



CONSULTANT AGREEMENT

THIS AGREEMENT is made and entered into this 11th day of July 2016, by and between the **CITY OF BILLINGS, MONTANA**, a municipal corporation organized and existing under the laws of the State of Montana, P.O. Box 1178, Billings, Montana 59103, hereinafter referred to as “**CITY**,” and HDR Engineering Inc., 700 SW Higgins Ave, Suite 200 Missoula, MT 59803, hereinafter referred to as “**CONSULTANT**.”

WITNESSETH:

WHEREAS, the **CITY** proposes to provide efficient completion of the Stormwater Quality Control Guidance Manual. Under this task, **CONSULTANT** will prepare and implement a project management plan; provide scope, schedule, and cost control services, conduct monthly internal meetings; and negotiate and administer the contract and desires to hire **CONSULTANT** as an independent contractor to perform the services as described in the Scope of Work attached hereto as Exhibit “A” and by this reference made a part hereof.

WHEREAS, the **CITY** has authority to contract for such services, and;

WHEREAS, the **CONSULTANT** represents that he/s/he is fully qualified to perform such services personally and is in compliance with the Montana Statutes relating to the provisions of such services.

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, the receipt and sufficiency whereof being hereby acknowledged, the parties hereto agree as follows:

- 1. PURPOSE:** **CITY** agrees to hire **CONSULTANT** as an independent contractor to perform the services as described in the Scope of Work attached hereto as Exhibit “A” and by this reference made a part hereof. In performing these services, the **CONSULTANT** shall at all times comply with all federal, state and local statutes, rules and ordinances applicable. These services and all duties incidental or necessary therefore, shall be performed diligently and completely and in accordance with professional standards of conduct and performance.
- 2. TERM:** This **AGREEMENT** shall be for a period of one year, from the execution of this **AGREEMENT**. This **AGREEMENT** may be extended for one year options by mutual agreement of both parties, in writing, thirty (30) days prior to termination.
- 3. PAYMENT:** In consideration of the services provided by the **CONSULTANT** under this **AGREEMENT**, the **CITY** agrees to pay **CONSULTANT** a price not to exceed \$229,791.

In the event scope of work issues arise, the **CONSULTANT** shall immediately discuss them with the Project Manager for the **CITY**. It is understood that the Consultant will not perform any work that the **CITY** deems outside the scope prior to receiving written approval from the



CITY, and at a rate agreed upon by both parties. Any payment for work not agreed upon by the CITY shall be denied.

4. **INDEPENDENT CONTRACTOR STATUS:** The parties agree that **CONSULTANT** is an independent Contractor for purposes of this **AGREEMENT** and is not to be considered an employee of the **CITY** for any purpose. **CONSULTANT** is not subject to the terms and provisions of the **CITY's** personnel policies handbook and may not be considered a **CITY** employee for workers' compensation or any other purpose. **CONSULTANT** is not authorized to represent the **CITY** or otherwise bind the **CITY** in any dealings between **CONSULTANT** and any third parties.

5. **INDEMNITY AND INSURANCE:**

- A. The Consultant agrees to indemnify, defend and save City, its officers, agents and employees harmless from any and all losses, damage and liability occasioned by, growing out of, or in any way arising or resulting from any intentional or negligent act on the part of Consultant or its agents or employees.
- B. The Consultant shall not indemnify, defend, save and hold Billings harmless from claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses or attorneys' fees and costs arising from wrongful or negligent acts, error or omission solely of Billings occurring during the course of or as a result of the performance of the **AGREEMENT**.
- C. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Consultant, the Consultant shall indemnify, defend, save, and hold Billings harmless from only that portion of claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including attorneys' fees and costs, which result from the Consultant's or any subcontractor's wrongful or negligent acts occurring as a result from the Consultant's performance pursuant to this **AGREEMENT**.
- D. The **CONSULTANT** shall maintain in good standing the insurance described in this Section. Before rendering any services under this **AGREEMENT**, the **CONSULTANT** shall furnish the **CITY** with proof of insurance in accordance with this Section.

The **CONSULTANT** shall provide the following insurance:

1. Workers' compensation and employer's liability coverage as required by Montana law.
2. Commercial general liability, including contractual and personal injury coverage's -- \$750,000 per claim and \$1,500,000 per occurrence.
3. Automobile liability -- \$1,500,000 per accident.
4. Professional liability in the amount of \$1,500,000 per claim.

Each policy of insurance required by this Section shall provide for no less than 30 days' advance written notice to the **CITY** prior to cancellation.

The **CITY** shall be listed as an additional insured on all policies except Professional Liability and Worker's Compensation Policies.



In addition, all policies except Professional Liability and Worker's Compensation shall contain a waiver of subrogation against Billings.

CONSULTANT shall comply with the applicable requirements of the Workers' Compensation Act, Title 39, Chapter 71, MCA, and the Occupational Disease Act of Montana, Title 39, Chapter 71, MCA. **CONSULTANT** shall maintain workers' compensation insurance coverage for all members and employees of **CONSULTANT's** business, except for those members who are exempted as independent **CONSULTANTS** under the provisions of §39-71-401, MCA.

CONSULTANT shall furnish **CITY** with copies showing one of the following: **(1)** proof of registration as a registered Contractor under Title 39, Chapter 9, MCA; **(2)** a binder for workers' compensation coverage by an insurer licensed and authorized to provide workers' compensation insurance in the State of Montana; or **(3)** proof of exemption from workers' compensation granted by law for independent Contractors.

6. AGREEMENTS OF CONSULTANT: As an inducement to the execution of this **AGREEMENT** by the **CITY** and in consideration of the agreements to be performed by the **CITY**, the **CONSULTANT** agrees that:

A. Qualifications

The **CONSULTANT** is qualified to perform the services to be furnished under this **AGREEMENT** and is permitted by law to perform such services, and all personnel engaged in the work shall be qualified and so permitted to do the work they perform.

B. Solicitation of Agreement

The **CONSULTANT** has not employed any person to solicit this **AGREEMENT** and has not made, and will not make, any payment or any agreement for the payment of any commission, percentage, brokerage, contingent fee, or other compensation in connection with the procurement of this **AGREEMENT**.

C. Facilities and Personnel

The **CONSULTANT** has and will continue to have proper facilities and personnel to perform the services and work agreed to be performed.

D. Subcontracting

None of the work or services covered by this **AGREEMENT** shall be subcontracted without the prior approval of the **CITY**.

E. Affidavits of Compliance

The **CONSULTANT** will, if requested by the **CITY**, furnish the **CITY** affidavits certifying compliance with the provisions of this Section.



7. **AGREEMENTS OF CITY:**

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete the City of Billings' portion of the project as designated in the scope of work.
- B. Name a Project Manager who shall be the liaison between the Consultant and the City of Billings. For this project, the Project Manager for **CONSULTANT** designated is Matt Peterson, P.E. and the Project Manager for **CITY** designated is Vern Heisler P.E.

8. **NONDISCRIMINATION:**

- A. The **CONSULTANT** will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, or marital status or who is a "qualified individual with a disability" (as that phrase is defined in the Americans With Disabilities Act of 1990). The **CONSULTANT** will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, or mental or physical impairment/disability. Such action shall include, without limitation, employment, upgrading, demotion or transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The **CONSULTANT** agrees to post, in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- B. The **CONSULTANT** shall state, in all solicitations or advertisements for employees to work on jobs, that all qualified applicants will receive equal consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex or marital status, or mental or physical impairment/disability.
- C. The **CONSULTANT** shall comply with any and all reporting requirements that may apply to it that the **CITY** may establish by regulation.
- D. The **CONSULTANT** shall include the provisions of Subsections A through C of this Section in every subcontract or purchase order under this **AGREEMENT**, so as to be binding upon every such sub-consultant or vendor of the **CONSULTANT** under this **AGREEMENT**.
- E. The **CONSULTANT** shall comply with all applicable federal, state, and city laws concerning the prohibition of discrimination.

9. **PERMITS, LAWS, AND TAXES:** The **CONSULTANT** shall acquire and maintain in good standing all permits, licenses and other entitlements necessary to its performance under this **AGREEMENT**. All actions taken by the **CONSULTANT** under this **AGREEMENT** shall comply with all applicable statutes, ordinances, rules and regulations. The **CONSULTANT** shall pay all taxes pertaining to its performance under this **AGREEMENT**.



10. **NONWAIVER:** The failure of either party at any time to enforce a provision of this **AGREEMENT** shall in no way constitute a waiver of the provision, nor in any way affect the validity of this **AGREEMENT** or any part hereof, or the right of such party thereafter to enforce each and every provision hereof.
11. **DECLARATION OF NO FINANCIAL INTEREST:** The **CONSULTANT** hereby declares that he does not have any interest (including that of real estate agent or broker), direct or indirect, present or prospective, in any property described in Section 1 or in its sale, or any other interest, whether or not in connection with the property, which would conflict in any manner or degree with the performance of the services and the submission of impartial reports, and has not employed and will not employ, in connection with the services to be furnished under this **AGREEMENT**, any person having any such interest. Until the property is acquired by the **CITY** or excluded from its project by resolution of its governing body, the **CONSULTANT** and any employees of the **CONSULTANT**, so long as they are employed by the **CONSULTANT**, will not acquire any such interests and will not, for their own account or for other than the **CITY**, negotiate for any of the property, perform services in connection with the property, or testify voluntarily as a witness in a condemnation or other proceeding with respect to the property.
12. **SUCCESSORS AND ASSIGNS:** This **AGREEMENT** and all of the covenants hereof shall inure to the benefit of and be binding upon the **CITY** and the **CONSULTANT** respectively and his partners, successors, assigns, and legal representatives. Neither the **CITY** nor the **CONSULTANT** shall have the right to assign, transfer, or sublet his interest or obligations hereunder without written consent of the other party.
13. **CHANGES IN WORK:** Any change in the scope of **CONSULTANT'S** services as stated in this **AGREEMENT** for whatever reason, will be negotiated between the **CITY** and the **CONSULTANT** and an amendment to this **AGREEMENT** will be issued with the appropriate change of services and **AGREEMENT** fee noted.
14. **LEGAL RELATIONS:** The **CONSULTANT** shall comply with all Federal, State, and local laws and ordinances applicable to the work to be done.
15. **TERMINATION OF AGREEMENT:** The right is reserved by the **CITY** to terminate this **AGREEMENT** at any time upon not less than thirty (30) days written notice to the **CONSULTANT**.
- In the event the **CITY** terminates this **AGREEMENT**, the **CONSULTANT** shall be paid for the amount of work performed or services rendered to date of termination per the **AGREEMENT** fee.
16. **ENDORSEMENTS:** The **CONSULTANT** shall furnish signatures, statements, or other suitable means to signify responsible endorsement of work on all reports furnished by him.
17. **OWNERSHIP OF DOCUMENTS:** All information relating to the project and prepared under the terms of this **AGREEMENT**, including reports, data,



recommendations, exhibits, analyses, and plans shall be deemed the property of the CITY. Reproducibles of all notes, reports, and plans shall be made available at the CITY'S request.

18. **PUBLIC INFORMATION:** The CONSULTANT shall not issue any statements, releases, or information for public dissemination without prior written approval of the CITY.
19. **PROPRIETARY RIGHTS:** If patentable discoveries or inventions should result from work required herein, all rights accruing from such discoveries or inventions shall be the property of the CITY.
20. **RECORDS:** The CONSULTANT shall maintain accounting records and other evidence pertaining to the cost incurred and to make the records available at all times during the AGREEMENT term and for three (3) years from the date of final payment. Such accounting records and other evidence pertaining to the cost incurred will be made available for inspections authorized by the CITY and copies thereof shall be furnished if requested.
21. **ATTORNEY'S FEES AND COSTS:** That in the event it becomes necessary for either Party to this AGREEMENT to retain an attorney to enforce any of the terms or conditions of the AGREEMENT or to give any notice required herein, then the prevailing Party or the Party giving notice shall be entitled to reasonable attorney's fees and costs.
22. **LITIGATION LOCATION:** The parties agree that this AGREEMENT shall be governed in all respects by the laws of the state of Montana, and the parties expressly agree that venue shall be in the Montana Thirteenth Judicial District County for Yellowstone County and there shall be no other venue for resolution of disputes arising from the AGREEMENT or the performance of its terms.
23. **MODIFICATION AND AMENDMENTS:** That any amendment or modification of this AGREEMENT or any provisions herein shall be made in writing and executed in the same manner as this original document and shall after execution become a part of this AGREEMENT.



IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

CITY OF BILLINGS, MONTANA

**CONSULTANT
HDR Engineering, Inc.**

By _____

Thomas W. Hanel, Mayor

By _____

Print Name _____

Print Title _____

APPROVED AS TO FORM:

By _____

BRENT BROOKS, CITY Attorney



Exhibit A

Montana Post-Construction Stormwater Quality Control Guidance Manual

SCOPE OF SERVICES

Tasks	
100	Project Management and Administration
200	Project Kick Off
300	Facilitate Technical Working Group Meetings
400	Manual Development
500	Stakeholder Facilitation

Project Goals and Understanding

The Montana Department of Environmental Quality (MDEQ) will be issuing a new General Permit for Stormwater Discharge Associated with Small Municipal Separate Storm Sewer System (General Permit) on January 1, 2017. The General Permit will contain a post- construction design requirement (Part II.A.5.b.iv) which requires retention and/or treatment of runoff generated from the first 0.5 inches of rainfall. The MS4 Cities have requested a manual (Manual) which will provide guidance for compliance with this requirement. The understanding and primary goals of this project are as follows:

- The Manual will provide technical guidance for selecting, designing, constructing, and maintaining post-construction stormwater controls which meet the requirements of the General Permit, Part II.A.5.b.iv.
- Adhering to the guidance provided within the manual will serve as documentation of compliance with the General Permit (Part II.A.5.b.iv), thus providing regulatory predictability to the MS4s and those conducting work on regulated projects within MS4 boundaries.
- The Manual will serve as a guidance document and is not required for use within MS4 boundaries; however, it is anticipated that individual cities may adopt the Manual and make modifications in a manner similar to how they currently utilize the Montana Public Works Standard Specifications.
- The Manual may be used outside of MS4 boundaries but its use not required at this point in time.
- It is understood that the forthcoming revision to Circular DEQ 8 will provide State-wide guidance on stormwater discharge and volume analysis as well as the design of control facilities in order to meet volume reduction standards for flood control considerations. It



is anticipated that the guidance provided within Circular DEQ 8 will be sufficient such that this Manual will focus primarily on post-construction water quality controls.

- The preliminary Table of Contents (TOC) and anticipated sources to be used for development of the Manual is provided in Attachment A.

Task 100 – Project Management and Administration

Objective

HDR will manage and control its professional services contract to provide efficient completion of the Manual. Under this task, HDR will prepare and implement a project management plan; provide scope, schedule, and cost control services, conduct monthly internal meetings; and negotiate and administer the contract. The project management plan will be completed jointly for all project phases and components identified in the scope of services for project delivery.

HDR Subtasks:

Subtask 101 – Project Management Plan

A project management plan will be developed that includes: 1) project objectives and priorities;

2) role of the Cities and HDR throughout the project; 3) contract work plan, including scope, schedule, budget, resource assignments, and coordination requirements; 4) quality assurance and quality control plan; 5) management tools and techniques; 6) reporting requirements; and 7) administrative procedures.

Assumptions

- The project will take one (1) year to complete.

Task 200 – Project Kickoff

Objective

The objective of this task is to begin the project with a common understanding of the expected contents of the Manual, the process for Manual development, and identify stakeholder roles and responsibilities.

Subtask 201 – Project Kickoff Meeting

HDR will conduct a kickoff meeting with the Technical Subgroup to discuss the following:

- Project expectations and schedule
- Review lessons learned
- Finalize the TOC
- Establish Technical Work Group (TWG) involvement and comment procedures
- Select a TWG lead
- Introduce stakeholder involvement plan

During this meeting we will also conduct a presentation to discuss example manuals and expected key components to be included in the Manual. Following the meeting HDR will finalize the TOC.



Subtask 202 – Develop Electronic Project Working Site

A Dropbox folder will be developed and distributed to the TWG. The folder will be used to house and distribute all review and working copies of the Manual as it is developed.

Assumptions

- 3 representatives from HDRs project team will attend the Kickoff Meeting
- A minimum of one representative from each City will actively participate in the Kickoff Meeting
- A minimum of one representative from MDEQ will actively participate in the Kickoff Meeting

Deliverables

- Meeting notes
- Final TOC

Task 300 – Facilitate Technical Work Group (TWG) Meetings

Objective

HDR will facilitate TWG meetings to obtain comments and feedback on the manual development.

HDR Subtasks:

Subtask 301 – Technical Working Group Meetings

The HDR team lead will conduct monthly TWG meetings. Up to 10 of the meetings will be in-person at the Helena Chamber of Commerce building and up to three group conference calls will occur as-needed. It is recommended that the meetings are to be attended by a minimum of one representative from each City and one representative from MDEQ. The purpose of these meetings will be to review progress, schedule, and address TWG comments.

The meetings will be a discussion forum, expected to cover the on-going technical content development, graphics, visual layout, and organization of the Manual. The group will address comments from each City and it is expected that the Cities will participate in discussion and give explanations to comments provided.

Subtask 302 – Meeting Host

HDR will organize the in-person meetings. This task will include: send out meeting invites and reminders, create a meeting agenda, develop meeting notes, and secure the meeting space (Helena Chamber of Commerce).

Assumptions

- 10 in-person meetings, hosted by HDR at the Helena Chamber of Commerce building, will be conducted.
- 3 conference calls, hosted by HDR, will be conducted.
- Up to 2 representatives from HDR will attend each meeting.



- The meetings will last 4 hours
- A minimum of one representative from each City will actively participate in the meetings.
- A minimum of one representative from MDEQ will actively participate in the meetings.
- Members of the TWG will rotate responsibility for providing snacks and lunch for the in- person meetings.

Deliverables

- Produce meeting summary emails following meetings containing notes, action items, decisions, and next steps.

Cities' Responsibilities:

- Participation in TWG Meetings by at least one staff member from each City.

Task 400 –Manual Development

Objective:

HDR will develop a draft Manual based on the preliminary TOC provided in Attachment A. The Manual will be developed in the order in which sections appear within the TOC. Each section will be discussed at two TWG meetings, and will be developed using the following process:

- 1st TWG Meeting: Section overview
 - HDR will provide an overview of expected content for the section(s), including sample content from existing sources.
 - The TWG will provide feedback, ask questions, and discuss ideas for the section(s)
- Section development period (3-weeks)
 - HDR will develop the section(s) to 90% completion
 - HDR will deliver 90% section draft(s) to TWG (electronic)
- TWG Review Period (1-week)
 - TWG review draft section(s) and complete comment log
 - TWG provide comment log to HDR prior to the 2nd TWG meeting
- 2nd TWG Meeting: 90% Draft Review
 - Discuss comments and questions on the 90% draft
 - Resolve conflicting comments
 - Overview of next section(s) to be developed
- HDR will finalize section(s) based on TWG Meeting discussion

A preliminary schedule containing the sections to be discussed at each meeting is provided in Attachment B.



HDR Subtasks:

Subtask 401 – Chapter 1

Subtask 402 – Chapter 2

Subtask 403 – Chapter 3

Subtask 404 – Chapter 4

Subtask 405 – Chapter 5

Subtask 406 – Appendices

Subtask 407 – Final Manual Development

The complete manual will be compiled and distributed to the TWG for one final review.

Assumptions

- Chapters will be posted online for review and provided as a hard-copy at each TWG meeting.
- HDR will receive comments from each TWG representative and compile comments into a comprehensive comment-response log. The comprehensive comment-response log will be distributed to the TWG. Conflicting comments will be discussed and resolved at the TWG meetings.
- HDR will not re-distribute the comment response logs after comments have been addressed.
- Each section will undergo one round of comments and revisions (at the 90% development stage).
- TWG comments on the final Manual will be minor in nature and significant time will not be required to revise the Manual at this stage (Subtask 407).
- Publicly available graphics will be used (and cited) from existing sources and if necessary, customized, to account for unique local constraints.
- The Manual will maximize the use of existing information and customize content to account for local constraints.
- MDEQ will actively participate in the TWG meetings and comment on submittals. Additional time will not be necessary to respond to individual MDEQ comments on the Manual.
- EPA's review of the manual will not be required for MDEQ's approval and therefore additional time will not be necessary to respond to EPA comments on the Manual.

Deliverables

- Materials related to the conceptual discussion for sections to be discussed at each TWG Meeting
- 90% draft of each section of the Manual
- Electronic copy (pdf) of the final Manual
- 16 hard copies of the final Manual



TWG Responsibilities:

- The Cities' TWG Representative(s) will review draft materials and provide comments on the project comment log template prior to each meeting.
- MDEQ will review draft materials and provide comments on the project comment log template prior to each meeting.

Task 500 – Stakeholder Facilitation

HDR will work with Montana Building Industry Association (MBIA) to identify up to three additional stakeholders to be added to the TWG. It is anticipated that the additional stakeholders will include stormwater facility design engineers and/or landscape architects.

HDR Subtasks:

Subtask 501 – Initial Stakeholder Facilitation Webinar

HDR will conduct a webinar following the Project Kickoff Meeting to provide an overview of the reasons why the Manual is being developed and the content to be developed for the Manual.

Assumptions

- MBIA will help to advertise the webinar to its members

Deliverables

- Webinar

TWG Responsibilities:

- Assist with selection of additional stakeholders to join the TWG, if necessary

Schedule

The Manual is anticipated to take one (1) year to complete. A preliminary meeting schedule which lists key deliverables is shown Attachment B; however, the project schedule is dependent upon finalization of permit language.

Assumptions

- The General Permit's post-construction design requirements (Part II.A.5.b.iv) will not be modified from the draft permit language to be released by MDEQ on July 1, 2016.

ATTACHMENT A

MONTANA POST-CONSTRUCTION STORMWATER QUALITY CONTROL DESIGN GUIDANCE MANUAL PRELIMINARY TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION TO THE MANUAL

1.1 Stormwater Management Approach in Montana

Content: *Discuss the basic idea of using a combination of LID and non-LID approaches to manage stormwater and protect water quality. This includes the benefits of mimicking a pre-development hydrologic condition and/or reducing concentrations of pollutants in runoff to the maximum extent practicable.*

Source(s)/Example(s): *West Virginia - Section 1.1, Montana MS4 Permit*

1.2 Purpose and Audiences for the Manual

Content: *Audiences will be project owners, design engineers, landscape architects, contractors, and project reviewers.*

Source(s)/Example(s): *West Virginia - Section 1.2*

1.3 Post-Construction Stormwater Criteria in the Montana MS4 General Permit

Content: *Discuss the first 0.5-inch runoff reduction/treatment requirement.*

Source(s)/Example(s): *West Virginia - Section 1.3, Montana MS4 Permit*

1.4 Additional Regulatory Considerations for Stormwater Management in Montana

Content: *This section will communicate the importance considering factors beyond water quality when designing drainage facilities (e.g. meeting drainage standards that protect life and property, continue to meet geotechnical standards that protect life and property from liquefaction and landslides, and to meet building code standards that protect life and property from moisture-driven damages). The discussion will reference Circular DEQ 8, DEQ's Construction General Permit, local regulations, floodplains, dewatering permit, disinfected water permit, etc. This section will not go into great detail of other specific regulatory requirements, but will mention some of the potential additional regulations to consider and will instruct the user/designer to determine additional requirements for him/herself.*

Source(s)/Example(s): *West Virginia - Section 1.4 and 2.2.*

1.5 Low Impact Development and Stormwater Management

Content: *Discuss the benefits of LID and where/how it fits into the stormwater management approach in Montana.*

Source(s)/Example(s): *Montana Stormwater Criteria Manual Chapter 1 and 2*

CHAPTER 2: SITE DEVELOPMENT

2.1 Site Development Process

Content: *Discuss the basic process for site design which considers stormwater management. Emphasize that stormwater management needs to be considered as an integral part of site design, not as an*

afterthought. This section will also mention some of the specific site components which need to be considered such as topography, wetlands, floodplains, soils, land use, etc.

Source(s)/Example(s): *Montana Stormwater Criteria Manual Chapter 2, Edmonton - Section 4.2, Eastern Washington - Chapter 2, California - Section 2, Tennessee - Section 3.3*

2.2 Climate Considerations

Content: *Discuss general considerations for designing stormwater management controls in both cold and hot/arid climates.*

Source(s)/Example(s): *Minnesota, Edmonton - Section 6.3, and a survey of select cities with applicable experience*

CHAPTER 3: HYDROLOGIC ANALYSIS METHODOLOGY

3.1 Hydrologic Basis of the Runoff Reduction Standard

Content: *Discuss why we use the 0.5 inch standard and why it is important for water quality*

Source(s)/Example(s): *Use the Fact Sheet for the effective MS4 General Permit to aid in this discussion.*

3.2 Runoff Reduction and Pollutant Removal Volume

Content: *Provide a standard method for calculating the volume of runoff from the first 0.5-inches of rainfall.*

Source(s)/Example(s): *TBD, will use the Montana Stormwater Criteria Manual if applicable, but more research is needed to determine the appropriate approach.*

3.3 Runoff Reduction and Pollutant Removal Flow Rate

Content: *Provide a standard method for calculating the peak runoff from the first 0.5-inches of rainfall (for flow through BMPs such as a biofiltration swale). The approach may be to calculate the 90th percentile peak runoff because the volumetric standard of the 0.5 inch 24 hour volume is the 90th percentile runoff volume for volume-based BMPs.*

Source(s)/Example(s): *TBD*

CHAPTER 4: BMP SELECTION PROCESS AND FEASIBILITY DETERMINATION

4.1 Selection of Post-Construction Stormwater Management Controls

Content: *A discussion of how to select the appropriate controls for a given site. This could be a basic discussion or an in-depth prescribed methodology (such as the Denver Manual has). Discussion topics will likely be a consideration of appropriate stormwater management controls for the size of the basin and a table of which controls treat certain pollutants. A flow chart could also be provided.*

Source(s)/Example(s): *Denver/Colorado – Chapter 2, New Hampshire – Chapter 3, Montana Stormwater Criteria Manual – Sections 2.1 and 2.2, Billings – Section 8.4.*

4.2 Infeasibility Criteria for Use of Offsite Treatment

Content: *A discussion of items to be considered when determining that offsite treatment is to be used to treat stormwater at a given site.*

Source(s)/Example(s): *West Virginia – Section 3.3.2 and others as needed*

4.3 Offsite Treatment Planning Guidance

Content: *Guidance for how to utilize offsite treatment to meet the runoff reduction/treatment standard (0.5-inch standard).*

Source(s)/Example(s): *TBD*

CHAPTER 5: DESIGN GUIDANCE FOR POST-CONSTRUCTION STORMWATER MANAGEMENT CONTROLS

5.1 Introduction

Content: Basic discussion of how to use this design guidance.

Each control will have the following sub-sections (as applicable):

- Description
- Benefits & Limitations
- Performance
- Site Selection
- Design and Sizing Procedure
- Vector Control?
- Vegetation Considerations
- Construction Considerations
- Plan View & Typical Section(s)
- Maintenance

Source(s)/Example(s): TBD, however we anticipate using/referencing the Montana Stormwater Criteria Manual Draft, Urban Storm Drainage Criteria Manual (Denver), Eastern Washington LID Manual, and Design of Urban Stormwater Controls

5.2 Extended Detention Basin

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Denver/Colorado – Chapter 4 (T-5) and additional sources as needed.

5.3 Wet Detention Basin

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Will start with Montana Stormwater Criteria Manual and select additional sources as needed.

5.4 Infiltration Basin

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Will start with Montana Stormwater Criteria Manual and Billings Stormwater Management Manual. Will select additional sources as needed.

5.5 Bioretention

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Will start with Montana Stormwater Criteria Manual and Billings Stormwater Management Manual. Will select additional sources as needed.

5.6 Biofiltration Swale

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Will start with Montana Stormwater Criteria Manual and Billings Stormwater Management Manual. Will select additional sources as needed.

5.7 Dispersion

Content: Sub-sections will match those discussed above.

Source(s)/Example(s): Eastern Washington, and additional sources as needed.

5.8 Permeable Surfaces

Content: *Sub-sections will match those discussed above.*

Source(s)/Example(s): *Eastern Washington, Denver/Colorado – Chapter 4 (T-10), and additional sources as needed.*

5.9 Mechanical Treatment

Content: *A discussion on the applicability and limitations of mechanical treatment. This section will not endorse any one product and will not provide design guidance.*

Source(s)/Example(s): *This section could reference the Washington DOE approved stormwater treatment technologies.*

APPENDICES

Appendix A: Glossary

Appendix B: LID Planning and Design Checklist

Consider Adopting from Eastern Washington LID Manual

Appendix C: Evaluating Soil Infiltration Rates

Consider Adopting from Eastern Washington LID Manual

Appendix D: Soil Amendments

Appendix E: Standard Forms

From the MS4 Working Group

Appendix F: Inspection and Maintenance Checklists

Appendix G: References

Anticipated Manuals to Reference

- [West Virginia Stormwater Management and Design Guidance Manual](#)
- [Eastern Washington LID Guidance Manual](#)
- [Edmonton LID BMP Design Guide Edition 1.1](#)
- [California New Development & Redevelopment BMP Handbook](#)
- [Tennessee Permanent Stormwater Management and Design Guidance Manual](#)
- [Minnesota Stormwater Manual](#)
- [Urban Storm Drainage Criteria Manual Volume 3 \(Denver\)](#)
- [New Hampshire Post-Construction Best Management Practices Selection and Design](#)
- [Design of Urban Stormwater Controls](#)

ATTACHMENT B

MONTANA POST-CONSTRUCTION STORMWATER QUALITY CONTROL DESIGN GUIDANCE MANUAL

PRELIMINARY MEETING SCHEDULE

Kickoff Meeting: August 2016

- Project expectations and schedule
- Review lessons learned
- Finalize the TOC
- Establish Technical Work Group (TWG) involvement and comment procedures
- Introduce stakeholder involvement plan

TWG Meeting 1: September 2016

- Conceptual Discussion on Chapter 1

TWG Meeting 2: October 2016

- 90% Review of Chapter 1
- Conceptual Discussion on Chapter 2

TWG Meeting 3: November 2016

- 90% Review of Chapter 2
- Conceptual Discussion on Chapter 3

TWG Meeting 4: December 2016

- 90% Review of Chapter 4
- Conceptual Discussion on Chapter 5
 - Basic BMP Guidance Section Layout
 - Section 5.1: Introduction
 - Section 5.2: Extended Detention Basin

TWG Meeting 5: January 2017

- 90% Review
 - Section 5.1: Introduction
 - Section 5.2: Extended Detention Basin
- Conceptual Discussion
 - Section 5.3: Wet Detention Basin
 - Section 5.4: Infiltration Basin

TWG Meeting 6: February 2017

- 90% Review
 - Section 5.3: Wet Detention Basin
 - Section 5.4: Infiltration Basin
- Conceptual Discussion
 - Section 5.5: Bioretention
 - Section 5.6: Biofiltration Swale

TWG Meeting 7: March 2017

- 90% Review
 - Section 5.5: Bioretention
 - Section 5.6: Biofiltration Swale
- Conceptual Discussion
 - Section 5.7: Dispersion
 - Section 5.8: Permeable Surfaces

TWG Meeting 8: April 2017

- 90% Review
 - Section 5.7: Dispersion
 - Section 5.8: Permeable Surfaces
- Conceptual Discussion
 - Section 5.9: Mechanical Treatment

TWG Meeting 9: May 2017

- 90% Review
 - Section 5.9: Mechanical Treatment
- Conceptual Discussion
 - Appendices

TWG Meeting 10: June 2017

- 90% Review
 - Appendices



ATTACHMENT C

MONTANA POST-CONSTRUCTION STORMWATER QUALITY
CONTROL DESIGN GUIDANCE MANUAL
SAMPLE COMMENT FORM

*Thank you for submitting your comments on the Montana Stormwater Guidance Manual.
Please use the form below, entering your information in the white columns. Shaded columns are for HDR's tracking.*

All comment forms must be received by [date]. Please return this form to: [email]

Name:

Organization:

Email:

Phone number:

Comment #	Page #	Section #	Paragraph, Table or Figure	Comment	Proposed Resolution	Status



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
6/1/2017 5/25/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:												
INSURER(S) AFFORDING COVERAGE													
INSURED 13147 HDR ENGINEERING, INC. 8404 INDIAN HILLS DRIVE OMAHA, NE 68114-4049 BELLEVUE/KATIE WARD	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">INSURER A : Hartford Fire Insurance Company</td> <td style="width: 20%;">19682</td> </tr> <tr> <td>INSURER B : Travelers Property Casualty Co of America</td> <td>25674</td> </tr> <tr> <td>INSURER C : American Zurich Insurance Company</td> <td>40142</td> </tr> <tr> <td>INSURER D : Lexington Insurance Company</td> <td>19437</td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table>	INSURER A : Hartford Fire Insurance Company	19682	INSURER B : Travelers Property Casualty Co of America	25674	INSURER C : American Zurich Insurance Company	40142	INSURER D : Lexington Insurance Company	19437	INSURER E :		INSURER F :	
INSURER A : Hartford Fire Insurance Company	19682												
INSURER B : Travelers Property Casualty Co of America	25674												
INSURER C : American Zurich Insurance Company	40142												
INSURER D : Lexington Insurance Company	19437												
INSURER E :													
INSURER F :													

COVERAGES HDRIN01 **CERTIFICATE NUMBER:** 2824447 **REVISION NUMBER:** XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WRD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CONTRACTUAL LIAB GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:	Y	Y	37CSEQU0950	6/1/2016	6/1/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A A A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	Y	Y	37CSEQU0951 (AOS) 37CSEQU0952 (HI) 37CSEQU1160 (MA)	6/1/2016 6/1/2016 6/1/2016	6/1/2017 6/1/2017 6/1/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ XXXXXXX BODILY INJURY (Per accident) \$ XXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXX \$ XXXXXXX
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CLAIMS-MADE DED RETENTION \$	N	N	ZUP-10R64084-16-NF (EXCLUDES PROF. LIAB)	6/1/2016	6/1/2017	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$ XXXXXXX
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	0381127	7/1/2016	7/1/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	<input checked="" type="checkbox"/> ARCHS & ENGS PROFESSIONAL LIABILITY	N	N	061853691	6/1/2016	6/1/2017	PER CLAIM: \$2,000,000. AGG: \$2,000,000.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 RE: CLIENT #000194: ALL PROJECTS, CITY OF BILLINGS, ITS OFFICIALS, OFFICERS, EMPLOYEES & AGENTS ARE NAMED AS ADDITIONAL INSUREDS AS RESPECTS GENERAL & AUTOMOBILE LIABILITY, AS PER WRITTEN CONTRACT. WAIVER OF SUBROGATION APPLIES.

CERTIFICATE HOLDER 2824447 CITY OF BILLINGS PUBLIC WORKS DEPARTMENT ATTN: DAVE MUMFORD 2224 MONTANA AVE 2ND FLOOR BILLINGS MT 59101	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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