



Stormwater Management Plan 2020-2025

Updated April 2023

Herriman City
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Table of Contents

DELEGATION OF AUTHORITY	7
CERTIFICATION.....	9
ABBREVIATIONS.....	11
2.3 STORMWATER MANAGEMENT PROGRAM PLAN DESCRIPTION.....	13
2.3.2 REVISED SWMP DOCUMENT	13
2.3.2.1 Permit Number	13
2.3.2.2. MS4 Location	13
2.3.2.3 Overall Water Quality Concerns	13
2.3.2.4 Program Elements.....	13
2.3.2.5 Ordinance Modifications.....	13
2.3.2.6 Permit Requirements	13
2.3.2.7 Responsibilities	13
2.3.2.8 Certification	13
2.3.2.9 Measurable Goals	14
3.1 IMPAIRED WATERS	14
3.1.1.1 Discharges into 303(d) Water Bodies.....	14
3.1.1.2 TMDL Requirements	14
3.1.2 WATER QUALITY CONTROL.....	14
3.1.3 NEW OR PRE-APPROVED DISCHARGE DETERMINED AS POLLUTANT	14
3.2 NITROGEN AND PHOSPHORUS REDUCTION	14
3.2.1 REDUCTION OF NITROGEN AND PHOSPHORUS.....	14
3.2.1.1 Stormwater Coalition	15
3.2.1.2 Target Sources	15
3.2.1.3 Prioritize Targeted Sources.....	15
STORMWATER MANAGEMENT PROGRAM	16
4.1 REQUIREMENTS	16
4.1.1 STORMWATER MANAGEMENT PROGRAM	16
4.1.1.1 Implementation	16
4.1.2 DEVELOPMENT AND IMPLEMENTATION.....	16
4.1.2.1 Implementation Tracking.....	16
4.1.2.2 Stormwater Funding	16
4.1.3 BMPs IMPLEMENTED	16
4.1.3.1 Measurable Goals	16
4.1.3.2 Responsible Party for Implementation	16
4.1.3.3 Revisions of the SWMP	16
4.1.3.4 Good Faith Effort.....	17
4.2 MINIMUM CONTROL MEASURES	17
4.2.1 PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS.....	17
4.2.1.1 Targeted Pollutant Sources.....	17
4.2.1.2 General Public Education and Outreach	18
4.2.1.3 Institutions, Industrial and Commercial Facilities	18

4.2.1.4 Construction Education Program	19
4.2.1.5 LID, Green Infrastructure, Post-Construction Education	19
4.2.1.6 Evaluation	19
4.2.1.7 Selection Rationale	20
4.2.2 PUBLIC INVOLVEMENT/PARTICIPATION	21
4.2.2.1 Public Input during SWMP Writing Process	21
4.2.2.2 SWMP Availability	22
4.2.2.3 Adopted SWMP accessibility for the life of the permit.....	22
4.2.2.4 Public Notice Requirements.....	22
4.2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	23
4.2.3.1 MS4 Map	23
4.2.3.2 Ordinances for Illicit Discharge	23
4.2.3.2.1 Legal Authority	23
4.2.3.3 IDDE Mitigation Plan	23
4.2.3.3.1 High Priority Areas.....	23
4.2.3.3.2 Field Assessment Activities	24
4.2.3.3.3 Permit Term Field Assessment Activities	24
4.2.3.3.4 Discovered or Suspected Discharges.....	24
4.2.3.4 Tracing Illicit Discharge Source Procedures	24
4.2.3.5 Characterize the Nature and/or Threat of Illicit Discharge.....	24
4.2.3.5.1 Inspection Documentation	25
4.2.3.6 Ceasing Illicit Discharges	25
4.2.3.6.1 Requiring the cessation of an Illicit Discharge	25
4.2.3.6.2 Liability	25
4.2.3.6.3 IDDE Investigation Reports.....	25
4.2.3.7 Illicit Discharge Education and Training	26
4.2.3.8 Household Hazardous Waste	26
4.2.3.9 Public Hotline	26
4.2.3.9.1 Spill/Dumping Response Procedure.....	26
4.2.3.10 Program Evaluation and Assessment.....	27
4.2.3.11 Annual Training of Employees	27
4.2.3.12 IDDE Documentation	27
4.2.4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL.....	30
4.2.4.1 Erosion and Sediment Control Practices	30
4.2.4.1.1 Require a SWPPP for Construction Projects.....	30
4.2.4.1.2 Private Property Access for Inspections.....	30
4.2.4.1.3 UPDES Stormwater Permit Requirements	30
4.2.4.2 Enforcement Strategy	30
4.2.4.2.1 Construction BMP Enforcement.....	31
4.2.4.2.2 Documentation of all Enforcement Actions	31
4.2.4.3 SWPPP Requirements	31
4.2.4.3.1 Pre-Construction Meeting	31
4.2.4.3.2 Priority Construction Site Consideration	31
4.2.4.4 Construction Site Inspection Program	32
4.2.4.4.1 New Construction Site Inspections.....	32
4.2.4.4.2 Inspections Before, During and After Construction.....	32
4.2.4.4.3 Priority Construction Site Inspections	33
4.2.4.4.4. Electronic Site Inspection Tools.....	33
4.2.4.4.5 Site Inspection Follow Up.....	33
4.2.4.5 Staff Training	33
4.2.4.6 Maintaining Records	33

4.2.5 LONG TERM STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORMWATER MANAGEMENT)	35
4.2.5.1 Post-construction Controls	35
4.2.5.1.1 Non-Structural BMPs	35
4.2.5.1.2 Retention Requirements	35
4.2.5.1.3 Low Impact Development Approach	35
4.2.5.1.4 Rainwater Harvesting	36
4.2.5.1.5 Feasibility	36
4.2.5.2 Long Term Enforcement Strategy	36
4.2.5.2.1 Sanctions for Violations	36
4.2.5.2.2 BMP Selection	36
4.2.5.2.3 Post Construction Access	37
4.2.5.2.4 Permanent Structural BMP Inspection	37
4.2.5.2.5 Post Construction Inspections	37
4.2.5.3 Plan Review:	38
4.2.5.3.1 Consideration of Water Quality Impacts	38
4.2.5.3.2 LID Implementation	38
4.2.5.4 Inventory	38
4.2.5.4.1 Inventory Information	38
4.2.5.4.2 Inventory Updates	38
4.2.5.5 Training	38
4.2.6 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS	41
4.2.6.1 City Owned or Operated Facilities and Stormwater Controls	41
4.2.6.2 Inventory Assessment	41
4.2.6.3 “High Priority” Sites	41
4.2.6.4 SWPPP for “High Priority” Facilities	41
4.2.6.5 “High Priority” Facility Inspections	41
4.2.6.5.1 Monthly Visual Inspections	41
4.2.6.5.2 Semi-Annual Comprehensive Inspections	42
4.2.6.5.3 Annual Visual Observations of Stormwater Discharges	42
4.2.6.6 Facility Specific SOPs	42
4.2.6.6.1 SOPs Addressing Water Quality	42
4.2.6.6.2 Maintenance SOPs	43
4.2.6.6.3 Disposal Methods of Waste and Wastewater	43
4.2.6.6.4 Discharge of Wash Waters	43
4.2.6.6.5 Spill Prevention Plan	43
4.2.6.6.6 Floor Drain Inventory	43
4.2.6.7 Third Party Standards/Expectations	44
4.2.6.8 Water Quality Impacts of New Structural Controls	44
4.2.6.8.1 Water Quality Impacts of New Structural Controls	44
4.2.6.9 Retrofitting Existing Developed Sites	44
4.2.6.10 Employee Training	44
4.4 SHARING RESPONSIBILITY	47
4.4.1 RELIANCE ON OTHER ENTITIES	47
4.5 REVIEWING AND UPDATING STORMWATER MANAGEMENT PROGRAMS	47
4.5.1 ANNUAL REVIEW	47
4.5.2 PROGRAM UPDATES	47
4.5.2.1 ADDITION TO PROGRAM	47
4.5.2.2 Replacing Program Details	47

4.5.2.3 Replacing Ineffective or Infeasible BMPs	47
4.5.2.3.1 Explanation.....	47
4.5.2.3.2 Effectiveness.....	47
4.5.2.3.3 Analysis.....	47
4.5.3 DOCUMENTATION OF CHANGES.....	47
4.5.4 APPROVAL OF CHANGE REQUESTS	47
4.5.5 STORMWATER MANAGEMENT PROGRAM UPDATES REQUIRED BY THE DWQ	48
4.5.5.1 Impact	48
4.5.5.2 Compliance with Requirements.....	48
4.5.5.3 Goals of Clean Water Act	48
5.3 ANALYTICAL MONITORING.....	48
5.4 NON-ANALYTICAL MONITORING.....	48
5.5 RECORD KEEPING	48
5.5.1 MAINTAIN SWMP	48
5.5.2 SUPPLEMENTARY DOCUMENT UPDATES.....	48
5.5.3 DIVISION MODIFICATIONS	48
5.5.4 DOCUMENT RETENTION.....	48
5.5.5 PUBLIC AVAILABILITY.....	48
5.6 REPORTING	49
5.6.1 ANNUAL REPORTING.....	49
5.6.2 SUBMISSION OF THE ANNUAL REPORT	49
5.6.3 REPORT CERTIFICATION	49
5.6.4 REPORT SUBMISSION.....	49
5.7 LEGAL AUTHORITY	49
5.7.1 INDUSTRIAL ACTIVITY	49
5.7.2 PROHIBIT ILLICIT DISCHARGES	49
5.7.3 CONTROL.....	49
5.7.4 INTERAGENCY AGREEMENTS	49
5.7.5 COMPLIANCE	49
5.7.6 INSPECT.....	49
6.0 STANDARD PERMIT CONDITIONS	50
6.8 SIGNATORY REQUIREMENTS.....	50
6.9 AVAILABILITY OF REPORTS	50

Delegation of Authority

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Certification

Permit Number: UTS000001

Permittee: Jordan Valley Municipalities

Co-Permittee: Herriman City

Submitted with this permit is the following:

- Information regarding the overall quality concerns, priorities, and measurable goals specific to the co-permittee that were considered in the development and/or revision of the SWMP document
- A description of the program elements that will be implemented as part of the six minimum control measures mandated by the DWQ
- A description of how the co-permittee intends to meet the requirements of the Permit as described in Part 4.0 by either existing program areas that already meet the requirements of the Permit or a description of relevant measurable goals that include, as appropriate, the year by which the co-permittee will achieve the required actions.
- An appendix that contains supplemental maps and information that facilitates the Stormwater Management Program within Herriman City.

Statement of 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 gathered and evaluated the information submitted. Based on 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 fine and imprisonment for knowing violations."



Authorized Signature

04/17/2023

Date

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Abbreviations

APWA	American Public Works Association
BMP	Best Management Practices
DEQ	Division of Environmental Quality
DWQ	Division of Water Quality
EPA	Environmental Protection Agency
HHW	Household Hazardous Waste
IDDE	Illicit Discharge and Detection Elimination
GIS	Geographic Information System
MCM	Minimum Control Measure
MPM	Minimum Performance Measure
MS4	Municipal Separate Storm Sewer System
NOV	Notice of Violation
O&M	Operations and Maintenance
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
SWMP	Stormwater Management Program/Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UPDES	Utah Pollutant Discharge Elimination System

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2.3 Stormwater Management Program Plan Description

2.3.2 Revised SWMP Document

The Stormwater Management Plan (SWMP) details Herriman City's efforts to reduce water quality concerns in compliance with the Jordan Valley Municipalities Permit. It will be submitted to the Utah Division of Water Quality.

2.3.2.1 Permit Number

Herriman City is a co-permittee under the Jordan Valley Municipalities, Permit No. UTS000001.

2.3.2.2. MS4 Location

Herriman City is located in the south-west corner of Salt Lake County and is bordered by the Oquirrh Mountains on the West, Camp W. G. Williams on the South, South Jordan City to the North—specifically 11800 S, and Riverton City to the East—generally following Mountain View Corridor from 11800 S to 13400 S and generally following the Welby Jacobs Canal south. As of 2020 Herriman City has a population of 62,010. A map of Herriman city can be found in Appendix A.

2.3.2.3 Overall Water Quality Concerns

Overall water quality concerns relate to the organic materials that contribute to Butterfield Creek and Rose Creek both of which are considered to be impaired. Both have E. coli impairments while Butterfield Creek is impaired by Selenium and Total Dissolved Solids. Herriman City has identified measurable goals for each minimum control measure that are identified within the SWMP. Dry weather screening will help in identifying other water quality concerns for future revisions of the SWMP.

2.3.2.4 Program Elements

This document describes the elements of required minimum control measures that are existing or will be implemented to protect water quality.

2.3.2.5 Ordinance Modifications

On April 28, 2021 Herriman City adopted a stormwater ordinances that gives legal authority for enforcement of SWPPP compliance and IDDE.

2.3.2.6 Permit Requirements

A list of measurable goals is outlined in Parts 4.2.1 through 4.2.6 of this document. This includes descriptions of existing, on-going, and new elements that will be implemented to satisfy the requirements of the permit.

2.3.2.7 Responsibilities

Herriman City is responsible for the Stormwater Management Plan and corresponding requirements with the exception of collaboration with the Salt Lake County Stormwater Coalition as outlined. A copy of the Interlocal agreement with Salt Lake County can be found in Appendix G.

2.3.2.8 Certification

Herriman City will follow all certification and signature requirements as outlined in Part 6.8 of the permit. The City Manager has delegated authority to the Herriman City Engineer for the certification and signature requirements. This agreement is on file with the DWQ

2.3.2.9 Measurable Goals

The SWMP will specify measurable goals in relation to the minimum control measures to satisfy the requirements of the permit.

3.1 Impaired Waters

3.1.1.1 Discharges into 303(d) Water Bodies

As outlined on the state's Water Quality Assessment Map, impaired waters within Herriman City has three creeks that are included on the 303 (d) list, including Butterfield Creek, Midas Creek, and Rose Creek.

3.1.1.2 TMDL Requirements

Impairments and TMDL requirements for Butterfield Creek include E. coli, Selenium, and Total Dissolved Solids (TDS). Similarly, Midas Creek's impairments and TMDL requirements include E. coli, Selenium, and TDS. Whereas the impairment and TMDL requirements for Rose Creek include E. coli only. A Total Maximum Daily Load (TMDL) has not been approved by the EPA for any of the water bodies within Herriman City according to the following link at the time this document was prepared:

<https://surface-water-quality.ugrc.utah.gov/>

Herriman City will comply with Part 3.1.2 of the permit and any TMDL requirements that are put into effect.

3.1.2 Water Quality Control

E. coli will be addressed in Part 4.2.1 focusing on educating the public on pet and livestock waste.

TDS will be addressed in Part 4.2.1 focusing on fertilizers, pesticides, herbicides and deicing salts.

Selenium will be addressed in Part 4.2.1 focusing on outreach addressing agriculture and industrial business.

Herriman City is currently in the process of developing a Retrofit Plan intended to target the impairments listed in section 3.1.1.2

3.1.3 New or Pre-Approved Discharge Determined as Pollutant

In the event that an existing authorized discharge under the permit is determined to cause or contribute to violation of an applicable water quality standard, Herriman City will take action as required by the Director of the Division of Water Quality. All actions will be documented along with any amendments to this SWMP.

3.2 Nitrogen and Phosphorus Reduction

3.2.1 Reduction of Nitrogen and Phosphorus

Herriman City will address the water quality impacts associated with Nitrogen and Phosphorus through the public education program as outlined in Part 4.2.1

3.2.1.1 Stormwater Coalition

Herriman City is and will continue to be an active participant in the Salt Lake County Stormwater Coalition which will evaluate, identify, target, and provide outreach that addresses sources of pollution from Nitrogen and Phosphorous.

3.2.1.2 Target Sources

Herriman targets residential sources through Part 4.2.1 and commercial sources through the use of Nitrogen and Phosphorous education by distributing educational materials outlined in Part 4.2.1.3.

3.2.1.3 Prioritize Targeted Sources

With the aid of the Salt Lake County Stormwater Coalition, Herriman City will continue to prioritize and target sources such as fertilizer, and animal waste through the education of the public addressed in Part 4.2.1.

Stormwater Management Program

4.1 Requirements

4.1.1 Stormwater Management Program

Herriman City has developed, implemented and enforces this SWMP to reduce the discharge of pollutants through the MS4 by compliance to the six minimum control measures outlined in this document. This document is designed to be in accordance with the Utah Water Quality Act and does not supersede it or the federal Clean Water Act.

4.1.1.1 Implementation

The SWMP will be developed and implemented to meet the requirements specified by the state. Herriman City staff will meet monthly to discuss current practices and review the SWMP to ensure the plan is consistent with actual daily efforts taking place.

4.1.2 Development and Implementation

The Herriman City Water Resource Engineer will assess the SWMP annually to identify any needs for improvement. This assessment is done after the annual report is filed with the DWQ. The assessment is reviewed by the Water Resource Engineer with input from the Public Works Director and City Engineer.

4.1.2.1 Implementation Tracking

All inspections and public education activities are tracked with forms for the purpose of record keeping in accordance with this document. Records are kept with the Water Resource Engineer. These records are used for the annual report as required by the permit.

4.1.2.2 Stormwater Funding

The resources required to comply with the permit are provided through the Stormwater Utility Fee.

4.1.3 BMPs Implemented

The document includes BMPs that Herriman City implements to satisfy the requirements for each of the minimum control measures.

4.1.3.1 Measurable Goals

Measurable goals are outlined in Parts 4.2.1 through 4.2.6 of this document.

4.1.3.2 Responsible Party for Implementation

The responsible party/personnel for each of the BMPs is outlined in this document and appendix for each SOP.

4.1.3.3 Revisions of the SWMP

This document was revised to clearly identify roles and responsibilities that affect the implementation and operations of the SWMP. This includes clear descriptions of the responsibilities of all parties that affect the implementation and operation of the SWMP. Additionally, greater detail has been provided as to how each MCM will be satisfied through the duration of the permit.

4.1.3.4 Good Faith Effort

A good faith effort is being made to comply with the MS4 permit.

4.2 Minimum Control Measures

The Stormwater Management Program (SWMP) requires the implementation and execution of six Minimum Control Measures (MCM):

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Stormwater Runoff Control
5. Long Term Stormwater Management in New Development and Redevelopment (Post Construction Stormwater Management)
6. Pollution Prevention and Good Housekeeping for Municipal Operations

The permit requirements are detailed in Part 4.2 of the permit. A copy of the permit can be found in Appendix G.

The SWMP will continue successful programs that are in place and implement new programs and updates being incorporated.

4.2.1 Public Education and Outreach on Stormwater Impacts

Implement a public education and outreach program to promote behavior change by the public to reduce water quality impacts associated with pollutants in stormwater runoff and illicit discharges. This includes a multimedia approach targeted and presented to four specific audiences (1) residents, (2) institutions, industrial and commercial facilities, (3) developers and contractors (construction), and (4) MS4 owned or operated facilities.

Herriman City's public education program seeks to improve public awareness about stormwater quality. The program includes educational materials distributed to various audiences, and content produced by the Salt Lake Stormwater Coalition.

4.2.1.1 Targeted Pollutant Sources

Target specific pollutants and pollutant sources determined to be impacting or have the potential to impact the beneficial uses of receiving water.

Herriman City has identified target pollutants for each specific target audience:

Audience	Sediment	Nitrogen & Phosphorus	Heavy Metals	Trash & Debris	Oil & Grease	Bacteria
Residents	X	X		X	X	X
Institutions, Industrial and Commercial Facilities	X	X	X	X	X	
Developers and Contractors	X	X		X	X	
MS4 Owned or Operated Facilities	X	X	X	X	X	

Education efforts have been focused on each group's targeted pollutants. Messages educate individuals of each group on how they can minimize their impact on stormwater.

4.2.1.2 General Public Education and Outreach

Provide and document information given to the general public on water quality impacts associated with illicit discharges and improper disposal of waste.

Herriman City is a member of the Salt Lake County Stormwater Coalition. Meetings are generally held on the third Wednesday of each month. The coalition consists of various local agencies whose purpose is reducing the load of pollutants entering storm drains and receiving water bodies by promoting good behavior to protect stormwater quality. The Coalition produces media ads for radio, television, movie theaters, and online which promote the protection of stormwater quality. The Coalition also sponsors an annual Water Quality Fair where elementary school students, teachers and chaperones attend and learn about stormwater quality through various displays at the event. As a result of the pandemic in 2020, the Coalition has also put together curriculum, educational trainings, and resources for teachers to teach stormwater stewardship either in class or virtually. In 2021 the coalition hosted a virtual water quality fair that allowed 6th graders to learn from professionals through prerecorded presentations and hands on activities with materials readily available. Whether the Water Quality Fair returns to in person or remains virtual, Herriman City will support the efforts and encourage teachers to participate.

Stormwater promotional materials are distributed at city sponsored festivals and events including Herriman Towne Days each year. These include give away items as well as educational pamphlets and brochures created by the Coalition. Additional city sponsored events will be considered for promoting stormwater best practices.

Herriman City shares messages from the Stormwater Coalition through social media outlets. This involves sharing and re-tweeting messages posted from the Coalition on a monthly basis.

A monthly newsletter is sent out to the residents with messages from Herriman City staff and business owners. Each April, the newsletter includes an advertisement or message from engineering staff regarding stormwater and/or water quality.

Education on the proper disposal of hazardous waste is critical to preventing dangerous chemicals and items from entering the storm drain system. The city will provide at least one social media post annually to provide resources for proper hazardous waste disposal.

4.2.1.3 Institutions, Industrial and Commercial Facilities

Provide and document information given to institutions, industrial, and commercial facilities on water quality impacts associated with illicit discharges and improper disposal of waste.

Herriman City intends to distribute an insert with business license renewals educating business owners concerning Illicit Discharges and high-risk pollutants relevant to businesses such as landscape pollutants, food grease, and parking lot litter and dumpster management. Our goal is to implement this, by 31 December 2023.

Herriman City performs annual inspections on high-risk locations around the city. This includes sending out inspection reports to these high risk commercial and industrial sites. It is anticipated that a flier of best practices will be created and included with inspection reports.

4.2.1.4 Construction Education Program

Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of stormwater pollution prevention plans (SWPPPs) and BMPs for reducing adverse impacts from stormwater runoff from development sites.

Herriman City requires that all contractors working on development and re-development projects within the city attend a preconstruction meeting that covers a review of the approved SWPPP.

SWPPP review is outlined in the preconstruction meeting agenda and each site is reviewed with the contractor and/or developer.

Herriman City has established development standards that specify stormwater requirements for construction to meet long-term goals for reducing adverse impacts from stormwater runoff from development sites. These standards were adopted 9 June 2021.

All contractors hired by Herriman City enter into a contract that require compliance to the general conditions and specifications outlined in the latest version of APWA. In section 00 72 00(6.7)(G), it states "UPDES permit shall be secured by CONTRACTOR, at CONTRACTOR's sole expense if the construction site requires such a permit under Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended."

Additionally, in section 01 78 39(1.4)(A)(10) of the APWA manual of technical specifications, it specifies that the SWPPP shall be onsite during the duration of the project and the UPDES permit.

4.2.1.5 LID, Green Infrastructure, Post-Construction Education

Provide and document information and training given to the MS4 engineers, development and plan review staff, and land use planners, documentation on Low Impact Development (LID) practices, green infrastructure practices, and communicate the specific requirements for post construction control and the chosen associated BMPs.

Members of the Public Works staff annually attend the APWA Stormwater Conference. LID presentations are given which educate about LID methods. Additional webinars and other educational opportunities are taken advantage of when they present themselves.

The Herriman City Water Resource Engineer or a delegated representative attends the monthly USWAC & Salt Lake County Stormwater Coalition meetings. Information from these meetings is disseminated and discussed at monthly staff meetings with the public works and engineering departments to increase awareness and understanding of any updated standards, requirements or best practices.

Additionally, staff that review management plans and perform post construction BMP inspections are required to obtain and maintain RSI certification.

4.2.1.6 Evaluation

Provide and document the identified methods that were used to evaluate the effectiveness of the education messages and the overall education program.

Herriman City will use the Salt Lake County Stormwater Coalition survey to evaluate the methods and effectiveness of public outreach as well as the utilized BMPs. Surveys will be conducted every three years which corresponds with at least once during the permit term.

Herriman City will use the number of construction site violations relative to the number of active sites as well as the number of illicit discharges to compare year to year if the number of violations are decreasing which would imply a successful education approach. As more data is collected and available, additional metrics will be considered for evaluating education effectiveness.

4.2.1.7 Selection Rationale

Provide documentation or rationale as to why particular BMPs were chosen for its public education and outreach program.

Residents

The non-structural BMPs targeting Residents are explained in Part 4.2.1.2 of the SWMP. Herriman City is using a multimedia approach to target various demographics. Much of the education is targeted towards children to instill best practices at a young age. This is done through the water fair (and other formal education efforts) and social media. Additionally, by using Herriman City events, stormwater awareness can be taught to a large number of people from a wide age demographic.

Institutions, Industrial, and Commercial Activities

The efforts to target institutions, industrial, and commercial facilities is explained in depth in Part 4.2.1.3 of the SWMP. Stormwater education can be supplied to commercial and industrial businesses through business license renewal as well as through annual site inspections. This ensures that businesses will receive educational materials because of the necessity for business license renewal.

Developers and Contractors

The methods used to target developers and contractors has been explained in depth in Part 4.2.1.4 of the SWMP. Herriman City capitalizes on the preconstruction meeting to make sure that developers and contractors working within the city are aware of the common issues among contractors and to perform training to encourage best practices among developers and contractors and reduce the number of construction related stormwater quality issues.

MS4 Owned or Operated Facilities

The methods used for training MS4 employees are discussed in Part 4.2.1.5 of the SWMP. Herriman City provides the best training to their employees to ensure that employees are up to date on the latest and best industry practices. MS4 employees are trained both at conferences and internally to ensure that each employee understands and is using the best methods.

Public Education and Outreach Program Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PEO-01	City Newsletter	Newsletter ad is published and documented	Publish stormwater information in newsletter once per year	4.2.1.2	Ongoing
PEO-02	Social Media Campaign	Ensure Coalition messages are sent out via City Social Media outlets	Post a minimum of one social media message per month	4.2.1.2	Ongoing
PEO-03	Hazardous Waste Disposal	One post about hazardous waste to be sent out annually	Provide information to residents regarding hazardous waste disposal and locations	4.2.1.2	Ongoing
PEO-04	Support Salt Lake County Storm water Coalition	Provide financial support and attend 75% of monthly meetings	Continue support of the Coalition through financial support and involvement in monthly meetings. Use resources provided by the Coalition	4.2.1.2	Ongoing
PEO-05	Storm Water Fair	Provide Support to Annual Storm Water Fair	Support Annual Storm Water Fair for Local Elementary Schools. Encourage Elementary Schools within Herriman City to attend	4.2.1.2	Annually
PEO-06	Business Licensing Ads	100% of business licenses issued/renewed for out of home businesses to be given educational inserts	All new and renewal business license applicants that are not home based businesses will be given an insert on the impacts of water quality and BMPs	4.2.1.3	Ongoing
PEO-07	SWPPP Education	Require a pre-construction meeting with a SWPPP review for contractors working in Herriman City	In the pre-construction meeting for developments, redevelopments, and city projects one acre or greater, storm water pollution prevention measures and BMPs will be discussed	4.2.1.4	Ongoing
PEO-08	Employee Training for Storm Water Personnel	Maintain RSI certifications for Storm Water Personnel	Conduct annual training for staff discussing pertinent water quality measures	4.2.1.5	Annually
PEO-09	Employee Training for Public Works Staff	Provide annual training with respect to water quality	Provide annual training to Public Works Staff regarding water quality issues with relation to their daily duties	4.2.1.5	Annually

4.2.2 Public Involvement/Participation

4.2.2.1 Public Input during SWMP Writing Process

Create opportunities for the public to provide input during the decision-making process involving development, implementation and update of the SWMP document.

Herriman City will follow the public comment process for all ordinances developed or changed. The SWMP will be made publicly available on the city website, and in the office of the Water Resource Engineer.

4.2.2.2 SWMP Availability

SWMP documents will be available to the public for review and input within 120 days from the effective date of permit.

The SWMP is available online at Herriman City's website (<https://www.herriman.org/storm-water/>) and at the office of the Water Resource Engineer for the general public.

4.2.2.3 Adopted SWMP accessibility for the life of the permit

A current version of the SWMP document needs remain available for public review and input for the life of the Permit. Post the latest version of the SWMP to the website within 180 days from the effect date of the permit. Clearly specify a contact person and phone number or email address to allow the public to review and provide input for the life of the permit.

A current version of the SWMP will be available on Herriman City's website. For questions regarding the SWMP contact Jonathan Bowers at jbowers@herriman.org.

4.2.2.4 Public Notice Requirements

At a minimum comply with state and local public notice requirements when implementing a public involvement/participation program.

Herriman City will comply with local and state public notice requirements. The city will follow public comment process for all ordinances developed or changed. The City Council will hold a public hearing during a council meeting to receive public comments. Prior to the meeting, the hearing will be advertised on Herriman City's website. Comments will be reviewed prior to passing an ordinance.

Public involvement and Participation Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PIP-01	Public Notice for Comment on Updated SWMP	Post updated SWMP to Herriman City website and open it to public comment	Provide copies of the SWMP to the general public for review and comment both online and at Herriman City Hall	4.2.2.2	Ongoing
PIP-02	Current SWMP Publicly Available	Maintain updated SWMP on Herriman City Website	Provide access to current copy of the SWMP online for public comment and at Herriman City Hall	4.2.2.3	Ongoing
PIP-03	Storm Water Website	Upload Storm Water Reference and Educational Materials to Website	Improve the existing Storm Water Website by keeping resources on Herriman City website up to date and allow residents the ability to access resources that allow for greater involvement in City Storm Water program	4.2.2	Ongoing

4.2.3 Illicit Discharge Detection and Elimination (IDDE)

4.2.3.1 MS4 Map

Maintain a current storm sewer system map of the MS4.

Herriman City maintains a comprehensive map of the storm drain system. The map shows all outfalls to Butterfield Creek, Rose Creek, and Midas Creek as well as all inlet points to the system. The GIS department maintains the maps and collects data on all new or altered storm drain structures. A map showing this inventory can be found in Appendix A.

On rare occasions, storm drain structures were not captured by GIS during construction. As missing structures are identified, field inspectors will work with the GIS team to ensure missing structures are recorded. This will be an ongoing process and effort.

4.2.3.2 Ordinances for Illicit Discharge

Prohibit through ordinance or other regulatory mechanism, non-stormwater discharges to the MS4. Apply escalating enforcement procedures as necessary for the severity of violation and or recalcitrance of the violator.

On 28 April 2021 Herriman City council approved an amendment to Title 12, Chapter 7 of the Herriman City code which was the existing Storm Sewer Utility ordinance. The amendments provided verbiage that prohibits non-stormwater discharges and provides enforcement procedures for stormwater violations. Stormwater employees are creating an SOP for the best use of escalating enforcement to ensure compliance with this requirement.

4.2.3.2.1 Legal Authority

Have legal authority to detect, investigate, eliminate and enforce against non-stormwater discharges including illegal dumping into the MS4.

Herriman City's updated Storm Sewer Utility ordinance described in Part 4.2.3.2 provides legal authority to detect, eliminate, and enforce against non-stormwater discharges.

4.2.3.3 IDDE Mitigation Plan

Develop and implement a plan to detect and address non-stormwater discharges including spills, illicit connections, sanitary sewer overflows and illegal dumping.

Herriman City relies on its trained employees who are in the public daily (parks crew, water operators, inspectors, street sweepers, storm drain personnel, etc.) as well as the public to report and detect illicit discharges. Regular dry weather screening of outfalls reaches approximately 20% of all outfalls annually. During the permit term, Herriman City will screen all outfalls.

In the event of an Illicit Discharge, Herriman City's storm drain camera may be used for investigation.

4.2.3.3.1 High Priority Areas

Procedures for locating and listing priority areas likely to have illicit discharges. Herriman will document the basis for its selection of each priority area and create a list of all priority areas in the system. The list will be updated annually to reflect changing priorities.

High priority areas within the city are identified as commercial developments with a higher than normal risk of discharging into the MS4. These may include industrial areas, gas stations, restaurants and shopping areas. The areas are inspected in a broad sense and site specific inspections will be performed if immediate maintenance needs to be performed. These areas are

identified in Appendix A as well as through Herriman City's online Stormwater GIS map. The areas will be reviewed and updated annually based on inspection findings, to reflect the priorities of the city, and for considering new areas that are the result of recent development.

4.2.3.3.2 Field Assessment Activities

Field inspections of areas determined to be a priority area must be conducted annually at a minimum.

Herriman has identified 14 high priority areas (consisting of 40 high priority sites) and 3 high priority outfalls. These 16 sites are inspected annually using the Long-Term Stormwater Inspection and Evaluation Form for high priority sites or the Dry Weather Screening Inspection Form both located in Appendix C. Each of the 14 high priority areas and 40 high priority sites are identified in Appendix C. Annual inspections will be performed in each area. If deficiencies or issues are identified, the area can be inspected based on individual sites within each area.

4.2.3.3.3 Permit Term Field Assessment Activities

Dry weather screening for the purpose of verifying outfall locations and detecting illicit discharges within the jurisdiction to a receiving water. All outfalls to be inspected at least once during the 5-year permit term.

Herriman City performs dry weather screening on outfall locations, performing a minimum of 20% of the total inspections each year to be able to inspect all outfalls within the five-year permit term. The dry weather screening SOP as well as the dry weather screening inspection form are attached in Appendix C.

4.2.3.3.4 Discovered or Suspected Discharges

Notify DEQ Director if discharger is discovered or suspected to need a separate UPDES permit.

When it is discovered or suspected that a discharger may need a separate UPDES permit, Herriman City will notify the Director of the DWQ.

4.2.3.4 Tracing Illicit Discharge Source Procedures

Implement standard operating procedures (SOPs) for tracing the source of an illicit discharge.

Standard Operating Procedures have been developed for every step of the IDDE process and are found in Appendix C. When an illicit discharge is reported, Stormwater personnel investigate on-site to locate the source of the discharge. The source is identified either by visual observation at the report location of the incident (e.g. someone dumping pollutants into storm drain) or by following the storm drain system upstream to locate the source of the pollutant. When necessary opening of manholes and field tests are used to trace the source.

4.2.3.5 Characterize the Nature and/or Threat of Illicit Discharge

Implement SOPs for characterizing the nature of and the potential public or environmental threat posed by any illicit discharges found by or reported to Herriman City.

Procedures for Characterizing the Nature and/or Threat of an Illicit Discharge SOP can be found in Appendix C. The majority of illicit discharges are known substances (washing concrete out in the storm drain). When a substance is unknown, stormwater personnel will perform a limited analysis to identify the pollutant. If stormwater personnel are unable to identify the substance or it can't be handled by Herriman City, Salt Lake County Health Department will be called to help identify the substance and perform further analysis.

4.2.3.5.1 Inspection Documentation

Proper reporting and recordkeeping must be performed when a non-stormwater discharge is identified and confirmed.

When a non-stormwater discharge source is identified and confirmed, an incident response report must have the following information:

- Date of the initial report of the discharge
- Date the investigation was initiated
- Date the discharge was observed
- Location of discharge
- Description of the discharge
- The method of discovery
- Date of removal, repair or enforcement action
- Date and method of removal verification

A copy of Herriman City's Incident Response Report can be found in Appendix C.

4.2.3.6 Ceasing Illicit Discharges

Implement SOPs for ceasing the illicit discharge.

Herriman City is proactive in ceasing illicit discharges. When responding to an illicit discharge or spill, stormwater personnel will respond to identify the source and require the violator to stop the discharge following the Cease Illicit Discharge SOP found in Appendix C. In the event where the violator is not present, city personnel take appropriate measures to cease the discharge at the source. Once the discharge has ceased, SOPs are followed to begin cleanup activities.

4.2.3.6.1 Requiring the cessation of an Illicit Discharge

Upon detection of illicit discharge and confirmation of responsible parties, take action to require immediate cessation of illicit discharges.

Herriman City will require immediate cessation of any illicit discharges within Herriman City boundaries. Reports will describe actions taken to comply with requirements and if requirements were not met. Reports will be maintained by the Water Resource Engineer.

4.2.3.6.2 Liability

Herriman City is required to address illicit discharges. However, strict liability is not imposed on Herriman City.

4.2.3.6.3 IDDE Investigation Reports

IDDE investigations need be thoroughly documented and may be requested at any time. All IDDE documentation shall be retained as required by the SWMP.

All IDDE investigations will be documented and retained by the Water Resource Engineer for a minimum of five years. The report describes actions taken to comply with requirements and if requirements were not met. A copy of the Storm Drain Incident Response Report is included in Appendix C.

Herriman City will use its GIS system to track illicit discharges and their subsequent costs and identify location trends for illicit discharges.

If Herriman City is unable to satisfy Part 4.2.3.5 or 4.2.3.6 of the Permit, Herriman City will immediately submit to the Director of the DWQ with the rationale describing why compliance was not achievable.

4.2.3.7 Illicit Discharge Education and Training

Inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.

IDDE related education is a part of the public education and employee training implemented within Herriman City as found in the following Parts of the SWMP:

- 4.2.1.1 Target Specific Pollutants and Sources
- 4.2.1.2 General Public Education and Outreach Program
- 4.2.1.3 Business and Commercial Institution Education Outreach Program
- 4.2.1.4 Construction Industry Education Program
- 4.2.6.10 Employee Training

4.2.3.8 Household Hazardous Waste

Promote or provide services for the collection of household hazardous waste.

Proper disposal of household hazardous waste is encouraged through tweets and newsletter ads referring readers to the Salt Lake County Household Hazardous Waste Program (<https://slco.org/health/household-hazardous-waste/>).

4.2.3.9 Public Hotline

Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. A record must be kept of all calls, follow up actions, and feedback received.

Reports of illicit discharges can be reported to Herriman City at any time. During regular business hours, reports can be called in to 801-446-5323. After hours on call city staff can be reached by calling 801-446-5323 x2. Calls regarding hazards to the storm drain system are directed to stormwater personnel within the city to investigate and follow up with Salt Lake County Health Department as necessary.

In the event of an illicit discharge, investigation and findings are documented in the Storm Drain Incident Response Report in Appendix C.

4.2.3.9.1 Spill/Dumping Response Procedure

Develop a written spill/dumping response SOP and flow chart for internal use. The list must be maintained and updated as changes occur.

When stormwater personnel are notified of a spill, they will respond on site to assess the situation. Minor spills will employ the use of a spill kit or absorbents to clean the spill. Larger discharges of unknown or highly hazardous substances will result in contacting the Salt Lake County Health Department to help with response and containing the situation. Appendix C contains the Spill Response flow chart with contact information of appropriate personnel to respond to a spill or illicit discharge. Spill Response Plan SOPs are found in Appendix C. These documents will be updated as necessary.

4.2.3.10 Program Evaluation and Assessment

Adopt and implement procedures for program evaluation and assessment.

Herriman City's IDDE program will be assessed annually by the Water Resource Engineer. Tracking IDDE incidents is in coordination with the Storm Drain Incident Response Report in Appendix C. The incidents will be mapped and tracked on the city's GIS database. Records will be kept for a minimum of five years by the Water Resource Engineer.

4.2.3.11 Annual Training of Employees

Require all staff, contracted staff, and responsible entities that as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or connection to the MS4 receive annual training in the IDDE program. New hires are trained within 60 days of hire date and annually thereafter.

All Herriman employees are trained annually about the IDDE program and their responsibilities within the IDDE program. Training is performed through StormwaterGo and up to date rosters are maintained by Herriman City's HR department.

The Herriman City Police Department are trained annually on illicit discharges as well. IDDE training is sent from the Water Resource Engineer to the Assistant Police Chief who distributes the training. All training is documented to ensure each member of the department is trained.

Office personnel who take calls regarding the report of an illicit discharge are trained annually on illicit discharges and are provided with a flow chart for incidents. The flow chart provides numbers both within the city and nearby or partner agencies to allow both office and on call staff to quickly identify necessary individuals inside and outside the city to be contacted in the event of an illicit discharge.

At least once annually, the Illicit Discharge reporting hotline will be exercised for training purposes to identify deficiencies in the system and ensure all personnel are trained as to proper procedures.

4.2.3.12 IDDE Documentation

All documentation will be maintained and available in the office of the Water Resource Engineer and available to the Director of the DWQ when requested.

Illicit Discharge Detection and Elimination (IDDE) Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
IDDE-01	Storm Water System Map	Update system map to reflect 100% of updates and changes	Regularly update Herriman City's GIS maps as changes occur to storm drain system in order to ensure the map is complete and accurate at all times	4.2.3.1	Ongoing
IDDE-02	IDDE Enforcement	Implement and Adopt IDDE Ordinance	Establish an ordinance which allows enforcement of IDDE program through escalating force and with legal authority	4.2.3.1	28-Apr-21
IDDE-03	High Priority Assessment	Identify High Priority areas within Herriman City	Create a high priority area map and associated list to determine areas to be inspected on an annual basis. Update map and list annually or as need arises	4.2.3.3	1 January 2021 initially and annually thereafter
IDDE-04	Screen and assess High Priority Areas	Screen and assess 100% of High Priority IDDE areas annually	Based on the IDDE high priority map, screen and assess 100% of outfalls and other areas throughout the life of the permit. Report findings and enforce as necessary for compliance	4.2.3.3	Annually
IDDE-05	Dry Weather Screening	Screen 100% of all outfalls during the permit period (once within 5 years)	Dry weather screen and document findings on all outfalls during the term of the permit	4.2.3.3	Ongoing
IDDE-06	IDDE Reports	Respond to 100% of illicit discharge reports	All Illicit Discharge reports will be responded to according to city SOPs and documented thoroughly	4.2.3.9	Ongoing
IDDE-07	IDDE SOP	Review all IDDE SOPs	Review and revise all IDDE SOPs by the city to ensure that the current approach is best suited to handling illicit discharge.	4.2.3.4 - 4.2.3.6	1-Oct-23
IDDE-08	Household Hazardous Waste	Utilize social media platforms to provide information on household hazardous waste disposal on a yearly basis	As part of the city's social media campaign, use social media platform to share information on hazardous waste disposal	4.2.3.8	Annually

IDDE-09	Public Hotline	Exercise public hotline for training purposes annually	Perform drills to allow for the exercise of the public hotline both during business hours and non-business hours to ensure the hotline runs as planned and to ensure personnel understand the execution of the flow chart	4.2.3.9	Annually
IDDE-10	IDDE Tracking	Record 100% of illicit discharge events and track through Herriman City GIS map	Use the existing GIS storm water map to include layers regarding illicit discharge events to evaluate the efficacy of IDDE Program	4.2.3.10	Ongoing
IDDE-11	IDDE Training	Train 100% of applicable City Employees and contractors on an annual basis about IDDE program	Ensure Public Works, Engineering, Police, and Office staff employees receive training annually about the IDDE program, its functions and BMPs	4.2.3.11	Annually

4.2.4 Construction Site Stormwater Runoff Control

4.2.4.1 Erosion and Sediment Control Practices

Revise as necessary and enforce an ordinance that requires the use of erosion and sediment control practices at construction sites. The ordinance shall include sanctions to ensure compliance. The ordinance shall apply at a minimum to construction projects disturbing greater than or equal to one acre and to construction projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre.

4.2.4.1.1 Require a SWPPP for Construction Projects

The ordinance must require construction operators to prepare a Stormwater Pollution Prevention Plan (SWPPP) and apply sediment and erosion BMPs as necessary.

Herriman City requires a detailed Stormwater Pollution Prevention Plan (SWPPP). Legal enforcement is provided in Herriman City Ordinance, section 12-7-10 which states the permit requirements are outlined within Herriman City Development Standards (Section 2.16). A SWPPP is required for all projects greater than or equal to one acre in size and for construction projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre.

4.2.4.1.2 Private Property Access for Inspections

The ordinance needs include a provision for access by qualified personnel to inspect construction sites and stormwater BMPs on private properties that discharge to MS4.

Herriman City's stormwater ordinance, adopted in 2021, includes language that allows for qualified personnel to inspect stormwater BMPs on all real property, including private properties discharging to the MS4 and all construction sites.

4.2.4.1.3 UPDES Stormwater Permit Requirements

Construction sites with land disturbance greater than or equal to one acre including projects part of a larger common plan of development or sale disturbing greater than or equal to one acre must obtain coverage under the current UPDES Stormwater General Permit.

Prior to beginning work on a construction site, a Notice of Intent from the State is required. This is applicable for all sites greater than or equal to one acre including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. Once the permit has been issued, the permit will be verified through monthly inspections.

For building projects that are part of a larger common plan of development, a permit number is required as part of the building permit application to ensure that individual projects will have SWPPP coverage.

4.2.4.2 Enforcement Strategy

Develop a written enforcement strategy to ensure the ordinance or other regulatory mechanism is followed.

To date Herriman City has enforced the majority of construction SWPPP requirements through verbal notifications, written notifications, and Notices of Violation. However, the city's updated stormwater ordinance allows for a range of enforcement activities beyond what has been used in the past. SOPs are being written to support the Ordinance and allow escalation of enforcement to fit the severity of the violation.

4.2.4.2.1 Construction BMP Enforcement

Specify processes and sanctions to minimize the occurrence of violations, obtain compliance from violators, including appropriate escalating enforcement procedures and actions including an appeals process published in a publicly accessible location.

During the pre-construction meeting as well as the SWPPP review, requirements, and BMPs will be discussed to ensure compliance. On-site inspections by a qualified inspector (defined in Part 4.2.4.4.1) are completed to ensure that BMPs are installed properly and are operating correctly. If a stormwater violation occurs or any other stormwater quality issue is apparent during the inspection, the inspector has the authority to issue escalating enforcement measures.

4.2.4.2.2 Documentation of all Enforcement Actions

Document and track all enforcement actions.

Enforcement documents issued by inspectors are on file in the office of the Water Resource Engineer and through the city's share drive.

4.2.4.3 SWPPP Requirements

Develop and implement a checklist for pre-construction SWPPP review that is consistent with the requirements of the current UPDES Stormwater General Permits for Construction Activities. Keep records for all construction sites that disturb greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. Keep records of these projects for five years or until construction is completed whichever is longer.

All construction sites disturbing greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are required to submit a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP review is completed using the checklist that is available in Appendix D. The State's SWPPP template is included in Appendix G. It is recommended that all developers use this template to ensure their project is in compliance with state requirements.

Records of these projects are kept for five years or until construction is completed, whichever is longer.

4.2.4.3.1 Pre-Construction Meeting

Conduct a pre-construction meeting to review critical elements of the project.

Pre-construction meetings are required for all sites over one acre which includes a review of the site plan, planned operations, BMPs that will be used during the construction phase, and BMPs used to manage runoff as a result of the development. During the pre-construction meeting, stormwater is discussed with the contractor to ensure that stormwater compliance will be satisfied before, during and after construction. The timeline and schedule required for the NOI, SWPPP inspections and NOT will be established to ensure all members of the team understand the stormwater requirements.

4.2.4.3.2 Priority Construction Site Consideration

Identify priority construction sites based on factors that make erosion and sedimentation more problematic.

Herriman City will determine priority construction sites based on consideration of the following factors:

- Soil erosion potential;
- Site slope;
- Project size and type;
- Sensitivity of receiving water bodies (impaired or high-quality waters);
- Proximity to receiving water bodies; and,
- Non-stormwater discharges and past record of non-compliance by the operators of the construction site.

4.2.4.4 Construction Site Inspection Program

Develop and implement SOPs for construction site inspection and enforcement of construction stormwater pollution control measures.

During the life of a construction project, site inspections are completed to ensure BMPs are properly installed, maintained, and functioning properly on site to prevent construction stormwater runoff from entering into the MS4. Stormwater inspection procedures are located in Appendix D.

4.2.4.4.1 New Construction Site Inspections

Inspections of all new construction sites must be performed at least monthly by qualified personnel.

All sites greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are inspected by qualified personnel representing Herriman City on a monthly basis using the DEQs construction stormwater inspection form. A copy of the DEQs stormwater inspection form is located in Appendix D. Qualified Personnel will have one of the following certifications:

- Utah Registered Stormwater Inspector (RSI)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Stormwater Quality (CPSWQ)
- Certified Erosion, Sediment, and Stormwater Inspector (CESSWI)
- Certified Inspector of Sediment and Erosion Control (CISEC)
- National Institute of Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)
- Utah Department of Transportation Erosion Control Supervisor (ECS) (applicable to road/street projects only)

4.2.4.4.2 Inspections Before, During and After Construction

Inspect all phases of construction: prior to land disturbance, during active construction, and following active construction. Create an SOP that explains procedure for transitioning between each phase.

Herriman City Inspectors will inspect all projects private or public prior to land disturbance, during construction, and following active construction. The DEQs SWPPP Compliance Inspection Form is used for SWPPP inspections. A copy of the form is located in Appendix D.

Once construction is complete, the owner files for the Notice of Termination (NOT) with the state and lets the stormwater inspector know that the NOT has been filed. Inspectors verify temporary BMPs have been removed and permanent BMPs are in place. The inspector then verifies the NOT in the EPA's Central Data Exchange.

4.2.4.4.3 Priority Construction Site Inspections

Priority sites shall be inspected at least every two weeks.

Sites classified as “Priority Construction Sites” as determined by Part 4.3.4.3.2 will be inspected every two weeks using DEQ’s Construction Stormwater Inspection Form.

4.2.4.4.4. Electronic Site Inspection Tools

An electronic site inspection tool may be utilized in place of up to one-half of on-site MS4 inspections at a construction site provided the tool is first demonstrated to meet the requirements of 4.2.4.

Herriman City does not currently employ the use of electronic or virtual site inspections. Consideration may be given to this resource as development increases.

4.2.4.4.5 Site Inspection Follow Up

Based on site inspection findings, necessary follow-up action should be taken to ensure compliance in accordance with enforcement strategy. Follow up and enforcement must be tracked and documented.

Herriman City stormwater inspectors follow up on issues discovered during inspection. When corrective actions are needed, pictures are taken for corrective action documentation. Herriman typically allows one week for corrective action to be resolved. Follow up inspections are conducted by walking through the site with the site supervisor to ensure compliance has been achieved. In the event that corrective actions have not been resolved, enforcement strategies will be employed until compliance is achieved. All follow up and enforcement actions are documented.

Herriman City is looking to implement a more effective follow up inspection procedure. SOPs will be further developed to provide guidance based on discussions with stormwater personnel regarding best practices for follow up..

4.2.4.5 Staff Training

All staff whose primary job duties relate to implementing construction stormwater program must be annually trained. Ensure that all new hires are trained within 60 days of hire and annually thereafter.

All staff with responsibilities related to construction activities and plan review will receive regular training to implement the construction stormwater program. Inspectors with qualifications outlined in Part 4.2.4.3.2 will maintain at least one of the certifications to ensure permit compliance with conducting inspections. Training records will be maintained. Additional training details are included in Part 4.2.1.5.

4.2.4.6 Maintaining Records

Implement a procedure to maintain records of all projects. Records must be kept for five years or until construction is completed, whichever is longer.

All project records including SWPPPs, SWPPP reviews, inspections, and enforcement actions will be maintained for five years or until construction is completed, whichever is longer. Records will be maintained by the Water Resource Engineer.

Construction Site Storm Water Runoff Control Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
CSRC-01	SWPPP Review	Review 100% of SWPPP submittals for all development types	Review 100% of SWPPP submittals for all projects greater than or equal to one acre including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre	4.2.4.1	Ongoing
CSRC-02	Enforcement Strategy	Document and track enforcement actions	Document all enforcement actions by tracking all verbal and written warnings and stop work orders	4.2.4.2	Ongoing
CSRC-03	Pre-Construction Meeting	Require a pre-construction meeting that includes a review of the project and planned BMPs for the site	All projects greater than or equal to one acre including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are required to have a pre-construction meeting to discuss the impacts of the project on storm water quality	4.2.4.3	Ongoing
CSRC-04	Construction Site Inspections	Complete construction site inspections for 100% of projects	All construction projects greater than or equal to one acre or part of a larger common plan of development are inspected at least monthly to ensure compliance providing proper storm water quality protection	4.2.4.4	Monthly
CSRC-05	Priority Site Inspection	Inspect 100% of priority construction sites every 2 weeks	All priority construction sites as identified are inspected twice a month to ensure compliance providing proper storm water quality protection	4.2.4.4	Bi-monthly
CSRC-06	Staff Training	Maintain Certifications	Ensure that RSI and/or CISEC certifications are maintained by construction site storm water inspectors	4.2.4.5	Ongoing

4.2.5 Long Term Stormwater Management in New Development and Redevelopment (Post-Construction Stormwater Management)

4.2.5.1 Post-construction Controls

New development and redevelopment program must have requirements or standards to ensure that any stormwater controls or management practices will prevent or minimize impacts to water quality.

Herriman City requires new development and redevelopment sites to follow the city's standards for stormwater management when working on a site within Herriman City boundaries. The city standards address common BMPs to minimize impacts to water quality.

4.2.5.1.1 Non-Structural BMPs

Development/Redevelopment program should include non-structural BMPs such as requirements and standards.

Herriman City's development standards specify allowable discharge rates within the city for discharges into Rose Creek, Midas Creek, and Butterfield Creek. The most up to date values for discharge can be found in Herriman City's Development Standards.

4.2.5.1.2 Retention Requirements

Define a specific hydrologic method for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs and facilitate plan review. New development projects must manage rainfall on-site and prevent off-site discharge from all events less than or equal to the 80th percentile rainfall event or a predevelopment hydrologic condition, whichever is less.

Redevelopment projects that increase surface water by 10% shall manage rainfall on-site and prevent off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event.

As of 1 July 2020 all new development and redevelopment projects within Herriman City that disturb land greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre will manage rainfall on-site and prevent off-site discharge of precipitation from all rainfall events less than or equal to the 80th percentile rainfall event or a predevelopment hydrologic condition, whichever is less. The most up to date values for discharge can be found in Herriman City's Development Standards.

Herriman City requires documentation be provided as part of the drainage report that is submitted with the Engineering Review. The drainage report needs to include the 80th percentile calculation and a narrative that explains how the calculated total will be retained on site as well as additional reasoning for why a specific control was employed.

4.2.5.1.3 Low Impact Development Approach

Requires the evaluation of a Low Impact Development (LID) approach for all projects subject to above requirements. Co-Permittees must allow for the use of a minimum of five LID practices. If no specific LID practices are adopted any feasible LID approach may be used.

Herriman City requires as part of the development review process the evaluation of a LID approach for all projects subject to the requirements in 4.2.5.1.2.

At the time, Herriman City only prohibits above ground retaining ponds within the city. Stormwater staff are consistently evaluating existing as well as new and innovative LID approaches. As LID methods are approved or determined to be unacceptable in the future, city standards and LID guidance will be adjusted accordingly.

4.2.5.1.4 Rainwater Harvesting

Rainfall harvesting is legal. If it is to be collected and stored, state requirements must be met.

Herriman City will require projects that propose the harvesting of rainwater to meet the requirements of the Utah Division of Water Rights found on their website at:

<https://waterrights.utah.gov/forms/rainwater.asp>

4.2.5.1.5 Feasibility

If meeting retention standards is infeasible, a rationale shall be provided for the use of alternative design criteria.

If it is infeasible for a developer to meet the retention standards described in Part 4.2.5.1.2, Herriman City will require the developer to provide a rationale for the use of an alternative design. The developer will be required to provide documentation to Herriman City that infiltration, evapotranspiration, and rainwater harvesting have been used to the maximum extent feasible and that employment of the controls are infeasible due to site conditions/constraints. Conditions may include high ground water, drinking water source protection areas, soil conditions, slopes, accessibility, excessive costs or others.

4.2.5.2 Long Term Enforcement Strategy

Develop and adopt an ordinance that requires long-term post construction stormwater controls at new development and redevelopment sites.

The adopted Herriman City Standards and Specifications, section 4.12, requires all development projects to include Best Management Practices (BMP) that will retain the 80th percentile of rainfall by using Low Impact Development (LID) infrastructure. Additionally, Herriman City ordinance § 12-7-11 requires all property owners of a private stormwater system to enter into a Long Term Stormwater Maintenance Agreement with the city to ensure proper maintenance in perpetuity of the stormwater infrastructure and LID BMPs.

4.2.5.2.1 Sanctions for Violations

Include enforcement provisions which include escalation procedures and actions.

Herriman City ordinance § 12-7-13 outlines enforcement provisions specifically regarding stormwater management and for private properties that fail to enter into a Long-Term Stormwater Maintenance Agreement (LTSWMA) or failing to comply with the terms of an executed maintenance agreement.

Additionally, the LTSWMA template, and all existing executed LTSWMA agreements include specific provisions of corrective action in the case of discovered deficiencies.

4.2.5.2.2 BMP Selection

Document how requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the MS4.

The Long-Term Stormwater Management Program requires BMPs to be installed in new developments. This is intended to reduce targeted pollutants.

Developers and owners are required to submit documentation about their proposed BMPs which must meet the pollutant removal expected from the BMP and a technical basis that supports performance claims. The Stormwater Quality Report—Template found in Appendix E may be used for this documentation.

Herriman City has created a Long-Term Stormwater Inspection and Evaluation form found in Appendix C that is used for site inspections and enforcement of post construction stormwater control measures as well as for annual inspections of high priority sites.

4.2.5.2.3 Post Construction Access

Include provision for post construction access to inspect stormwater control measures on private properties that discharge to the MS4 to ensure adequate maintenance is being performed. Allow for, rather than having city staff inspect and maintain private stormwater controls, requirement of owner to provide annual certification that adequate maintenance has been performed and controls are operating as designed.

Herriman City code §12-7-11(F) states the following, *“Right To Inspect: City personnel are authorized to enter upon any real property at reasonable times in order to inspect the stormwater facilities, maintenance and preservation plans, and owner annual inspection records to ensure the owner is in compliance with this section.”*

Additionally, Herriman City requires new development or redevelopment projects to enter into a Long-Term Stormwater Maintenance Agreement. The verbiage in the template agreement states, *“The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Stormwater Facilities upon reasonable notice of not less than three business days to the Owner.”* A sample annual inspection report can be found in Appendix E.

4.2.5.2.4 Permanent Structural BMP Inspection

Permanent structural BMPs shall be inspected at least once during installation. Prior to closing out construction permit, the city shall verify long-term BMPs were constructed as designed.

Herriman City requires permanent structural BMPs be inspected by public work inspectors during installation. As part of the bond release process, the structural BMPs must be verified to be constructed as designed.

4.2.5.2.5 Post Construction Inspections

Inspections and maintenance must be conducted at least every other year or as necessary to maintain functionality of the control. On sites where the property owner/operator is conducting maintenance, the city must inspect the stormwater control measures at least once every five years to ensure maintenance is being performed.

Inspections of post-construction stormwater controls and BMPs are performed by the owner/operator every year at a minimum. Records are sent to Herriman City as outlined in each agreement. To ensure proper maintenance, Herriman City will inspect post construction stormwater controls at least once every five years. If it is suspected that adequate maintenance is not being performed, Herriman City will increase the inspection frequency on a case by case basis as needed. The Long-Term Stormwater Inspection and Evaluation Form for post construction controls used for city inspections can be found in Appendix C.

4.2.5.3 Plan Review:

4.2.5.3.1 Consideration of Water Quality Impacts

Implement procedures for site plan review which incorporate consideration of water quality impacts.

Herriman City uses the Stormwater Quality Template found in Appendix E to document the review process for consideration of water quality impacts. Public Works inspections and the bond release process ensure projects are built as designed and operate as expected.

4.2.5.3.2 LID Implementation

Review post-construction plans to ensure that the plans include long-term stormwater management measures that meet the requirements of this MCM.

Herriman City reviews long term stormwater maintenance plans to ensure that development projects greater than or equal to one acre including projects less than one acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre meet the requirements of the minimum control measure.

4.2.5.4 Inventory

Maintain an inventory of all post-construction structural stormwater control measures installed and implemented at new development and redevelopment sites. This inventory must include both public sites and private sites that were developed since the requirement came into effect.

Herriman City maintains an inventory of sites that have long term stormwater maintenance agreements. The stormwater controls on public and private properties are also maintained on Herriman City's GIS Storm Drain map included in Appendix A.

4.2.5.4.1 Inventory Information

Each entry must include basic information on each project

Herriman City's inventory maintains project information including the name, project address, owners name, contact information and start date. Long term maintenance plans and agreements detail the stormwater control measures, maintenance requirements and inspection information.

4.2.5.4.2 Inventory Updates

Based on inspections conducted, update the inventory as appropriate where changes occur in property ownership or control measures implemented on site.

Based on inspections conducted per Part 4.2.5.2.5 Herriman City updates inventory information when changes occur in property ownership or control measures.

4.2.5.5 Training

All staff involved in post-construction stormwater management must receive appropriate training. Ensure that all new hires are trained within 60 days of hire and annually thereafter.

Herriman City provides training opportunities for staff involved with post-construction stormwater management through the annual APWA Conference, USWAC or other training opportunities as available. New hires or employees who become involved with post construction stormwater management will be trained internally within 60 days of hire and annually thereafter.

Long Term Storm Water Management Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
LTSM-01	Long Term Program	Develop and Implement Long Term Storm Water Program	Herriman City will develop and implement a new long term storm water management program.	4.2.5.1 4.2.5.2	Ongoing
LTSM-02	Discharge Restriction	Review 100% of development projects to ensure discharge is no greater than the restriction rates outlined in the SDMP.	Provide engineering review for all construction projects greater than or equal to one acre or part of a larger common plan of development to ensure that discharge rates will comply with SDMP.	4.2.5.1.1	Ongoing
LTSM-03	On site rainfall management	Review 100% of development projects to ensure the 80th percentile storm is managed on site and that LID approaches be evaluated	All construction projects greater than or equal to one acre or part of a larger common plan of development and redevelopment projects that increase surface water by 10% must manage on site up to the 80th percentile storm. To accomplish this end, a LID approach must be evaluated.	4.2.5.1.2 4.2.5.1.3	Ongoing
LTSM-04	Water Quality Review	Review 100% of development projects considering water quality impacts of development	Review all documents to consider water quality impacts	4.2.5.3	Ongoing
LTSM-05	Agreement Execution	Execute long term storm water agreement for 100% of development and qualifying redevelopment projects	All construction projects greater than or equal to one acre or part of a larger common plan of development and redevelopment projects that increase surface water by 10% must execute a storm water maintenance agreement that addresses the on site management of the 80th percentile storm	4.2.5.3	Ongoing

LTSM-06	Agreement Inventory	Maintain a current inventory of all storm water maintenance agreements	Using spreadsheets and GIS tools, maintain an updated inventory of all sites that have storm water maintenance agreements as well as records of inspections performed by owners and MS4 personnel	4.2.5.4	Ongoing
LTSM-07	Training	Provide training opportunities annually	Have full time staff trained annually on Long Term Storm Water Management Program. Provide additional training through annual APWA trainings and monthly USWAC meetings	4.2.5.5	Ongoing

4.2.6 Pollution Prevention and Good Housekeeping for Municipal Operations

4.2.6.1 City Owned or Operated Facilities and Stormwater Controls

Develop and keep current a written inventory of all potential “high priority” facilities that are owned or operated by the city and all stormwater controls.

See Appendix F for a list of all city owned or operated facilities. Butterfield Park is currently the only facility that has been identified as a “High Priority” facility.

4.2.6.2 Inventory Assessment

Assess the written inventory of city owned or operated facilities, operations and stormwater controls and identify common pollutants that originate from these facilities and how to prevent them from entering the stormwater system.

Appendix F contains a chart identifying all city owned or operated facilities including stormwater controls and common pollutants that may originate from these facilities. Methods are outlined for preventing pollutants from entering the stormwater system.

4.2.6.3 “High Priority” Sites

Identify sites that are high priority. Provide water quality control measures and BMPs at all high priority sites. Monitor the BMPs regularly to verify they are functioning. Specify monitoring schedules in the SWMP.

Butterfield Park serves as the City’s Public Works Operations Yard. Butterfield Park has been identified as a high priority site based on its location relative to Rose Creek and the quantity of urban pollutants stored on site. Control measures and BMPs are monitored through monthly inspections as outlined in Part 4.2.6.5.1.

Any additional facilities Herriman City takes ownership of in the future will be assessed and determined if they will be identified as high priority.

4.2.6.4 SWPPP for “High Priority” Facilities

Prepare a Stormwater Pollution Prevention Plan (SWPPP) for each high priority facility within 180 days of effective date of this permit.

A SWPPP has been developed for Butterfield Park and is updated as needed. The SWPPP identifies potential sources of pollution that are damaging to water quality and refers to SOPs outlined in this document to prevent discharge of those pollutants and maintain compliance with terms of the permit. The SWPPP is tailored to Butterfield Park and the operations that occur there. The SWPPP includes responsible parties for developing and implementing the plan, inventory of materials and potential pollutant sources as well as spill prevention and response.

SWPPPs will be prepared for future sites that are determined to be high priority.

The full SWPPP document can be found in Appendix F.

4.2.6.5 “High Priority” Facility Inspections

Conduct inspections at high priority city owned or operated facilities.

4.2.6.5.1 Monthly Visual Inspections

Perform monthly visual inspections of high priority facilities in accordance with developed SOPs.

Monthly visual inspections are performed at Butterfield Park in compliance with the Monthly Visual Inspection SOP included in Appendix F. The inspections are completed by the Stormwater Foreman or the Stormwater Manager's designee. A copy of the Visual Inspection log used for the inspections is included in Appendix F. Deficiencies and corrective actions are documented with the Corrective Action Log and turned in to the Public Works Director of Operations. Copies of all logs are kept in the office of the Water Resource Engineer.

4.2.6.5.2 Semi-Annual Comprehensive Inspections

At least twice per year, a comprehensive inspection of high priority facilities must be performed.

Semi-annual inspections are performed at Butterfield Park in accordance with the Semi-Annual Comprehensive Inspections SOP. The Stormwater Foreman or the Stormwater Manager's designee conducts these inspections. Procedures include paying attention to pollutant generating areas and stormwater controls on site. The inspection report is reviewed with the Public Works Director of Operations. Deficiencies and corrective actions being completed will be confirmed and corrective actions will be addressed. A copy the SOP and the form used for semi-annual comprehensive inspections are included in Appendix F.

4.2.6.5.3 Annual Visual Observations of Stormwater Discharges

At least once per year, visually observe the quality of the stormwater discharges from the high priority facilities during the first half hour of a measurable storm.

In conjunction with the semi-annual comprehensive inspection and where feasible, the Stormwater Foreman will visually observe stormwater discharges. Best efforts will be made to complete at least one observation annually during the wet season.

Observations of stormwater discharges will be noted on the comprehensive inspection form including deficiencies and recommended corrective actions. Copies of the SOP and the form for annual visual wet weather observations are included in Appendix F.

4.2.6.6 Facility Specific SOPs

Develop and Implement SOPs to protect water quality at each facility owned or operated by the city and/or activities conducted by the city.

4.2.6.6.1 SOPs Addressing Water Quality

Address practices to ensure they are protective of water quality.

The city has created SOPs that can be found in Appendix F. These include:

- Vehicle and Equipment Washing
- Parking Lot and Sump Maintenance
- Fueling Procedures
- Dumpsters and Garbage Storage
- Concrete Work
- Excavation Work
- Pressure Washing
- Saw Cutting
- Snow Removal
- Pesticides

- Street Sweeping
- Catch Basin Cleaning
- Vehicle and Equipment Storage
- Vehicle and Equipment Maintenance
- Material Storage

Herriman City is currently working to update existing SOPs and implementing new SOPs. Additional SOPs will be included as updates are made. Maintenance Logs associated with these SOPs can be found in Appendix F.

4.2.6.6.2 Maintenance SOPs

Include a schedule for city owned road and parking lot sweeping and storm drain system maintenance.

Parking lots for city owned facilities will be swept annually. All streets within the city will be swept at least twice per year and high priority sites are swept monthly. Logs are maintained in the office of the Water Resource Engineer.

4.2.6.6.3 Disposal Methods of Waste and Wastewater

Document proper disposal methods of all waste and wastewater removed during cleaning and maintenance of the stormwater conveyance system.

Waste collected by the street sweepers or from vector trucks is dumped in a retention bay at Butterfield Park. Moisture from the waste either falls into the connected sanitary sewer system, or evaporated from the retention area. Residual solid waste is loaded onto trucks and disposed of at a local landfill. Dump tickets are kept in the office of the Stormwater Manager.

4.2.6.6.4 Discharge of Wash Waters

Ensure that vehicle, equipment and other wash waters are not discharged to the MS4 or waters of the state.

Vehicle fluids and fluids from the wash bay are intercepted by an oil/water separator prior to being discharged into the sanitary sewer system. This ensures that polluted water from vehicles and wash waters are not introduced into Herriman City's MS4 system.

Vehicles are washed as outlined in SOP-SW.004 as found in Appendix F.

4.2.6.6.5 Spill Prevention Plan

Develop a spill prevention plan in coordination with the local fire department.

The spill response plan can be found in Appendix C. When necessary, Herriman City will coordinate with the local fire department for chemical and hazmat spills.

4.2.6.6.6 Floor Drain Inventory

Maintain an inventory of all floor drains inside all city owned or operated buildings. Ensure floor drains discharge to appropriate locations.

Herriman City maintains an inventory of all floor drains inside of city owned or operated buildings. All floor drains connect to the sanitary sewer system. The city has a total of 95 floor drains in all facilities. Maps of facilities showing floor drains are included in Appendix F.

4.2.6.7 Third Party Standards/Expectations

Ensure through contractually required documentation and periodic site visits that contractors performing O&M activities for the city are using appropriate stormwater controls.

Herriman City oversees O&M for all city owned and maintained structures. Any services contracted out to third party members are expected to abide by the same SOPs as Herriman City Employees.

4.2.6.8 Water Quality Impacts of New Structural Controls

Develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the city or that discharge to the MS4.

4.2.6.8.1 Water Quality Impacts of New Structural Controls

Develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the city or that discharge to the MS4.

All new Capital Projects are required to meet stormwater quality requirements as outlined in section 4.12 of the Herriman City Standards & Specifications. This section requires a water quality assessment of the project and outlines mitigation requirements for the project. This also includes a Storm Water Quality Report Form for the project found in Appendix E.

4.2.6.9 Retrofitting Existing Developed Sites

Develop a plan to retrofit existing developed sites the city owns or operates that are adversely impacting water quality.

Herriman City is currently in the process of completing a will seek opportunities to retrofit existing city owned facilities and incorporate LID solutions.

4.2.6.10 Employee Training

All staff who have primary operation or maintenance job functions that are likely to impact stormwater quality must be annually trained. Ensure that all new hires are trained within 60 days of hire and annually thereafter.

Herriman City's Public Works and Engineering personnel are trained annually in relation to their responsibilities in relation to stormwater quality. There is a tiered level training required each year to all employees. Public Works and Engineering Staff that have direct impact to stormwater quality are required to take a higher level tier training. Currently these trainings are being hosted by Stormwater Go. Public Works staff participate in weekly safety meetings that frequently emphasize the importance of stormwater quality and ensure proper training for all staff. Refer to Part 4.2.1.5 for additional information regarding employee training. All training is documented and records are kept by the Water Resource Engineer.

Pollution Prevention and Good Housekeeping for Municipal Operations Program					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PPGH-01	City Facilities	Annually update city owned and high priority lists	At least once annually update the city owned facilities list and review the list to determine if any sites should be considered to be high priority. This will include an inventory of storm water controls and pollutants that may originate from these facilities	4.2.6.1 4.2.6.2 4.2.6.3	Annually
PPGH-02	High Priority SWPPP	Annually review SWPPPs for high priority sites	At least once annually review the SWPPPs that have been developed for city owned or operated sites that have been determined to be high priority. Make any updates to the SWPPP as necessary	4.2.6.4	Annually
PPGH-03	Monthly Visual Inspections	Complete 100% of monthly visual inspections	Complete and document 100% of monthly visual inspections for city owned or operated facilities determined to be high priority. Implement any corrective actions	4.2.6.5.1	Monthly
PPGH-04	Semi-Annual Comprehensive Inspections	Complete 100% of Semi-Annual Comprehensive Inspections	Complete and document 100% of the Semi-Annual comprehensive inspections for city owned or operated facilities determined to be high priority. Implement any corrective actions.	4.2.6.5.2	Semi-Annually
PPGH-05	Annual Visual Storm Water Discharge Observation	Complete 100% of Annual Visual Storm Water Discharge Observations	Visual storm water discharges should be observed at least annually for city owned or operated facilities determined to be high priority. Implement any corrective actions.	4.2.6.5.3	Annually
PPGH-06	Street Sweeping	100% of Arterials and Mains swept annually	All city owned and maintained arterials and mains will be swept at least once annually	4.2.6.6.2	Annually

PPGH-07	Floor Drains	Identify 100% of floor drains	Floor drains located in city-owned or operated facilities will be identified, inventoried and will confirm that floor drains connect to sanitary sewer system	4.2.6.6.6	Ongoing
PPGH-08	Structural Controls Assessment	Asses 100% of city owned structural controls	At least annually evaluate city owned structural controls and determine potential for retrofit	4.2.6.8	Annually
PPGH-09	Employee Training	Train 100% of employees	Provide training opportunities for all employees who have job responsibilities that involve storm water quality impacts	4.2.6.10	Annually

4.4 Sharing Responsibility

4.4.1 Reliance on Other Entities

Herriman City shares the responsibility of Minimum Control Measures 1 and 2 with Salt Lake County outlined in an interlocal agreement found in Appendix G.

4.5 Reviewing and Updating Stormwater Management Programs

4.5.1 Annual Review

Herriman City's SWMP is reviewed on an annual basis after the end of the fiscal year by the Water Resource Engineer. Any suggested modifications are discussed with the City Engineer and Public Works Director as well as city stormwater staff prior to approval.

When updates are made to the SWMP they will be submitted to the DWQ.

4.5.2 Program Updates

Updates to the Stormwater Management program will be made as needed in accordance with updated requirements.

4.5.2.1 Addition to Program

Additions to the SWMP will be submitted to the Director of the DWQ and documented.

4.5.2.2 Replacing Program Details

When ineffective or infeasible BMPs are replaced by alternate BMPs, a description of the city's evaluation will be documented and submitted to the Director of the DWQ for approval.

4.5.2.3 Replacing Ineffective or Infeasible BMPs

Herriman City may replace an ineffective or infeasible BMP during the permit period. If this is done, it will be clearly outlined and submitted to the Director of the DWQ for approval. An evaluation for replacing a BMP will include:

4.5.2.3.1 Explanation

An explanation of why the BMP is ineffective or infeasible;

4.5.2.3.2 Effectiveness

The expectations or report on the effectiveness of the replacement BMP;

4.5.2.3.3 Analysis

An analysis of why the replacement BMP is expected to achieve the goals of the replaced BMP;

4.5.3 Documentation of Changes

Change requests will be written, signed, and submitted to the Director of the DWQ per State Requirements.

4.5.4 Approval of Change Requests

Notification of confirmation of change requests will be received in writing from the Director of the DWQ.

4.5.5 Stormwater Management Program Updates Required by the DWQ

Herriman will address program updates required by the Director of the DWQ when notified. Updates may include:

4.5.5.1 Impact

Addressing impacts on receiving water quality caused or contributed to by discharges from the MS4;

4.5.5.2 Compliance with Requirements

Include more stringent requirements necessary to comply with new federal regulatory requirements;
or

4.5.5.3 Goals of Clean Water Act

Include such other conditions deemed necessary by the Director of the DWQ to comply with the goal and requirements of the Clean Water Act.

5.3 Analytical Monitoring

Herriman City is a Phase II co-permittee and is not required to perform analytical monitoring.

5.4 Non-analytical Monitoring

Per Part 4.2.3.3.2, visual dry weather screening will be completed.

5.5 Record Keeping

5.5.1 Maintain SWMP

All portions of the SWMP and supplementary documents located in the Appendices will be updated and maintained to stay current with program details.

5.5.2 Supplementary Document Updates

All modifications to supplementary documentation (i.e. Appendices and SOPs included in the SWMP) will be submitted to the Director of the DWQ.

5.5.3 Division Modifications

If the Director of the DWQ provides written determination that parts or all of the supplementary documents are not in compliance with permit requirements, Herriman City will make modifications to be completed within a time frame specified by the Director of the DWQ.

5.5.4 Document Retention

All documents related to compliance with the permit and the SWMP will be maintained for at least five years.

5.5.5 Public Availability

All documents will be made available to the public upon request.

5.6 Reporting

5.6.1 Annual Reporting

Herriman City submits its report to the Division of Water Quality using the form required from the DEQ website. The report will be submitted by October 1 of each year by uploading directly to the DWQ's document system on the DWQ's website.

5.6.2 Submission of the Annual Report

Herriman City will submit annual reports to the DWQ using the report form provided on the DWQ's website:

https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/docs/2009/07Jul/MS4_UT_09_annual_report_form.pdf

5.6.3 Report Certification

Each annual report will be signed and certified according to part 6.8 of the Jordan Valley Municipalities Permit.

5.6.4 Report Submission

Signed copies of the annual report and all other reports required within the permit, will be submitted directly to the DWQ through their electronic document system at:

<https://deq.utah.gov/water-quality/water-quality-electronic-submissions>

5.7 Legal Authority

Through the Herriman City Municipal code, Herriman City has ensured appropriate legal authority to:

5.7.1 Industrial Activity

Control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity;

5.7.2 Prohibit Illicit Discharges

Prohibit illicit and non-stormwater discharges through ordinance and implement appropriate enforcement procedures;

5.7.3 Control

Control discharge of spills and dumping or disposal of materials other than stormwater into the MS4;

5.7.4 Interagency Agreements

Through interagency agreements control the contribution of pollutants from one portion of the MS4 to another;

5.7.5 Compliance

Require compliance with conditions in ordinances, permits, contracts or orders; and

5.7.6 Inspect

Determine compliance with permit through inspections, surveillance, and monitoring activities.

6.0 Standard Permit Conditions

Herriman City will comply with the standard permit conditions outlined in Parts 6.0 through 6.7 of the Jordan Valley Municipalities Permit.

6.8 Signatory Requirements

The permit application will be signed by either a principal executive officer or ranking elected official per the requirement of Part 6.8.1 of the Permit. The following certification statement will be made:

“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 gathered and evaluated the information submitted. Based on 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 fine and imprisonment for knowing violations.”

6.9 Availability of Reports

The Stormwater Management Plan, reports, and appendices will be available on Herriman City’s website as well as the office of the Water Resource Engineer for the life of the plan.