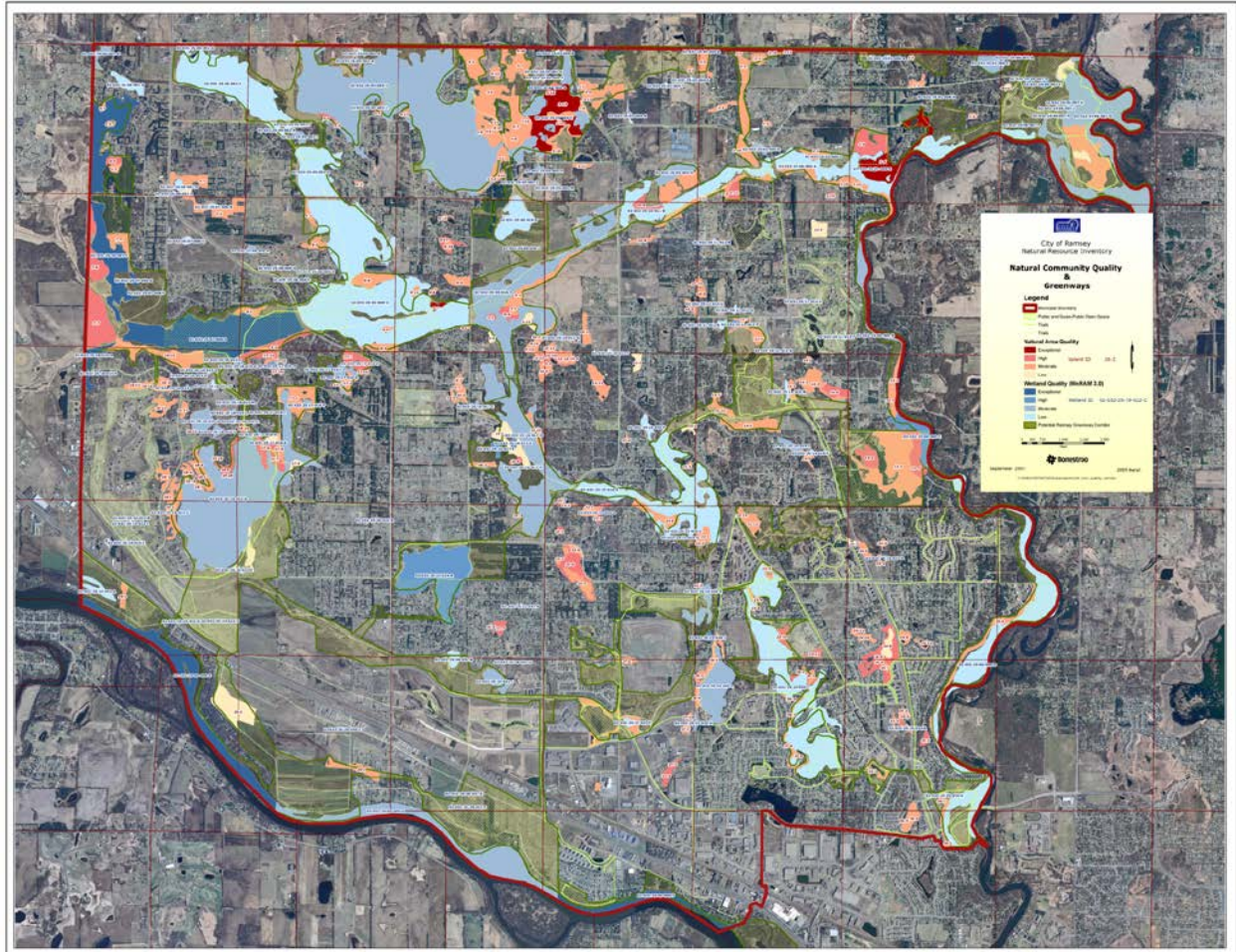
2030 Plan Accomplishments

Before looking forward to what Ramsey will strive to accomplish within the timeframe of this Comprehensive Plan, it is always good to pause and look back to what it was able to accomplish over during the course of the 2030 Comprehensive Plan. The last plan was adopted in 2010. While a number of factors have changed since the adoption of the last plan, the City can celebrate a number of successes as it relates to natural resources. Subsequent chapters of the 2040 Comprehensive Plan will celebrate their own successes.

- Relied on the Natural Resources Inventory (NRI) to inform recommendations on subdivision design and areas of focused protection/preservation where feasible.
- Purchased two (2) Weed Wrenches to assist property owners with managing and eradicating certain invasive species, specifically Buckthorn.
- Protected Ramsey's rural character in many areas of the community, representing the largest land area category in the community.
- Mitigated City's financial risks associated by new developments by encouraging new development to focus near existing infrastructure.
- Ensured new development protected natural resources, made trail connections, and blended in with surrounding development.
- Employed conservation subdivision practices intended to protect existing neighborhoods and natural resources.
- Struck a balance between land use planning, policy development, natural resource protection, and private property rights.
- Refined the Tree Preservation Ordinance to establish a reforestation standard and proactively began working with developers to establish street trees rather than just front yard trees.
- Encouraged stormwater management systems/plans that incorporate rain harvesting techniques (reducing the demand on and use of groundwater for irrigation) and rain gardens (to promote infiltration and groundwater recharge).
- Employed new strategies to help residents recycle additional materials and divert more materials from landfills.
- Implemented an organics recycling drop-off program for residents.
- Secured grant funds to establish a 'mini-arboretum' of tree species native to Minnesota in North Commons.
- Continued to maintain the Tree City USA designation (twenty-five [25] years and counting).
- Updated the Floodplain Ordinance and adopted new Flood Insurance Rate Maps to remain compliant with the National Flood Insurance Program.
- Adopted an Emerald Ash Borer (EAB) Management Plan.

Existing Natural Resources

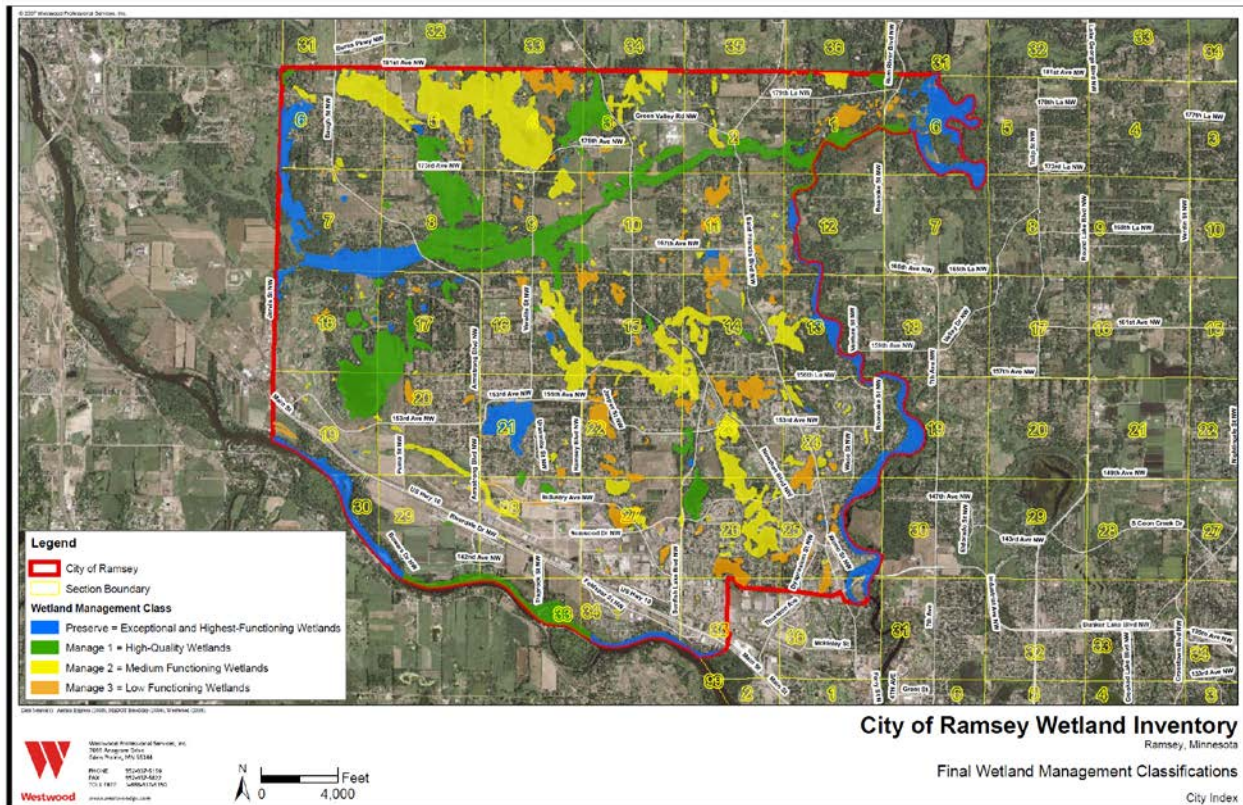
Existing Natural Resource Quality



The City's Natural Resources Inventory (NRI), which was completed in 2007, is relied upon to help inform good land use policy as it relates to stewardship of our natural resources. While wetlands are generally protected from modification by both state and federal regulations, that is not the case with high value upland areas. The NRI therefore provides a good baseline of data that helps inform Ramsey's review of proposed developments. The NRI also assists in identifying areas that may warrant greater protection from development and/or may be suitable candidate(s) for enhancement or expansion.

As part of the NRI, potential greenway corridors were identified. Thus, in addition to providing insight to the potential presence of higher value natural areas, the NRI can also be utilized as a reference and guide for critical corridor connections. As Ramsey continues to experience development pressures, the NRI will eventually need to be 'recalibrated' to ensure that it is still a meaningful and reliable data source.

Existing Wetland Quality



In 2006, Ramsey completed a Wetland Inventory utilizing the Minnesota Routine Assessment Method (MnRAM) to accompany a now repealed wetland buffer ordinance. While the wetland buffer standards are no longer codified, the Wetland Inventory is still relied upon to understand what, if any, impacts proposed development may have, especially regarding wetlands classified as high and exceptional.

Natural Resource Initiatives and Pilot Projects

Ramsey has completed a number of natural resource initiatives and pilot projects in recent years. Key programs include, but are not limited to the following.

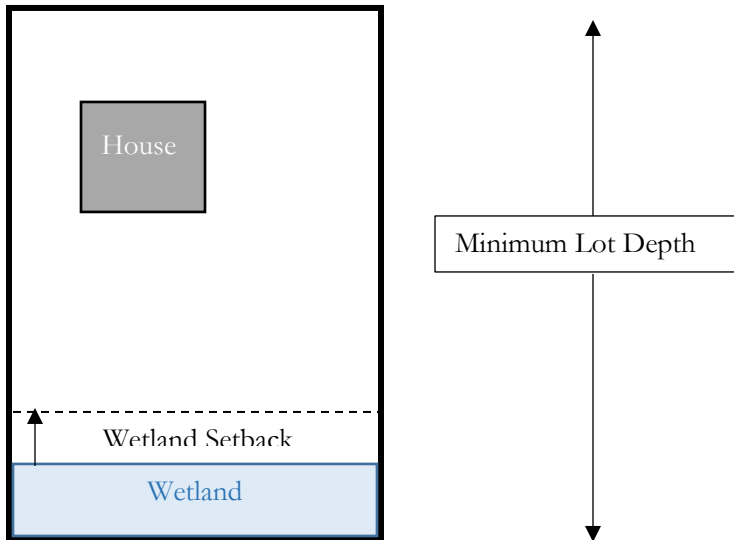
- Buildable Area Standards
- Pollinator Friendly Habitat
- Shoreline Protection

Buildable Area Standards

In 2016, the City adopted new standards related to lot depth as well as instituted a wetland setback. The purpose of both of these standards was to ensure that newly created lots would actually have sufficient buildable and usable area to accommodate typical homeowner additions, such as a deck, small shed, a yard to play in, etc. Too often, homeowners attempting to make improvements to their property were discovering that there was not sufficient space to accommodate a new deck, a detached accessory building, or even to establish what they viewed as a usable backyard. This was creating a lot of frustration on their part and was also resulting in code violations as well. By implementing these new standards, it not only assured that each newly created lot would have buildable and/or usable space beyond the footprint of their home, but also

helped to protect wetlands both from being filled in as well as from a water quality stand point (more filtration of runoff before entering the wetland).

Figure 1: Buildable Area and Wetland Setback Example



Pollinator Friendly Habitat

The City desires to encourage more pollinator friendly habitat for a multitude of reasons. First and foremost, Ramsey desires to ensure the sustainability of food supply and the food web, which relies heavily on pollinators. By promoting pollinator friendly practices and initiatives, the City not only helps foster the concept of local food through opportunities such as a local farmer's market, but also encourages the protection, restoration, and/or establishment of pollinator habitat.

Broadly speaking, pollinator habitat generally consists of native plants, shrubs and trees. Native species are generally more drought tolerant and require fewer inputs, such as water (irrigation) and chemicals (fertilizers and herbicides). Thus, by establishing more pollinator friendly habitat, the demand on groundwater for irrigation purposes should decrease. Furthermore, the reduced need for chemical applications should lower the potential of groundwater and/or surface water contamination from inappropriate application of these products on the landscape.

Protecting, restoring, and/or establishing pollinator habitat also creates habitat for a variety of wildlife. Where feasible, conglomerations of pollinator friendly landscapes can become the basis for wildlife corridors and potentially even a greenway corridor. Even small patches, such as a backyard butterfly garden, of pollinator friendly habitat can be beneficial for many pollinators whose populations are declining as habitat loss continues to increase.

Mayors for Monarchs

The City has taken the Mayors for Monarchs Pledge to affirm its support not only for the iconic monarch butterfly, but also for pollinators in general, whose habitat continues to be fragmented and/or destroyed.

Figure 2: Mayors for Monarchs Background



Mayors for Monarchs

Many people may not realize that Monarch butterflies play an important role in pollinating various plants, including many of our food crops. But their population has declined by more than 90% in the last two decades. That is why it is important to create special habitats for these pollinators in our yards and gardens. Recently, the City of Ramsey adopted a resolution to support pollinator initiatives throughout our community.



Ramsey Mayor, Sarah Strommen, launched the initiative by signing the Mayors for Monarchs Pledge to support Monarch butterflies in our community by implementing efforts to create, restore, and protect pollinator habitat and encouraging our citizens to do the same in their own backyards. The Mayors for Monarchs Pledge Signing event took place on June 6, 2017 at the Lake Itasca Trailhead in Ramsey.

At the pledge signing event Mayor Strommen designated a new "Monarch Trail" along the Lake Itasca Trail corridor. Together with the U.S. Fish and Wildlife Service, the City of Ramsey will be restoring six and a half acres of land along this trail to a natural habitat designed to support Monarch butterflies and other important pollinators.



Students from Youth First Community of Promise were there to jump-start the project by planting a small section of native plant plugs at this event, which was representative of the larger-scale planting that will happen this fall.

Fourth grade students from Ramsey Elementary also contributed to the event by creating 150 colorful butterflies, which served as the backdrop for this event and will also be on display in the Ramsey City Hall in honor of National Pollinator Week, June 19 - 25, 2017.

If you are interested in learning more about the Monarch butterfly, be sure to check out Ramsey Parks & Recreation's Monarch Lab on July 25. Visit www.cityoframsey.com/ParkEvents for more information on how to register.

City of **RAMSEY**

Lake Itasca Monarch Trail

In the summer of 2017, the City designated a portion of the Lake Itasca Trail as a Monarch Trail. This was in conjunction with the Mayor's Monarch Pledge proclamation. The Monarch Trail includes roughly seven (7) acres of land on both sides of an existing, well used trail segment along Lake Itasca. A ceremonial planting of a mixture of plugs was completed in the summer of 2017. Site preparations occurred over the following fall, winter and spring seasons. This included a prescribed burn to eliminate non-native and undesirable vegetation (forbs/grasses) and removal of red cedar and Siberian elms within approximately 100 feet of the trail. The site was then seeded with species favored by monarch butterflies and other pollinators. This project converted fallow land into a native, pollinator friendly landscape that abuts a heavily used walking/biking trail in the community. Thus, it not only created new habitat but also did so in a location that would be highly visible to the community.

Figure 3: Lake Itasca Monarch Trail

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Ramsey Park Monarch Trail



0 55 110 220 330 440 Feet

Trail
(2,000 Feet)

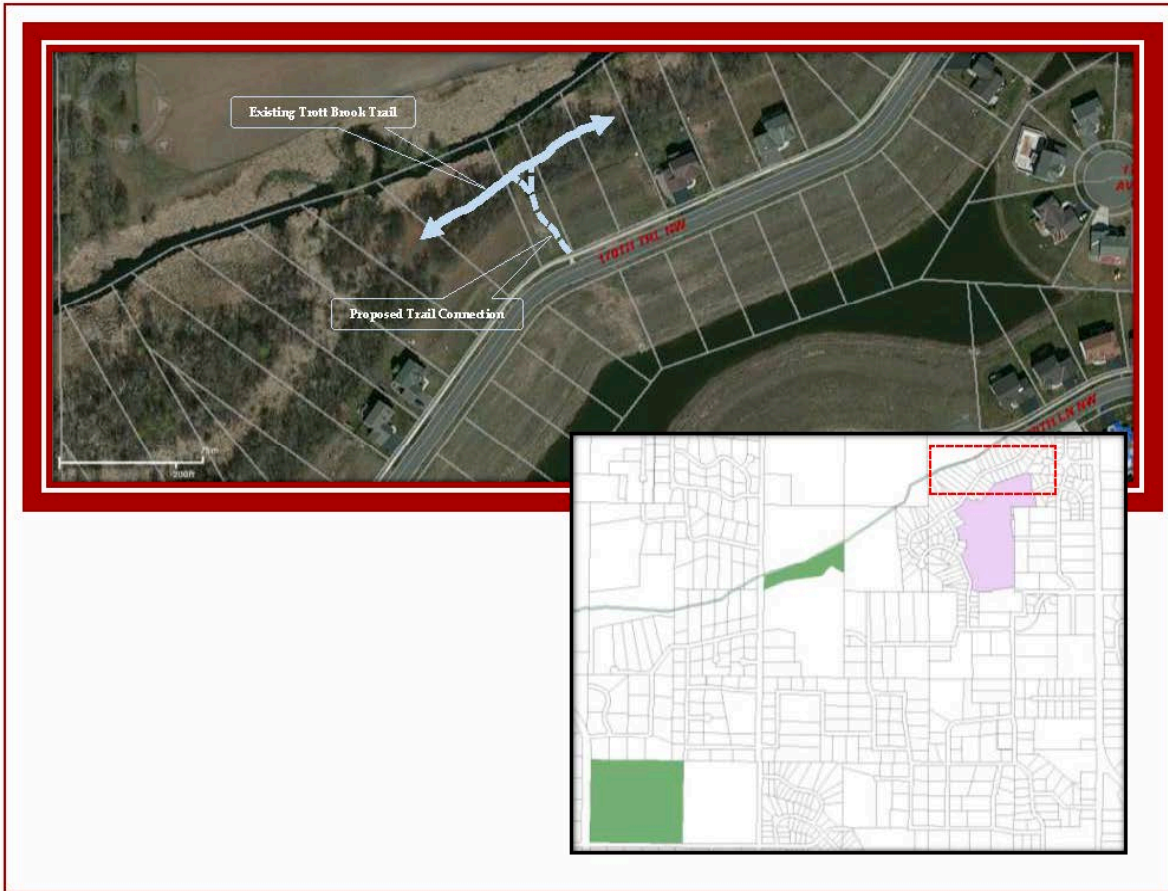
Pollinator Buffer
(6.5 Acres)

Produced by:
USFWS MNPLD
434 Great Oak Drive
Waltz Park, MN 55387
(320) 253-4682
Current through 2017

Brookfield Trail Connection

In 2016, Ramsey identified an opportunity to create a new trail connection to the Trott Brook Trail, a very popular walking/biking trail that parallels Trott Brook. There were multiple facets to this project that, in concert, would improve mobility, create pollinator friendly habitat, promote infiltration and improve water quality. The new trail segment provided a ‘mid-block’ connection to the existing Trott Brook Trail. Since the existing pedestrian ramp was at the low spot in the road, an opportunity existed to incorporate a rain garden

into this project to promote infiltration and groundwater recharge while also improving the water quality of a large stormwater pond that serves as a ‘water feature amenity’ for this neighborhood also. Finally, rather than installing a typically turfgrass landscape that would require irrigation and regular, routine maintenance (mowing), a native, pollinator friendly landscape was established on both sides of the trail. This creates not only additional habitat for pollinators, but also will result in year round interest and variability in the viewshed.



Shoreline Protection

The Mississippi River and Rum River experience significant erosion that poses a threat to individual properties and water quality as well. The Anoka Conservation District completed an inventory of the Mississippi River shoreline in December of 2015 to assess the severity of erosion. While a formal shoreline erosion inventory has not been completed on the Rum River, the Lower Rum River Watershed Management Organization (LRRWMO), along with City Staff, do conduct annual inspections to identify potential erosion concerns (as well as potential violations of the Wild and Scenic River Overlay District).

One of the primary impetuses for the formal inventory of the Mississippi River shoreline was to identify the most problematic properties and to use that data to solicit funding assistance.

Acceptable Shoreline Stabilization Techniques

There are a number of potential acceptable stabilization techniques that can be employed. While Ramsey would look for guidance from other, more technically specialized agencies, such as the Anoka Conservation District, some potentially acceptable techniques may include:

- Vegetation
- Natural Barriers
- Rip Rap
- Wing Dams
- Other

Oftentimes, a combination of techniques may be necessary. However, each site likely will have specific conditions or circumstances that will, at least in part, determine which method(s) will be most effective.

New Preservation Efforts

Moving forward, Ramsey desires to enhance efforts in two (2) main categories.

1. Groundwater Supply Preservation
2. Solid Waste Reduction
3. Access to Solar
4. Alternative Energy
5. Greenway Planning
6. Water Quality
7. Public Realm Landscaping

Groundwater Supply Preservation

Ramsey desires to protect the quantity and quality of our groundwater supply and aquifers. The City will accomplish this goal with two (2) broad strategies.

1. Programs, Incentives, and Rebates
2. Educational Initiatives

Solid Waste Reduction

Ramsey contracts with a single hauler for curbside service for single-family residential. This not only helps with participation rates and education, but also helps reduce the number of trucks traversing local streets (less wear and tear and likely reduces air pollutants as well). The curbside program provides collection of recyclables on an every other week (EOW) schedule. Ramsey is divided into an east side and west side for collection purposes, generally along Sunfish Lake Blvd and Nowthen Blvd (with all residential properties south of Highway 10 being considered west).

In 2014, State Statute 115A.551 (Recycling) was amended to specify that by December 31, 2030, each metropolitan county will have a goal to recycle seventy-five percent (75%), by weight, of the total solid waste generated. Furthermore, it states that counties will develop or require political subdivisions within the county to develop and implement programs, practices, and/or methods designed to achieve this goal.

In recognition of this aggressive goal, Ramsey has created new and/or additional opportunities for residents to properly dispose of recyclable materials. This includes expanding the list of acceptable materials collected during Ramsey's Recycling Day events, which now accepts carpet, carpet padding, textiles, motor oil, oil filters, and antifreeze. Additionally, Ramsey has added a third Recycling Day (summer) event to provide an

additional opportunity for residents to properly dispose of materials generally not accepted through the curbside program.

After review of a recent metropolitan waste sort (completed for Hennepin County in 2016), it is clear that organic materials represent the largest component remaining in trash. This represents a potential opportunity to boost Ramsey's recycling tonnage, which led the city to implement an organics recycling drop-off program.

Ramsey is providing 'starter kits' at no cost to encourage residents to participate in this program. There are carts located at the Public Works Campus for participants to drop off their organics. Ramsey is continuing to explore various options to expand and improve the organics program. This could include a larger scale drop-off site and/or a curbside program is yet another attempt to increase the amount of material diverted from the trash to the recycling stream.



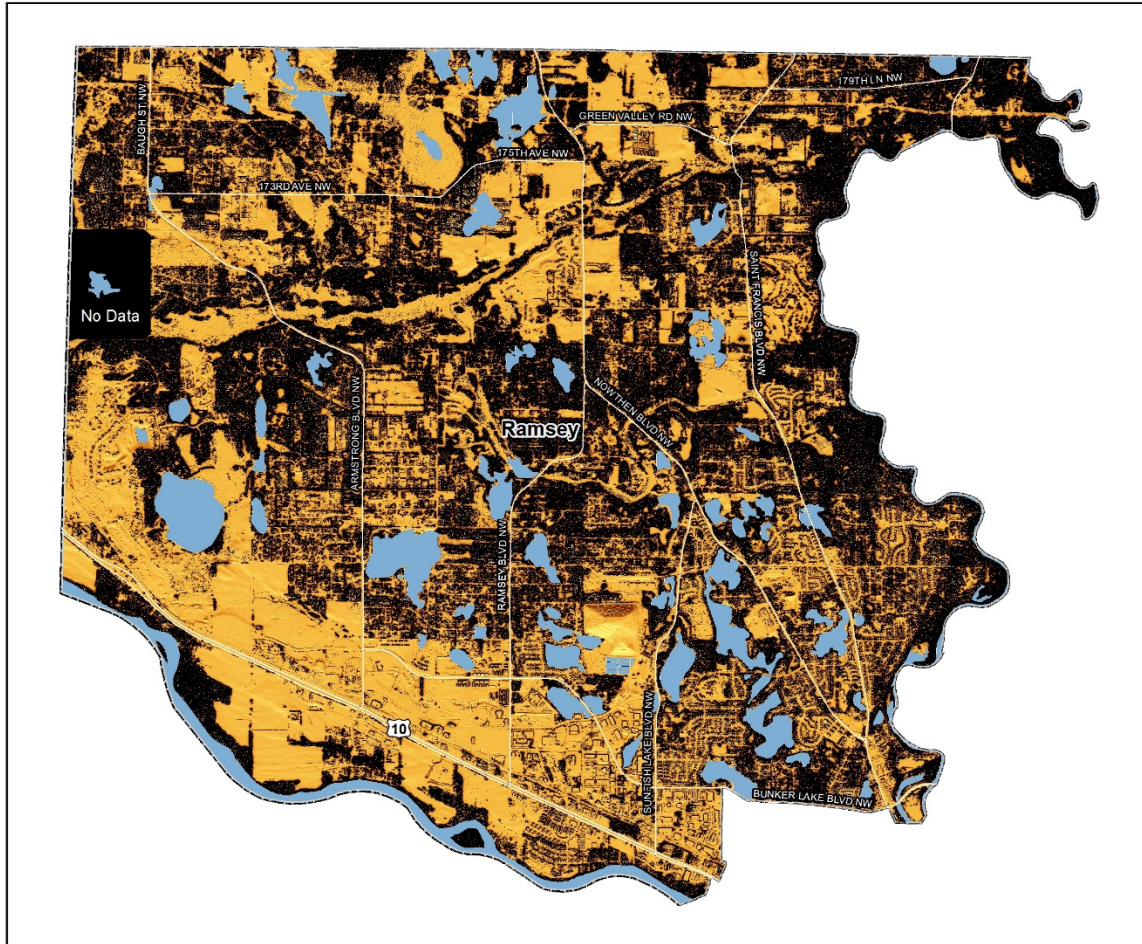
The greatest opportunity to realize significant gains in recycling, however, will likely come from the commercial sector. While Ramsey's recycling program is focused on the residential sector, primarily based on how the program is funded (Select Committee on Recycling and the Environment, aka SCORE), Anoka County does work with the commercial sector. They have partnered with Minnesota Waste Wise to conduct waste audits for interested commercial entities and guidance on how to increase recycling and reduce waste (and possibly costs too). Ramsey supports this work and will continue to explore opportunities to educate and assist the commercial sector with waste reduction measures where feasible.



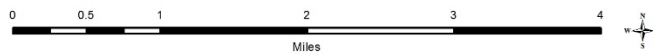
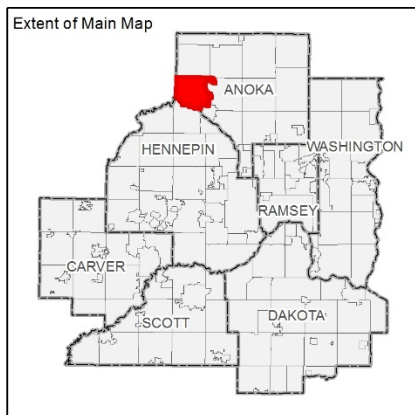
Access to Solar

In the mid-2010s, Ramsey amended its Zoning Code to permit both ground mounted and building mounted solar arrays as an accessory use in any zoning district. This created the possibility for both the residential and commercial/industrial sectors to lawfully install solar energy systems if they so desired. In 2017, Ramsey amended its Zoning Code again to identify solar energy systems as a principal use with the issuance of a Conditional Use Permit within the Public/Quasi-Public zoning district.

Gross Solar Potential City of Ramsey, Anoka County



1/5/2017



Gross Solar Potential (Watt-hours per Year)

High : 1266356
Low : 900001

- Solar Potential under 900,000 watt-hours per year
- County Boundaries
- City and Township Boundaries
- Wetlands and Open Water Features

Source: University of Minnesota U-Spatial Statewide Solar Raster.

Public Realm Landscaping

Ramsey is committed to growing its boulevard/street tree program. A well designed urban forest addresses several of the key imperatives that were identified throughout the public engagement process. Boulevard trees aid with reducing stormwater runoff (improved water quality and increased infiltration). As Ramsey continues to develop, it will inevitably result in a greater number of vehicles on the roads. Boulevard trees will help filter out pollutants and other particulates from the air while also having a traffic calming effect. Boulevard trees also add economic and aesthetic value to neighborhoods and commercial districts.

University of Minnesota Resilient Communities Project

During the 2017-2018 Academic School Year, Ramsey partnered with the University of Minnesota's Resilient Communities Project (RCP) to advance resilience planning and goals. A summary of the projects evaluated during the academic year is found below. Project reports are available upon requests. Many of the recommendations from the RCP partnership are integrated into this document's goals and implementation strategies.



What is the Resilient Communities Project?

The Resilient Communities Project (RCP) is a cross-disciplinary program at the University of Minnesota whose mission is to connect communities in Minnesota with University faculty and students to advance local sustainability and resilience through collaborative, course-based projects. Ultimately, RCP strives to:

- build local capacity to address community sustainability and resilience issues
- train students to be future sustainability practitioners in their fields
- produce case studies, tool kits, and other resources that advance sustainability and resilience practice at the community scale

How does RCP work?

Each academic year, RCP selects a partner community (typically a city, county, or tribal government) through a competitive process. RCP collaborates with the selected community to identify between 5 and 30 projects—based on community identified environmental, social, and economic issues and needs—that will advance local sustainability and resilience. Then, RCP serves as a matchmaker, strategically connecting the community's projects with existing U of MN courses that can provide appropriate research or technical assistance.

Staff and stakeholders from our partner communities work closely with faculty and students to provide local knowledge and deeper insight into the issues, ensuring the work students undertake is relevant to the community context. Outcomes from each University course are documented in a final report and presentation at the conclusion of the semester. Project results are shared with the community, and disseminated through RCP's website for use by other communities.

What are the benefits to students of collaborating with RCP?

- Efficient access to high-quality and well-organized community projects
- Experience applying your knowledge and skills to real-world issues
- Opportunities to build your resume or portfolio for future job interviews
- Potential to meaningfully advance local sustainability and resilience
- Local and regional visibility and recognition for your work
- Opportunities to network with local government and industry professionals



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Resilient Communities Project
UNIVERSITY OF MINNESOTA
Driven to Discover



For the 2017-2018 academic year, RCP is collaborating with the City of Ramsey on 20 projects that will engage dozens of U of MN courses and hundreds of students to provide information, ideas, and new perspectives on locally identified sustainability and resilience issues.

Community Identity and Engagement

Every Voice Matters
Resident Engagement and Volunteerism Plan
A Gathering Place for Community
Community Center Plan
Sustaining Our Legacy
Historic Town Hall Plan
Creating Community Identity
Branding and Marketing Plan

Land Use and Transportation

Highway 10: A Community and Regional Focal Point
U.S. Highway 10 Corridor Plan
Connecting Ramsey
City-Wide Greenway Plan
A Gathering Within: An Attraction Beyond
The CDR Development Plan Update
Paying for Future Infrastructure Needs
Development Fee Study

Environmental Stewardship

Integrating Resources into Our Future
Natural Resources Management and Outreach Plan
Preventing Flood Damage and Disaster
Floodplain Communications Plan
Reduce Waste, Reuse Resources
Organics Recycling Plan
Clean Water, Clean Soil
Septic System Communications Plan
Will the Faucet Turn On?
Water Conservation Toolkit
Restoring Our Shore
Mississippi Shoreline Plan

Housing and Economic Development

Encouraging Small Business Growth and Expansion
Business Incubator Plan
Creating Housing Opportunities for All Generations
Housing Plan
Creating Destination
Retail Market Analysis

Administration

Protecting Our Investments
Asset Management Plan
Sustaining Our Team
Employee Development Plan
Employee Benefits for the Next Generation
Employee Benefits Plan

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RCP is a program of the University of Minnesota's Center for Urban and Regional Affairs (CURA).

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Natural Resources Implementation

Imperative #1: A Balance of Rural Character and Urban Growth

Initiative #1.1: Ensure sustainability of food supply and food web

Tactic	Priority	Responsible Party	Resources
Promote pollinator friendly landscape practices	Immediate	Community Development	

Initiative #1.2: Maintain and enhance the community forest

Tactic	Priority	Responsible Party	Resources
Develop a boulevard tree program	Long Term	Community Development	

Initiative #1.3: Reduce erosion along shorelines

Tactic	Priority	Responsible Party	Resources
Create a Shoreline Protection Plan for the Mississippi River	Immediate	Community Development	
Create a Shoreline Protection Plan for the Rum River	Immediate	Community Development	

Initiative #1.4: Preserve significant ecological resources during development

Tactic	Priority	Responsible Party	Resources
Create a Conservation Subdivision Design Policy	Long Term	Community Development	
Create an Overlay District for Trott Brook	Long Term	Community Development	
Implement the Mississippi River Corridor Critical Areal Plan	Immediate	Community Development	

Initiative #1.5: Improve Sustainability and Resilience

Tactic	Priority	Responsible Party	Resources
Create a Community Resiliency Plan	Long Term	Community Development	TBD

Imperative#2: An Active Community

Initiative #2.1: Improve recreation opportunities along the City's Priority Greenway Plan

Tactic	Priority	Responsible Party	Resources
Complete the Priority Greenway Plan	Immediate	Parks and Recreation	

Imperative #3: A Connected Community

Initiative #3.1: Improve connections to significant ecological resources

Tactic	Priority	Responsible Party	Resources
Inventory potential access points to significant ecological resources	Long Term	Community Development	

Imperative #4: A Positive Learning Environment

Initiative #4.1: Improve awareness for groundwater planning

Tactic	Priority	Responsible Party	Resources
Create an Outreach Plan for groundwater planning	Long Term	Community Development	

Initiative #4.2: Improve awareness for solid waste reduction

Tactic	Priority	Responsible Party	Resources
Create an Outreach Plan for Organics Recycling	Long Term	Community Development	

Relationship to Regional Planning

The Metropolitan Council’s Regional Development Framework, ThriveMSP 2040, outlines roles for the Metropolitan Council and Ramsey for land use policy. Specific to land use policy, the Metropolitan Council has set a goal for the region to achieve Orderly and Efficient Land Use.

<p>Ramsey Role - Natural Resource Protection</p> <ul style="list-style-type: none"> • Include goals, priorities, and natural resource conservation strategies in the local comprehensive plan to protect and enhance natural resources identified in regional and local natural resource inventories. • Conserve, protect, and interconnect open space to enhance livability, recreational opportunities and habitats. • Adopt and implement ordinances for the conservation and restoration of natural resources within the community. • Work with regional partners and regional park implementing agencies to identify, plan for, and acquire natural areas and resources prime for preservation and protection. • Plan for aggregate resource extraction where viable deposits remain accessible, as required by the Metropolitan Land Planning Act. 	<p>Metropolitan Council Role – Natural Resource Protection</p> <ul style="list-style-type: none"> • Integrate natural resource protection strategies into metropolitan system plans for infrastructure investments. • Collaborate with local, regional, and state partners to expand the Regional Parks System, as appropriate, to conserve, maintain, and connect natural resources identified as of high quality or of regional importance, consistent with the 2040 Regional Parks Policy Plan. • Collaborate and convene with state, regional, and local partners to protect, maintain, and enhance natural resources protection. • Maintain an up-to-date regional Natural Resources Inventory and Assessment in partnership with the Department of Natural Resources.
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<ul style="list-style-type: none"> • Complete local natural resources inventories, prioritize areas to protect, and integrate natural resources conservation into local ordinances. • Conserve natural resources and protect vital natural areas when designing and constructing local infrastructure and planning land use patterns. • Encourage site planning that incorporates natural areas as part of site development and redevelopment. 	<ul style="list-style-type: none"> • Provide technical assistance and tools for natural resources protection, conservation, and restoration. • Promote the implementation of best management practices for habitat restoration and natural resource conservation.
<p>Ramsey Role – Water Sustainability</p> <ul style="list-style-type: none"> • Incorporate best management practices for stormwater management in planning processes and implement best management practices with development and redevelopment to control and treat stormwater. • Integrate water sustainability and protection of groundwater recharge areas into local plans. Consider how development, irrigation, reductions in infiltration and inflow, and increased surface runoff impact groundwater recharge and consider conservation strategies and best management practices to mitigate these impacts. • Adopt and implement best management practices for protection of natural resources, the quality and quantity of our water resources, and the preservation of water supply. • Explore alternative water supply sources to ensure adequate water resources beyond 2040. • Collaborate and convene with state, regional, and local partners to protect, maintain, and enhance natural resources protection and the protection of the quality and quantity of the region’s water resources and water supply. • Prepare and implement local water supply plans and source water (wellhead) protection ordinances, consistent with Minnesota Rules part 4720, in all communities with municipal water supply. • Plan land use patterns that facilitate groundwater recharge and reuse, and 	<p>Metropolitan Council Role – Water Sustainability</p> <ul style="list-style-type: none"> • Collaborate and convene with state, regional, and local partners to protect, maintain, and enhance natural resources protection and the protection of the quality and quantity of the region’s water resources and water supply. • Work to maintain and improve the quality and availability of the region’s water resources to support habitat and ecosystem health while providing for recreational opportunities, all of which are critical elements of our region’s quality of life. • Update regional plans for water supply and pursue environmentally sound and cooperative water reuse practices, conservation initiatives, joint planning, and implementation efforts to maximize surface water infiltration to recharge groundwater supplies. • Support economic growth and development by promoting the wise use of water through a sustainable balance of surface and groundwater use, conservation, reuse, aquifer recharge and other practices. • Provide efficient and high-quality regional wastewater infrastructure and services. • Pursue wastewater reuse where economically feasible as a means to promote sustainable water resources. • Reduce the excess flow of clear water into the regional wastewater collection system (inflow and infiltration) to protect capacity for future growth. • Require proper management of subsurface treatment systems, consistent with Minn. Rules Chapters 7080-7083, to minimize

<p>reduce per capita water use to protect the region’s water supply.</p> <ul style="list-style-type: none"> • Plan for sustainable water supply options and groundwater recharge areas to promote development in accordance with natural resources protection and efficient use of land. • Partner with other water supply providers to explore options to reduce dependence on groundwater. • Prepare and implement local surface water plans as required by Minnesota Rules Chapter 8410, the Metropolitan Land Planning Act, and the 2040 Water Resources Policy Plan. • Reduce the excess flow of clear water into the local wastewater collection system (inflow and infiltration). Participate in inflow / infiltration grant programs as available. • Incorporate current MPCA regulations (Minn. Rules Chapters 7080-7083) as part of a program for managing subsurface sewage treatment systems (SSTS) in the comprehensive plan and local ordinances, and implement the standards in issuing permits. Describe the conditions under which the installation of SSTS will be permitted and the areas not suitable for public or private systems. • Adopt and enforce ordinances related to stormwater management and erosion control. • Adopt and implement best management practices for abating, preventing, and reducing point and nonpoint source pollution. • Develop and adopt critical area plans and ordinances consistent with Executive Order 79-19 and Critical Area Program rules in all communities with affected lands in the Mississippi River Critical Area Corridor. • Integrate drinking water source protection into local land use decisions, particularly in Drinking Water Supply Management Areas. • Develop programs that encourage stormwater management, treatment, and infiltration. 	<p>impacts on surface water, groundwater, and public health.</p> <ul style="list-style-type: none"> • Assure adequate and high quality groundwater and surface water supplies to protect public health and support economic growth and development by promoting the wise use of water through a sustainable balance of surface water and groundwater use, conservation, reuse, aquifer recharge, and other practices. • Review watershed management plans in coordination with the Board of Water and Soil Resources. • Review local water plans in partnership with the watershed organizations that approve the local water plans. • Support implementation of volume reduction techniques such as infiltration or filtration for stormwater management. • Promote the implementation of best management practices for stormwater management. • Collaborate with the Minnesota Department of Natural Resources (DNR) to provide technical assistance to local governments in implementing the Mississippi River Critical Area Program, and coordinate with the DNR in review of those plans and ordinances.
<p>Ramsey Role – Resilience</p>	<p>Metropolitan Council Role – Resilience</p>

<ul style="list-style-type: none"> • Identify local measures that would result in reductions in water use, energy consumption, and greenhouse gas emissions. • Identify local mitigation and adaptation strategies and infrastructure resiliency plans to protect against potential negative impacts to local economies, local resources, and infrastructure systems that result from more frequent or severe weather events. • Implement compact development patterns and create more connected places to reduce auto-dependency and related generation of greenhouse gas emissions. • Address climate change mitigation and adaptation in locally meaningful ways in the local comprehensive plan. • Identify local measures that would result in reductions in water use, energy consumption, and emission of greenhouse gases. • Ensure that local comprehensive plans and ordinances protect and enable the development of solar resources, as required by the Metropolitan Land Planning Act, and consider the use of other alternative energy sources as part of the planning process. • Consider the development or use of community solar gardens (CSGs) by public and private entities to enable fuller and more economic use of the community's solar resource, including participating as subscribers, assisting in marketing community solar garden opportunities for economic development, and providing sites for gardens to be developed. • Identify local measures to address impacts to local economies, local resources, and infrastructure systems as a result of more frequent or severe weather events. • Identify local initiatives as cost-saving measures that may, as a result, lower energy consumption, reduce the generation of greenhouse gas emissions, preserve water supply, reduce municipal waste, or increase participation in recycling programs. • Participate in programs that evaluate and share city practices and provide technical 	<ul style="list-style-type: none"> • Substantially reduce energy consumption at Council facilities, improve the efficiency of the Council's vehicle fleets including Metro Transit buses, and provide information to the public and partners to lead by example. • With regional infrastructure, planning, and operations, increase efforts to reduce water use and energy consumption. • Identify and address potential vulnerabilities in regional systems as a result of increased frequency and severity of storms and heat waves. Maintain dikes, emergency generators, and response plans for Council facilities facing extreme weather. • Use the Council's investments and planning authorities to contribute toward meeting statutory goals for reductions in the generation of regional greenhouse gas emissions. • Convene regional discussions about goals for climate change mitigation and adaptation. • Encourage the preparation of adaptation, mitigation, and resiliency responses to climate change as part of the comprehensive plan update. • Develop, collect, and disseminate information about climate change, including energy and climate data, GreenStep Cities best practices, and the next generation of the Regional Indicators data. • Work with the State of Minnesota on a greenhouse gas emissions inventory that informs regional discussion on emissions reduction. • Provide technical assistance and toolkit resources to communities in integrating climate change mitigation and adaptation strategies as part of local comprehensive plans. • Develop and strengthen partnerships with experts in climate change to better assist and inform local communities on how best to evaluate and develop local climate changes strategies. • Encourage communities to participate in regional programs which support efforts to
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<p>support, such as the GreenStep Cities program and the Regional Indicators Initiative.</p>	<p>inform, plan for, mitigate, adapt, and respond to climate change issues of local significance such as water conservation, stormwater infrastructure adaptation, greenhouse gas reduction, use of alternative energy sources, infrastructure planning, and hazard mitigation planning.</p> <ul style="list-style-type: none"> • Provide technical references and resources for communities seeking to mitigate and adapt to climate change in their own facilities and in their communities. Examples of these resources include stormwater, wastewater, and water supply management practices, and transit and land use planning. • Provide, or collaborate with partners to provide, technical references, and resources for communities seeking to mitigate and adapt to climate change, in their own facilities and in their communities, including, but not limited to, stormwater, wastewater, and water supply management practices,
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