



# Stormwater Management Plan 2025-2030

Updated August 2025

Herriman City  
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## ***Certification***

Permit Number: UTR090000  
Permittee: Herriman City  
Permit Type Small Municipal Separate Storm Sewer System (Small MS4)

Submitted with this permit is the following:

- Information regarding the overall quality concerns, priorities, and measurable goals specific to the 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 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 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

8/22/2025

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             |
| E. coli | Escherichia coli                            |
| 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 for Renewal Permittees**

### **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 Small MS4 General UPDES Permit. It will be submitted to the Utah Division of Water Quality.

#### **2.3.2.1 Permit Number**

Herriman City is a permittee under the Small MS4 General UPDES, Permit No. UTS090000.

#### **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. 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 impairments to Midas Creek, Butterfield Creek, and Rose Creek. Each creek is impaired with Total Dissolved Solids (TDS) and E. coli. 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, long-term stormwater management & inspections, 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 for Discharges to Impaired Waters**

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.

### **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 Jordan River Watershed Wide E. coli TMDL**

### **3.2.2.1 Potential Sources of E. coli.**

Herriman City's stormwater compliance team completed the *E. Coli Source Focus Checklist*, attached in Appendix H. This document helps identify potential sources in Herriman City and outlines which efforts will take place this upcoming reporting year. As part of this effort, the committee identified specific BMPs to employ and which audiences to focus our education specifically regarding E. coli by using the *E. coli Sources Audiences and BMP Worksheet*. This has been included in Appendix H for reference.

#### **3.2.2.1.1 Stormwater Coalition**

In addition to the efforts outlined above, Herriman City has been and will continue to be an active participant with the Salt Lake County Stormwater Coalition.

#### **3.2.2.2 Identify Priority Areas**

Herriman City stormwater committee will develop and maintain an inventory of potential E. coli sources within the MS4. The inventoried areas will be added to the Priority Areas Map found in Appendix A.

Based on the E. coli Source Checklist (found in Appendix H), the identified potential sources of E. Coli that are to be mapped include 1) leaky/failing septic systems, 2) dog parks, 3) dense waterfowl areas, and 4) properties with livestock adjacent to or in receiving waters. A map of all sources is developed and added in Appendix H (Mapped E. coli Sources).

#### **3.2.2.2.1 Create a Compliance Plan**

Herriman City has developed a Compliance Plan by 1) identifying sources of focus for the reporting year (see the E. coli Source Focus Checklist), and 2) identifying the reduction activities as shown in the E. coli Sources and BMP worksheet. This effort will be revisited each year of the permit term. The Compliance Plan, the E. coli Source Focus Checklist, and the E. coli Sources and BMP Worksheet are all included in Appendix H.

#### **3.2.2.2.2 Priority Area Inspections**

Herriman City will add the inventoried areas to the High Priority Map in Appendix A and to the inspection schedule for annual inspection, at a minimum (see sections 4.2.3.3.2 *Field Assessment Activities* and 4.2.3.3.3 *Permit Term Field Assessment Activities*).

#### **3.2.2.2.3 Prioritizing Street Sweeping & Storm Drain Maintenance**

Herriman City will add the prioritized areas from the State Permit Section 3.2.2.2 to the street sweeping and storm drain maintenance schedule, as discussed in 4.2.6.6.2 *Maintenance SOPs*, and update the existing SOPs to include those areas and specify the appropriate frequency.

### **3.2.2.3 Assessment of City-Owned and Operated Facilities**

High Priority Sites identified in this document are the Butterfield Park/Public Works Facility, K9 Memorial Dog Park, The Cove Pond, and Blackridge Reservoir. The location of these sites are identified in Appendix A. Herriman City will assure that the following are included in the inventory High Priority Sites of city- owned or operated facilities: 1) owned/operated dog parks, 2) owned/operated parks with open water, 3) owned/operated sites with septic (none), and 4) owned/operated properties that are known potential sources of E. coli. The stormwater committee will evaluate the inventory of city-owned or operated facilities and identify sites that have potential sources of E. coli. A Post Construction SWPPP has been developed for each site and included in Appendix F.

### **3.2.2.4 Storm Water Quality SOPs for Maintenance Activities**

The Herriman City SOP's will be reviewed, updated, and implemented to address potential E. coli generating activities identified in Part 3.2.2.4 of the Permit.

### **3.2.2.5 Promote LID BMPs that Focus on E. coli**

Herriman City Standards and Specifications Manual will be updated and to include verbiage that promotes LID BMPs with a medium or high pollutant removal effectiveness. This will be reflected in section 4.12 (Water Quality). This effort is planned to be complete on the next standards update cycle (tentatively on or before on or before June 30<sup>th</sup>, 2026).

### **3.2.2.6 Retrofit Plan Update**

The recently completed Herriman City Stormwater Retrofit Plan has been re-evaluated to assure that E. coli contamination potential is a factor of priority ranking. A copy of the Retrofit Plan is included in Appendix G.

### **3.3 Nitrogen and Phosphorus Reduction**

#### **3.3.1 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

##### **3.3.1.1 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.

##### **3.3.1.2 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.

##### **3.3.1.3 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 Enterprise Fund.

#### **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.

## 4.2 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 (e.g. E. Coli) |
|--|----------|-----------------------|--------------|----------------|--------------|-------------------------|
| Residents  | X        | X                     |              | X              | X            | X                       |
| Institutions, Industrial & Commercial Facilities | X        | X                     | X            | X              | X            |                         |
| Developers & Contractors                         | X        | X                     |              | X              | X            |                         |
| MS4 Owned or Operated Facilities                 | X        | 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. The Coalition consistently provides resources and opportunities to participate in educational competitions or and trainings. Herriman City will support and collaborate in these efforts

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. Special emphasis will be added on posts that educate the public on how to prevent or minimize risk of E. coli contamination to receiving waters.

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. Each reporting year will include a message specifically regarding E. coli and the recent updates to the SWMP regarding E. coli.

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 was to implement this, by 30 June 2021.

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 180 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.gov](mailto:jbowers@herriman.gov).

| 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 currently 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.

Inventoried sites that are considered sources of E. coli will be added to the list of priority sites to be inspected annually and documented accordingly.

Please note that although all septic systems in the city are mapped, they will be inspected by Salt Lake County Health Department at their discretion and SOPs. Herriman City will reach out and coordinate with the Health Department annually to receive information on any failing septic systems with Herriman City and will be documented in the annual report

Annual inspections for residential properties with livestock identified in the E. coli source inventory map will be non-mandatory for this reporting period.

#### **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 Priority Areas based on criteria established in the permit. These sites are inspected annually using the Long-Term Stormwater Inspection and Evaluation Form or the Dry Weather Screening Inspection Form both located in Appendix C. Each of the Priority Areas and High Priority Sites are identified in Appendix A.

Inventoried sites that are considered sources of E. coli have been included as either a Priority Area, if private property, or a High Priority Site if owned and maintained by Herriman City to be inspected annually and documented accordingly.

#### **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.

Inventoried sites that are considered sources of E. coli will be added to the list of priority sites to be inspected annually and documented accordingly, including Dry Weather Sites.

#### **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 (e.g. washing concrete out in the storm drain). When a substance is unknown, the Stormwater Personnel will perform a limited analysis to identify the pollutant. If the Stormwater Personnel is 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 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.

###### **4.2.4.1.3 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.

##### **4.2.4.2 Enforcement Strategy**

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

Herriman City has enforcement strategy is best described by the escalating enforcement flow chart that is based on the state's template, but with added clarifications for the stormwater inspectors. A copy of the flow chart may be found in Appendix D. The escalating enforcement is supported by adopted city ordinance.

#### 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 stormwater enforcement and management software tool.

#### 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, which is based on the state's checklist template.

#### 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 Consideration for Public Comment on Proposed Projects

*Permittee must develop procedures for receiving and considering information and comments submitted by the public on proposed projects.*

As with all projects, the city is required to receive and consider comments from the public as part of the application process. This includes community meetings, and hearings at planning commission for each land use application.

#### **4.2.4.3.3 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.
- High potential for downstream property damage

#### **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.*

The Herriman City Standard Operating Procedures for electronic site inspections are based on recent legislation and oversight inspection is only completed for documented reasons to be onsite in accordance with the reasons listed in the state statute.

#### *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 are updated regularly to include water quality components into their stormwater management plan. Such components include, but not limited to, retention of the 80<sup>th</sup> percentile rainfall for all projects.

##### **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 80<sup>th</sup> 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 80<sup>th</sup> percentile rainfall event.*

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 80<sup>th</sup> percentile rainfall event or a predevelopment hydrologic condition, whichever is less.

Herriman City Standard requires each applicant for a development or redevelopment project to complete the State's Water Quality Report Template and include as part of the project's Drainage Report. This also includes calculation for the 80<sup>th</sup> percentile volume. The most recent Herriman City Standards requires the Drainage Report to include 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. The report and the water quality template is also required to be stamped and signed by a Professional Engineer.

##### **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. 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.

For private infrastructure, Herriman City allows the designer or the applicant of development projects, full discretion of selection of LID BMPs as long as the retention requirements are met (i.e. 80<sup>th</sup> percentile). Whereas allowable LID BMP types to be used in the public right-of-way are detailed and listed in the Herriman City Standards.

#### **4.2.5.1.4 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 requires 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 Regulatory Mechanism**

*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 80<sup>th</sup> 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 and redevelopment projects. 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<br>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<br>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.*

The Butterfield Park/Public Works Yard, K9 Memorial Dog Park, The Cove Pond, and the Blackridge Reservoir 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 each High Priority Site and included in Appendix F. 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 each site based on the potential contaminant. 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.

##### **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 each High Priority Site 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. Sites identified as potential sources of E. coli will be added to the list of high priority site to be swept and maintained accordingly. 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 has a retrofit plan for all city owned facilities and the sites are prioritized in accordance with the criteria outlined in the permit. A project is scheduled for budget each year and approved upon city council discretion. A copy of this plan is included in Appendix G.

#### **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<br>4.2.6.2<br>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 |

## **4.3 Sharing Responsibility**

### **4.3.1 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.

## **4.4 Reviewing and Updating Stormwater Management Programs**

### **4.4.1 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.

### **4.4.2 Program Updates**

Updates to the Stormwater Management program will be made as needed in accordance with updated requirements as outlined in the permit sub sections of section 4.4.2.

### **4.4.3 Documentation of Changes**

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

### **4.4.4 Approval of Change Requests**

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

### **4.4.5 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:

#### **4.4.5.1 Impact**

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

#### **4.4.5.2 Compliance with Requirements**

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

#### **4.4.5.3 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.

## **5.2 Analytical Monitoring**

Herriman City is a Phase II permittee and is not required to perform analytical monitoring, with the exception of compliance to published and relevant TMDLs. Herriman City plan to comply accordingly.

## **5.3 Non-analytical Monitoring**

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

## **5.4 Record Keeping**

### **5.4.1 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.

### **5.4.2 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.

### **5.4.3 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.

### **5.4.4 Document Retention**

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

### **5.4.5 Public Availability**

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

## **5.5 Reporting**

### **5.5.1 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.

### **5.5.2 Submission of the Annual Report**

Herriman City will submit annual reports to the DWQ using the CDX EPA website.

### **5.5.3 Report Certification**

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

### **5.5.4 Report Submission**

Similar to section 5.5.2, Herriman City plans to submit as requested by the DEQ. Currently, that includes submission to the CDX EPA website and login.

## **6.0 Standard Permit Conditions**

Herriman City will comply with the standard permit conditions outlined in Parts 6.0 through 6.7 of the Small MS4 General UPDES 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.

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## **APPENDIX A – MAPS**

*HERRIMAN CITY MAP*  
*HERRIMAN CITY GIS STORM DRAIN INVENTORY MAP*  
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*DRY WEATHER SCREENING SOP*  
*DRY WEATHER SCREENING INSPECTION FORM*  
*TRACKING SOURCE OF ILLICIT DISCHARGE SOP*  
*CHARACTERIZING THE NATURE AND/OR THREAT OF ILLICIT DISCHARGE SOP*  
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*JORDAN VALLEY MUNICIPALITIES PERMIT No. UTS000001*  
*STATE OF UTAH SWPPP TEMPLATE*

**APPENDIX H – E.COLI COMPLIANCE DOCUMENTS**

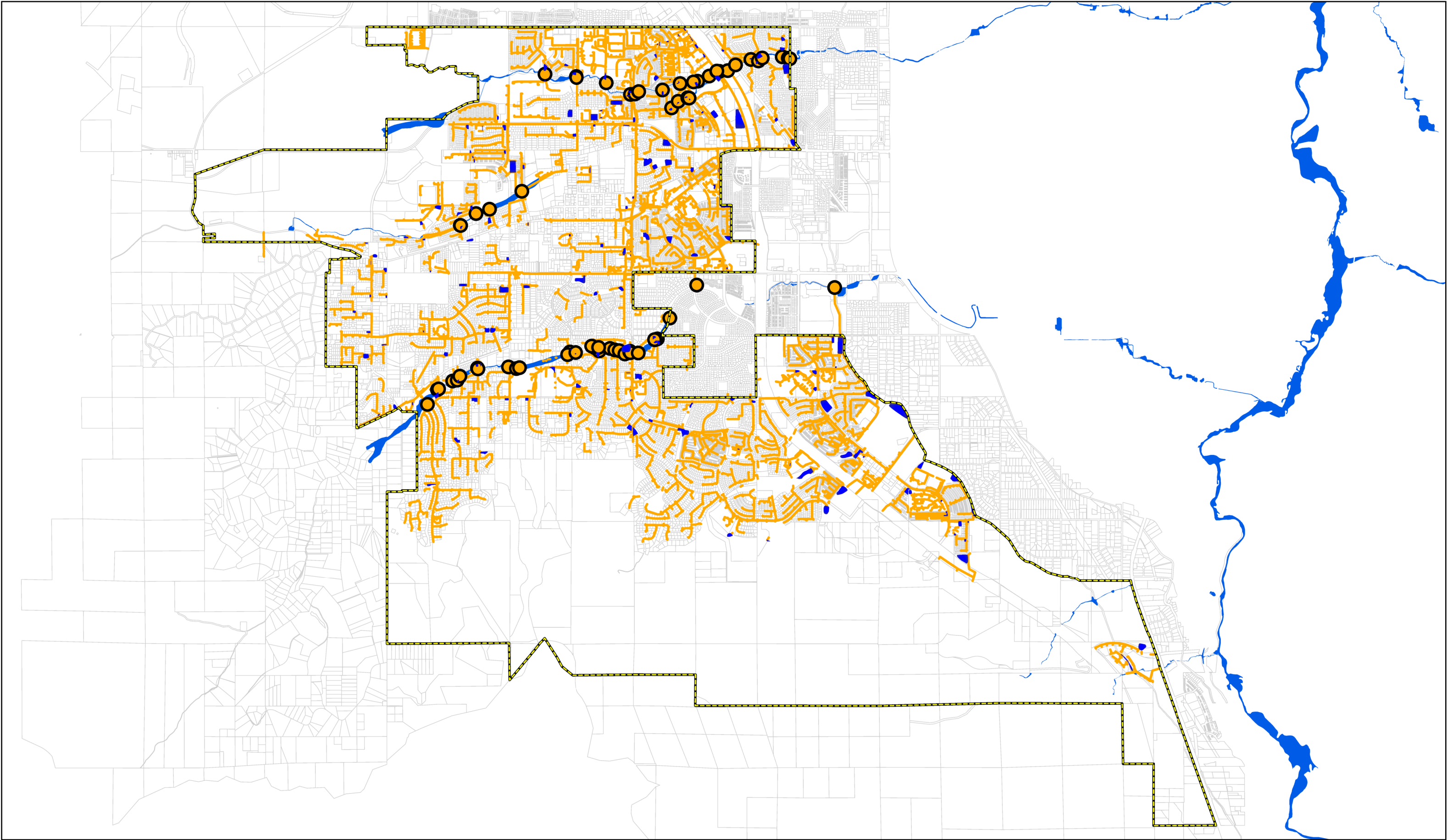
*E. COLI SOURCE FOCUS FOR REPORTING YEAR*  
*E. COLI SOURCES AUDIENCES AND BMP WORKSHEET*  
*HERRIMAN CITY E. COLI TMDL COMPLIANCE PLAN*

## ***Appendix A – Maps***

***Herriman City Map***

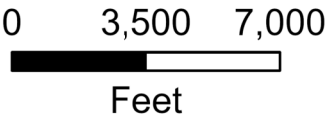
***Herriman City GIS Storm Drain Inventory Map***

***Herriman City Priority Areas and High Priority Sites Map***



# HERRIMAN CITY ENGINEERING DEPARTMENT

City Boundary and Stormwater System Inventory





High Priority Site

Priority Areas

- 1

Copperwood Apartments
- 2

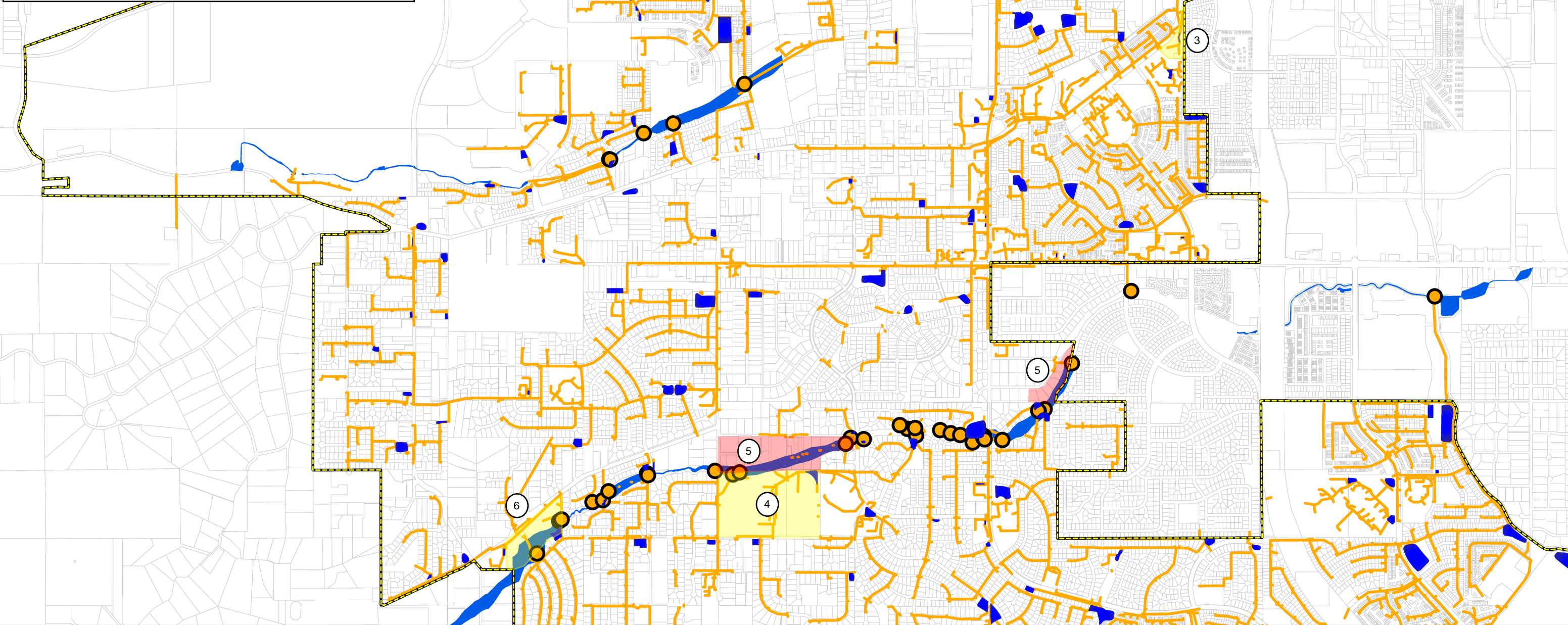
Commercial Centers Surrounding Midas Creek
- 3

K9 Memorial Park (Dog Park)
- 4

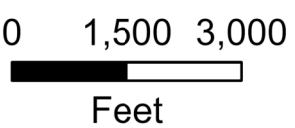
Public Works Yard
- 5

Equestrian Properties Surrounding Rose Creek
- 6

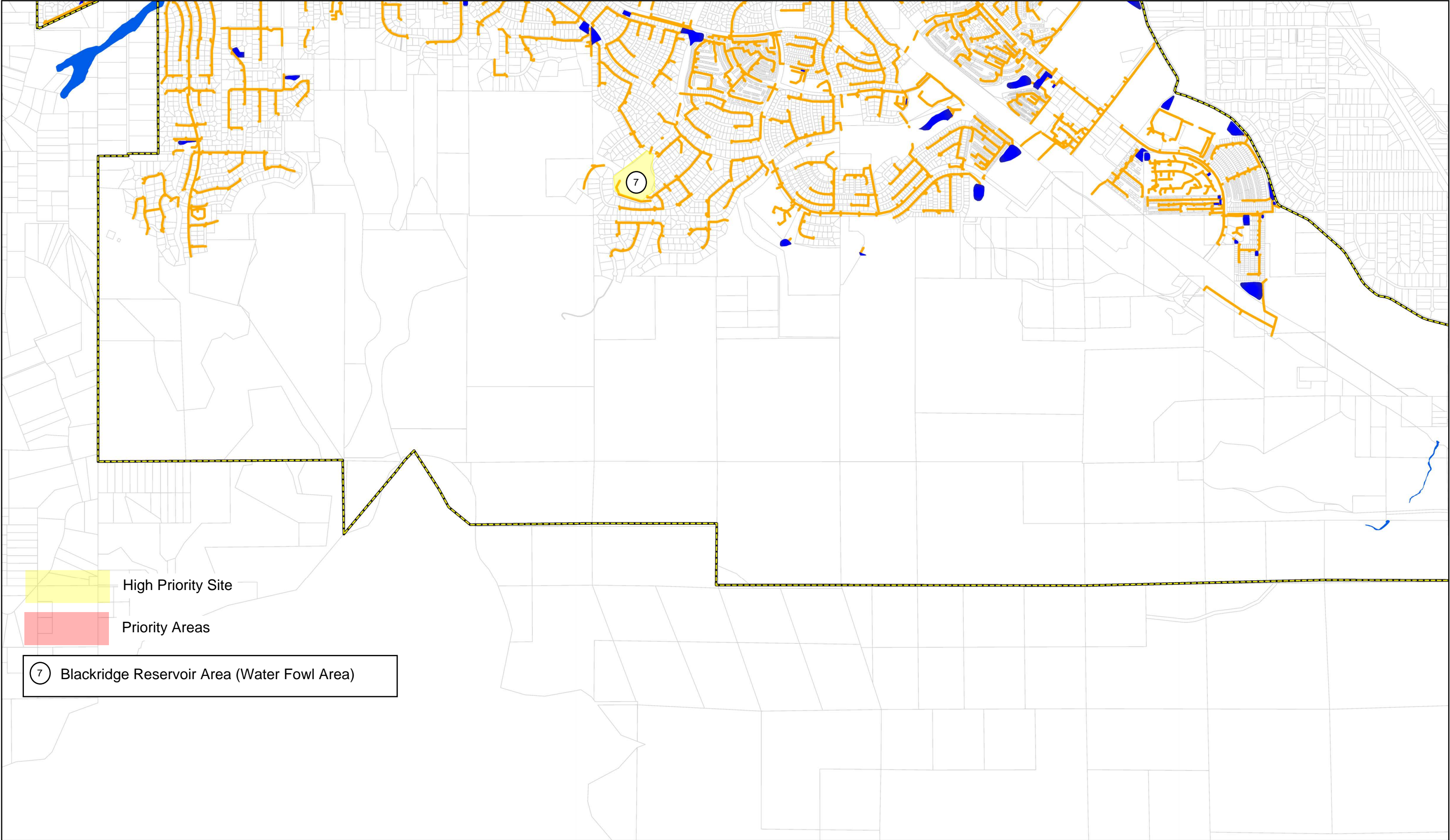
The Cove Fishing Pond (Water Fowl Area)



HERRIMAN CITY ENGINEERING DEPARTMENT







High Priority Site

Priority Areas

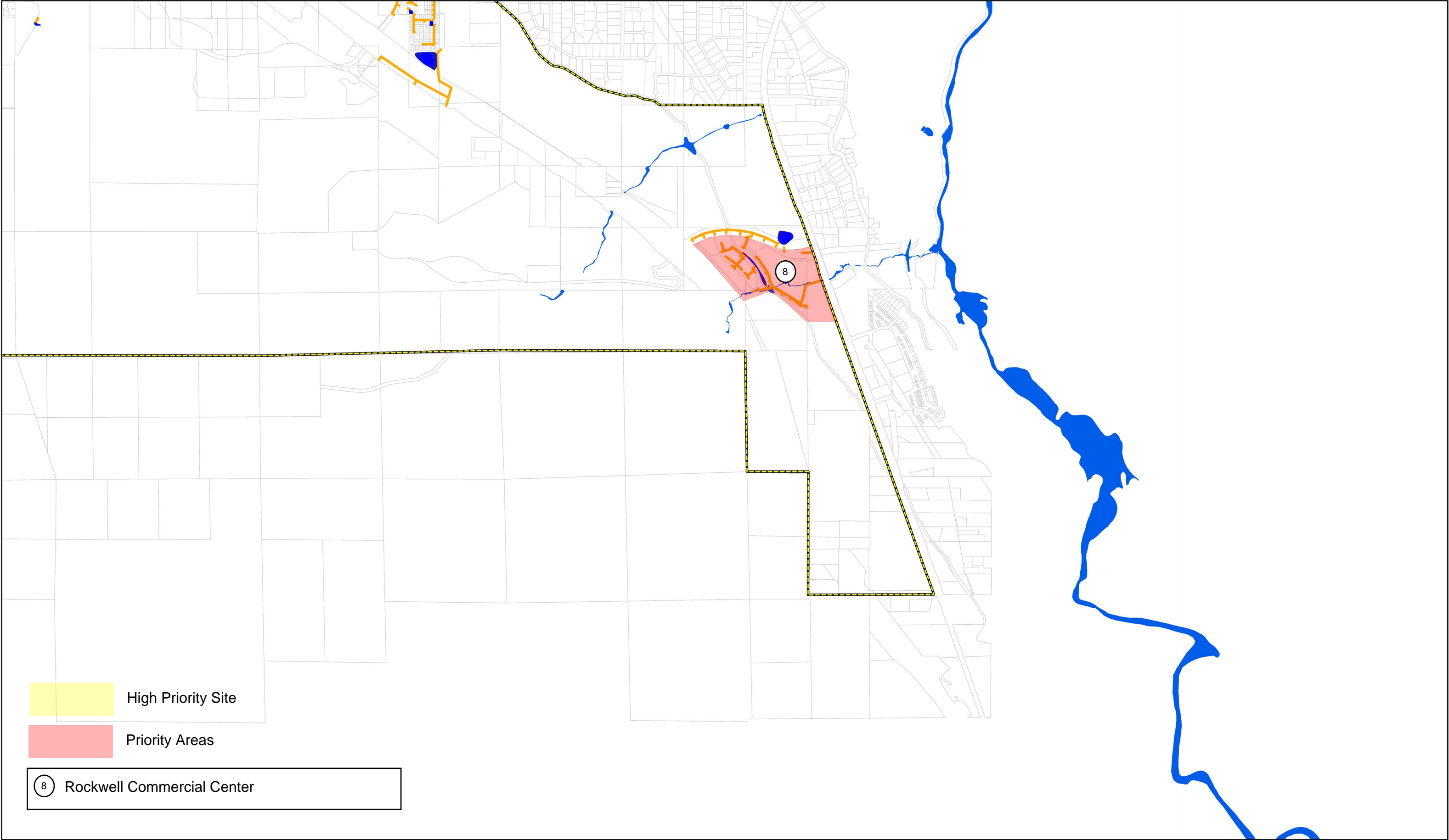
⑦ Blackridge Reservoir Area (Water Fowl Area)

# HERRIMAN CITY ENGINEERING DEPARTMENT

Priority Areas 2 of 3

0 1,500 3,000  
Feet





High Priority Site

Priority Areas

8 Rockwell Commercial Center

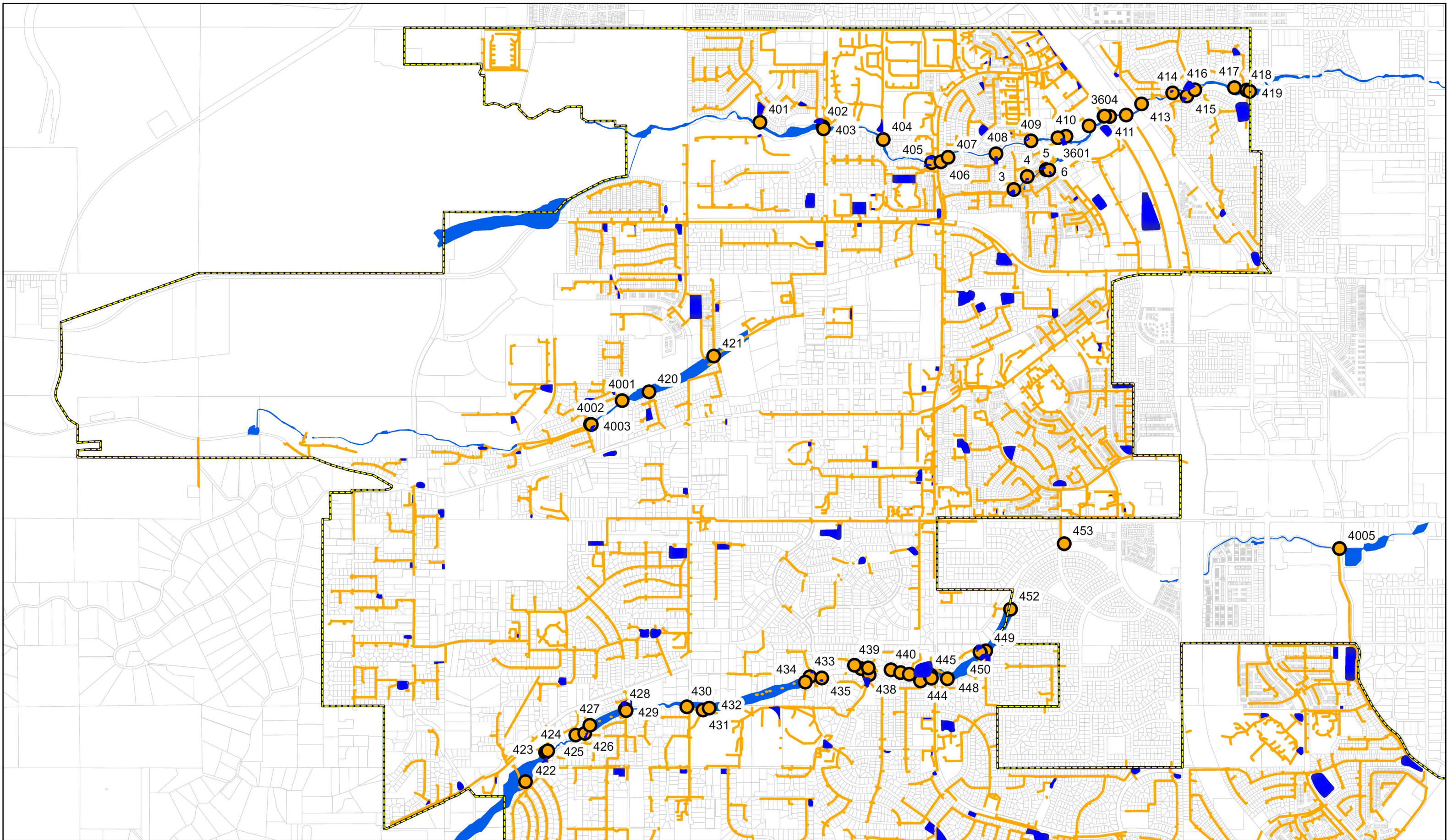
# HERRIMAN CITY ENGINEERING DEPARTMENT

Priority Areas 3 of 3

0 1,500 3,000  
Feet

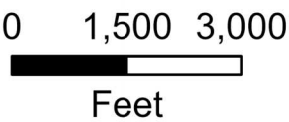






**HERRIMAN CITY ENGINEERING DEPARTMENT**

Herriman City Outfalls





## ***Appendix B – Public Education and Outreach on Storm Water Impacts***

Education and Outreach During Town Days (June 21, 2025)





Posts on Twitter

July 29, 2024 at 12:29 pm

twitter.com/HerrimanCity

X

Home

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Messages

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Lists

Bookmarks

Communities

Premium

Verified Orgs

Profile

More

Post

Herriman City

9,870 posts

Herriman, Utah

herriman.org

Joined May 2009

193 Following

6,110 Followers

Posts

Replies


Highlights

Articles

Media

Likes

You reposted




Stormwater Coalition

@MrDroplet · Jul 20

Fragile local water supplies are being stressed by decreased precipitation. Communities are losing valuable water that could be used or stored for use when it is needed most. Learn more: [drought.utah.gov](https://drought.utah.gov) [#WeAllLiveDownstream](#) [#SaveStormwater](#)

Photo credit: Utah DEQ



1

7

August 7<sup>th</sup>, 2024 at 11:31

 [x.com/HerrimanCity](https://twitter.com/HerrimanCity)



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## Lists

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X Premium

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**Herriman City**   
@HerrimanCity







**Herriman City** 

9,886 posts

[Edit profile](#)Herriman City 

@HerrimanCity

Official Twitter page of Herriman City, the southwest valley recreation destination home to hiking and biking trails, parks, and an ice ribbon.    

 Herriman, Utah  [herriman.org](http://herriman.org)  Joined May 2009

193 Following 6,108 Followers

## Posts

## Replies

## Highlights

## Articles

## Media

Likes



↻ You reposted

**Stormwater Coalition** @MrDroplet · 15m

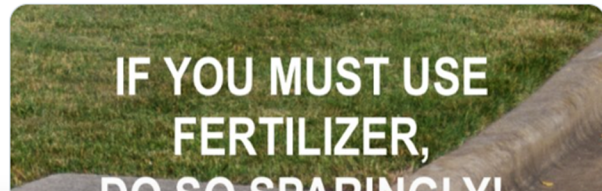
...

Water quality in our community is impacted by nutrient pollution! This occurs as a result of too many of us using too much fertilizer! If you must use fertilizer, please do so sparingly!

[stormwatercoalition.org/nutrient](http://stormwatercoalition.org/nutrient)

#WeAllLiveDownstream

#YellowIsTheNewGreen





November 11<sup>th</sup>, 2024 at 11:16 pm

X

Home

Explore

Notifications

Messages

Grok

Bookmarks

Jobs

Communities

Premium

Verified Orgs

Profile

More

Post

Herriman City

10K posts

Official Twitter page of Herriman City, the southwest valley recreation destination home to hiking and biking trails, parks, and an ice ribbon.

Herriman, Utah

herriman.org

Joined May 2009

190 Following

6,074 Followers

Private to you

2.5K impressions on your posts in the last 7 days

Unlock Analytics

Posts

Replies


Highlights

Articles

Media

Likes

You reposted



Stormwater Coalition

@MrDroplet · 41m

Think of an aerial view of your home/yard. What % is your rooftop, driveway, patio, etc.? Just 10- 20% of surfaces that water cannot soak through= stormwater pollution. Adopt practices that mitigate your impact! [www3.epa.gov/npdes/pubs/usw...](http://www3.epa.gov/npdes/pubs/usw...) [#DoALittleHelpALot](#) [#WeAllLiveDownstream](#)

Pervious

Lawns, vegetated areas

Ponds  
Natural, Ornamental

Loose decorative stone used for landscaping  
Not compacted, open-graded

Green roofs

Decks

Hard Surfaces

Buildings

Concrete

Asphalt

Brick surface

Compacted gravel

Pools


1


3



Herriman City

@HerrimanCity


February 26, 2025 at 8:58 am




**Herriman City**   
10.1K posts









**Edit profile**

**Herriman City** 

 **Verify your Business**

@HerrimanCity

Official Twitter page of Herriman City, the southwest valley recreation destination home to hiking and biking trails, parks, and an ice ribbon.   

 Herriman, Utah  [herriman.org](http://herriman.org)  Joined May 2009

189 Following   6,061 Followers

Posts


Replies


Highlights



Articles

Media


Likes

 You reposted



**Stormwater Coalition** @MrDroplet · 11h  

A single gram of pet waste contains an average of 23 million fecal coliform bacteria, some of which can cause disease in humans. Bag and trash pet waste to keep E.coli!  
[#wealllivedownstream](#)  
[#scoopthepoop](#)  
[#waterquality](#)  
[#stormwaterpollution](#)



**Meet Miko!**  
Her best friend Cameron loves his dog and wants to help keep stormwater clean. Scoop the poop, bag and trash it—every time!



## ***Appendix C – Illicit Discharge Detection and Elimination (IDDE)***

***Dry Weather Screening SOP***

***Dry Weather Screening Inspection Form***

***Tracking Source of Illicit Discharge SOP***

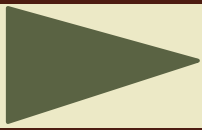
***Characterizing the Nature and/or Threat of Illicit Discharge SOP***

***Cease Illicit Discharge SOP***

***Storm Drain Incident Response Report***

***Spill Response Flow Chart & SOP***

***Spill Response Plan SOP***



# Dry Weather Screening



|                              |                  |                               |
|------------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-ENG.416   | Revision:<br>001 | Effective Date:<br>10/28/2020 |
| Approved By:<br>Blake Thomas |                  | Author:<br>Ben Nelsen         |

## **Policy:**

Dry Weather Screening.

## **Safety:**

- Conduct dry weather screening with at least two staff
- Wear proper personal protective equipment (PPE) at all times.
- Evaluate the area for potential hazards (poisonous plants/animals, hazardous objects, steep slopes, etc) before attempting to locate the outfall for screening. Only perform the inspection if it is safe to do so.
- Do not enter the outfall unless procedures are followed for confined spaces.
- Know the risks associated with working around water (flash flooding, drowning, etc)
- Be aware of health concerns associated with hot weather (sunburn, heat stress, exhaustion, and stroke) and seek proper medical attention when necessary
- Be aware of health concerns associated with cold weather (frostbite, hypothermia) and seek proper medical attention when necessary

## **Purpose:**

Dry weather screening a storm water outfalls is part of Herriman City's Illicit Discharge Detection and Elimination (IDDE) Plan to identify illicit discharges and locate illegal connections. All outfalls will be screened once per permit term (5 years)

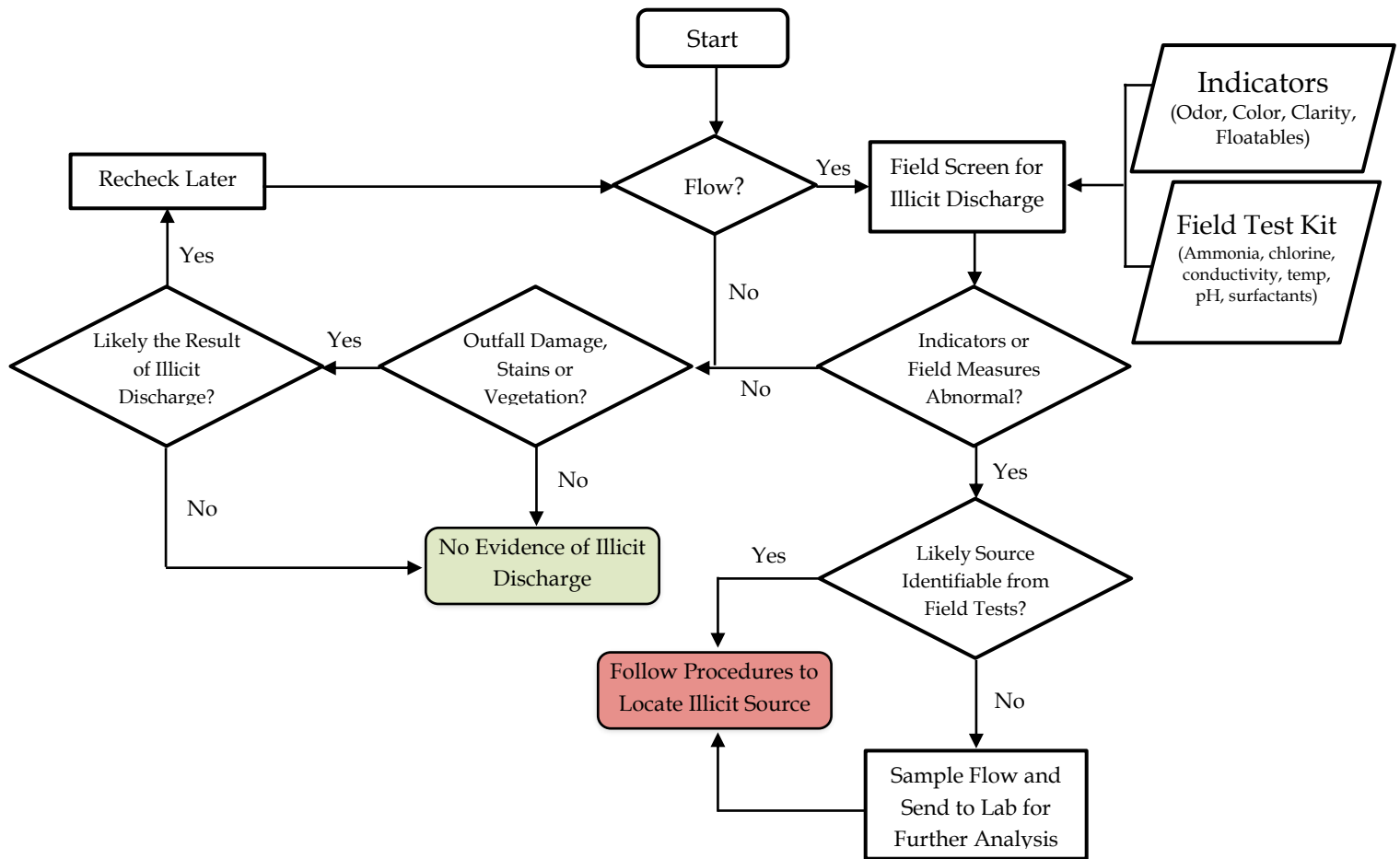
## **Procedure:**

### 1.1 Preparation

- 1.1.1 Ensure that there has not been precipitation for the past 72 hours and the forecast indicates precipitation is unlikely to occur.
- 1.1.2 Identify outfalls to be screened
- 1.1.3 Collect field water quality test kit
- 1.1.4 Ensure equipment is charged and the dry weather screening form is downloaded
- 1.1.5 Review Water Quality Sampling Procedures
- 1.1.6 Review field water quality test kit procedures
- 1.1.7 Review Field Safety Guidelines (In Safety Section Above)

## 1.2 Monitoring

### 1.2.1 Follow Storm Water Monitoring Flow Chart for each outfall (below)



### 1.2.2 Fill out Dry Weather Screening Inspection Form

### 1.2.3 Fill out a Storm Drain Incident Response Report if necessary

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
|                 |               |                    |        |
|                 |               |                    |        |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |



## Dry Weather Screening

Inspection Date: \_\_\_\_\_

Inspector Name(s): \_\_\_\_\_

Location: \_\_\_\_\_

Land Use:    ☐ Commercial       ☐ Industrial       ☐ Agricultural  
                 ☐ Residential       ☐ Undeveloped       ☐ \_\_\_\_\_

Is there a Water of the State adjacent to the area?   ☐ Yes   ☐ No

Is there a storm drainage system within the area?   ☐ Yes   ☐ No

Is there a stormwater outfall within the area?       ☐ Yes   ☐ No

Are there offsite connections into the storm drain system?   ☐ Yes   ☐ No

If yes, is there flow present?   ☐ Yes   ☐ No

If yes, describe: \_\_\_\_\_

Description of offsite flow if unknown –

| Odor                                | Color                           | Clarity                         | Floatables                         | Deposits/Stains                   | Adjacent Vegetation                |
|-------------------------------------|---------------------------------|---------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| <input type="checkbox"/> None       | <input type="checkbox"/> Clear  | <input type="checkbox"/> Clear  | <input type="checkbox"/> None      | <input type="checkbox"/> None     | <input type="checkbox"/> None      |
| <input type="checkbox"/> Chemical   | <input type="checkbox"/> White  | <input type="checkbox"/> Cloudy | <input type="checkbox"/> Oil Sheen | <input type="checkbox"/> Oil      | <input type="checkbox"/> Normal    |
| <input type="checkbox"/> Sewage     | <input type="checkbox"/> Brown  | <input type="checkbox"/> Opaque | <input type="checkbox"/> Foamy     | <input type="checkbox"/> Paint    | <input type="checkbox"/> Excessive |
| <input type="checkbox"/> Rotten Egg | <input type="checkbox"/> Yellow | <input type="checkbox"/>        | <input type="checkbox"/> Sewage    | <input type="checkbox"/> Sediment | <input type="checkbox"/> Dead      |
| <input type="checkbox"/>            | <input type="checkbox"/>        |                                 | <input type="checkbox"/>           | <input type="checkbox"/>          | <input type="checkbox"/>           |

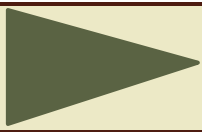
Is there evidence of illegal dumping?   ☐ Yes   ☐ No

If yes, describe:

\_\_\_\_\_  
\_\_\_\_\_

Is it likely that an illicit discharge occurred   ☐ Yes   ☐ No

**If yes, notify Herriman City Stormwater Foreman and Herriman City SWPPP Lead.**



# Tracing the Source of Illicit Discharge



|                              |                  |                            |
|------------------------------|------------------|----------------------------|
| Identifier:<br>SOP-ENG.405   | Revision:<br>001 | Effective Date:<br>5/18/18 |
| Approved By:<br>Blake Thomas |                  | Author:<br>Jory Howell     |

## **Policy:**

Tracing the Source of Illicit Discharge.

## **Safety:**

Use proper PPE and do not enter confined spaces without proper equipment.

## **Purpose:**

Properly identify contaminating source of an illicit discharge

## **Procedure:**

- 1.0 Arrive and verify the location where the initial discharge was reported
- 1.1 Visually inspect and observe reported discharge
- 1.2 Respondents should never enter private property without permission and never put themselves in danger including entering storm structures in any manor or form without proper protective equipment
- 1.3 Using the storm system map, locate the next structure upstream of the discharge where observations can be made. Open manhole lids to visually inspect discharges
- 1.4 Observe the upstream structure to identify if there is a non-storm water discharge at that location.
- 1.5 Repeat 1.3 and 1.4 until a structure is located where the discharge is not present
- 1.6 If necessary and as appropriate, Herriman City storm water personnel will use cameras, equipment and field tests to verify pollutants and trace the source of the discharge
- 1.7 Where the respondent feels it necessary, a third party lab or the health department may be contacted for sampling and testing
- 1.8 When a structure observed does not contain evidence of illicit discharge, the following will be determined:
  - 1.8.1 The source is no longer producing discharge and may not be further traced. The source may or may not be near this location. Observe surrounding area for further indication of the source of the discharge. If none is found, document findings for future reference.

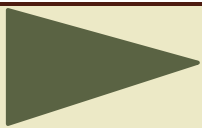
- 1.8.2 The discharge source should be located between the structure with no evidence of discharge and the next downstream structure. Observe surrounding areas to determine the source. Use inspection equipment to locate the connection
- 1.9 As appropriate, follow additional SOPs for next steps (Cease Illicit Discharge, Spill Response Plan, and/or Characterize the Nature/Threat of the Illicit Discharge)
- 1.10 Complete all paperwork and inspection notes.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes          | Author     |
|-----------------|---------------|-----------------------------|------------|
| 2               | 10/29/2020    | Included additional details | Ben Nelsen |
|                 |               |                             |            |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |



# Characterize the Nature/Threat of Illicit Discharge



|                              |                  |                            |
|------------------------------|------------------|----------------------------|
| Identifier:<br>SOP-ENG.406   | Revision:<br>001 | Effective Date:<br>5/18/18 |
| Approved By:<br>Blake Thomas |                  | Author:<br>Jory Howell     |

## **Policy:**

Characterize the Nature/Threat of the Illicit Discharge

## **Safety:**

Proper PPE should be worn at all times. Caution should be exercised around unknown chemicals.

## **Purpose:**

To determine the nature of a discharge and if it poses a threat to the safety of the public or human or ecological life. This may be done through visual indicators (soap suds, discoloration, floating particles, oil sheen, etc.) or analysis (pH levels, chlorine levels, etc).

## **Procedure:**

- 1.0 If informant of the illicit discharge knows what substance was discharged into the system, further identification may be unnecessary (i.e. Paint was dumped into the system)
- 1.1 Characterize the nature of the discharge based on visual observation
- 1.2 Samples of the discharge are collected if necessary and analysis may be completed if appropriate testing kits are readily available.
- 1.3 If it is hazardous, appropriate hazmat teams will be dispatched and can run necessary tests to determine the nature and extent of the threat the discharge may pose to public safety.
- 1.4 When necessary, labs will be used to determine the composition of the substance. Lab results may take a long time to process. Clean up measures may have already taken place. If lab results indicate further safety concerns even after clean up measures are completed, public notices may be issued as necessary.
- 1.5 Documentation will be completed with the decision process to characterize the discharge including: steps indicating why a particular method was used, what containment measures were completed, and analytical results.
- 1.6 As appropriate, follow additional SOPs (Cease Illicit Discharge, Spill Response Plan)



**Revision History:**

| Revision Number | Revision Date | Summary of Changes  | Author     |
|-----------------|---------------|---|------------|
| 2               | 10/29/2020    | Included details, changed SOP to be more general for all Illicit Discharges | Ben Nelsen |
|                 |               |   |            |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |

# Cease & Removal of Illicit Discharge



|                              |                  |                            |
|------------------------------|------------------|----------------------------|
| Identifier:<br>SOP-ENG.407   | Revision:<br>001 | Effective Date:<br>5/18/18 |
| Approved By:<br>Blake Thomas |                  | Author:<br>Jory Howell     |

## **Policy:**

Ceasing/Removal of Illicit Discharge.

## **Safety:**

Proper PPE should be used at all time

## **Purpose:**

The intent is to utilize third-party companies for clean up efforts in Herriman City. The city reserves the right to recoup clean up costs and or construction costs for illicit discharges and to comply with permit requirements.

## **Procedure:**

- 1.0 Verify the Source of the Discharge (See Tracing the Source of Illicit Discharge SOP)
- 1.1 Contact the property owner and/or responsible party
- 1.2 Require immediate cessation of the illicit discharge from the source upon confirmation of responsible parties
- 1.3 In the event that the discharge is a sanitary sewer overflow, the South Valley Sewer District will be contacted to cease the illicit discharge and provide clean-up of the discharge per the district's procedures.
- 1.4 If Herriman City Public Works or Storm Water Personnel are trained in removing the substance, proceed with spill/dumping response procedures. Otherwise, UFA/hazmat teams should be dispatched for spill containment and clean-up.
- 1.5 A notice of violation/stop work order shall be issued to the responsible party as necessary at the discretion of the responding party
- 1.6 Require corrective measures when necessary
- 1.7 In some cases, the owner or operator may be unaware of the hazard posed by the illicit discharge or that it exists. In this case, provide necessary education and training to prevent a reoccurrence of the illicit discharge.
- 1.8 As necessary, provide follow up inspections after corrective measures have been installed to ensure proper construction and use of BMPs

- 1.9 In certain circumstances it may be necessary to escalate enforcement in order to achieve compliance.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes                            | Author     |
|-----------------|---------------|---|------------|
| 002             | 10/29/2020    | Included details allowing for greater clarity | Ben Nelsen |
|                 |               |   |            |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |



## IDDE Response Report Form

Date of Incident: \_\_\_\_\_ Time Notified: \_\_\_\_\_

Reported By: \_\_\_\_\_ Time Responded: \_\_\_\_\_

Type of Investigation: ☐ Discharge ☐ Spill ☐ Illicit Connection ☐ Other \_\_\_\_\_

### Responding Agencies

- ☐ Herriman City Storm Water  
☐ Salt Lake County Health Department  
☐ Utah DEQ Division of Water Quality  
☐ Other

### Name of Representative

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Incident Information

Location of Incident

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Responsible Party

☐ Unknown

Company Name \_\_\_\_\_

Representative \_\_\_\_\_

Address \_\_\_\_\_

If known, name or identity of any chemicals involved and a brief description of the incident

\_\_\_\_\_  
\_\_\_\_\_

Did the substance discharge into a Storm Drain System? ☐ Yes ☐ No

Did the substance discharge in receiving water (creek, stream, canal, pond)? ☐ Yes ☐ No

If yes, name of receiving water body \_\_\_\_\_

Actions taken to remove discharge/clean up spill \_\_\_\_\_

\_\_\_\_\_

## Follow Up

Follow up Required \_\_\_\_\_ Date of Follow Up \_\_\_\_\_

Date Closed \_\_\_\_\_

## Notes

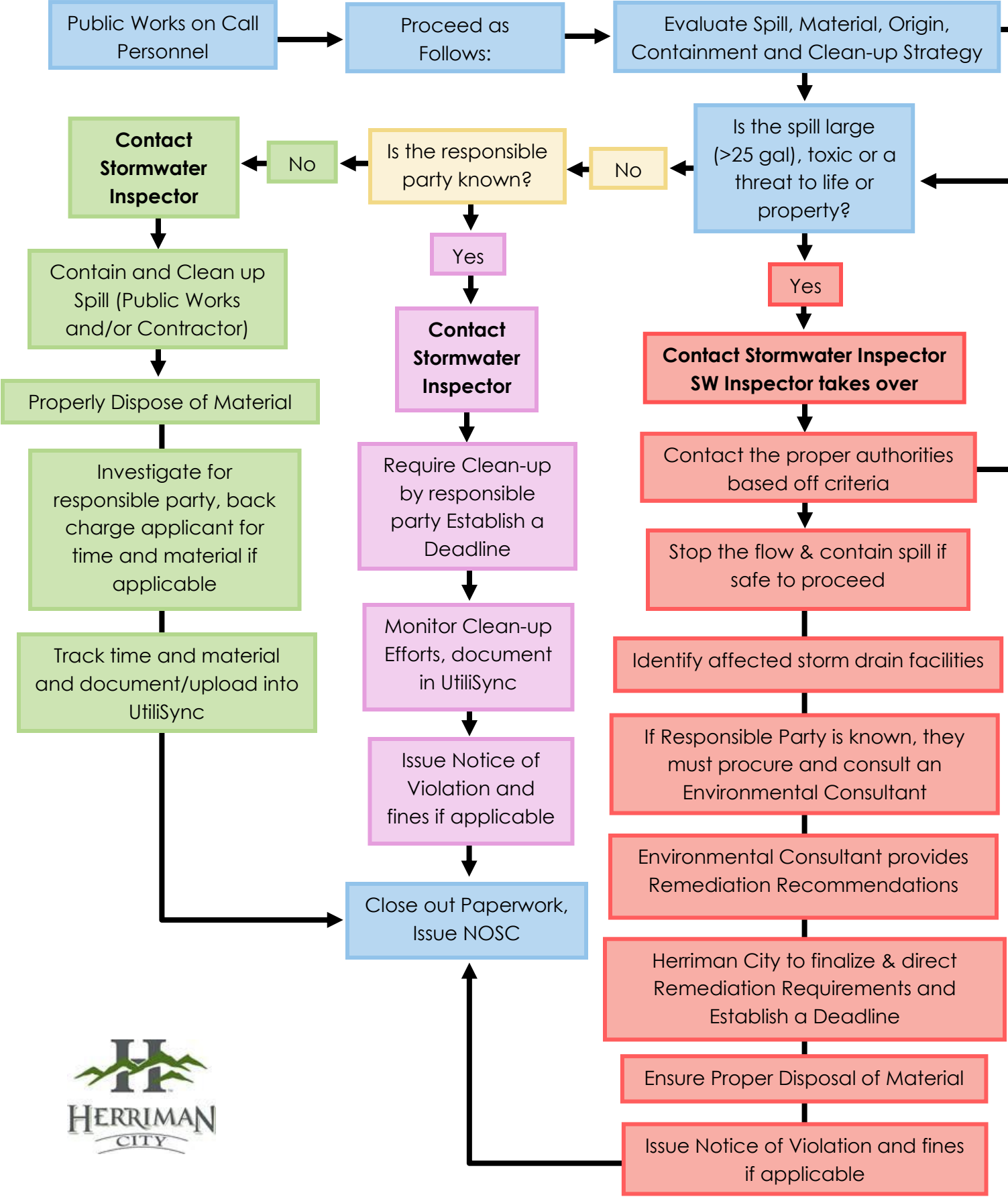
Herriman City Spill Response Plan Flow (AFTER HOURS)

Interagency Contacts:

UDOT: 801-965-4000  
Bluffdale: 801-254-2200  
Riverton: 801-254-0704  
South Jordan: 801-446-4357

Emergency (Safety Threat):

911  
Stormwater Inspector (Chad Lanham off on Friday): (385) 867-1817  
Stormwater Inspector (Mickayla Harris off on Monday): (385) 335-4577  
Herriman City Public Works: (801) 446-5323  
Non-Emergency Herriman Police Dispatch: (801) 858-0035  
Non-Emergency Unified Fire Authority (UFA): (801) 743-7200  
Salt Lake County Health Department (during office hours): (385) 468-3862  
Salt Lake County Health Department (24hr): (801) 580-6681  
State of Utah Div. of Water Quality: (801) 536-4300  
Environmental Protection Agency: (303) 312-6312  
Jordan Basin Improvement District (Sewer Overflow): (801) 571-1166  
National Response Center (NRC) (800) 424-8802  
Utah Department of Environmental Quality (DEQ) (801) 536-4400

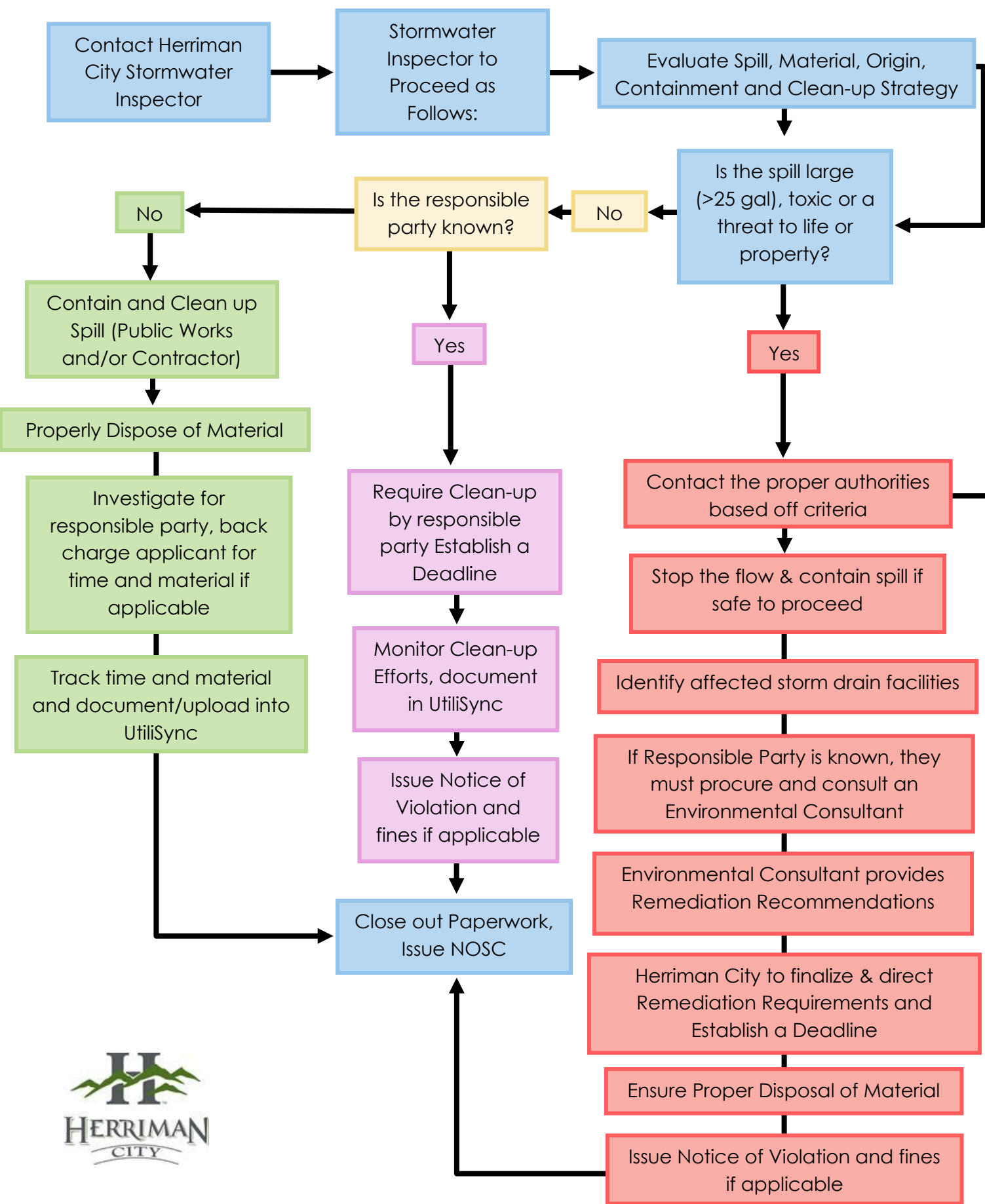


Herriman City Spill Response Plan Flow

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Jordan Basin Improvement District (Sewer Overflow): (801) 571-1166  
National Response Center (NRC) (800) 424-8802  
Utah Department of Environmental Quality (DEQ) (801) 536-4400

**911**



# Spill Prevention and Response Plan



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-OPS.006 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Glen Lovendahl     |

## **Policy:**

Spill Prevention and Response Plan

## **Purpose:**

The following are steps and procedures to follow by the Herriman City employees for preventing spills and responding to chemical or hazardous substance spills.

## **Training:**

All employees must receive periodic training on the following topics:

1. Spill prevention practices
2. Where to locate and how to interpret OSHA SDS and pictograms
3. Spill response plan
4. Emergency response procedures

Training must include a review of this Spill Prevention and Response Plan and a review of location and use of emergency response equipment. Training can be recorded through safety committee meetings, staff training logs, or other equivalent record keeping

## **Safety:**

Use appropriate personal protective equipment when responding to any spill

## **Procedure:**

### **1.0 Spill Prevention**

#### **1.1 Hazardous Substance Management**

**1.1.1** All hazardous substances including chemical wastes, are to be managed in a way that prevents release

**1.1.2** The following general requirements are to be followed

### **2.0 Container Management**

**2.1** All hazardous substance in containers must be labeled pursuant to OSHA hazardous communication guidelines and OSHA Safety Data Sheets (SDS) must be immediately available for review

- 2.2 All hazardous substances containers must be in good condition and compatible with the materials stored within
- 2.3 All hazardous substance containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
- 2.4 Empty hazardous substance containers (drums) must have all markers and labels removed and the container marked with the word "empty".
- 2.5 Any spills on the exterior of the container must be cleaned immediately
- 2.6 Flammable materials stored or dispersed from drums or totes must be grounded to prevent static sparks.
- 2.7 Do not overfill waste drums. 4" of headspace must remain to allow for expansion
- 3.0 Good Housekeeping**
  - 3.1 All hazardous substances must be stored inside buildings or under cover.
  - 3.2 Store hazardous substances not used daily in cabinets or in designated areas
  - 3.3 All Chemicals that are transferred from larger to smaller containers must be transferred by use of funnel or spigot
  - 3.4 All hazardous substance containers should be closed while not in use
  - 3.5 Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment
  - 3.6 Implement preventative maintenance activities to reduce the potential for release from equipment
  - 3.7 Immediately clean up and properly manage all small spills or leaks.
  - 3.8 Periodically inspect equipment and hazardous substance storage areas to ensure leaks or spills are not occurring.
  - 3.9 Use signage to identify hazardous substance storage or waste collection areas
  - 3.10 Keep all work areas and hazardous substance storage areas clean and in good general condition.
- 4.0 Secondary Containment**
  - 4.1 Store all bulk chemicals (>55 gallons) within appropriate secondary containment or any sized chemical if there is a potential for release to the environment
  - 4.2 Secondary containment should be checked periodically and any spills identified in secondary containment must be immediately cleaned up and removed
- 5.0 Marketing/Labeling**
  - 5.1 Ensure all hazardous substances including chemical wastes, are properly marked and labeled in accordance with all federal, state, and local regulations
  - 5.2 Ensure that hazardous substances transferred to small containers are marked with the chemical's name (example – "Isopropyl Alcohol") and hazard (example – "Flammable")
- 6.0 Hazardous Substance Inventory**



- 6.1** An inventory must be maintained for all stored substances <55 gallons and/or list of locations where non-bulk hazardous substances are stored (i.e. flammable lockers—shop floor). Materials manufactured stored, used, and/or generated as a chemical waste in quantities >55 gallons should also be inventoried. Inventories should be maintained similar to the example shown below.

| Hazardous Substance | Manufacturer | Quantity/Use of Issue | Location   |
|---------------------|--------------|-----------------------|------------|
| Isopropyl Alcohol   | Acme Co.     | 60/1- gal             | Fleet Shop |

## **7.0 Spill Response Equipment**

- 7.1** Spill response equipment must be maintained and located in areas where spills are likely to occur. Spill kits should provide adequate response capabilities to manage an anticipated spill or release. The following general requirements are to be followed which include:

- 7.1.1** Stock spill clean-up kits that are compatible with the hazardous substances stored on site.
- 7.1.2** Locate spill kit areas where spills are likely to occur (loading docks, chemical storage areas, locations where hazardous substances are being transferred).
- 7.1.3** Spill kits should be sized to manage an anticipated release (spill equal to the largest container).
- 7.1.4** Emergency response equipment should be inspected periodically to ensure that the spill kit is complete.
- 7.1.5** Spill response and first aid equipment and fire alarm location(s) should be identified similar to the example shown below.

| Locations    | Spill Equipment Content/Inventory   |
|--------------|---|
| Loading Dock | 40 gal –Spill Kit including 65 gal over pack rum, universal adsorbent socks, pillows, and pads, personal protective equipment, non-sparking shovel, disposable bags and ties and Emergency Response Guidebook |

## **8.0 Spill Response Plan**

- 8.1** In the event of a hazardous substance spill or release, immediately review and follow applicable OSHA SDS guidelines. If doing so does not violate those guidelines, take the following measures to keep the spill from entering **sewer or storm drains, spreading off-site, or affecting human health**. In all cases, caution and common sense must be maintained with the primary goal being to prevent and/or limit personal injury.

**8.2 Stop, contain, and clean up the chemical spill if**

- 8.2.1** The spilled chemical and its hazardous properties have been identified.
- 8.2.2** The spill is small and easily contained
- 8.2.3** Responder is aware of the chemicals' hazardous properties
- 8.2.4** If a spill or release cannot be controlled or injuries have occurred due to the release, the following procedures should be implemented
- 8.2.5** Call for help or alert others of release
- 8.2.6** Evacuate immediate area, and provide care to the injured—call 911
- 8.2.7** Respond defensively to an uncontrolled spill
- 8.2.8** Attempt to shut off source of the release (if safe to do so)
- 8.2.9** Protect drains by use of adsorbent, booms, or drain covers (if it is safe to do so)
- 8.2.10** Notify onsite emergency contact(s)
- 8.2.11** Notify other trained staff and assist with the spill response and clean-up activities
- 8.2.12** Coordinate response activities with local emergency personnel (fire department).
- 8.2.13** Be prepared to provide information to the fire department, EMT, hospital or physician.
- 8.2.14** Notify appropriate agency if a release has entered the environment. Refer to Notification and Reporting section for reporting thresholds

**9.0 Evacuation Procedures**

- 9.1** In the event of a hazardous substance released that has the potential for fire, explosion, or other human health hazards, the following procedures will be implemented
  - 9.1.1** Facility staff will be notified of evacuation by one or more of the following method(s): verbal, intercom, portable radio, alarm, other
  - 9.1.2** Notification to emergency services will be performed –Call 911
  - 9.1.3** Facility staff will follow predetermined evacuation routes and assemble at designated areas. Evacuation maps must be displayed throughout the facility
  - 9.1.4** Individuals responsible for coordinating evacuations must confirm if the business has been completely evacuated.
  - 9.1.5** Facility staff will be made familiar with evacuation procedures during new employee orientation and annual trainings thereafter
  - 9.1.6** Designated emergency response contacts will coordinate all activities with outside emergency personnel

**10.0 Reporting a release for Non-Emergencies**

- 10.1** Call Public Utilities Department and (801) 254-7667. Public Utilities Department will follow standard procedures for reporting the incident to the appropriate entities (see SOP IDDE – Reporting and Response)

**11.0 For Emergencies**

- 11.1** Report directly to the entities listed below and as detailed on the Report and Response Flow Chart found in the SOP IDDE – Reporting and Response
- 11.1.1** Unified Fire Authority (911)
  - 11.1.2** Herriman City Hall (801) 466 5323
  - 11.1.3** Utah Department of Environmental Quality (801) 536-4123 as required per the document **A Summary of Utah State and Federal Environmental Regulations Requiring Immediate to Within 24 Hour Notification of Utah DEQ or EPA** document found in the SOP IDDE – Reporting and Response
- 11.2 When reporting a release, be prepared to provide the following information (use spill report form)**
- 11.2.1** Your name
  - 11.2.2** Telephone number from where you are calling;
  - 11.2.3** Exact address of the release or threatened release;
  - 11.2.4** Date;
  - 11.2.5** Time;
  - 11.2.6** Cause and type of incident (fire, air release, spill, etc);
  - 11.2.7** Material and quantity of the release to the extent known;
  - 11.2.8** Information contained on the OSHA safety data sheets;
  - 11.2.9** Current conditions of the facility;
  - 11.2.10** Extent of injuries, if any, and
  - 11.2.11** Possible hazards to the public health and/or environment outside of the facility
- 11.3** Facility Map: Include emergency exits routes, fire alarms, fire extinguishers, spill response equipment and first aid stations (eye wash, first aid kits, etc.)

**Revision History:**

| Revision Number | Revision Date | Summary of Changes          | Author        |
|-----------------|---------------|-----------------------------|---------------|
| 2               | 2/21/2017     | Updated Format              | Monte Johnson |
| 3               | 10/20/2020    | Updated Format updated info | Ben Nelsen    |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |

## ***Appendix D – Construction Site Storm Water Runoff Control***

***SWPPP Review Checklist***

***Storm Water Inspection Flow Chart and Procedures***

***DEQ Storm Water Inspection Form***

**UPDES CONSTRUCTION GENERAL PERMIT (CGP) UTRC00000 and  
COMMON PLAN PERMIT (CPP) UTRH00000  
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)  
COMPLIANCE EVALUATION FORM(S)**

Site Name: \_\_\_\_\_ UPDES Permit #: \_\_\_\_\_

**SECTION 1: Instructions for SWPPP Evaluations**

- 1) The SWPPPs being reviewed with this document are evaluated for their compliance with the corresponding UPDES construction storm water discharge permit; for additional information on those permits, go to the DWQ construction storm water permitting webpage: <https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits>.
- 2) The appropriate permit is identified by the applicant during permitting but must be confirmed by evaluation in Section 2 of this form (see below), to demonstrate applicability of coverage under either of the UPDES construction storm water permits:
  - a) Construction General Permit (CGP), UTRC00000 (viewable through this [link](#))
  - b) Common Plan Permit (CPP), UTRH00000 (viewable through this [link](#))
- 3) If the appropriate UPDES permit has been selected for coverage and the applicable complete SWPPP has been submitted for review with a complete application, then the SWPPP evaluation must move forward.
- 4) Per Utah Code [Title19-Chapter5-Section108.3](#), the SWPPP reviewer shall complete the first review of the SWPPP within 14 business days after the day on which the applicant submits a complete SWPPP and application for local storm water permit coverage (if local permit coverage is required).
- 5) A "No" answer for any questions in the following SWPPP Evaluations (for either CGP in Section 3, or CPP in Section 4) will amount to an incomplete SWPPP and will be returned for modification. Questions answered "N/A" (not applicable) do not affect the approval of the SWPPP unless the reviewer determines it was an incorrect answer to a given question. The final question on both forms is an internal question for MS4s and does not affect approval.
- 6) Per Utah Code [Title19-Chapter5-Section108.3](#), any non-compliance in the SWPPP (which requires modification to bring the SWPPP into compliance) requires a specific request for modification to be provided to the applicant; such requests must be thorough such that they will bring the SWPPP into compliance upon correction, and must include citations to local ordinances or state/federal law that require the modification. Furthermore, these requested modifications must be logged in an index of requested modifications. Space is provided for listing modifications or can be attached separately.
- 7) Per Utah Code [Title19-Chapter5-Section108.3](#), the SWPPP reviewer has 14 business days after the day on which the operator submits the modified SWPPP to complete the review of the SWPPP.

**NOTE: Pre-Construction SWPPP Review Checklists are a requirement of all UPDES MS4 Permits (Part 4.2.4.3). As such, utilizing these SWPPP Evaluation forms will meet that requirement. Operators and SWPPP Developers can utilize these forms to ensure compliance prior to submitting.**

**SECTION 2: Confirmation of Appropriate UPDES Construction Storm Water Permit Coverage**

- 1) Will the project disturb at least 1-acre of land? (CGP Part 1.1.2 and CPP Part 1.1) Yes ☐ | No ☐
- 2) Is the project part of a Common Plan of Development or Sale (CPoD) that will collectively disturb at least 1-acre of land? (CGP Part 1.1.2 and CPP Part 1.1) Yes ☐ | No ☐
- 3) If CPoD, is the lot a single residential lot no more than 1-acre of disturbance? (CPP Part 1.1) Yes ☐ | No ☐  
N/A ☐

**How to determine appropriate UPDES construction storm water permit coverage:**

If "No" to both questions #1 and #2, then **no UPDES construction storm water permit is required**.

If "Yes" to question #1 and "No" to question #2, then the project **must obtain CGP (UTRC00000) coverage** and **Section 3** of this evaluation form would be applicable for SWPPP review.

If "No" to question #1 and "Yes" to both questions #2 and #3, then the project **may obtain CPP (UTRH00000) coverage** and **Section 4** of this evaluation form would be applicable for SWPPP review; **however** the CPP allows only one lot per permit, so if multiple lots in the CPoD will be developed, the operator **may choose to obtain separate CPP coverage for each lot or cover multiple lots under one CGP (UTRC00000) permit**, in which case **Section 3** of this evaluation form would be applicable for SWPPP review.

**NOTE: Commercial Common Plans of Development or Sale must be covered under the CGP (UTRC00000).**

As such, if "No" to question #1, "Yes" to question #2, and "No" to question #3 (or the project desires to cover multiple residential lots under a single permit, then the **CPP (UTRH00000) is not valid and the project must obtain CGP (UTRC00000) coverage** and **Section 3** of this evaluation form would be applicable for SWPPP review.

- 4) At the completion of Section 2, has the appropriate UPDES Construction Storm Water Permit coverage been confirmed and obtained? **NOTE:** If "No", then the applicant must resubmit the application with the appropriate permit coverage obtained and included in a revised SWPPP that was written in compliance with the appropriate corresponding UPDES permit. Yes ☐ | No ☐

If "Yes" to question #4, **complete the review of the submitted SWPPP for the appropriate UPDES Construction Storm Water Permit coverage using Section 3 (for CGP) or Section 4 (for CPP).**

Reviewer (Print Name): \_\_\_\_\_ Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**UPDES CONSTRUCTION GENERAL PERMIT (CGP) UTRC00000**  
**STORM WATER POLLUTION PREVENTION PLAN (SWPPP) EVALUATION FORM**  
**SECTION 3**

SWPPP Review # \_\_\_\_\_ Common Plan Permit SWPPP Reviewed in Section 4? **Yes** ☐ **No** ☐

Site Name: \_\_\_\_\_ UPDES Permit #: \_\_\_\_\_

Site Address: \_\_\_\_\_

Local Jurisdiction or County: \_\_\_\_\_ Total Project Area (acres): \_\_\_\_\_ Total Disturbed Area (acres): \_\_\_\_\_

Permit Effective Date: \_\_\_\_\_ Permit Expiration Date: \_\_\_\_\_

**Project Type:** Residential/Subdivision ☐ Commercial ☐ Industrial ☐ Linear (Road/Pipe/Power) ☐ Land Disturbance ☐

**OPERATOR CONTACT INFORMATION**

Operator: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

On-site Facility Contact: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Important Contact: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Owner: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION**

- 1) Is the Storm Water Team (including other site Operators) identified by name and position in the SWPPP, including their SWPPP responsibilities and trainings? (CGP Part 7.3.1) **NOTE:** Storm Water Team responsibilities that must be included (CGP Part 6.1): (1) design, installation, maintenance, and/or repair of storm water controls (including pollution prevention controls); (2) application and storage of treatment chemicals (if applicable); (3) conducting inspections (CGP Part 4.1); and (4) taking corrective actions (CGP Part 5) **Yes** ☐ **No** ☐
- 2) For any Storm Water Team member identified as being responsible for conducting inspections (CGP Part 4), has the SWPPP detailed their training/qualifications for conducting inspections in compliance with CGP Part 6.3? (CGP Part 7.3.1) **Yes** ☐ **No** ☐
- 3) If the project is >5-acres in disturbance, has a perennial surface water within 50 feet of the project, or has a steep slope (70% or 35 degrees, or more), was a "qualified" SWPPP writer listed in the storm water team as having the responsibility and qualification to write/certify the SWPPP? (CGP Part 7.2 and 7.2.1.a-e) **Yes** ☐ **No** ☐ **N/A** ☐
- 4) Are estimates provided for the size of the property (in acres, or length in miles if a linear site) and the total area to be disturbed by construction (including on-site and off-site support activity areas) to the nearest 1/4 acre (or 1/4 mile if linear)? (CGP Part 7.3.2.b-c) **Yes** ☐ **No** ☐
- 5) Does the plan describe the nature of construction activities, including the age or dates of past renovations for structures undergoing demolition (CGP Part 7.3.2.a) **Yes** ☐ **No** ☐
- 6) Does the plan describe any on-site and off-site construction support activities areas (CGP Part 1.2.1.b)? (CGP Part 7.3.2.d) **Yes** ☐ **No** ☐ **N/A** ☐
- 7) Is there a description of the construction schedule for: (1) commencement of activities, (2) temporary/permanent cessation of construction activities, (3) temporary/final stabilization of exposed areas of the site, and (4) removal of temporary storm water controls and construction equipment or vehicles and the cessation of construction related pollutant-generating activities. (CGP Part 7.3.2.e) **Yes** ☐ **No** ☐
- 8) Are the business days and hours for the project identified in the SWPPP? (CGP Part 7.3.2.g) **Yes** ☐ **No** ☐
- 9) Is a legible Site Map (or maps) included (in an attachment of the SWPPP) which shows the permit required features of the site? (CGP Part 7.3.3) **NOTE:** Required map features include: **a)** boundaries of the property; **b)** locations where construction activities will occur, including: **i)** earth-disturbing and demolition activities (phasing noted), **ii)** approximate slopes before and after grading (steep slopes noted), **iii)** stockpile locations (sediment, soil, materials, etc.), **iv)** any Waters of the State crossings, **v)** designated vehicle exit points (onto paved roads), **vi)** structures and other impervious surfaces upon completion of construction, **vii)** on-site and off-site construction support activity; **c)** all Waters of the State within 1-mile of the site's discharge point (and the impairment/high-quality status of the water body); **d)** type and extent of pre-construction ground cover; **e)** drainage patterns of storm water and authorized non-storm water before and after grading; **f)** storm water and authorized non-storm water discharge locations (including discharges to storm sewer inlets and outfalls to Waters of the State); **g)** pollutant-generating activities (CGP Part 7.3.2.f); **h)** storm water controls (including natural buffers and shared controls); **i)** storage of polymers, flocculants, or other treatment chemicals. **Yes** ☐ **No** ☐
- 10) If the site discharges into a Municipal Separate Storm Sewer System (MS4) prior to reaching receiving waters of the state, is the MS4 listed? (CGP Part 1.4 and Part 4.8) **Yes** ☐ **No** ☐ **N/A** ☐
- 11) Are the first downstream receiving waters of the state listed in the SWPPP, identifying the impairment (and TMDL status) or high-quality (Category 1 or 2) status of the water body? (CGP Part 3.2) **Yes** ☐ **No** ☐
- 12) If the receiving water is identified as impaired, does the SWPPP list the impairment causing pollutants for the water body, and does it address the control of those impairment causing pollutants in the plan (or state that no impairment causing pollutants are anticipated on-site)? (CGP Part 3.2) **Yes** ☐ **No** ☐ **N/A** ☐
- 13) If the receiving water is identified as high-quality, does the plan describe precautions taken to minimize pollution effects in the water body? (CGP Part 3.2) **Yes** ☐ **No** ☐ **N/A** ☐

# CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION (continued)

|  |  |
|--|--|
| 14) Are all potential pollutant-generating activities listed, with the pollutants/constituents listed and their locations identified either by description or reference to the site map? (CGP Part 7.3.2.f)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 15) For each potential pollutant and/or pollutant-generating activity listed, does the SWPPP include: a description of the specific controls to meet requirements of the CGP (CGP Part 2.2 and 2.3), the design specifications (with reference to manufacturer or BMP manuals/ordinances being followed), routine maintenance specifications, and the projected schedule for installation/implementation? (CGP Part 7.3.5.a)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 16) Are the presence/absence of all authorized non-stormwater discharges (CGP Part 1.2.2) identified, with a description of measures used to reduce them or prevent them from contributing pollutants to discharges? (CGP Part 7.3.4)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 17) If the project anticipates a need to dewater, does the plan describe the scope of dewatering and the BMPs used to manage those practices?  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 18) If dewatering is planned, has the appropriate UPDES Dewatering permit coverage been obtained and proof of coverage included in the "Additional Information" attachment of the SWPPP? (CGP Part 1.2.4 and 2.3.7)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 19) If the project is within 50 feet of a Water of the State (CGP Part 2.2.1 and A.1), was the selected natural buffers compliance alternative (CGP Part A.2.1), or exception (CGP Part A.2.2) identified, and were the required descriptions of equivalent sediment controls, alternatives, and/or infeasibility provided? (CGP Part 7.3.5.b.(1) and A.2.3.)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 20) Are the selected BMPs for erosion and sediment control (CGP Part 2.2) identified and described, with instructions for installation, maintenance, responsible staff, and design specifications either in the main body of the SWPPP or as an attachment? (CGP Part 7.3.5.a)<br><b>NOTE:</b> CGP requires the following elements to be addressed in the SWPPP: <b>a)</b> Preserve vegetation where possible (CGP Part 2.2.2); <b>b)</b> Install sediment controls along downslope perimeter areas (CGP Part 2.2.3); <b>c)</b> Minimize sediment track-out (CGP Part 2.2.4 and 7.3.5.b.(4)); <b>d)</b> Manage stockpiles with perimeter controls and locate away from storm water conveyances (CGP Part 2.2.5); <b>e)</b> Minimize dust (CGP Part 2.2.6); <b>f)</b> Minimize steep slope disturbances (CGP Part 2.2.7); <b>g)</b> Preserve topsoil (CGP Part 2.2.8); <b>h)</b> Minimize soil compaction where final cover is vegetation (CGP Part 2.2.9); <b>i)</b> Protect storm drain inlets (CGP Part 2.2.10); <b>j)</b> Slow down runoff with erosion controls and velocity dissipation devices (CGP Part 2.2.11); <b>k)</b> Appropriately design any sediment basins or impoundments (CGP Part 2.2.12 and 7.3.5.b.(4)); <b>l)</b> Follow requirements for any treatment chemicals (CGP Part 2.2.13); <b>m)</b> Stabilize exposed portions of site with 14-days of inactivity (CGP Part 2.2.14) | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 21) If the project is linear (CGP Part 2.2.3), are the areas where perimeter controls are not feasible documented (to support the determination) and are the other practices being implemented to minimize pollutant discharges described? (CGP Part 7.3.5.b.(2))  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 22) Are the specific vegetative/non-vegetative final stabilization measures (CGP Part 2.2.14) described, including location information and deadlines for implementation in accordance with CGP Part 2.2.14.a.? (CGP Part 7.3.5.b.(6))   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 23) Are spill prevention and response procedures (CGP Part 1.3.5 and 2.3.6) included that have procedures and responsible parties identified for stopping, containing, cleaning, and reporting spills, leaks and other releases (including notification of appropriate parties if the release contains a hazardous substance or reportable quantity)? (CGP Part 7.3.5.b.(7))   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 24) Are the selected BMPs for pollution prevention control (CGP Part 2.3) identified and described, with instructions for installation, maintenance, responsible staff, and design specifications either in the main body of the SWPPP or as an attachment? (CGP Part 7.3.5.a)<br><b>NOTE:</b> CGP requires the following to be described in the SWPPP: <b>a)</b> Equipment and vehicle fueling (CGP Part 2.3.1); <b>b)</b> Equipment and vehicle washing (CGP Part 2.3.2); <b>c)</b> Storage, handling, and disposal of building products and wastes (CGP Part 2.3.3); <b>d)</b> Washing of stucco, paint, concrete, form release oils, curing compounds, etc. (CGP Part 2.3.4); <b>e)</b> Properly applying fertilizers (CGP Part 2.3.5)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 25) Are waste management procedures (CGP Part 2.3.3) described for handling, storing, and disposing of wastes generated on-site, including documented infeasibility and alternative practice statements for violating setback requirements (CGP Part 2.3.3.c(2)(ii)) or claims of exceptions from CGP Part 2.3.3.e? (CGP Part 7.3.5.b.(8))   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 26) If this project is claiming to be an "Emergency related project" special condition, does the plan include a description of the nature of the public emergency and why immediate authorization was necessary? (CGP Part 1.4.1.)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 27) If there are any Storm Water Drainage Wells (subclass of UIC Class V Injection Wells) planned for the site, does the plan provide documentation of any contact planners have had with DWQ for implementing the requirements for underground injection wells in the Safe Drinking Water Act and DEQ's implementing regulations (Utah Admin. Code R317-7)? (CGP Part 7.3.7.a)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 28) If treatment chemicals (CGP Part 2.2.13) are planned for the project, are the required elements described [soil types on-site and from fill materials, list of treatment chemicals planned and justification that they are suitable for the site's soil characteristics, dosage of treatment chemicals or the methodology used to determine dosage, information from Safety Data Sheets (SDS), schematic drawings of enhanced controls or treatment systems, description of storage of chemicals (CGP Part 2.2.13.c), references to applicable local requirements for the use of these chemicals, copies of manufacturers specifications regarding their use, and any training that personnel who handle and apply chemicals have received prior to use of those chemicals]? (CGP Part 7.3.5.b.(5))  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 29) Are the inspection, maintenance, and corrective actions procedures detailed in the plan (per CGP Part 2.1.4, Part 4, and Part 5), including the inspection schedule (CGP Part 4.2, Part 4.3, or Part 4.4), the location of the rain gauge or address of the weather station for rainfall monitoring (if applicable to the schedule), and any maintenance or inspection checklists or forms? (CGP Part 7.3.6.a-d)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 30) If the project discharges to a water body that is either impaired (for sediment or nutrients) or high-quality (CGP Part 3.2), is the increased inspections frequency of every 7 calendar days and within 24-hours of a 0.5-inch storm event selected? (CGP Part 4.3)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 31) Is the reduced inspections frequency for stabilized areas, arid/semi-arid/drought-stricken areas, or frozen conditions selected with appropriate description and documentation of the applicability of that frequency? (CGP Part 4.4)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |



## CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION (continued)

- 32) Was the SWPPP certified by the duly authorized signatories of both the project (property) owner and operator ? (CGP Part 7.3.8, Part 9.9.1-2) Yes ☐ | No ☐
- 33) If the project is >5-acres in disturbance, has a perennial surface water within 50 feet of the project, or has a steep slope (70% or 35 degrees, or more), was the SWPPP written/certified by a “qualified” SWPPP writer? (CGP Part 7.2 and 7.2.1.a-e) Yes ☐ | No ☐  
N/A ☐
- 34) Is a copy of the NOI that was submitted via the CDX NeTCGP for this project included in the SWPPP? (CGP Part 7.3.9.a.) **NOTE:** This would not be applicable if the SWPPP is being reviewed prior to the operator obtaining permit coverage. Yes ☐ | No ☐  
N/A ☐
- 35) Is a copy of the Authorization to Discharge Letter received from NeT (with the assigned NPDES ID) included in the SWPPP?(CGP Part 7.3.9.b.) **NOTE:** This would not be applicable if the SWPPP is being reviewed prior to the operator obtaining permit coverage. Yes ☐ | No ☐  
N/A ☐
- 36) Is an example of the inspection report (form) that will be utilized for the project included in the SWPPP? (CGP Part 4.7.1) Yes ☐ | No ☐
- 37) Is an example of the corrective action log that will be utilized for the project included in the SWPPP? (CGP Part 5.4) Yes ☐ | No ☐
- 38) Is an example of the training log included in the SWPPP that addresses the specific training requirements of CGP Part 6.2 (general functions) and 6.3 (conducting inspections)? (CGP Part 6) Yes ☐ | No ☐
- 39) Are any certifications for SWPPP inspectors or SWPPP writers included in the SWPPP? (CGP Part 6.3) Yes ☐ | No ☐
- 40) Are any applicable dewatering, stream alteration, or fugitive dust control permits included in the SWPPP? (CGP Part 1.2.4) Yes ☐ | No ☐  
N/A ☐
- 41) Do all erosion, sediment, and pollution control BMPs (CGP Part 2.2 and 2.3) in the SWPPP include thorough instructions and/or detail specifications for the installation, use, maintenance, and inspection? (CGP Part 7.3.5.a.(1)-(4)) Yes ☐ | No ☐
- 42) Is a copy of the UPDES Construction General Permit (UTRC00000) included in the SWPPP, or a link by which the permit can be easily accessed by the storm water team if managing the SWPPP electronically? (CGP Part 7.3.9.c.) Yes ☐ | No ☐
- 43) **At the completion of this review, is the project's SWPPP now approved and accepted as being in compliance with storm water regulations? If not, specific comments will be provided below (or attached on a separate sheet if corrections are longer than the space provided) to clearly state which corrections are needed to bring the SWPPP into compliance and achieve approval on the next review cycle, if corrected to the satisfaction of the reviewer.** Yes ☐ | No ☐
- 44) Is this site designated by the MS4 as “Priority” based on 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; or, Non-storm water discharges and past record of non-compliance by the operators of the construction site? **NOTE: This is an internal question for MS4s to meet MS4 Permit requirements for prioritizing certain construction sites for increased inspections and does not affect the approval of the SWPPP.** (MS4 Permit Part 4.2.4.3.5) List the applicable prioritization factors: Yes ☐ | No ☐  
N/A ☐

### COMMENTS AND CORRECTIONS FOR ACHIEVING SWPPP COMPLIANCE (attach an additional comments page if more space is needed)

Reviewer (Print Name): \_\_\_\_\_ Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**UPDES COMMON PLAN PERMIT (CPP) UTRH00000**  
**STORM WATER POLLUTION PREVENTION PLAN (SWPPP) EVALUATION FORM**  
**SECTION 4**

SWPPP Review # \_\_\_\_\_ Construction General Permit SWPPP Reviewed in Section 3? **Yes** ☐ **No** ☐

Site Name: \_\_\_\_\_ UPDES Permit #: \_\_\_\_\_

Site Address: \_\_\_\_\_

Local Jurisdiction or County: \_\_\_\_\_ Total Project Area (acres): \_\_\_\_\_ Total Disturbed Area (acres): \_\_\_\_\_

Permit Effective Date: \_\_\_\_\_ Permit Expiration Date: \_\_\_\_\_

**OPERATOR CONTACT INFORMATION**

Operator: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

On-site Facility Contact: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Important Contacts: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Owner: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**COMMON PLAN PERMIT (CPP) SWPPP EVALUATION**

- 1) Does the SWPPP include the following information: project name, address, and latitude/longitude, and UPDES Permit number? **Yes** ☐ **No** ☐
- 2) Does the project meet eligibility criteria for the Common Plan Permit, including the 1-acre maximum disturbance, residential land-use stipulation, multiple site coverage applications (requiring a different permit number for each lot), high-risk sites (as determined by the MS4, if applicable), and limitations of the CPoD (common plan purpose not yet achieved)? (CPP Part 1.1.1-6) **Yes** ☐ **No** ☐
- 3) Are the SWPPP contacts listed in the plan, with contact information (name, address, telephone number, email address) for owner, general contractor, or any other party that affects implementation of the SWPPP? (CPP Part 4.2.1) **Yes** ☐ **No** ☐
- 4) Does the SWPPP identify an on-site SWPPP sign? (CPP Part 1.9) **Yes** ☐ **No** ☐
- 5) If dewatering is anticipated on-site, does the SWPPP identify whether on-site infiltration will be utilized or if an UPDES dewatering permit has been obtained? (CPP Part 2.7) **Yes** ☐ **No** ☐
- 6) Does the SWPPP list all the anticipated allowable non-storm water discharges at the site, and describe control methods to be utilized to manage those discharges in a manner that will minimize the discharge of pollutants? (CPP Part 1.3, 2.4.5, and 2.9) **Yes** ☐ **No** ☐
- 7) Does the SWPPP identify whether phasing (minimizing the total exposure of disturbed soil at a given time) is possible? (CPP Part 2.3.1) **Yes** ☐ **No** ☐
- 8) If phasing is planned, does the SWPPP show the locations on the site map and a summary of the delayed disturbances in the planned phasing? (CPP Part 2.3.1) **Yes** ☐ **No** ☐  
N/A ☐
- 9) Does the SWPPP identify which perimeter sediment control BMPs will be used to prevent sediment from leaving the site? (CPP Part 2.1.2 and 2.3) **Yes** ☐ **No** ☐
- 10) If the project is within 50-feet of a waterbody, does the SWPPP contain descriptions of the placement and dimensions of the 50-foot natural buffer, the substitute control measures, or detailed explanations of why either could not be applied? (CPP Part 2.3.5 and 4.2.4) **Yes** ☐ **No** ☐  
N/A ☐
- 11) If there are critical or sensitive areas located or adjacent to the site, does the plan specify a BMP to separate or isolate those areas with environmental fencing or another practice? (CPP Part 2.2) **Yes** ☐ **No** ☐  
N/A ☐
- 12) Does the SWPPP describe what track out controls will be used to prevent dirt from being tracked on streets as vehicles leave the site? (CPP Part 2.4.1) **Yes** ☐ **No** ☐
- 13) Does the SWPPP identify whether any storm drain inlets are down gradient of the site and describe what inlet protection BMPs will be used (if inlets are present)? (CPP Part 2.1.3) **Yes** ☐ **No** ☐
- 14) Are curb ramps proposed for the site which are made of a non-dirt material that will not wash away in storm water? (CPP Part 2.4.2) **Yes** ☐ **No** ☐  
N/A ☐
- 15) Are stockpiles or spoil piles planned for the site which have a BMP listed that can contain runoff from those piles? (CPP Part 2.1.1) **Yes** ☐ **No** ☐  
N/A ☐
- 16) Does the project have a BMP identified to contain, dry, and dispose of any wash water from concrete, masonry, stucco, and paint (water-based)? (CPP Part 2.4.5 and 2.9.1) **Yes** ☐ **No** ☐
- 17) Does the SWPPP include waste management procedures including soil removal, clearing debris removal, demolition removal, trash disposal, construction-waste disposal, liquid waste disposal and sanitary waste disposal? (CPP Part 2.4.3, 2.4.4, 2.9, and 4.2.7) **Yes** ☐ **No** ☐
- 18) Are spill prevention and response measures detailed in the SWPPP with responsible parties identified? (CPP Part 2.8.3) **Yes** ☐ **No** ☐
- 19) Does the SWPPP describe methods for the storage of construction materials that minimize exposure of materials with a pollution risk (certain building and landscaping materials, pesticides, herbicides, detergents, etc.)? (CPP Part 2.4.3 and 2.8.2) **Yes** ☐ **No** ☐

# COMMON PLAN PERMIT (CPP) SWPPP EVALUATION (continued)

|  |  |
|--|--|
| 20) If the site has steep slopes (>70%), does the plan include measures to either stabilize those slopes using an appropriate BMP or to avoid disturbing those steeper areas? (CPP Part 2.3.2)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 21) If the site has conditions that can cause stormwater flows with highly erosive velocities, does the plan describe BMPs to control those flows and minimize sediment transport? (CPP Part 2.3.3 and 2.3.4)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 22) If the site has a need for dust control (either regulatory, such as in non-attainment areas for air quality, or for practical reasons) does the plan describe BMPs for mitigating fugitive dust? (CPP Part 1.3.2)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 23) If there are disturbed areas that will be left inactive for 14-days, does the plan provide a method of temporary/permanent stabilization for those areas? (CPP Part 2.6)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 24) If the site is planned to be sold without landscaping, does the SWPPP include the installation of downslope erosion and sediment controls for the lot, prior to sale? (CPP Part 1.7.2)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 25) Are the sequence and estimated dates of construction activities listed, which include the start and end of excavation activities, any temporary or permanent cessation of earth-disturbing activities, and the start and end of landscaping if tis is done as part of the construction activity before the home is sold? (CPP Part 4.2.2.a-c)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 26) Are a site map or chart (may be hand drawn) included in the SWPPP which shows the permit required features? (CPP Part 4.2.3.a-h)<br>NOTE: Permit required map features include: <b>a)</b> Boundaries of property (CPP Part 4.2.3.a); <b>b)</b> Boundaries of soil surface disturbances, including any outside of the property boundaries (CPP Part 4.2.3.b); <b>c)</b> Slopes, including areas of steep slopes (CPP Part 4.2.3.c); <b>d)</b> Locations of stockpiles of soils, storage of construction materials, portable toilets, trash containers, concrete washout pits or containers, egress points, and track out pads (CPP Part 4.2.3.d); <b>e)</b> Water bodies, wetlands, and natural buffer areas (CPP Part 4.2.3.e); <b>f)</b> Locations and types of BMPs (or storm water control measures) for the control and/or treatment of storm water flowing onto, through, and/or off-site (CPP Part 4.2.3.f); <b>g)</b> Locations of storm water inlets and/or storm water discharge points going off-site (CPP Part 4.2.3.g); <b>h)</b> Areas that will be temporarily or permanently stabilized during the construction period (CPP Part 4.2.3.h) | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 27) Does the SWPPP include a list of the construction site pollutants that are anticipated on-site, including the pollutant-generating activities and an inventory of pollutants for each pollutant-generating activity? (CPP Part 4.2.6)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 28) Is a spill prevention and response plan included in the SWPPP which details the measures to reduce the chance of spills, stop the source of spills, contain and cleanup spills, and train personnel responsible for spill prevention and control? (CPP Part 2.8.3)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 29) Are the inspections schedule and procedures described in the SWPPP, including responsible (qualified CPP Part 3.1) staff and time frames for making corrections? (CPP Part 3.2 and 3.3)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 30) Is the subcontractors training list included in the SWPPP for all each subcontractor or utility providers to be informed or their responsibility to keep soil on-site and to prevent pollution? (CPP Part 4.2.8)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 31) Does the SWPPP contain a copy of the Common Plan Permit (UTRH00000) document and the Authorization to Discharge Letter from DWQ? (CPP Part 4.2.9)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 32) If the permit, SWPPP, and/or inspections signatory obligations will be handled by a duly authorized signatory (CPP Part 5.16.1.b), is there a written and signed delegation of authority included in the SWPPP that shows this person/position was delegated signatory responsibilities?(CPP Part 5.16.1.b.i-ii)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 33) If the project is within and discharges into a regulated MS4's jurisdiction, does the SWPPP identify the MS4, and contain the signature and date of the MS4 reviewer who has approved the proposed project for construction (CPP Part 1.7)? (CPP Part 4.2.11)  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 34) Does the SWPPP identify the first receiving water that the site discharges into, including the impairment/TMDL status of the water body, and any pollutants for which the water body is impaired? (CPP Part 4.2.5)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 35) Is the SWPPP signed and certified by both the Owner and the General Contractor (operator) in accordance with CPP Part 5.16.1.a? (CPP Part 4.2.10)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 36) Does the SWPPP include a copy of the Notice of Intent (NOI) that was submitted to DWQ to obtain coverage under the Common Plan Permit UTRH00000? (CPP Part 1.4)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 37) Does the SWPPP include a template for the daily site check log? (CPP Part 3.2.2)   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 38) Does the SWPPP include a template for inspection reports and corrective actions taken? (CPP Part 3.4 and 3.5)  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 39) Does the SWPPP include any other permits that affect site operations? (Fugitive Dust Control, Stream Alteration, Dewatering, etc.)   | Yes <input type="checkbox"/> No <input type="checkbox"/><br>N/A <input type="checkbox"/> |
| 40) Does the SWPPP include BMP specifications and/or details for all sediment, erosion, and pollution prevention BMPs?   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |
| 41) At the completion of this review, is the project's SWPPP now approved and accepted as being in compliance with storm water regulations? If not, specific comments will be provided below (or attached on a separate sheet if corrections are longer than the space provided) to clearly state which corrections are needed to bring the SWPPP into compliance and achieve approval on the next review cycle, if corrected to the satisfaction of the reviewer.   | Yes <input type="checkbox"/> No <input type="checkbox"/>                                 |

**COMMON PLAN PERMIT (CPP) SWPPP EVALUATION (continued)**

42) Is this site designated by the MS4 as “Priority” based on the following factors: Soil erosion potential; Site slope; Project size and type; Sensitivity of receiving waterbodies (impaired or high-quality waters); Proximity to receiving waterbodies; and, Non-storm water discharges and past record of non-compliance by the operators of the construction site? **NOTE:** This is an internal question for MS4s to meet MS4 Permit requirements for prioritizing certain construction sites for increased inspections and does not affect the approval of the SWPPP. (MS4 Permit Part 4.2.4.3.5) List the applicable prioritization factors: \_\_\_\_\_

Yes ☐ | No ☐  
N/A ☐

**COMMENTS AND CORRECTIONS FOR ACHIEVING SWPPP COMPLIANCE**  
**(attach an additional comments page if more space is needed)**

Reviewer (*Print Name*): \_\_\_\_\_ Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# **Standard Operating Procedure for MS4 Construction Oversight**

## **Inspections of Permitted Construction Sites SOP**

Last Reviewed: May 07, 2025

### Introduction

This SOP was written for Utah MS4s to help them meet the requirements of their [MS4 Permit](#) and to provide guidance to abide by Utah State Code. This SOP references the *Construction Site Storm Water Runoff Control* section of the MS4 Permit. The overarching goal of this SOP is to standardize storm water construction program practices across all MS4s in the State of Utah.

From **Utah Code [19-5-108.3](#)**:

“The applicant shall allow construction site inspections by the authority. Except as provided in Subsection (12), the authority shall conduct an oversight inspection<sup>1</sup> through an electronic site inspection<sup>2</sup>.”

“The authority may conduct an on-site inspection if the authority: has a documented reason for justifying an on-site oversight inspection.”

To differentiate between the two types of oversight inspections, the terms “on-site oversight” and “electronic oversight” inspection are used.

- “On-site oversight inspection” is an inspection in which MS4 staff physically visit(s) a construction site to determine a site’s compliance with construction storm water permits as has been done historically.
- “Electronic oversight inspection” is an offsite inspection in which MS4 conducts a review of the operator's submitted electronic site inspection to determine a site’s compliance with construction storm water permits.

Each of these types of oversight inspections will be described in the *During Construction* portion within the *Process* section of this SOP.

### 1. Purpose:

The purpose of this SOP is to describe how all MS4s will conduct inspections for construction sites that require construction storm water permit coverage under the Construction General Permit (CGP) or Common Plan Permit (CPP). For purposes of this SOP, “operator” means the person responsible for the Storm Water Pollution Prevention Plan (SWPPP) implementation.

### 2. Responsibilities:

Each MS4’s permit staff are responsible for implementing the requirements and may not differ from this SOP. The operator is responsible for abiding by all requirements of the UPDES CGP or CPP, and the MS4 is responsible for oversight.

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<sup>1</sup> “Oversight inspection” means a construction site inspection performed by the authority to impose compliance with the permit. (Utah Code 19-5-108.3)

<sup>2</sup> “Electronic site inspection” means geo-located and time-stamped photographs the applicant takes, evaluates, and submits electronically to the authority. (Utah Code 19-5-108.3)

- The position responsible for oversight inspections is the [\[insert position title\]](#).
- The position(s) who has authority to implement enforcement procedures is [\[insert position title\(s\)\]](#), as well as the Division of Water Quality (DWQ).

This SOP is to be followed and updated according to State and municipal requirements.

### 3. MS4 Permit Requirements:

1. Oversight Inspection
  - a. Required to be completed by the MS4 on any construction site that is greater than or equal to one acre or is part of a common plan of development or sale which collectively disturbs land greater than or equal to one acre.
  - b. MS4 must inspect all phases of construction, including prior to land disturbance, during active construction, and following active construction.
  - c. Oversight inspections are required to be completed monthly for non-priority construction sites and biweekly for priority construction sites.
2. Qualified Personnel
  - a. The oversight inspection must be performed by a “qualified person” as described in the DWQ MS4 Permit.
  - b. Anyone having a job duty related to implementing the construction storm water program must receive annual training. New hires must be trained within 60 days of hire.
3. Record Retention
  - a. All MS4s must maintain records for at least five years of all applicable construction project documents which could include:
    - i. Site plan reviews
    - ii. SWPPPs
    - iii. Inspections
    - iv. Enforcement Actions (notices of violation, fines, stop work orders)

### 4. Process:

1. Pre-construction
  - a. The MS4 will perform a pre-construction SWPPP review and meeting which at minimum will include:
    - i. A review of the site design
    - ii. Planned operations at the construction site
    - iii. Planned Best Management Practice(s) (BMPs) during the construction phase
    - iv. Planned long-term storm water run-off BMPs
    - v. Documentation:
      1. [SWPPP Review Checklist](#): Document the SWPPP Review Checklist through [\[insert method of record retention used within your MS4\]](#)
      2. Pre-construction Meeting: Document the meeting [\[insert method of record retention used within your MS4\]](#)
  - b. The MS4 will determine the frequency at which oversight inspections will be performed.
  - c. The MS4 must provide the operator the procedure for notifying the MS4 of their completion of active construction.
  - d. The MS4 will perform a pre-construction electronic oversight inspection or on-site oversight inspection with the operator(s).

- i. This pre-construction inspection must occur before land disturbance and will verify that the operator has placed all site specific construction BMPs prescribed by the SWPPP.
  - ii. Documentation:
    - 1. Pre-construction inspection: Document the inspection through [\[insert method of record retention used within your MS4\]](#)
  - e. The operator should be notified of the option to opt-out of electronic site inspection requirements and signify that election to the MS4.
  - f. The operator will submit a Notice of Intent (NOI) through the NeT NPDES eReporting Tool online (NeT) *before* earth disturbing activities.
- 2. During Construction
  - a. Electronic Oversight Inspection
    - i. The MS4 will perform the required electronic oversight inspections through access to the operator's SWPPP, electronic site inspection(s), and operator's self inspection(s).
      - 1. The operator's report must use geo-located and time-stamped photos of all BMPs implemented at the construction site.
      - 2. All photos must be sufficient to depict that the BMP(s) is meeting its proper function to eliminate or control pollutants on site.
      - 3. The operator's report should show compliance with the CGP or CPP if applicable, and the site specific SWPPP.
        - a. This includes all documentation regarding corrections taken as a result of the operator's self inspection.
    - b. On-site Oversight Inspection
      - i. An on-site oversight inspection may be conducted after the MS4 inspector has provided a 48-hours advance notice of an on-site inspection.
        - 1. Exceptions: If there is an imminent threat of discharge or the operator has formally opted-out of electronic site inspections.
      - ii. An on-site oversight inspection may be warranted under the following conditions:
        - 1. Inadequate characterization in electronic site inspections of site conditions or portions of a site
        - 2. Verified complaints
        - 3. Failure to submit an electronic site inspection at the appropriate time
        - 4. Alterations of electronic photographs
        - 5. The construction site is within one-half mile of a river, a stream, or a lake
        - 6. Compliance with the CGP, CPP if applicable, and site specific SWPPP cannot be reasonably determined during an electronic oversight inspection
        - 7. A perceived or reported threat to water quality that is immediate<sup>3</sup> and/or imminent<sup>4</sup>
        - 8. Failure to install BMPs prior to land disturbance

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<sup>3</sup> Immediate threat means contaminants are entering a river, a stream, or a lake.

<sup>4</sup> Imminent threat means contaminants are anticipated to be discharged into a river, a stream, or a lake within 48-hours.

9. Illicit discharge, unknown/unidentified non-storm water discharge, or prohibited discharge per CGP/CPP permits
10. The operator opts out of the electronic site inspection and instead elects an on-site inspection
11. Any other oversight inspection step listed below that cannot be fulfilled
- c. An oversight inspection, both electronic and on-site, is performed by following these steps:
  1. Review the SWPPP
  2. Review the SWPPP signage for compliance with the CGP or CPP
    - a. Placed in a safe, conspicuous, and publicly accessible location near the entrance
    - b. Includes UPDES permit tracking number, contact information, and method of SWPPP access
  3. Review the operator self SWPPP inspection reports
  4. Review the entire perimeter and any downgradient areas
  5. Review points of vehicle/equipment exit
  6. Review any discharge points (keep in mind that these are not always piped inlets)
  7. Review all BMPs installed to mitigate or prevent sediment, erosion, and pollution
  8. Review all stabilizing areas (especially steep slopes)
  9. Review all pollutant generating activities such as fueling areas, washout areas, etc.
  10. Observe all discharges (if prohibited or unauthorized this is an immediate and/or imminent threat to water quality)
  11. Observe all conditions that could result in polluted storm water discharge (including sediment in the street/gutter)
  12. Determine if any additional sediment, erosion, and/or pollution prevention controls are needed
  13. Verify that all above activities are accounted for and updated in the site's SWPPP and Map
  14. Any deficiencies must be noted in the oversight inspection form
- d. For oversight inspections, MS4 staff must use the [Oversight Construction Inspection Form](#) provided by the Division of Water Quality.
  - i. MS4 staff sends a copy of the oversight inspection to the operator.
  - ii. MS4 staff maintains record of all oversight inspections through [\[insert method of record retention used within your MS4\]](#)
- e. If the storm water BMPs on a construction site are found to be deficient by the MS4 inspector, steps will be taken to address the deficiencies as outlined in the *Enforcement for Construction Sites SOP*.
  - i. Violations could include:
    1. Failure to maintain BMPs
    2. Failure to install BMPs
    3. An illicit discharge
    4. Failure to conduct inspections
    5. Failure to document corrections



- 6. Failure to update SWPPP
- 7. Any other CGP and/or CPP requirements that are deficient

### 3. After Construction

- a. The operator will request through NeT, a Notice of Termination (NOT) once these conditions have been met:
  - i. Has the site achieved final stabilization?
  - ii. Have all construction materials, waste and waste handling devices been removed?
  - iii. Have all temporary storm water controls been removed?
  - iv. Have all pollutants and pollutant-generating activities been removed?
  - v. If landscaping will be completed by the homeowner, have temporary sediment and erosion controls been installed?
- b. MS4 staff who have 'MS4 Authority' will be notified of the request to approve the operator's NOT via an email notification from NeT.
- c. MS4 staff will verify through an electronic oversight inspection (or on-site oversight inspection if applicable described in the *Enforcement for Construction Sites SOP*) if all NOT requirements have been met and approve or deny the NOT submission via NeT.
- d. MS4 staff will document the NOT inspection through the State's [Storm Water NOT Inspection Form](#) and maintain a record of it through [\[insert method of record retention used within your MS4\]](#).
- e. All documents related to each applicable construction site must be retained for five years or until construction is completed, whichever is longer.

**\*\*Note to the MS4:**

*It is recommended that MS4s use this template to facilitate their construction storm water program requirements and should add specific information for each MS4 relevant to the program.*

# Construction Oversight Inspection Form

|                   |                                      |  |                                 |   |   |
|-------------------|--------------------------------------|--|---------------------------------|---|---|
| Project Name      |                                      | UPDES Permit #                           |                                 | Expiration Date   |   |
| Address           |                                      |  |                                 |   | Date  |
| Owner             |                                      | Operator                                 |                                 | Start Time  |   |
| Site Contact      |                                      | Phone                                    |                                 | Stop Time   |   |
| Weather           |                                      | Date of last rain event                  |                                 | Approximate Rainfall (in)   |   |
| Inspector(s)      |                                      | MS4/City                                 |                                 | Receiving Waters  |   |
| Project Area      |                                      | Disturbed Area                           |                                 | Project Type  |   |
| Inspection reason | Scheduled <input type="checkbox"/>   | Complaint/Tip <input type="checkbox"/>   | Random <input type="checkbox"/> | Inspector Code  | State <input type="checkbox"/> Local <input type="checkbox"/> |
| Inspection Code   | SW Sampling <input type="checkbox"/> | SW non-Sampling <input type="checkbox"/> | Inspection Type                 | Onsite <input type="checkbox"/> Electronic <input type="checkbox"/> | Reason (please list):   |

## Part 1: Onsite Storm Water Controls (BMPs) (Utah Code § 19-5-108.3 part 7(c)(ii)(F))

**List:**  
Yes, No, N/A

### Arrival and Initial Checks: (Track-Out Control)

1. Are roadways free of mud and sediment accumulation? (CGP 2.2.4.e; CPP 2.4.1; Utah Code § 19-5-108.3 part 7(c)(ii)(B))

2. Are effective track-out controls, such as stabilized construction entrances or wheel wash systems, installed and maintained at all egress points? (CGP 2.2.4; CPP 2.4.1)

### Perimeter Inspection: (Perimeter Controls; Natural Buffer Areas; Discharge Points)

3. Are perimeter controls (e.g., silt fences, wattles, berms) properly installed and maintained, effectively preventing sediment from leaving the site, with no visible evidence of sediment discharges beyond the site boundary? (CGP 2.2.3; CPP 2.1.2)

4. For disturbances located within 50 feet of waters of the state, are natural buffers (or equivalent controls), properly installed, maintained and effective at minimizing sediment discharges? (CGP 2.2.1; CPP 2.3.5)

5. Are velocity dissipation devices installed at outfalls, along drainage channels, or at other locations to slow down runoff and prevent erosion? (CGP 2.2.11; CPP 2.3.3)

### Interior Site Inspection: (BMPs: Inlet Protection; Stockpiles and Construction Materials; Erosion Controls / Pollution Prevention Controls; Chemical Storage and Fueling Areas; Sanitation and Waste Management; Concrete and Paint Washout)

6. Are storm drain inlets within and immediately adjacent to the construction site properly protected with appropriate BMPs (See SWPPP for installation specifications)? Has accumulated sediment in and around the inlet been removed? (CGP 2.2.10; CPP 2.1.3)

7. Are soil and material stockpiles adequately protected from erosion and sediment transport using covers, silt fences, or other appropriate BMPs, and are they located away from stormwater conveyances and inlets? (CGP 2.2.5; CPP 2.1.1)

8. Are effective suppression measures, such as water spraying or mulching, implemented on exposed soil areas to prevent excessive dust generation? (CGP 2.2.6; CPP N/A)

9. Are erosion control measures (e.g., stabilization, mulching, erosion blankets) implemented effectively on slopes, disturbed areas, and other vulnerable areas, including any areas with no construction activities for 30 days (CPP 14 days)? (CGP 2.2.14; CPP 2.6)

10. Is vegetation preservation, slope disturbances, topsoil management, and soil compaction being effectively managed to prevent potential impacts on water quality? (CGP 2.2.2, 2.2.7-2.2.9, 2.11; CPP 2.5)

11. Are effective spill prevention, containment, and pollutant discharge minimization measures in place for all equipment fueling, maintenance, and washing activities? (CGP 2.3.1, 2.3.2; CPP 2.8.1)

12. Are chemical storage and hazardous waste areas properly managed with secondary containment and spill prevention measures in place? (CGP 2.3.3.c-d; CPP 2.8.3)

13. Are all areas free from spills or leaks? Has all evidence of a pollutant spill been properly contained and cleaned? (CGP 2.3; CPP 2.8.3; Utah Code § 19-5-108.3 part 7(c)(ii)(C))

14. Are waste management practices effective, with all construction materials, debris, and waste properly stored, contained, and disposed of to prevent exposure to storm water and overflow? (CGP 2.3.3.a-b, e; CPP 2.4.3, 2.8.2)

15. Are portable sanitation facilities (e.g., port-o-potties) positioned securely, away from drainage features, and maintained to prevent leaks or spills? (CGP 2.3.3.f; CPP 2.4.4)

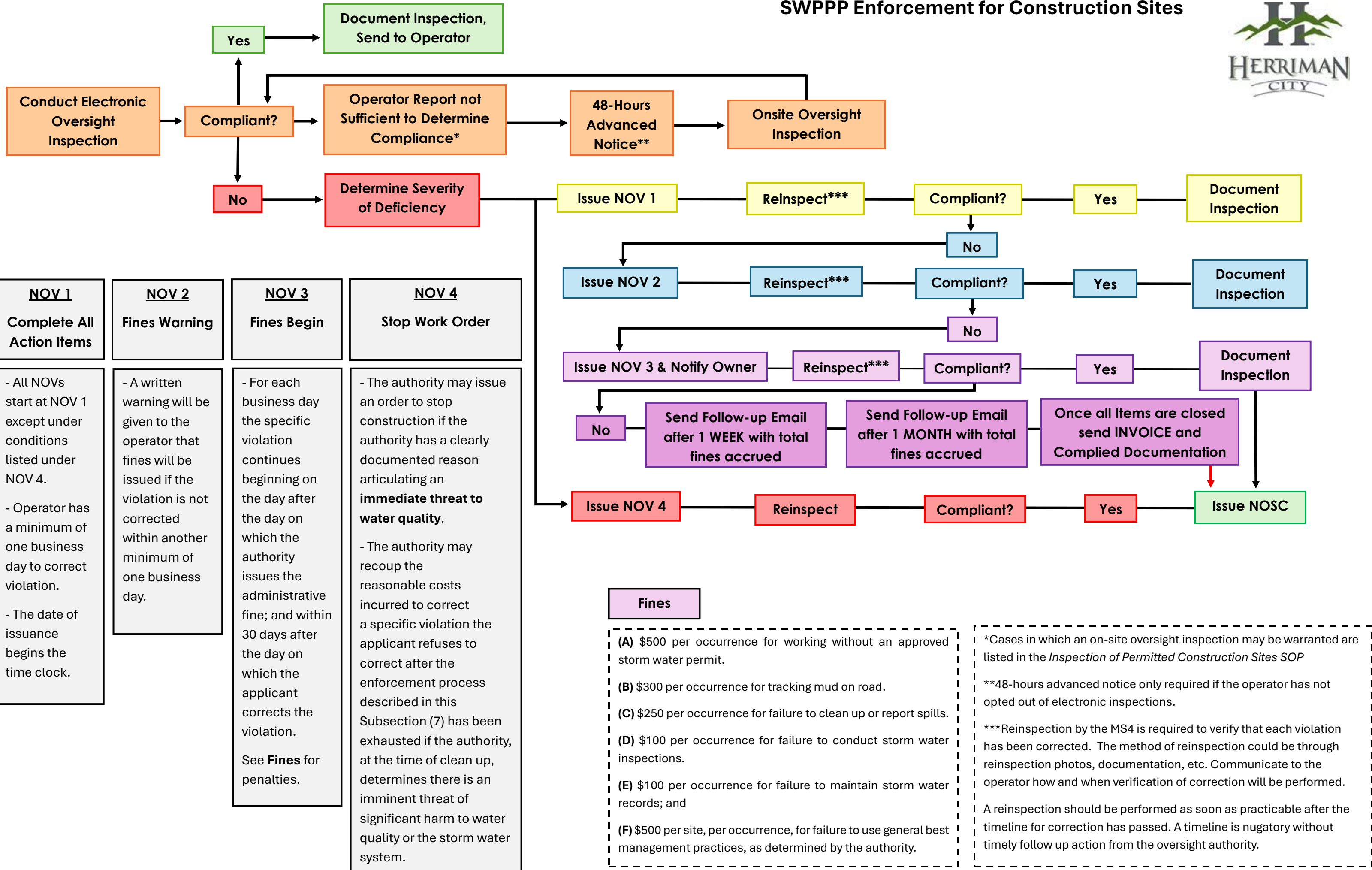
16. Are designated areas for concrete, paint, and other construction material washouts properly managed to prevent contamination of stormwater? (CGP 2.3.4; CPP 2.4.5)

17. Is the operator preventing any visible pollutants, prohibited discharges, or sediment from reaching unprotected storm drains or waters of the state? If an immediate threat is observed (See Utah Code § 19-5-108.3 part 1(g)), call the Environmental Incident Response Line (801) 536-4123. (CGP 1.3, 3.1; CPP 2.3.4)

**Comments:** (Summarize key observations from the inspection, including any violations, corrective actions needed, and any discussions with the site operator):

| Part 2: Storm Water Records Review ( <i>Utah Code § 19-5-108.3 part 7(c)(ii)(E)</i> )<br>( <i>Ensure all information is accurate and up to date</i> )  |       |           |      | List:<br>Yes, No, N/A |
|--|-------|-----------|------|-----------------------|
| 1. Is the SWPPP signage posted at the site entrance, clearly visible, and does it include the required information (e.g., UPDES tracking number and site operator contact information)? (CGP 1.5; CPP 1.9)   |       |           |      |                       |
| 2. Is a copy of the SWPPP available onsite, or is its location clearly indicated on the posted signage and accessible within a reasonable time? (CGP 7.4.1; CPP 4.2.12)?   |       |           |      |                       |
| 3. Are contact names, positions, responsibilities, and telephone numbers of the Storm Water Team and all other responsible parties listed in the SWPPP? (CGP 7.3.1; CPP 4.2.1)   |       |           |      |                       |
| 4. Is there documentation verifying that all key personnel have received appropriate training as required by the CGP/CPP, and are these records included in the SWPPP? (CGP 6.2, 6.3, 2.2.13.f; CPP 4.2.8)   |       |           |      |                       |
| 5. Is the construction activity described in detail, including an estimate of the area to be disturbed, the sequence of construction activities, and a description of all on-site and off-site construction activity support areas? (CGP 7.3.2; CPP 4.2.2)   |       |           |      |                       |
| 6. Does the SWPPP include a detailed site map showing storm drains, slopes, surface drainage patterns, stream buffer zones, stormwater discharge points, construction boundaries, limits of disturbance, surface waters (including the name of receiving waters), and the placement of both structural and non-structural controls? (CGP 7.3.3; CPP 4.2.3)   |       |           |      |                       |
| 7. Does the SWPPP include accurate discharge information, including receiving waters, impaired waters, and high-quality waters? Are there specific measures outlined to prevent the discharge of pollutants into these waters? (CGP 3.2; CPP 2.10.1; 4.2.5)  |       |           |      |                       |
| 8. Does the SWPPP identify all pollution-generating activities (e.g., concrete washout, solid waste disposal) that could affect storm water discharges from the site? (CGP 7.3.2.f; CPP 4.2.6)   |       |           |      |                       |
| 9. Are non-storm water discharges identified and controlled, with descriptions of allowable discharges (e.g., fire hydrant flushing, uncontaminated groundwater) included in the SWPPP? (CGP 7.3.4; CPP 1.3)   |       |           |      |                       |
| 10. Does the SWPPP describe natural buffers and/or equivalent sediment controls (i.e., compliance alternatives)? (CGP 7.3.5.b(1), Appendix A; CPP 4.2.4)   |       |           |      |                       |
| 11. Does the SWPPP include detailed specifications for the placement and installation of all required erosion and sediment control measures (e.g., silt fences, sediment basins, check dams, inlet protection)? (CGP 7.3.5.a; CPP N/A)   |       |           |      |                       |
| 12. Have specific stabilization measures, including both vegetative and non-vegetative practices, as well as the stabilization deadline, been provided in the SWPPP? (CGP 7.3.5.b(6); CPP N/A)   |       |           |      |                       |
| 13. Does the SWPPP include comprehensive spill prevention and response procedures, including personnel responsibilities, cleanup steps, and emergency contact information? (CGP 7.3.5.b(7); CPP N/A)   |       |           |      |                       |
| 14. Does the SWPPP include detailed specifications for the placement and installation of all required pollution prevention control measures, (e.g., material storage, construction waste management, sanitary waste management, and spill prevention measures) (CGP 7.3.5.b(8); CPP 4.2.6, 4.2.7)  |       |           |      |                       |
| 15. Does the SWPPP show the inspection frequency selected for the site, the rain-gauge/weather station location (if applicable), any reduced frequency periods (e.g., frozen or stabilized areas), and the checklists/forms that will be used? (CGP 7.3.6; CPP 3.2, 3.3)   |       |           |      |                       |
| 16. Are routine site inspections being conducted at the selected frequency (i.e., every 7 or 14 days + within 24 hours of a 0.50-inch rainfall)? (CGP 4.2, 4.3, 4.4; CPP 3.2.1; Utah Code § 19-5-108.3 part 7(c)(ii)(D))   |       |           |      |                       |
| 17. Do the inspection reports document all areas and items required for inspection, including any BMP problems found or non-compliance observed? (CGP 4.5, 4.6; CPP 3.4)   |       |           |      |                       |
| 18. Are corrective actions from previous inspections entered in the corrective-action log within 24 hours and resolved or scheduled within 7 days, with the SWPPP and site map updated accordingly? (CGP 5.2, 5.4, 7.5; CPP 3.5, 3.6)  |       |           |      |                       |
| 19. Does the SWPPP include the Notice of Intent (NOI) and a copy of the CGP or Common Plan Permit, along with any additional permits required (e.g., dewatering, stream alteration, FDCP)? (CGP 7.3.9; CPP 4.2.9)  |       |           |      |                       |
| 20. Has the SWPPP been signed by the appropriate responsible corporate officer or duly authorized representative? (CGP 9.9.2; CPP 4.2.10)  |       |           |      |                       |
| 21. Has the operator submitted a complete and accurate NOI, signed by a responsible corporate officer? (CGP 1.4, 9.9.1; CPP 1.4)   |       |           |      |                       |
| Comments:  |       |           |      |                       |
| <p><i>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 into 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.</i></p> |       |           |      |                       |
| Inspector  |       |           |      |                       |
| Print Name   | Title | Signature | Date |                       |

SWPPP Enforcement for Construction Sites



## ***Appendix E – Long Term Storm Water Management in New Development and Redevelopment***

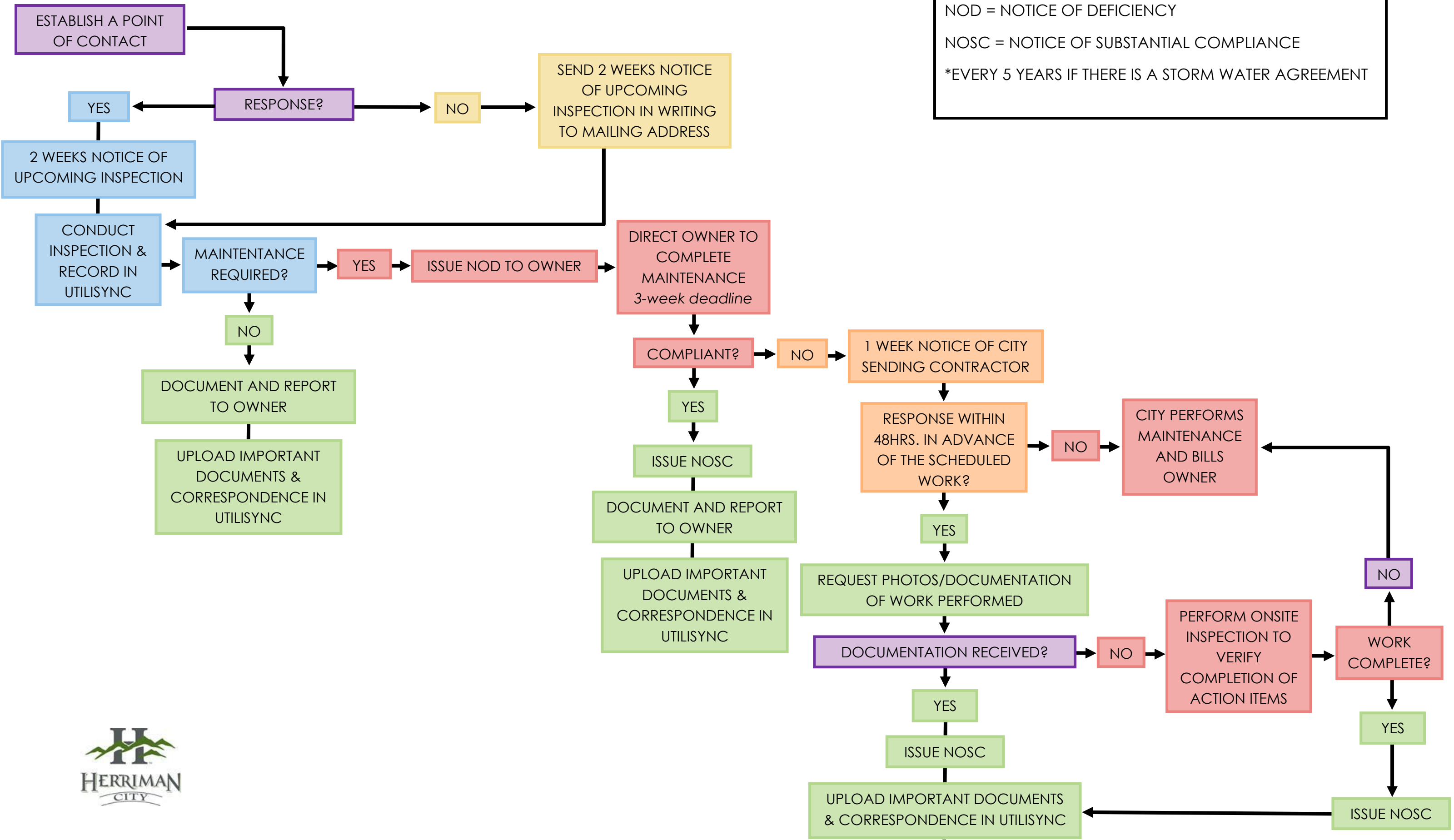
***Storm Water Quality Report—Template***

***Long Term Storm Water Annual Inspection Report***

Long-term Stormwater Maintenance (LTSWM)

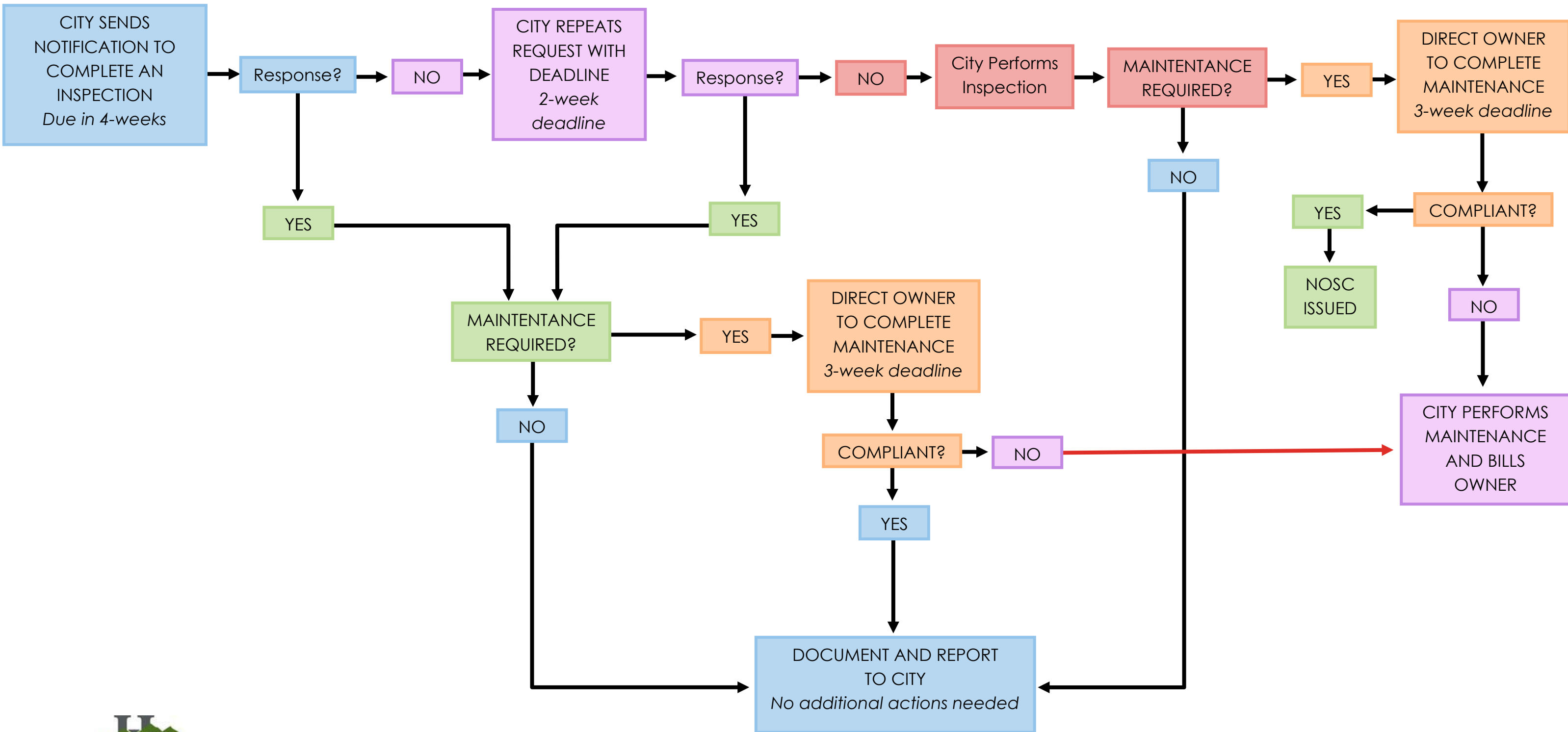
Municipality performs an Inspection every 5\* or 2 years

NOD = NOTICE OF DEFICIENCY  
NOSC = NOTICE OF SUBSTANTIAL COMPLIANCE  
\*EVERY 5 YEARS IF THERE IS A STORM WATER AGREEMENT



## Long-term Stormwater Maintenance (LTSWM)

Owner performs Inspections annually



# Storm Water Quality Report

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project ID: \_\_\_\_\_

Design Engineer: \_\_\_\_\_

Is the project within a watershed that is 303(d) listed? \_\_\_\_\_

If yes:

Name of receiving water(s): \_\_\_\_\_

Listed Impairment(s): \_\_\_\_\_

Does the watershed that has an approved TMDL? \_\_\_\_\_

If yes:

Approved TMDL(s): \_\_\_\_\_

I have reviewed the storm water quality design and find this report to be complete, accurate, and current.

\_\_\_\_\_  
[name], Project Manager

\_\_\_\_\_  
[name], Designate Storm Water Coordinator

\_\_\_\_\_  
[name], Head of Maintenance

[stamp required at final design phase]

\_\_\_\_\_  
[name], Landscape Architect or Equivalent



## Project Information

80<sup>th</sup> Percentile Storm Depth (in): \_\_\_\_\_

### New Development

Area of Land Disturbance (ac): \_\_\_\_\_

Project Impervious Area (ac): \_\_\_\_\_

Project Imperviousness (%): \_\_\_\_\_

Project Volumetric Runoff Coefficient,  $R_v$ : \_\_\_\_\_

80<sup>th</sup> Percentile Volume (cf): \_\_\_\_\_

Predevelopment Hydrologic Condition (cf): \_\_\_\_\_

Project Volume Retention Goal,  $V_{\text{goal}}$  (cf): \_\_\_\_\_

### Redevelopment

Existing Project Impervious Area (ac): \_\_\_\_\_

Proposed Project Impervious Area (ac): \_\_\_\_\_

Change in Impervious Area (%): \_\_\_\_\_

If change in impervious area > 10%:

#### Existing Project Conditions

Imperviousness (%): \_\_\_\_\_

Volumetric Runoff Coefficient,  $R_v$ : \_\_\_\_\_

80<sup>th</sup> Percentile Volume,  $V_1$  (cf): \_\_\_\_\_

#### Proposed Project Conditions

Imperviousness (%): \_\_\_\_\_

Volumetric Runoff Coefficient,  $R_v$ : \_\_\_\_\_

80<sup>th</sup> Percentile Volume,  $V_2$  (cf): \_\_\_\_\_

$V_{\text{goal}} = V_2 - V_1 =$  \_\_\_\_\_

## Subsurface Information

### Groundwater

Depth to Groundwater (ft): \_\_\_\_\_

Historical High Depth to Groundwater if known (ft): \_\_\_\_\_

Source: \_\_\_\_\_

Groundwater Contamination at Site: \_\_\_\_\_

### Soil Information

Infiltration Rate (in/hr): \_\_\_\_\_

Hydrologic Soil Group: \_\_\_\_\_

Source: \_\_\_\_\_

Soil Contamination at Site: \_\_\_\_\_

## Drinking Water

Within Drinking Water Source Area Protection: \_\_\_\_\_

## Additional Relevant Site Information

## LID Drainage Areas

Add additional rows as needed.

| Contributing Drainage Area | Area (ac) | Impervious Area (ac) | Imperviousness (%) | Volumetric Runoff Coefficient, $R_v$ | Water Quality Volume, WQV (cf) |
|----------------------------|-----------|----------------------|--------------------|--------------------------------------|--------------------------------|
| CDA 1                      |           |                      |                    |                                      |                                |
| CDA 2                      |           |                      |                    |                                      |                                |
| CDA 3                      |           |                      |                    |                                      |                                |
| CDA 4                      |           |                      |                    |                                      |                                |
| Total WQV (cf)             |           |                      |                    |                                      |                                |

## LID BMP Design

Add additional rows as needed.

| Contributing Drainage Area | LID BMP Type | Water Quality Volume, WQV (cf) | Runoff Retained (cf) | Percent of Runoff Captured (%) |
|----------------------------|--------------|--------------------------------|----------------------|--------------------------------|
| CDA1                       |              |                                |                      |                                |
| CDA 2                      |              |                                |                      |                                |
| CDA 3                      |              |                                |                      |                                |
| CDA 4                      |              |                                |                      |                                |
| Total Volume Retained (cf) |              |                                |                      |                                |

Percent of  $V_{\text{goal}}$  captured by LID BMPs: \_\_\_\_\_%

If 100% of  $V_{\text{goal}}$  is not captured, document and provide narrative of technical infeasibilities and/or alternate compliance measures below:

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Describe additional storm water quality measures incorporated into the site:

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# Long-Term Storm Water Maintenance Report

Insert Development Name

Address

City, State, Zip Code

Date

## PURPOSE AND RESPONSIBILITY

This Maintenance Report serves to assure management and maintenance of a private storm water system as required by the Clean Water Act and resultant local regulations.

These storm water facilities are designed to manage the collection and distribution/infiltration and the quality of runoff from storm events. Annual reporting with the associated inspection provides for an ongoing awareness of their effectiveness and the general condition of the facilities and their function.

Please respond to the function and condition of the site facilities for each of the following aspects or areas of concern as a measure of its success in meeting its designed pollution protection of storm water.

### 1. Parking, Sidewalk, impervious area

Sediment, leaves, debris, spilt fluids or other waste that collects on parking lots and sidewalks will be carried by runoff, increasing the pollution of downstream waters.

Specific Management/Maintenance activities to address this pollution have been; \_\_\_\_\_

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### 2. Landscaping

Landscaping is often designed to capture and infiltrate storm water as a desired effect of storm water management. However, the fall of leaves along with landscape operations that produce grass clippings, sticks, dirt, mulch, fertilizers, pesticides and other pollutants that are collected in the storm water are a great impairment to that water. The primary pollutant impairing the Jordan River is decaying organic material which robs the water body of its dissolved oxygen required to sustain fish life.

Specific Management/Maintenance activities to address this pollution have been; \_\_\_\_\_

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### 3. Storm water conveyance and storage

Storm drain inlet boxes, pipe, detention ponds, etc. generally have some storm water treatment or pollution prevention as part of their design. The capture of floating trash and also the settling of heavier sediment particles to cleanout points, are a couple of examples.

Specific Management/Maintenance activities (litter retrieval, vactoring, mosquito abatement, illicit discharge detection, grease trap/oil water separator cleanout) to support this cleanup have been; \_\_\_\_\_

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### 4. Waste Management

Dumpsters and trash receptacles with lids are intended to prevent precipitation exposure minimizing the uptake of trash contaminants into the storm water. Lids will also prevent the light weight trash migrating in the wind. Waste handling is necessary part of almost all sites and requires diligent attention to not become a source of storm water pollution.

Specific Management/Maintenance activities to address this pollution have been; \_\_\_\_\_

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### 5. Construction, Mechanical/Utility Systems & Outside Equipment/Storage

Chemicals and oils are a pollution source that may be a part of mechanical and utility systems existing on site. There may also be the occasional construction or repair activity with associated equipment and materials on site which pose a pollution threat if not given proper storm water consideration.

Specific Management/Maintenance activities to address this pollution have been; \_\_\_\_\_

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## Maintenance Log

[illegible]

## ***Appendix F – Pollution Prevention and Good Housekeeping for Municipal Operations***

***List of City Owned or Operated Facilities***

***Common Pollutants at City Owned or Operated Facilities***

***Butterfield Park/Public Works Yard SWPPP***

***K9 Memorial Dog Park SWPPP***

***The Cove Pond SWPPP***

***Blackridge Reservoir SWPPP***

***Monthly Visual Inspection SOP***

***Visual Inspection Log***

***Semi Annual Comprehensive Inspections SOP***

***Semi-Annual Comprehensive Inspection Form***

***Annual Visual Inspection SOP***

***Annual Wet Weather Visual Inspection Form***

***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***

***Maintenance Logs***

***City Owned Floor Drain Maps***

***Structural Assessment Form***



# Herriman City Facilities

| Name  | Address                                    | Priority | Reason   |
|---|--|----------|--|
| Herriman City Hall                                | 5355 W Herriman Main Street, Herriman City | Low      |  |
| Herriman Community Center                         | 13011 S. Pioneer Street, Herriman City     | Low      |  |
| WM Butterfield Park (Public Works Yard)           | 6212 West 14200 S, Herriman City           | High     | Public Works Yard in close proximity to Rose Creek |
| Herriman City Cemetery                            | 12450 S 6000 W, Herriman City              | Low      |  |
| Herriman Community Gardens                        | 12707 S 6000 W, Herriman City              | Low      |  |
| Copper Creek Restrooms                            | 12116 S Midas Gold, Herriman City          | Low      |  |
| Tuscany Restrooms                                 | 12705 S Bellagio Way, Herriman City        | Low      |  |
| Umbria Restrooms                                  | 12680 S Brundisi Way, Herriman City        | Low      |  |
| Main Street Restrooms                             | 5950 W Main Street, Herriman City          | Low      |  |
| Skate Park Restrooms                              | 5931 W 13400 S, Herriman City              | Low      |  |
| Rose Crest Restrooms                              | 12832 S 5600 W, Herriman City              | Low      |  |
| Splash Pad Restrooms                              | 14087 S 5600 W, Herriman City              | Low      |  |
| Black Ridge Restrooms                             | 15000 S Ashland Ridge, Herriman City       | Low      |  |
| Cove Restrooms                                    | 6891 W Rose Canyon Rd, Herriman City       | Low      |  |
| Crane Park Restrooms                              | 5355 W Herriman Main Street, Herriman City | Low      |  |
| Crane Park Auxiliary Building and Restrooms       | 5355 W Herriman Main Street, Herriman City | Low      |  |
| Crane Park Bandstand                              | 5355 W Herriman Main Street, Herriman City | Low      |  |
| Crane Park Storage Building                       | 5355 W Herriman Main Street, Herriman City | Low      |  |
| Prairie Oaks Park Restrooms                       | 13000 S 7300 W, Herriman City              | Low      |  |
| L&L Hamilton Park Restrooms                       | 13475 S 6400 W, Herriman City              | Low      |  |
| (2) HP Tanks/Well 3                               | Address not provided for security reasons  | Low      |  |
| Well 2 Secondary                                  | Address not provided for security reasons  | Low      |  |
| Well 4  | Address not provided for security reasons  | Low      |  |
| Arnold Hollow Spring                              | Address not provided for security reasons  | Low      |  |
| Rosecrest Tank 1MG/Rosecrest Booster Pump Station | Address not provided for security reasons  | Low      |  |
| Hardlick Tank 3MG/Lookout Ridge Booster Pump      | Address not provided for security reasons  | Low      |  |
| Hamilton Well                                     | Address not provided for security reasons  | Low      |  |
| Well 1/Zone 4 North Booster Pump                  | Address not provided for security reasons  | Low      |  |
| Cove Tank 1MG                                     | Address not provided for security reasons  | Low      |  |
| Lookout Ridge Tank                                | Address not provided for security reasons  | Low      |  |
| Zone 4 North Tank                                 | Address not provided for security reasons  | Low      |  |
| Black Ridge Reservoir                             | Address not provided for security reasons  | Low      |  |

## Herriman City Facilities

|                                  |   |     |  |
|----------------------------------|---|-----|--|
| Tuscany Irrigation Well          | Address not provided for security reasons | Low |  |
| Stokes Well                      | Address not provided for security reasons | Low |  |
| Rose Canyon Booster Pump Station | Address not provided for security reasons | Low |  |
| HC 2 Booster Pump Station        | Address not provided for security reasons | Low |  |
| Secondary Booster                | Address not provided for security reasons | Low |  |

## Assessment of City-owned facilities

| WM BUTTERFIELD PARK (P.W. YARD) |                 | HERRIMAN CITY HALL |                 |
|---------------------------------|-----------------|--------------------|-----------------|
| HIGH PRIORITY                   |                 | LOW PRIORITY       |                 |
| POLUTANT                        | POTENTIAL LEVEL | POLUTANT           | POTENTIAL LEVEL |
| SEDIMENT                        | MEDIUM          | SEDIMENT           | LOW             |
| NUTRIENTS                       | LOW             | NUTRIENTS          | LOW             |
| METALS                          | LOW             | METALS             | LOW             |
| HYDROCARBONS                    | MEDIUM          | HYDROCARBONS       | LOW             |
| PESTICIDES                      | LOW             | PESTICIDES         | LOW             |
| CHLORIDES                       | HIGH            | CHLORIDES          | LOW             |
| TRASH                           | MEDIUM          | TRASH              | LOW             |
| BACTERIA                        | LOW             | BACTERIA           | LOW             |
| CHLORINE                        | LOW             | CHLORINE           | LOW             |
| ORGANIC MATTER                  | MEDIUM          | ORGANIC MATTER     | LOW             |

| HERRIMAN COMMUNITY CENTER |                 | HERRIMAN CITY CEMETERY |                 |
|---------------------------|-----------------|------------------------|-----------------|
| LOW PRIORITY              |                 | LOW PRIORITY           |                 |
| POLUTANT                  | POTENTIAL LEVEL | POLUTANT               | POTENTIAL LEVEL |
| SEDIMENT                  | LOW             | SEDIMENT               | LOW             |
| NUTRIENTS                 | LOW             | NUTRIENTS              | LOW             |
| METALS                    | LOW             | METALS                 | LOW             |
| HYDROCARBONS              | LOW             | HYDROCARBONS           | LOW             |
| PESTICIDES                | LOW             | PESTICIDES             | LOW             |
| CHLORIDES                 | LOW             | CHLORIDES              | LOW             |
| TRASH                     | LOW             | TRASH                  | LOW             |
| BACTERIA                  | LOW             | BACTERIA               | LOW             |
| CHLORINE                  | LOW             | CHLORINE               | LOW             |
| ORGANIC MATTER            | LOW             | ORGANIC MATTER         | LOW             |

| HERRIMAN COMMUNITY GARDENS |                 | COPPER CREEK RESTROOMS |                 |
|----------------------------|-----------------|------------------------|-----------------|
| LOW PRIORITY               |                 | LOW PRIORITY           |                 |
| POLUTANT                   | POTENTIAL LEVEL | POLUTANT               | POTENTIAL LEVEL |
| SEDIMENT                   | LOW             | SEDIMENT               | LOW             |
| NUTRIENTS                  | LOW             | NUTRIENTS              | LOW             |
| METALS                     | LOW             | METALS                 | LOW             |
| HYDROCARBONS               | LOW             | HYDROCARBONS           | LOW             |
| PESTICIDES                 | LOW             | PESTICIDES             | LOW             |
| CHLORIDES                  | LOW             | CHLORIDES              | LOW             |
| TRASH                      | LOW             | TRASH                  | LOW             |
| BACTERIA                   | LOW             | BACTERIA               | LOW             |
| CHLORINE                   | LOW             | CHLORINE               | LOW             |
| ORGANIC MATTER             | LOW             | ORGANIC MATTER         | LOW             |

## Assessment of City-owned facilities

| BLACK RIDGE RESTROOMS |                 | COVE RESTROOMS |                 |
|-----------------------|-----------------|----------------|-----------------|
| LOW PRIORITY          |                 | LOW PRIORITY   |                 |
| POLUTANT              | POTENTIAL LEVEL | POLUTANT       | POTENTIAL LEVEL |
| SEDIMENT              | LOW             | SEDIMENT       | LOW             |
| NUTRIENTS             | LOW             | NUTRIENTS      | LOW             |
| METALS                | LOW             | METALS         | LOW             |
| HYDROCARBONS          | LOW             | HYDROCARBONS   | LOW             |
| PESTICIDES            | LOW             | PESTICIDES     | LOW             |
| CHLORIDES             | LOW             | CHLORIDES      | LOW             |
| TRASH                 | LOW             | TRASH          | LOW             |
| BACTERIA              | LOW             | BACTERIA       | LOW             |
| CHLORINE              | LOW             | CHLORINE       | LOW             |
| ORGANIC MATTER        | LOW             | ORGANIC MATTER | LOW             |

| CRANE PARK RESTROOMS |                 | CRANE PARK AUX. BUILDING/RESTROOMS |                 |
|----------------------|-----------------|------------------------------------|-----------------|
| LOW PRIORITY         |                 | LOW PRIORITY                       |                 |
| POLUTANT             | POTENTIAL LEVEL | POLUTANT                           | POTENTIAL LEVEL |
| SEDIMENT             | LOW             | SEDIMENT                           | LOW             |
| NUTRIENTS            | LOW             | NUTRIENTS                          | LOW             |
| METALS               | LOW             | METALS                             | LOW             |
| HYDROCARBONS         | LOW             | HYDROCARBONS                       | LOW             |
| PESTICIDES           | LOW             | PESTICIDES                         | LOW             |
| CHLORIDES            | LOW             | CHLORIDES                          | LOW             |
| TRASH                | LOW             | TRASH                              | LOW             |
| BACTERIA             | LOW             | BACTERIA                           | LOW             |
| CHLORINE             | LOW             | CHLORINE                           | LOW             |
| ORGANIC MATTER       | LOW             | ORGANIC MATTER                     | LOW             |

| CRANE PARK BANDSTAND |                 | CRANE PARK STORAGE BUILDING |                 |
|----------------------|-----------------|-----------------------------|-----------------|
| LOW PRIORITY         |                 | LOW PRIORITY                |                 |
| POLUTANT             | POTENTIAL LEVEL | POLUTANT                    | POTENTIAL LEVEL |
| SEDIMENT             | LOW             | SEDIMENT                    | LOW             |
| NUTRIENTS            | LOW             | NUTRIENTS                   | LOW             |
| METALS               | LOW             | METALS                      | LOW             |
| HYDROCARBONS         | LOW             | HYDROCARBONS                | LOW             |
| PESTICIDES           | LOW             | PESTICIDES                  | LOW             |
| CHLORIDES            | LOW             | CHLORIDES                   | LOW             |
| TRASH                | LOW             | TRASH                       | LOW             |
| BACTERIA             | LOW             | BACTERIA                    | LOW             |
| CHLORINE             | LOW             | CHLORINE                    | LOW             |
| ORGANIC MATTER       | LOW             | ORGANIC MATTER              | LOW             |

## Assessment of City-owned facilities

| HAMILTON WELL  |                 | WELL 1/ZONE 4 NORTH BOOSTER PUMP |                 |
|----------------|-----------------|----------------------------------|-----------------|
| LOW PRIORITY   |                 | LOW PRIORITY                     |                 |
| POLUTANT       | POTENTIAL LEVEL | POLUTANT                         | POTENTIAL LEVEL |
| SEDIMENT       | LOW             | SEDIMENT                         | LOW             |
| NUTRIENTS      | LOW             | NUTRIENTS                        | LOW             |
| METALS         | LOW             | METALS                           | LOW             |
| HYDROCARBONS   | LOW             | HYDROCARBONS                     | LOW             |
| PESTICIDES     | LOW             | PESTICIDES                       | LOW             |
| CHLORIDES      | LOW             | CHLORIDES                        | LOW             |
| TRASH          | LOW             | TRASH                            | LOW             |
| BACTERIA       | LOW             | BACTERIA                         | LOW             |
| CHLORINE       | LOW             | CHLORINE                         | LOW             |
| ORGANIC MATTER | LOW             | ORGANIC MATTER                   | LOW             |

| COVE TANK 1MG  |                 | LOOKOUT RIDGE TANK |                 |
|----------------|-----------------|--------------------|-----------------|
| LOW PRIORITY   |                 | LOW PRIORITY       |                 |
| POLUTANT       | POTENTIAL LEVEL | POLUTANT           | POTENTIAL LEVEL |
| SEDIMENT       | LOW             | SEDIMENT           | LOW             |
| NUTRIENTS      | LOW             | NUTRIENTS          | LOW             |
| METALS         | LOW             | METALS             | LOW             |
| HYDROCARBONS   | LOW             | HYDROCARBONS       | LOW             |
| PESTICIDES     | LOW             | PESTICIDES         | LOW             |
| CHLORIDES      | LOW             | CHLORIDES          | LOW             |
| TRASH          | LOW             | TRASH              | LOW             |
| BACTERIA       | LOW             | BACTERIA           | LOW             |
| CHLORINE       | LOW             | CHLORINE           | LOW             |
| ORGANIC MATTER | LOW             | ORGANIC MATTER     | LOW             |

| ZONE 4 NORTH TANK |                 | BLACK RIDGE RESERVOIR |                 |
|-------------------|-----------------|-----------------------|-----------------|
| LOW PRIORITY      |                 | LOW PRIORITY          |                 |
| POLUTANT          | POTENTIAL LEVEL | POLUTANT              | POTENTIAL LEVEL |
| SEDIMENT          | LOW             | SEDIMENT              | LOW             |
| NUTRIENTS         | LOW             | NUTRIENTS             | LOW             |
| METALS            | LOW             | METALS                | LOW             |
| HYDROCARBONS      | LOW             | HYDROCARBONS          | LOW             |
| PESTICIDES        | LOW             | PESTICIDES            | LOW             |
| CHLORIDES         | LOW             | CHLORIDES             | LOW             |
| TRASH             | LOW             | TRASH                 | LOW             |
| BACTERIA          | LOW             | BACTERIA              | LOW             |
| CHLORINE          | LOW             | CHLORINE              | LOW             |
| ORGANIC MATTER    | LOW             | ORGANIC MATTER        | LOW             |

## Assessment of City-owned facilities

| TUSCANY RESTROOMS |                 | UMBRIA RESTROOMS |                 |
|-------------------|-----------------|------------------|-----------------|
| LOW PRIORITY      |                 | LOW PRIORITY     |                 |
| POLUTANT          | POTENTIAL LEVEL | POLUTANT         | POTENTIAL LEVEL |
| SEDIMENT          | LOW             | SEDIMENT         | LOW             |
| NUTRIENTS         | LOW             | NUTRIENTS        | LOW             |
| METALS            | LOW             | METALS           | LOW             |
| HYDROCARBONS      | LOW             | HYDROCARBONS     | LOW             |
| PESTICIDES        | LOW             | PESTICIDES       | LOW             |
| CHLORIDES         | LOW             | CHLORIDES        | LOW             |
| TRASH             | LOW             | TRASH            | LOW             |
| BACTERIA          | LOW             | BACTERIA         | LOW             |
| CHLORINE          | LOW             | CHLORINE         | LOW             |
| ORGANIC MATTER    | LOW             | ORGANIC MATTER   | LOW             |

| MAIN ST. RESTROOMS |                 | SKATE PARK RESTROOMS |                 |
|--------------------|-----------------|----------------------|-----------------|
| LOW PRIORITY       |                 | LOW PRIORITY         |                 |
| POLUTANT           | POTENTIAL LEVEL | POLUTANT             | POTENTIAL LEVEL |
| SEDIMENT           | LOW             | SEDIMENT             | LOW             |
| NUTRIENTS          | LOW             | NUTRIENTS            | LOW             |
| METALS             | LOW             | METALS               | LOW             |
| HYDROCARBONS       | LOW             | HYDROCARBONS         | LOW             |
| PESTICIDES         | LOW             | PESTICIDES           | LOW             |
| CHLORIDES          | LOW             | CHLORIDES            | LOW             |
| TRASH              | LOW             | TRASH                | LOW             |
| BACTERIA           | LOW             | BACTERIA             | LOW             |
| CHLORINE           | LOW             | CHLORINE             | LOW             |
| ORGANIC MATTER     | LOW             | ORGANIC MATTER       | LOW             |

| ROSE CREST RESTROOMS |                 | SPLASH PAD RESTROOMS |                 |
|----------------------|-----------------|----------------------|-----------------|
| LOW PRIORITY         |                 | LOW PRIORITY         |                 |
| POLUTANT             | POTENTIAL LEVEL | POLUTANT             | POTENTIAL LEVEL |
| SEDIMENT             | LOW             | SEDIMENT             | LOW             |
| NUTRIENTS            | LOW             | NUTRIENTS            | LOW             |
| METALS               | LOW             | METALS               | LOW             |
| HYDROCARBONS         | LOW             | HYDROCARBONS         | LOW             |
| PESTICIDES           | LOW             | PESTICIDES           | LOW             |
| CHLORIDES            | LOW             | CHLORIDES            | LOW             |
| TRASH                | LOW             | TRASH                | LOW             |
| BACTERIA             | LOW             | BACTERIA             | LOW             |
| CHLORINE             | LOW             | CHLORINE             | LOW             |
| ORGANIC MATTER       | LOW             | ORGANIC MATTER       | LOW             |

## Assessment of City-owned facilities

| (2) HP TANKS/WELL 3 |                 | WELL 2 SECONDARY |                 |
|---------------------|-----------------|------------------|-----------------|
| LOW PRIORITY        |                 | LOW PRIORITY     |                 |
| POLUTANT            | POTENTIAL LEVEL | POLUTANT         | POTENTIAL LEVEL |
| SEDIMENT            | LOW             | SEDIMENT         | LOW             |
| NUTRIENTS           | LOW             | NUTRIENTS        | LOW             |
| METALS              | LOW             | METALS           | LOW             |
| HYDROCARBONS        | LOW             | HYDROCARBONS     | LOW             |
| PESTICIDES          | LOW             | PESTICIDES       | LOW             |
| CHLORIDES           | LOW             | CHLORIDES        | LOW             |
| TRASH               | LOW             | TRASH            | LOW             |
| BACTERIA            | LOW             | BACTERIA         | LOW             |
| CHLORINE            | LOW             | CHLORINE         | LOW             |
| ORGANIC MATTER      | LOW             | ORGANIC MATTER   | LOW             |

| WELL 4         |                 | ARNOLD HOLLOW SPRING |                 |
|----------------|-----------------|----------------------|-----------------|
| LOW PRIORITY   |                 | LOW PRIORITY         |                 |
| POLUTANT       | POTENTIAL LEVEL | POLUTANT             | POTENTIAL LEVEL |
| SEDIMENT       | LOW             | SEDIMENT             | LOW             |
| NUTRIENTS      | LOW             | NUTRIENTS            | LOW             |
| METALS         | LOW             | METALS               | LOW             |
| HYDROCARBONS   | LOW             | HYDROCARBONS         | LOW             |
| PESTICIDES     | LOW             | PESTICIDES           | LOW             |
| CHLORIDES      | LOW             | CHLORIDES            | LOW             |
| TRASH          | LOW             | TRASH                | LOW             |
| BACTERIA       | LOW             | BACTERIA             | LOW             |
| CHLORINE       | LOW             | CHLORINE             | LOW             |
| ORGANIC MATTER | LOW             | ORGANIC MATTER       | LOW             |

| ROSECREST TANK 1MG/BOOSTER PUMP STATION |                 | HARDLICK TANK 3MG/LOOKOUT RIDGE BOOSTER |                 |
|---|-----------------|---|-----------------|
| LOW PRIORITY                            |                 | LOW PRIORITY                            |                 |
| POLUTANT                                | POTENTIAL LEVEL | POLUTANT                                | POTENTIAL LEVEL |
| SEDIMENT                                | LOW             | SEDIMENT                                | LOW             |
| NUTRIENTS                               | LOW             | NUTRIENTS                               | LOW             |
| METALS                                  | LOW             | METALS                                  | LOW             |
| HYDROCARBONS                            | LOW             | HYDROCARBONS                            | LOW             |
| PESTICIDES                              | LOW             | PESTICIDES                              | LOW             |
| CHLORIDES                               | LOW             | CHLORIDES                               | LOW             |
| TRASH                                   | LOW             | TRASH                                   | LOW             |
| BACTERIA                                | LOW             | BACTERIA                                | LOW             |
| CHLORINE                                | LOW             | CHLORINE                                | LOW             |
| ORGANIC MATTER                          | LOW             | ORGANIC MATTER                          | LOW             |

## Assessment of City-owned facilities

| TUSCANY IRRIGATION WELL |                 | STOKES WELL    |                 |
|-------------------------|-----------------|----------------|-----------------|
| LOW PRIORITY            |                 | LOW PRIORITY   |                 |
| POLUTANT                | POTENTIAL LEVEL | POLUTANT       | POTENTIAL LEVEL |
| SEDIMENT                | LOW             | SEDIMENT       | LOW             |
| NUTRIENTS               | LOW             | NUTRIENTS      | LOW             |
| METALS                  | LOW             | METALS         | LOW             |
| HYDROCARBONS            | LOW             | HYDROCARBONS   | LOW             |
| PESTICIDES              | LOW             | PESTICIDES     | LOW             |
| CHLORIDES               | LOW             | CHLORIDES      | LOW             |
| TRASH                   | LOW             | TRASH          | LOW             |
| BACTERIA                | LOW             | BACTERIA       | LOW             |
| CHLORINE                | LOW             | CHLORINE       | LOW             |
| ORGANIC MATTER          | LOW             | ORGANIC MATTER | LOW             |

| ROSE CANYON BOOSTER PUMP STATION |                 | HC 2 BOOSTER PUMP STATION |                 |
|----------------------------------|-----------------|---------------------------|-----------------|
| LOW PRIORITY                     |                 | LOW PRIORITY              |                 |
| POLUTANT                         | POTENTIAL LEVEL | POLUTANT                  | POTENTIAL LEVEL |
| SEDIMENT                         | LOW             | SEDIMENT                  | LOW             |
| NUTRIENTS                        | LOW             | NUTRIENTS                 | LOW             |
| METALS                           | LOW             | METALS                    | LOW             |
| HYDROCARBONS                     | LOW             | HYDROCARBONS              | LOW             |
| PESTICIDES                       | LOW             | PESTICIDES                | LOW             |
| CHLORIDES                        | LOW             | CHLORIDES                 | LOW             |
| TRASH                            | LOW             | TRASH                     | LOW             |
| BACTERIA                         | LOW             | BACTERIA                  | LOW             |
| CHLORINE                         | LOW             | CHLORINE                  | LOW             |
| ORGANIC MATTER                   | LOW             | ORGANIC MATTER            | LOW             |

| SECONDARY BOOSTER |                 |
|-------------------|-----------------|
| LOW PRIORITY      |                 |
| POLUTANT          | POTENTIAL LEVEL |
| SEDIMENT          | LOW             |
| NUTRIENTS         | LOW             |
| METALS            | LOW             |
| HYDROCARBONS      | LOW             |
| PESTICIDES        | LOW             |
| CHLORIDES         | LOW             |
| TRASH             | LOW             |
| BACTERIA          | LOW             |
| CHLORINE          | LOW             |
| ORGANIC MATTER    | LOW             |



# **SWPPP**

*For*

**Butterfield Park Public Works Facility**

**6212 Butterfield Park Way**

**Herriman City, 84096**



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**1. PURPOSE**

**2. POLLUTANTS**

**3. OPERATIONS AND BEST MANAGEMENT PRACTICES**

**4. TRAINING**

**5. RECORD KEEPING**

**6. APPENDICES**

## 1. PURPOSE

As required by the Clean Water Act (1972) and the State of Utah Department of Environmental Quality, Herriman City as part of UPDES permit number UTS000001 is required to develop and maintain systems to minimize pollutants from entering the waters of the State.

The purpose is to identify potential stormwater pollution sources located at 6212 Butterfield Parkway (Butterfield Park Public Works Yard) and minimize the potential for pollutants reaching nearby Rose Creek. The SWPPP includes SOPs and daily operations to accomplish this.

## 2. POLLUTANTS

|                             | Sediment | Nutrients | Metals | Pesticides | Hydrocarbons | Bacteria | Trash | Chlorides |
|-----------------------------|----------|-----------|--------|------------|--------------|----------|-------|-----------|
| Parking and Paved areas     | /        | /         | /      | /          | /            | /        | /     | /         |
| Landscaped areas            | /        | /         |        | /          |              | /        |       |           |
| Fueling area                |          |           | /      |            | /            |          |       |           |
| Salt Operations             |          |           |        |            | /            |          |       | /         |
| Spills                      | /        | /         | /      | /          | /            | /        | /     | /         |
| Equipment Storage           | /        |           | /      |            | /            |          | /     |           |
| Stormwater System           | /        | /         | /      | /          | /            | /        | /     | /         |
| Vehicle Maintenance         | /        |           | /      |            | /            |          |       |           |
| Vactor & Sweeper Operations | /        | /         | /      |            | /            | /        | /     |           |
| Material Storage            | /        | /         | /      | /          | /            | /        | /     | /         |
| Dumpsters                   |          | /         | /      | /          | /            | /        | /     | /         |
| Car Wash                    | /        |           | /      |            | /            | /        | /     | /         |
|                             |          |           |        |            |              |          |       |           |

### **3. OPERATIONS AND BEST MANAGEMENT PRACTICES**

- **Parking and Paved Areas**

The Public Works Yard located at Butterfield Park consists of pervious and impervious surfaces. Equipment and vehicles are primarily stored on paved areas of the yard. Stormwater runoff flows to the North and East and is conveyed by concrete waterways, asphalt, and other impervious surfaces. Paved areas are maintained regularly by means of sweeping and sump cleaning to minimize pollutants from entering the stormwater system. Parking lot and Sump Maintenance, along with Monthly Visual inspection SOPs are used to manage these pollutants.

- **Landscaped Areas**

Approximately forty percent of this property is landscaped with grass, trees, and mulch. Pesticides and fertilizers are an important part of maintaining the health of the plants. If improperly applied or stored these chemicals can contribute to stormwater pollution. Pesticides Herbicides and Fertilizers SOP is used to manage these pollutants.

- **Fueling Area**

The fueling area contains both unleaded gasoline and diesel for equipment use. It is equipped with a secondary containment and a spill kit. It is uncovered at this time. Fueling Procedures SOP is used to manage these pollutants.

- **Snow Removal and Salt**

This facility is equipped with a covered salt storage bay located in the North lower yard. The salt storage bay holds five hundred tons of salt. East of the salt storage is the brine making and storage area with secondary containment. There are two, five thousand gallon brine storage tanks inside the secondary containment. Salt Storage, Snow Removal SOPs are used to manage these pollutants.

- **Spills**

Spills if not properly contained and cleaned up can contribute to pollutants entering our water ways. Spill kits are located in the mechanic shop bay. Dry absorbent is located in the mechanic bay as well as the fueling area. Spill Management SOP is used to manage these pollutants.

- **Equipment Storage**

Most vehicles and machinery are stored outside with no covering. Leaking fluids and road debris can be a source of pollution when exposed to weather. Monthly visual inspections plus monthly vehicle inspections help to identify pollutants from vehicles. Sediments and road debris should be washed from vehicle before storage. Monthly Visual Inspections, Vehicle and Equipment Storage, Vehicle and Equipment Washing, Parking lot and Drain Sump Maintenance SOPs are used to manage these pollutants.

- **Stormwater System**

The stormwater system consists of concrete water ways and pipe that flow to the North and East. Stormwater runs into a detention pond in the North East corner of the property before continuing to the East outfall. Offsite stormwater flows into Butterfield Park from Butterfield Parkway and Fort Pierce Way to the south. Stormwater from the unpaved west side of park runs to the north and collects in a swale before entering Rose Creek. The lower yard contains three catch basins connected with perforated pipe which do not connect to the storm drain system. Parking Lot and Sump Maintenance, Monthly Visual Inspection, Semi-Annual Inspection, Wet Weather Screening SOPs are used to manage these pollutants.

- **Vehicle Maintenance**

Any outdoor vehicle maintenance can be a significant source of pollution. All vehicle and equipment maintenance should be performed inside fleet shops unless it is too large to fit inside. If equipment must be serviced outside, containment methods are to be used to prevent pollutants. Vehicle and Equipment Maintenance SOP is used to manage these pollutants.

- **Vactor and Sweeper Operations**

This facility is equipped with a sludge pit and drying beds used to de-water sweepings and vactor waste. The sludge pit is connected to the sanitary sewer and all materials are contained within the sludge pit area. Sweepers and Vactors are washed in the sludge pit. Dry sweepings are hauled to the land fill for disposal. Street Sweeping, Catch Basin Cleaning SOPs are used to manage these pollutants.

- **Material Storage**

Materials stored outside can be a source of pollutants. Wind and weather can cause materials to move off site. Dirt and gravel materials are stored outside in concrete walled containment bins. Material Storage SOP is used to manage these pollutants.

- **Dumpsters**

Garbage is a considerable pollutant if not properly managed. This facility stores eight roll off dumpsters and two five yard dumpsters. Dumpster and garbage Storage SOP is used to manage these pollutants.

- **Car Wash**

The car wash located at this facility drains into the sanitary sewer. All vehicles and equipment shall be washed inside the bay. Vehicle and Equipment Washing SOP is used to manage these pollutants.

## **4. TRAINING**

Herriman City has a training program in place to ensure employees know and understand SOPs associated with Stormwater protection.

## **5. RECORD KEEPING**

All inspections and maintenance of the Public Works Yard are filed and kept with the SWMP.

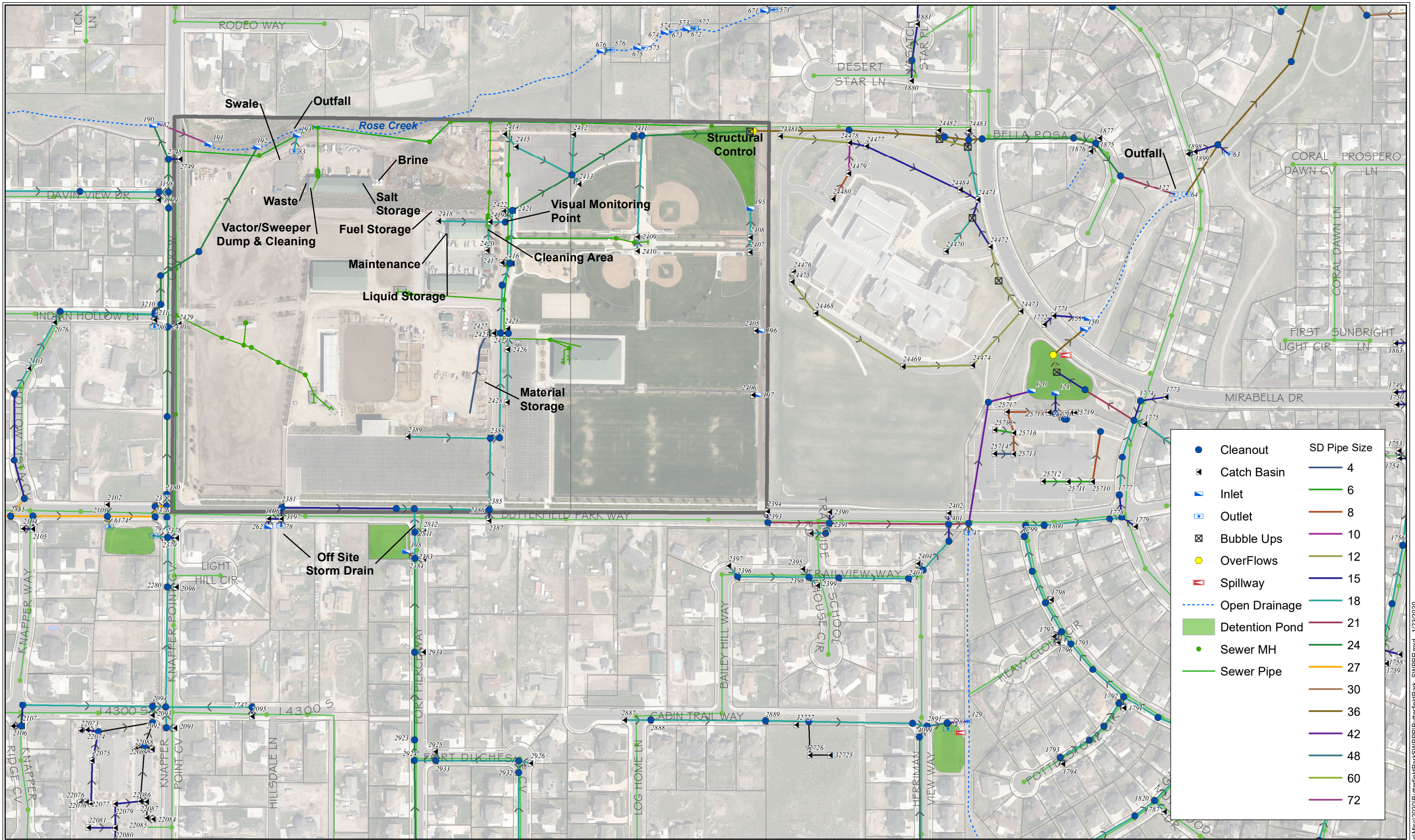
## **6. APPENDICES**

Appendix F: SOPs

Appendix F: Inspection Forms/Logs

Appendix F: Site map





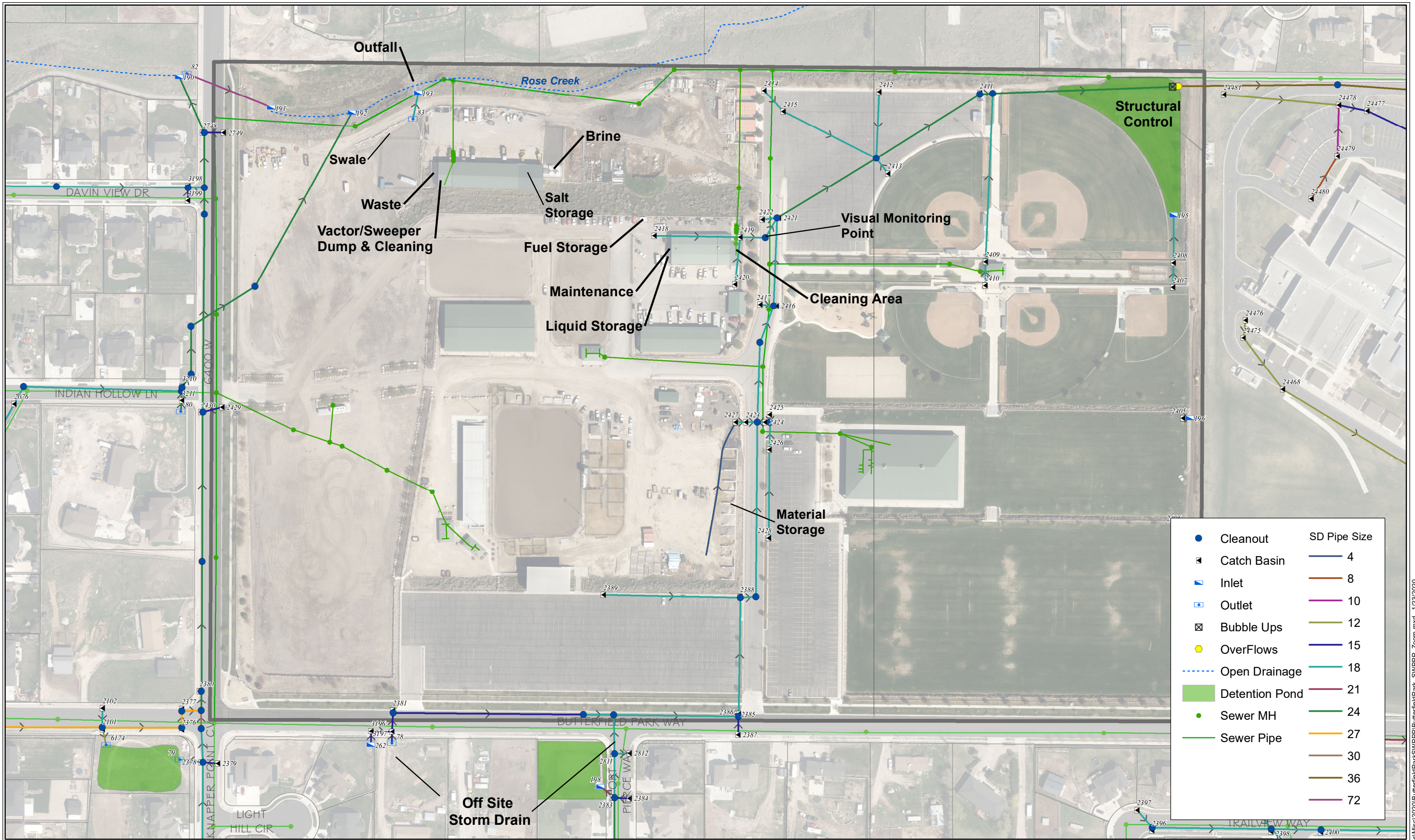
|                   |              |
|-------------------|--------------|
| ● Cleanout        | SD Pipe Size |
| ▣ Catch Basin     | 4            |
| ▢ Inlet           | 6            |
| ▢ Outlet          | 8            |
| ⊠ Bubble Ups      | 10           |
| ● OverFlows       | 12           |
| ▢ Spillway        | 15           |
| --- Open Drainage | 18           |
| ■ Detention Pond  | 21           |
| ● Sewer MH        | 24           |
| — Sewer Pipe      | 27           |
|                   | 30           |
|                   | 36           |
|                   | 42           |
|                   | 48           |
|                   | 60           |
|                   | 72           |



# BUTTERFIELD PARK SWPPP











UTAH DEPARTMENT of  
ENVIRONMENTAL QUALITY  
**WATER  
QUALITY**

## **Storm Water Pollution Prevention Plan**

**for:**

The Cove At Herriman Springs  
6895 Rose Canyon Rd  
Herriman, UT, 84096  
801-446-5323

### **SWPPP Contact(s):**

Austin Vaughn  
Herriman City Stormwater Lead  
[avaughn@herriman.gov](mailto:avaughn@herriman.gov)  
801.870.3446

### **SWPPP Preparation Date:**

12/ 10 / 2024

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## SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION.

### 1.1 Facility Information.

#### Facility Information

Name of Facility: The Cove At Herriman Springs

Street: 6895 Rose Canyon Rd

City: Herriman State: UT ZIP Code: 84096

Primary Industrial Activity SIC code and Sector: \_\_\_\_\_

Secondary Industrial Activity SIC code and Sector: \_\_\_\_\_

Estimated area of industrial activity at site exposed to storm water: \_\_\_\_\_ (acres)

#### Discharge Information

Does this facility discharge storm water to surface or ground water?

☒ Yes ☐ No

If discharging to an MS4, name of MS4 operator: Herriman City

Name(s) of surface water(s) that receive storm water from your facility:

Rose Creek

Describe infiltration practices if storm water has the potential to discharge to ground water: Surface water is absorbed through the landscaping.

### 1.2 Storm Water Pollution Prevention Team.

| Staff Names                | Individual Responsibilities   |
|----------------------------|---|
| <u>Storm Water Manager</u> | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs  |
| <u>Storm Water Foreman</u> | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |

|                    |   |
|--------------------|---|
| Storm Water Lead   | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |
| Storm Water Tech 3 | Responsible for conducting inspections and taking corrective action when required.  |
| Storm Water Tech 2 | Responsible for conducting inspections and taking corrective action when required.  |
| Storm Water Tech 1 | Responsible for conducting inspections and taking corrective action when required.  |

### **1.3 Site Description.**

There are no industrial activities on this site.

### **1.4 Site Map.**

The site map for this facility can be found in **Attachment A**.

## SECTION 2: POTENTIAL POLLUTANT SOURCES.

Section 2 will describe all areas at your facility where industrial materials or activities are exposed to storm water or from which allowable non-storm water discharges originate. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product. For structures located in areas of industrial activity, you must be aware that the structures themselves are potential sources of pollutants. This could occur, for example, when metals such as aluminum or copper are leached from the structures as a result of acid rain.

### 2.1 Risk Identification/ Potential Pollutant Sources/Exposed Materials.

| Description of Potential Pollutant Sources (activities/materials/ physical features) | Pollutants | Location    | BMPs Used to Minimize Contact with Storm Water Runoff<br>(Ex: cover with tarps, store materials outside of drainage pathways, scheduled sweeping, etc.)   | Control Measures Used to Reduce Pollutants in Storm Water Runoff<br>(Ex: oil-water separators, inlet protection, detention/retention ponds, sanitary sewer connection, etc.) |
|--|------------|-------------|---|--|
| Bird Waste   | E.coli     | Entire Park | Signage posted not to feed ducks see site map on 1.4, dog waste station, scheduled sweeping every 30 days, Scheduled 30 day visual inspections, scheduled 60 day sump cleaning, scheduled bi annual inspections, scheduled yearly visual wet weather inspections. | Entire property is landscaped and should allow for absorption except for in paved areas.   |

### 2.2 Spills and Leaks.

#### Description of Past Spills/Leaks

| Date | Description                            | Corrective Action |
|------|--|-------------------|
| N/A  | No spills or leaks have happened here. | N/A               |

### 2.3 Allowable Non-storm Water Discharges.

| Allowable Non-Storm Water Discharge                      | Locations   | Controls   |
|--|---|--|
| Water line flushing                                      | Describe location or absence                                    | Describe BMPs for discharges                       |
| Landscape irrigation                                     | The entire site is landscaped and watered with irrigation water | Limit the amount of over spray onto paved surfaces |
| Diverted stream flows                                    | Describe location or absence                                    | Describe BMPs for discharges                       |
| Rising ground waters                                     | Describe location or absence                                    | Describe BMPs for discharges                       |
| Uncontaminated ground water infiltration                 | Describe location or absence                                    | Describe BMPs for discharges                       |
| Uncontaminated pumped ground water                       | Describe location or absence                                    | Describe BMPs for discharges                       |
| Discharges from potable water sources                    | Describe location or absence                                    | Describe BMPs for discharges                       |
| Foundation drains  | Describe location or absence                                    | Describe BMPs for discharges                       |
| Air conditioning condensate                              | Describe location or absence                                    | Describe BMPs for discharges                       |
| Irrigation water   | Describe location or absence                                    | Describe BMPs for discharges                       |
| Uncontaminated springs                                   | Describe location or absence                                    | Describe BMPs for discharges                       |
| Water from crawl space pumps                             | Describe location or absence                                    | Describe BMPs for discharges                       |
| Footing drains   | Describe location or absence                                    | Describe BMPs for discharges                       |
| Lawn watering runoff                                     | The entire site is landscaped                                   | Limit the amount of over spray onto paved surfaces |
| Individual residential car washing                       | Describe location or absence                                    | Describe BMPs for discharges                       |
| Flows from riparian habitats and wetlands                | Describe location or absence                                    | Describe BMPs for discharges                       |
| Dechlorinated swimming pool discharges                   | Describe location or absence                                    | Describe BMPs for discharges                       |
| Residual street wash water                               | Describe location or absence                                    | Describe BMPs for discharges                       |
| Dechlorinated water reservoir discharges                 | Describe location or absence                                    | Describe BMPs for discharges                       |
| Discharges or flows from emergency firefighting activity | Describe location or absence                                    | Describe BMPs for discharges                       |

## SECTION 3: NON-STRUCTURAL STORM WATER CONTROL MEASURES.

### 3.1 *Good Housekeeping.*

The site is on a schedule to sweep every 30 days, visual inspection every 30 days, sumps cleaned every 60 days, Bi annual comprehensive inspections, and yearly wet weather screening visual inspections.

### 3.2 *Maintenance.*

There is no industrial equipment on site to maintain.

### **3.3     *Spill Prevention and Response.***

Employees are trained to detect spills and leaks and report to the storm water department.

The fish cleaning station on site is covered.

### **3.4     *Erosion and Sediment Controls.***

The site is landscaped to limit the amount of erosion.

### **3.5     *Management of Runoff.***

The site is landscaped to limit the amount of runoff.

### **3.6     *Employee Training.***

Employees are required to do training once yearly through storm water go. The training goes through the process of detection a IDDE and teaches about good house keeping.

## **SECTION 4: INSPECTIONS AND ASSESSMENTS.**

### **4.1     *Monthly Visual Inspections.***

SOP-SW.001 Monthly Visual Inspections

### **4.2     *Semi-Annual Comprehensive Inspections.***

SOP-SW.002 Semi-Annual Comprehensive Inspections

### **4.3     *Annual Visual Assessment of Storm Water Discharges.***

SOP-SW.003 Annual Visual Observation

## **SECTION 5: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS.**

### **5.1     *Other Laws.***

INSERT TEXT HERE OR ATTACH DOCUMENTATION .

### **5.2     *EPCRA Section 313 Requirements.***

INSERT TEXT HERE OR ATTACH DOCUMENTATION .



## SECTION 6: SWPPP CERTIFICATION.

**Instructions:**

The following certification statement must be signed and dated by a person who meets the requirements of the MS4 Permit Part 6.8.

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.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## SWPPP ATTACHMENTS

Attach the following documentation to the SWPPP:

***Attachment A – Site Map***

*Include a copy of your site map(s).*

***Attachment B – MS4 SOPs***

*Attach copies of relevant pollution prevention and good housekeeping SOPs*

***Attachment C – Inspection and Maintenance Reports***

*Attach copies of completed inspection and maintenance reports.*

***Attachment D – Training Records***

*Attach copies of completed training records.*





Cove at Herriman Springs  
SWPPP







## **Storm Water Pollution Prevention Plan**

**for:**

Blackridge Reservoir  
15000S Ashland Ridge DR  
Herriman, UT, 84096  
801-446-5323

### **SWPPP Contact(s):**

Austin Vaughn  
Herriman City Stormwater Lead  
[avaughn@herriman.gov](mailto:avaughn@herriman.gov)  
801.870.3446

### **SWPPP Preparation Date:**

12/10/2024

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| 2.2 Spills and Leaks. ....  | 4        |
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| 3.5 Management of Runoff. ....  | 6        |
| 3.6 Employee Training.....  | 6        |
| <b>SECTION 4: INSPECTIONS AND ASSESSMENTS.....</b>  | <b>6</b> |
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## SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION.

### 1.1 Facility Information.

#### Facility Information

Name of Facility: Blackridge reservoir

Street: 15000S Ashland Ridge DR

City: Herriman State: UT ZIP Code: 84096

Primary Industrial Activity SIC code and Sector: \_\_\_\_\_

Secondary Industrial Activity SIC code and Sector: \_\_\_\_\_

Estimated area of industrial activity at site exposed to storm water: \_\_\_\_\_ (acres)

#### Discharge Information

Does this facility discharge storm water to surface or ground water?

☒ Yes ☐ No

If discharging to an MS4, name of MS4 operator: Herriman City

Name(s) of surface water(s) that receive storm water from your facility: Rose Creek

Describe infiltration practices if storm water has the potential to discharge to ground water: Water is conveyed by open drainage.

### 1.2 Storm Water Pollution Prevention Team.

| Staff Names         | Individual Responsibilities   |
|---------------------|---|
| Storm Water Manager | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs  |
| Storm Water Foreman | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |

|                    |   |
|--------------------|---|
| Storm Water Lead   | Responsible for overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |
| Storm Water Tech 3 | Conducting inspections and taking corrective actions when required.   |
| Storm Water Tech 2 | Conducting inspections and taking corrective actions when required.   |
| Storm Water Tech 1 | Conducting inspections and taking corrective actions when required.   |

### **1.3 Site Description.**

No Industrial activity on site.

### **1.4 Site Map.**

The site map for this facility can be found in **Attachment A**.

## SECTION 2: POTENTIAL POLLUTANT SOURCES.

Section 2 will describe all areas at your facility where industrial materials or activities are exposed to storm water or from which allowable non-storm water discharges originate. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product. For structures located in areas of industrial activity, you must be aware that the structures themselves are potential sources of pollutants. This could occur, for example, when metals such as aluminum or copper are leached from the structures as a result of acid rain.

### 2.1 Risk Identification/ Potential Pollutant Sources/Exposed Materials.

| Description of Potential Pollutant Sources (activities/materials/ physical features) | Pollutants | Location    | BMPs Used to Minimize Contact with Storm Water Runoff<br>(Ex: cover with tarps, store materials outside of drainage pathways, scheduled sweeping, etc.)                      | Control Measures Used to Reduce Pollutants in Storm Water Runoff<br>(Ex: oil-water separators, inlet protection, detention/retention ponds, sanitary sewer connection, etc.) |
|--|------------|-------------|--|--|
| E.coli from bird waste   | E.coli     | Entire site | Good house keeping sweeping monthly, Monthly Visual Inspections, Bi Monthly sump cleaning, Bi Annual Inspections, Yearly wet weather visual Inspections, Dog waste stations. | Conveyed through a Open drainage.  |

### 2.2 Spills and Leaks.

#### Description of Past Spills/Leaks

| Date | Description        | Corrective Action |
|------|--------------------|-------------------|
| N/A  | No previous spills | N/A               |

### 2.3 Allowable Non-storm Water Discharges.

| Allowable Non-Storm Water Discharge | Locations | Controls |
|-------------------------------------|-----------|----------|
|-------------------------------------|-----------|----------|



|  |   |  |
|--|---|--|
| Water line flushing                                      | Reservior is a secondary holding facility | No Bmps  |
| Landscape irrigation                                     | South side of reservior and park strips   | Minimize the amount of overspray from sprinklers |
| Diverted stream flows                                    | Describe location or absence              | Describe BMPs for discharges                     |
| Rising ground waters                                     | Describe location or absence              | Describe BMPs for discharges                     |
| Uncontaminated ground water infiltration                 | Describe location or absence              | Describe BMPs for discharges                     |
| Uncontaminated pumped ground water                       | Describe location or absence              | Describe BMPs for discharges                     |
| Discharges from potable water sources                    | Describe location or absence              | Describe BMPs for discharges                     |
| Foundation drains  | Describe location or absence              | Describe BMPs for discharges                     |
| Air conditioning condensate                              | Describe location or absence              | Describe BMPs for discharges                     |
| Irrigation water   | Describe location or absence              | Describe BMPs for discharges                     |
| Uncontaminated springs                                   | Describe location or absence              | Describe BMPs for discharges                     |
| Water from crawl space pumps                             | Describe location or absence              | Describe BMPs for discharges                     |
| Footing drains   | Describe location or absence              | Describe BMPs for discharges                     |
| Lawn watering runoff                                     | South side of reservior and park strips   | Minimize the amount of overspray from sprinklers |
| Individual residential car washing                       | Describe location or absence              | Describe BMPs for discharges                     |
| Flows from riparian habitats and wetlands                | Describe location or absence              | Describe BMPs for discharges                     |
| Dechlorinated swimming pool discharges                   | Describe location or absence              | Describe BMPs for discharges                     |
| Residual street wash water                               | Describe location or absence              | Describe BMPs for discharges                     |
| Dechlorinated water reservoir discharges                 | Describe location or absence              | Describe BMPs for discharges                     |
| Discharges or flows from emergency firefighting activity | Describe location or absence              | Describe BMPs for discharges                     |

## SECTION 3: NON-STRUCTURAL STORM WATER CONTROL MEASURES.

### 3.1 *Good Housekeeping.*

Good house keeping practices are sweeping paved surfaces, Dog waste pickup sites see site map 1.4, Monthly visual inspection, Bi Monthly sump cleaning, Bi annual site inspections, Yearly wet weather screening.

### 3.2 *Maintenance.*

No industrial equipment is maintained on site.

### **3.3     *Spill Prevention and Response.***

Employees are trained to identify and report IDDEs yearly

### **3.4     *Erosion and Sediment Controls.***

There is an open drainage on the west side of reservoir that is lined with rock and natural vegetation to lessen the amount of erosion from water. The site is landscaped on the south side of the reservoir, and natural landscaping on any slopes with any potential of erosion.

### **3.5     *Management of Runoff.***

There is an open drainage on the west side of reservoir that is lined with rock and natural vegetation to lessen the amount of erosion from water.

### **3.6     *Employee Training.***

Employees of Herriman city are trained upon hire on and yearly after initial hire on. This training is in place to help detect and eliminate IDDEs, the training also provides training on good housekeeping. All training is done through storm water go.

## **SECTION 4: INSPECTIONS AND ASSESSMENTS.**

### **4.1     *Monthly Visual Inspections.***

The SOP for the monthly visual inspection can be found under SOP-SW.001 Monthly Visual Inspections

### **4.2     *Semi-Annual Comprehensive Inspections.***

The SOP for Semi-Annual Comprehensive Inspections can be found under SOP-SW.002 Semi-Annual Comprehensive Inspections

**4.3     *Annual Visual Assessment of Storm Water Discharges.***

The SOP for Annual Visual Assessment Can be found under SOP-SW.003 Annual Visual Observation

**SECTION 5: DOCUMENTATION TO SUPPORT ELIGIBILITY  
CONSIDERATIONS UNDER OTHER FEDERAL LAWS.**

**5.1     *Other Laws.***

**5.2     *EPCRA Section 313 Requirements.***

## SECTION 6: SWPPP CERTIFICATION.

**Instructions:**

The following certification statement must be signed and dated by a person who meets the requirements of the MS4 Permit Part 6.8.

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.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## SWPPP ATTACHMENTS

Attach the following documentation to the SWPPP:

***Attachment A – Site Map***

*Include a copy of your site map(s).*

***Attachment B – MS4 SOPs***

*Attach copies of relevant pollution prevention and good housekeeping SOPs*

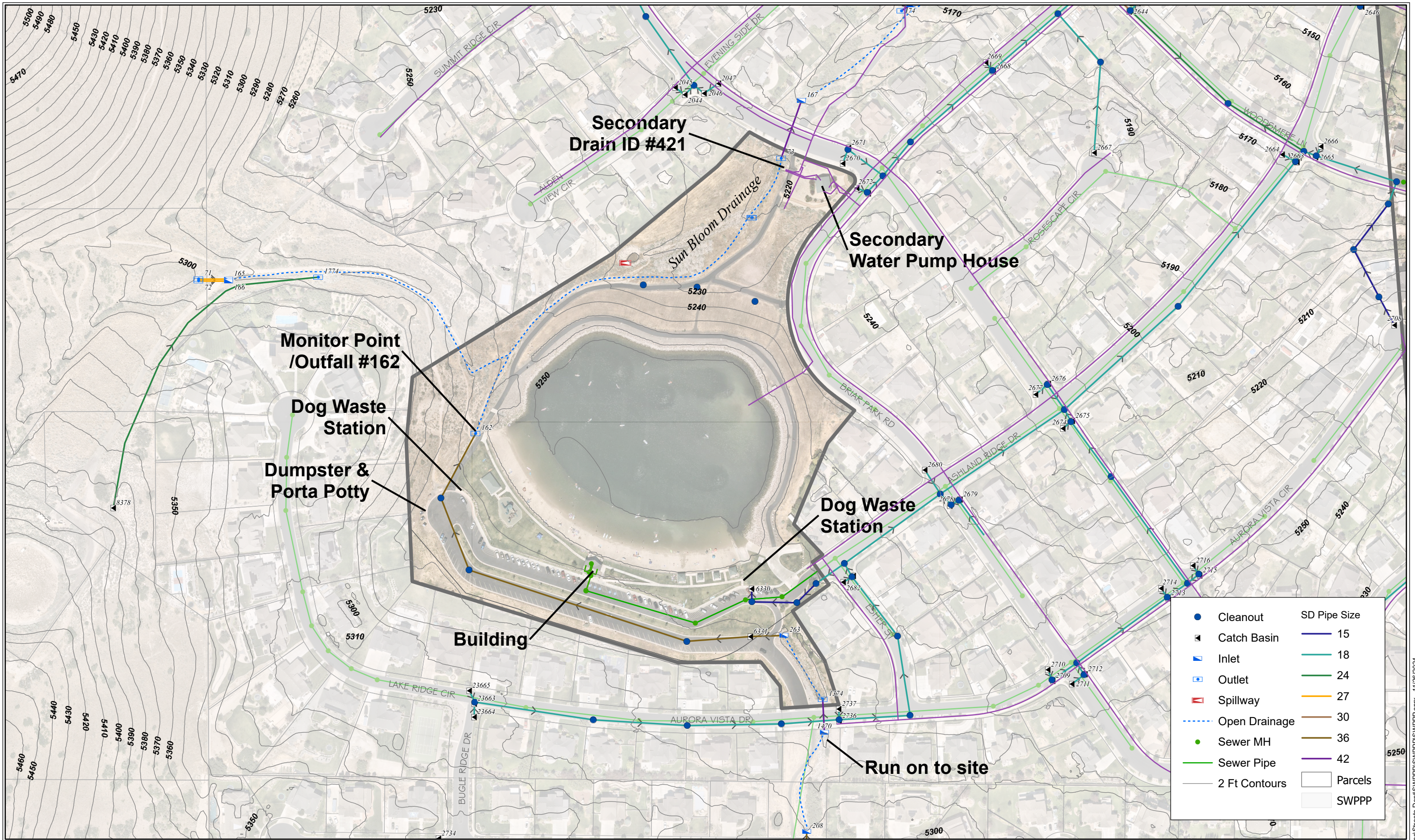
***Attachment C – Inspection and Maintenance Reports***

*Attach copies of completed inspection and maintenance reports.*

***Attachment D – Training Records***

*Attach copies of completed training records.*





- |                   |              |
|-------------------|--------------|
| ● Cleanout        | SD Pipe Size |
| ▣ Catch Basin     | 15           |
| ▣ Inlet           | 18           |
| ▣ Outlet          | 24           |
| ▣ Spillway        | 27           |
| --- Open Drainage | 30           |
| ● Sewer MH        | 36           |
| — Sewer Pipe      | 42           |
| — 2 Ft Contours   | Parcels      |
|                   | SWPPP        |



# BLACKRIDGE RESERVOIR SWPPP







UTAH DEPARTMENT of  
ENVIRONMENTAL QUALITY  
**WATER  
QUALITY**

## Storm Water Pollution Prevention Plan

**for:**

K9 Memorial Dog Park  
5105 Herriman Main St  
Herriman, UT, 84096

### **SWPPP Contact(s):**

Austin Vaughn  
Herriman City Stormwater Lead  
[avaughn@herriman.gov](mailto:avaughn@herriman.gov)  
801.870.3446

### **SWPPP Preparation Date:**

\_\_\_/\_\_\_/\_\_\_\_\_

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## SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION.

### 1.1 Facility Information.

#### Facility Information

Name of Facility: K9 Memorial Dog Park

Street: 5105 Herriman Main Street

City: Herriman State: UT ZIP Code: 84096

Primary Industrial Activity SIC code and Sector: \_\_\_\_\_

Secondary Industrial Activity SIC code and Sector: \_\_\_\_\_

Estimated area of industrial activity at site exposed to storm water: \_\_\_\_\_ (acres)

#### Discharge Information

Does this facility discharge storm water to surface or ground water?

☒ Yes ☐ No

If discharging to an MS4, name of MS4 operator: Herriman City

Name(s) of surface water(s) that receive storm water from your facility: The storm water is retention only. Retained within legacy pond

Describe infiltration practices if storm water has the potential to discharge to ground water: The Park Has an L.I.D. system that allows the water to infiltrate underground. As well as the system can flow off site to a retention only system called the legacy retention pond. This is where the water either evaporates or goes into the ground through absorption.

### 1.2 Storm Water Pollution Prevention Team.

| Staff Names         | Individual Responsibilities   |
|---------------------|---|
| Storm Water Manager | Overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs.   |
| Storm Water Foreman | Overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |

|                    |   |
|--------------------|---|
| Storm Water Lead   | Overseeing development of and any modifications to the SWPPP, implementing and maintaining control measures/BMPs, conducting inspections and taking corrective actions when required. |
| Storm Water Tech 3 | Conducting inspections and taking corrective actions when required.   |
| Storm Water Tech 2 | Conducting inspections and taking corrective actions when required.   |
| Storm Water Tech 1 | Conducting inspections and taking corrective actions when required.   |

### 1.3 Site Description.

K 9 memorial dog park is listed as a high priority site due to the elevated risk of E.coli run off.  
There are no industrial activities on this site.

### 1.4 Site Map.

The site map for this facility can be found in **Attachment A**.

## SECTION 2: POTENTIAL POLLUTANT SOURCES.

Section 2 will describe all areas at your facility where industrial materials or activities are exposed to storm water or from which allowable non-storm water discharges originate. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal or conveyance of any raw material, intermediate product, final product or waste product. For structures located in areas of industrial activity, you must be aware that the structures themselves are potential sources of pollutants. This could occur, for example, when metals such as aluminum or copper are leached from the structures as a result of acid rain.

### 2.1 Risk Identification/ Potential Pollutant Sources/Exposed Materials.

| Description of Potential Pollutant Sources (activities/materials/physical features) | Pollutants | Location                                       | BMPs Used to Minimize Contact with Storm Water Runoff<br>(Ex: cover with tarps, store materials outside of drainage pathways, scheduled sweeping, etc.)   | Control Measures Used to Reduce Pollutants in Storm Water Runoff<br>(Ex: oil-water separators, inlet protection, detention/retention ponds, sanitary sewer connection, etc.) |
|---|------------|--|---|--|
| Dog Park, dog waste   | C.coli     | Please refer to site map in 1.4 for boundaries | Good House keeping, Dog Waste Stations, Monthly visual inspection, bi annual comprehensive inspection, monthly sweeping, Storm drain sump maintenance every 60 days, yearly wet weather screening | The water from the dog park flows to a retention pond.   |

### 2.2 Spills and Leaks.

#### Description of Past Spills/Leaks

| Date           | Description    | Corrective Action |
|----------------|----------------|-------------------|
| Not applicable | Not applicable | Not applicable    |

### 2.3 Allowable Non-storm Water Discharges.

| Allowable Non-Storm Water Discharge | Locations | Controls |
|-------------------------------------|-----------|----------|
|-------------------------------------|-----------|----------|

|  |  |   |
|--|--|---|
| Water line flushing                                      | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Landscape irrigation                                     | Entire site is encased in landscaping please view site map 1.4 | Site is equipped with L.I.D on site and flows to a retention pond |
| Diverted stream flows                                    | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Rising ground waters                                     | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Uncontaminated ground water infiltration                 | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Uncontaminated pumped ground water                       | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Discharges from potable water sources                    | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Foundation drains  | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Air conditioning condensate                              | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Irrigation water   | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Uncontaminated springs                                   | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Water from crawl space pumps                             | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Footing drains   | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Lawn watering runoff                                     | Entire site is encased in landscaping please view site map 1.4 | Site is equipped with L.I.D on site and flows to a retention pond |
| Individual residential car washing                       | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Flows from riparian habitats and wetlands                | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Dechlorinated swimming pool discharges                   | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Residual street wash water                               | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Dechlorinated water reservoir discharges                 | Describe location or absence                                   | Describe BMPs for discharges                                      |
| Discharges or flows from emergency firefighting activity |  | Describe BMPs for discharges                                      |

## SECTION 3: NON-STRUCTURAL STORM WATER CONTROL MEASURES.

### 3.1 *Good Housekeeping.*

The K9 memorial dog park has a SOP written that describes some of the BMPS. This SOP can be found in the Q drive under the identifier: SOP-DEPT.001 under DOG PARK MAINTENANCE. The storm water dept. also sweeps the parking lot of the park every 30 days, does a visual inspection every 30 days, cleans out the main runoff sump every 60 days, does a biannual inspection every 6 months. And they do a wet weather screening once every year.

### **3.2     *Maintenance.***

There is No Maintenance of industrial equipment on this site.

### **3.3     *Spill Prevention and Response.***

All employees go through a yearly training to help identify any illicit discharges and are trained on what to do when one is identified. Nothing is stored on site that can be hazardous.

### **3.4     *Erosion and Sediment Controls.***

The site is fully Landscaped and doesn't propose a risk of erosion.

### **3.5     *Management of Runoff.***

The site is fully landscaped to prevent runoff, the site is fully equipped with a LID underground infiltration system. The site does not connect to any waters of the state and is full retention.

### **3.6     *Employee Training.***

Employees are required to do training when they are hired on and a yearly training. This training is done on stormwater go. They are trained on different levels depending on what they do on a day to day basis. The training teaches how to identify an IDDE, What to do When you have identified a IDDE, And how to resolve a IDDE.

## **SECTION 4: INSPECTIONS AND ASSESSMENTS.**

### **4.1     *Monthly Visual Inspections.***

Please refer to SOP-SW.001 Monthly Visual Inspections

### **4.2     *Semi-Annual Comprehensive Inspections.***

Please refer to SOP-SW.002 Semi-annual Comprehensive Inspections

**4.3     *Annual Visual Assessment of Storm Water Discharges.***

Please refer to SOP-SW.003 Annual Visual Observations

**SECTION 5: DOCUMENTATION TO SUPPORT ELIGIBILITY  
CONSIDERATIONS UNDER OTHER FEDERAL LAWS.**

**5.1     *Other Laws.***

**5.2     *EPCRA Section 313 Requirements.***

## SECTION 6: SWPPP 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.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## SWPPP ATTACHMENTS

Attach the following documentation to the SWPPP:

***Attachment A – Site Map***

*Include a copy of your site map(s).*

***Attachment B – MS4 SOPs***

*Attach copies of relevant pollution prevention and good housekeeping SOPs*

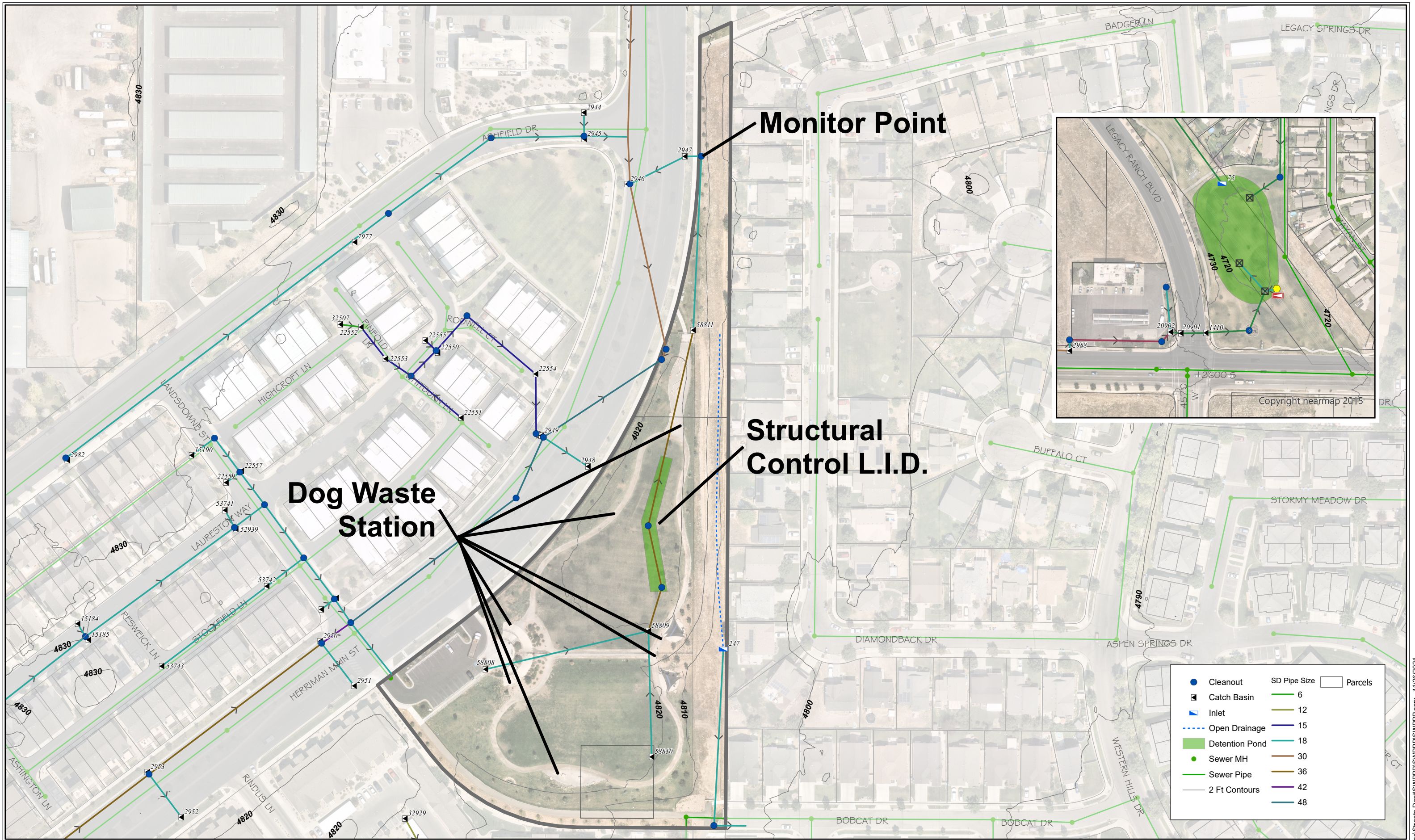
***Attachment C – Inspection and Maintenance Reports***

*Attach copies of completed inspection and maintenance reports.*

***Attachment D – Training Records***

*Attach copies of completed training records.*

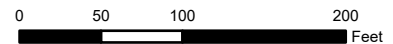




|  |                |  |              |  |         |
|--|----------------|--|--------------|--|---------|
|  | Cleanout       |  | SD Pipe Size |  | Parcels |
|  | Catch Basin    |  | 6            |  |         |
|  | Inlet          |  | 12           |  |         |
|  | Open Drainage  |  | 15           |  |         |
|  | Detention Pond |  | 18           |  |         |
|  | Sewer MH       |  | 30           |  |         |
|  | Sewer Pipe     |  | 36           |  |         |
|  | 2 Ft Contours  |  | 42           |  |         |
|  |                |  | 48           |  |         |



DINGO DOG PARK( RENTENTION ONLY)  
SWPPP





# Monthly Visual Inspections



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .001 | Revision:<br>002 | Effective Date:<br>06/15/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

**Policy:**

FACILITY INSPECTION – MONTHLY VISUAL

**Safety:**

Use appropriate PPE when cleaning spills, garbage and debris.

**Purpose:**

Early detection and minimizing the potential for pollutant discharge.

**Procedure:**

Visually inspect the facility for spills or evidence of spills.

Look for other deficiencies including any potential pollutant discharge (i.e. garbage, debris, general maintenance of BMPs, etc.).

**Action:**

1. Immediately clean up spills to prevent contact with precipitation or runoff.
2. Take corrective actions necessary for other deficiencies identified during the inspection.
3. Properly dispose of waste materials when cleaning up spills or contaminants.

**Documentation:**

Fill out the Monthly Visual Inspection Log for the facility.

1. Identify the individual(s) that completed the inspection and the date it was completed.
2. Identify any deficiencies, the corrective actions taken, and the date the corrective action was completed.
3. The Monthly Visual Inspection Log shall be kept with the SWMP document.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes                        | Author           |
|-----------------|---------------|---|------------------|
| 2               | 4/7/2020      | Updated from weekly to monthly MS4 permit | Eric Didericksen |
|                 |               |   |                  |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |
|      |       |           |

[illegible]

# Semi-Annual Comprehensive Inspection



|                           |                  |                               |
|---------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW.002 | Revision:<br>002 | Effective Date:<br>06/11/2018 |
| Approved By:              |                  | Author:<br>Monte Johnson      |

## **Policy:**

SEMI-ANNUAL COMPREHENSIVE INSPECTIONS OF HIGH PRIORITY FACILITIES

## **Safety:**

Use appropriate PPE when cleaning up spills, garbage and debris.

## **Purpose:**

Protect and prevent stormwater pollution to meet requirements of the UPDES permit for discharges from municipal separate storm sewer systems (MS4s)

## **Procedure:**

Complete the Semi-Annual Comprehensive Inspection of "High Priority" facilities using the facility specific Quarterly Comprehensive Inspection Report at least twice per year including all storm water controls.

Specific Attention:

1. Waste Storage Areas
2. Dumpsters
3. Vehicle and Equipment Maintenance Areas
4. Vehicle and Equipment Storage Areas
5. Vehicle and Equipment Wash Areas
6. Fueling Areas
7. Material Handling Areas
8. Chemical Storage Areas
9. Similar Pollutant-Generating Areas

## **Actions:**

1. Take corrective actions necessary for any deficiencies identified during the inspection.
2. Properly dispose of waste materials when cleaning up spills or contaminants.

## **Documentation:**

Fill out the site specific Semi-Annual Comprehensive Inspection Report for the facility.

- Identify the individual(s) that completed the inspection and the date on which it was completed.
- Record any deficiencies and identify the date on which the corrective action was completed.
- Provide any additional comments as necessary.
- The Semi-Annual Comprehensive Inspection Report shall be kept with the SWMP document.

Semi-Annual comprehensive inspections are to be completed at least twice per year.

Semi-Annual frequency is January-June and July-December

**Revision History:**

| Revision Number | Revision Date | Summary of Changes                    | Author           |
|-----------------|---------------|---------------------------------------|------------------|
| 2               | 4/7/2020      | Updated from Quarterly to Semi-Annual | Eric Didericksen |
|                 |               |                                       |                  |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |



## Comprehensive Inspection Report

Butterfield Park – Public Works Facility  
6212 W 14200 S Herriman, UT 84096

| Area/Activities Assessed | Yes | No | N/A | Corrective Action Taken | Date |
|--------------------------|-----|----|-----|-------------------------|------|
|--------------------------|-----|----|-----|-------------------------|------|

### Vehicle/Equipment Wash Area

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Drain Sump           |  |  |  |  |  |
| Grease/Oil Separator |  |  |  |  |  |

### Fleet Shop

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Spills or Leaks      |  |  |  |  |  |
| Spill Kit/Absorbent  |  |  |  |  |  |
| Drip Pans            |  |  |  |  |  |
| Oil Storage          |  |  |  |  |  |
| Flammable Cabinet    |  |  |  |  |  |
| Grease               |  |  |  |  |  |
| Hydraulic Fluid      |  |  |  |  |  |
| Battery Storage      |  |  |  |  |  |
| Bulk Fluids          |  |  |  |  |  |
| Used Oil Container   |  |  |  |  |  |
| Compressor           |  |  |  |  |  |

### Fuel Area

|                            |  |  |  |  |  |
|----------------------------|--|--|--|--|--|
| General Housekeeping       |  |  |  |  |  |
| Spills or Leaks            |  |  |  |  |  |
| Spill Kit/Absorbent        |  |  |  |  |  |
| Signs Prohibit topping Off |  |  |  |  |  |

### Yard Area

|                       |  |  |  |  |  |
|-----------------------|--|--|--|--|--|
| General Housekeeping  |  |  |  |  |  |
| Vehicle/Equip Leaking |  |  |  |  |  |
| Storm Drain Inlets    |  |  |  |  |  |

### Dumpster Area

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Spills or Leaks      |  |  |  |  |  |

### Storage Shop

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Spills or Leaks      |  |  |  |  |  |
| Spill Kit/Absorbent  |  |  |  |  |  |
| Drip Pans            |  |  |  |  |  |
| Leaking Containers   |  |  |  |  |  |
| Flammable Cabinet    |  |  |  |  |  |
| Chemical Cabinet     |  |  |  |  |  |

| Area/Activities Assessed | Yes | No | N/A | Corrective Action Taken | Date |
|--------------------------|-----|----|-----|-------------------------|------|
|--------------------------|-----|----|-----|-------------------------|------|

#### Material Storage

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Storm Water BMPs     |  |  |  |  |  |

#### Lower Shops

|                         |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
| General Housekeeping    |  |  |  |  |  |
| Spills or Leaks         |  |  |  |  |  |
| Vehicle/Equip Leaking   |  |  |  |  |  |
| Drip Pans               |  |  |  |  |  |
| Parking Lot Swept       |  |  |  |  |  |
| Storm Water BMPs        |  |  |  |  |  |
| Chemical Spills/Leaks   |  |  |  |  |  |
| Fertilizer Spills/Leaks |  |  |  |  |  |

#### Salt Storage

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Salt Covered Storage |  |  |  |  |  |
| Spills or Leaks      |  |  |  |  |  |
| Brine Area           |  |  |  |  |  |

#### Sludge Pit

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| General Housekeeping |  |  |  |  |  |
| Spills or Leaks      |  |  |  |  |  |
| Grease/Oil Separator |  |  |  |  |  |
| Drying Beds          |  |  |  |  |  |



# Annual Visual Observation



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .003 | Revision:<br>002 | Effective Date:<br>07/10/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

ANNUAL VISUAL OBSERVATION OF STORM WATER DISCHARGES (WET WEATHER SCREENING)

## **Purpose:**

Visually observe the quality of the storm water discharges from the “high priority” facilities and identify if any pollutant discharges are present.

## **Safety:**

Use appropriate PPE when performing these duties.

Follow confined space protocols.

## **Procedure:**

At least once per year visually observe the quality of storm water discharge during the first half hour of a measurable storm (unless climate conditions preclude doing so, in which case attempt to evaluate the discharge once during the wet season).

1. Samples shall be collected during “measurable” rain event or melting snow.
  - a. A “measurable” rain event is defined as greater than 0.1 inch in magnitude.
  - b. Occurs at least 72 hours from the previous measurable (greater than 0.1 inch of rainfall) rain event.
2. A minimum of one sample of the storm water discharge shall be taken at each of the pre-identified sites.
3. Storm water samples shall be taken at an outfall or location where runoff collects from an area of industrial activity (storage area, material handling area, etc.).
4. A clear glass container should be used as a sample container.
5. Samples shall be taken during the first 30 minutes of discharge. If it is not practicable to take the sample during the first 30 minutes, the sample may be taken during the first hour of discharge and a description as to why it was impracticable to collect the sample during the first 30 minutes should be recorded on the Visual Observation Form.

6. Once the sample(s) have been collected, a visual examination of each sample shall be conducted.
  - a. Each sample shall be immediately examined in a well lit area.
  - b. The sample shall be examined for color, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, other obvious indicators of storm water pollution, and any noticeable odors.
  - c. Documentation of these observations shall be recorded on the Wet Weather Screening Inspection Form.

**Actions:**

1. Identify pollutant sources and any other deficiencies that are associated with any visually observed problems.
2. Take corrective actions to prevent discharge of pollutants to the storm drain system.

**Documentation:**

Complete the Wet Weather Screening Inspection Form.

1. Identify the individual(s) that completed the visual observation of storm water sampling and the date it was completed.
2. Identify the location or ID number where the sample was taken.
3. List the type of monitoring.
4. Record any observations of samples taken (color, odor, foam, oil sheen, etc.).
5. List any corrective actions taken and the date the corrective action was completed.
6. The Wet Weather Screening Inspection Form shall be kept with the SWMP document.

Annual visual observation of storm water discharges are to be completed at least once per year (unless climate conditions preclude doing so, in which case shall attempt to evaluate the discharges once during the wet season).

**Revision History:**

| Revision Number | Revision Date | Summary of Changes                         | Author           |
|-----------------|---------------|--|------------------|
| 2               | 4/7/2020      | Updated from Quartely to Annual observaton | Eric Didericksen |
|                 |               |  |                  |

**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |



## WET WEATHER VISUAL INSPECTION

|  |                                 |
|--|---------------------------------|
| Facility Name/Address:   |                                 |
| Name of Examiner:  |                                 |
| Date/Time of Examination:  | Outfall ID (refer to site map): |
| Outfall Description (ditch, concrete pipe, grasses swales, etc.):  |                                 |
| Estimated time weather event began:  | Time of sample collection:      |
| Color (clear, red, yellow, etc.):  |                                 |
| Odor (none, musty, sewage, rotten egg, etc.):  |                                 |
| Clarity (clear, cloudy, opaque, etc.): Mark one<br><div style="display: flex; align-items: center;"> <div style="width: 30px; height: 20px; background-color: white; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 30px; height: 20px; background-color: lightgray; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 30px; height: 20px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 30px; height: 20px; background-color: darkgray; border: 1px solid black;"></div> </div> |                                 |
| Oil Sheen:    Yes <input type="checkbox"/> No <input type="checkbox"/>   |                                 |
| Floatables (none, foam, garbage, etc.):  |                                 |
| Suspended Solids:    Yes <input type="checkbox"/> No <input type="checkbox"/>  |                                 |
| Settled Solids (none, sediment, decayed plant matter, rust particles, etc.)  |                                 |
| Other indicators of storm water contamination:   |                                 |
| Probable source of contamination:  |                                 |
| Corrective action(s) taken:  |                                 |

# Vehicle and Equipment Washing



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .004 | Revision:<br>002 | Effective Date:<br>08/24/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

### VEHICLE AND EQUIPMENT WASHING

## **Purpose:**

Provide employees with proper washing techniques and prevent pollutant discharge to storm water system.

## **Procedure:**

1. All vehicles and equipment shall be washed inside the wash bay. It is prohibited to wash vehicles and equipment outside the wash bay.
2. Minimize water and soap use when washing vehicles and equipment.
3. Use hoses with automatic shut off nozzles.

## **Clean Up:**

1. Sweep wash areas after every use. Remove large debris and dispose of in the sludge pit.
2. Clean out the drain sump as needed.

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 4/7/2020      | Update title       | Eric Didericksen |
|                 |               |                    |                  |

## **Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |

# Parking lot & Sump Maintenance



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .005 | Revision:<br>002 | Effective Date:<br>08/12/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

PUBLIC WORKS PARKING LOT AND STORM DRAIN SUMP MAINTENANCE

## **Purpose:**

Provide employees with proper training and schedule for parking lot and storm drain sump maintenance to prevent pollutant discharge to storm water system.

## **Procedure:**

1. Sweep parking areas and vehicle storage areas at least once every thirty days or as needed depending on debris.
2. Hand sweep gutters and parking lot edges.
3. Pick up litter and dirt to keep parking areas clean and free from debris.
4. Storm drain sumps shall be vactored and cleaned at least once every sixty days or more often as needed
5. Clean debris from around storm drain grates.
6. Replace storm water BMPs if needed.
7. Dispose of garbage in the proper waste container.
8. Dispose of dirt and debris in properly designated areas only (Sludge Pit which is connected to the sanitary sewer system).

## **Documentation:**

1. Keep work orders to track swept parking areas and storm drain sump cleaning.
2. Monthly Visual Inspection and Semi-Annual Comprehensive Inspection.

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes                       | Author           |
|-----------------|---------------|--|------------------|
| 2               | 4/7/2020      | Update Title and documentation frequency | Eric Didericksen |
|                 |               |  |                  |

## **Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
|      |       |           |
|      |       |           |

# Fueling Procedures



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .006 | Revision:<br>002 | Effective Date:<br>08/27/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

### FUELING PROCEDURES

## **Purpose:**

Provide Employees with proper fueling methods and spill cleanup techniques.

## **Procedure:**

1. Shut off the engine
2. Ensure that the fuel is the proper type of fuel for the vehicle
3. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent over filling
4. Fuel vehicle carefully to minimize drips to the ground
5. Fuel tanks shall not be "topped off"
6. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to designated fueling area
7. When fueling small equipment from portable containers, fuel away from storm drains and water ways

## **Clean up:**

1. Immediately clean up spills using dry absorbent (e.g. kitty litter, sawdust, ect.) sweep up absorbent material and properly dispose of contaminated materials
2. Large spills shall be contained as best as possible and HazMat team should be notified ASAP (Unified Fire Authority station 123 # 801-446-3090)

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 4/9/2020      | Updated format     | Eric Didericksen |
|                 |               |                    |                  |



**Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
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# Dumpster and Garbage Storage



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .007 | Revision:<br>002 | Effective Date:<br>08/08/2018 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

### DUMPSTER AND GARBAGE STORAGE

## **Purpose:**

Provide employees with proper garbage storage techniques and prevent pollutant discharge to storm water system

## **Procedure:**

1. Inspect garbage bins for leaks and have repairs to the dumpster made if needed
2. Request/use dumpsters and trash cans with lids and without drain holes
3. Properly contain wet materials so it does not leak or spill out
4. Locate dumpsters on a flat, hard surface that does not slope or drain toward the storm drain system

## **Clean Up:**

1. Keep areas around dumpsters clean
2. Have dumpsters emptied regularly to keep from overfilling
3. Wash out dumpsters as needed. Wash out in properly designated areas only (Sludge pit)

## **Documentation:**

1. Monthly Visual Inspection and Semi-Annual Inspection

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 04/09/2020    | Updated format     | Eric Didericksen |
|                 |               |                    |                  |

**Approvals:**

| Name | Title | Signature |
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# Concrete Work



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .008 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By                |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection New Concrete and Concrete Replacement

## **Safety:**

Use appropriate PPE when pouring and replacing concrete

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.0 Concrete work**

#### **1.1 New Concrete and Concrete Replacement**

- 1.1.1** Always perform work in dry weather when possible
- 1.1.2** Place protection devices in and around storm drain inlets down stream from project. i.e. silt fabric, sand bags, ect.
- 1.1.3** Construction materials or spoils shall be cleaned up and properly disposed to prevent any contaminants from entering the storm water system
- 1.1.4** All concrete wash water from mix trucks, pumps, and tools must be contained and properly disposed
- 1.1.5** At the completion of the project, clean up and remove protection devices from the storm drain inlet
- 1.1.6** Inspect and verify no contaminants have entered the storm water system.

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 2/21/17       | Updated format     | Monte Johnson    |
| 3               | 3/27/2020     | Updated format     | Eric Didericksen |

**Approvals:**

| Name | Title | Signature |
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# Excavation Work



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .009 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection Excavation Work

## **Safety:**

Use appropriate PPE while doing Excavation Work

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.0 Excavation work**

#### **1.1 Boring**

- 1.1.1 Always perform work in dry weather when possible.
- 1.1.2 Place protective devices in and around storm drain inlets down stream from the project.
- 1.1.3 Prevent any liquids used in the boring process from entering the storm water system.
- 1.1.4 Construction materials or spoils should be cleaned up and properly disposed to prevent any contaminants from entering the storm water system.
- 1.1.5 At the completion of the project clean up and remove protection devices from the storm drain inlets.
- 1.1.6 Inspect and verify no contaminants have entered the storm water system.

### **2.0 Excavation work**

#### **2.1 Trenching**

- 2.1.1 Always perform work in dry weather when possible.
- 2.1.2 Place protective devices in and around storm drain inlets down stream from the project.
- 2.1.3 Stock pile excavation materials and replacement materials in a manor that minimizes contaminants from entering the storm water system.



**2.1.4** Haul off excavated materials as soon as practical.

**2.1.5** At the completion of the project clean up and remove protection devices from the storm drain inlets.

**2.1.6** Inspect and verify no contaminants have entered the storm water system.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 02/21/2017    | Updated format     | Monte Johnson    |
| 3               | 04/09/2020    | Uodated format     | Eric Didericksen |

**Approvals:**

| Name | Title | Signature |
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# Pressure Washing



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .010 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection Pressure Washing

## **Safety:**

Use appropriate PPE when Pressure Washing

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.1 Pressure Washing**

- 1.1.1** Place protection devices in and around storm drain inlets down stream from the project.
- 1.1.2** Dam the project area using boom materials, wattles, sandbags or other methods that seal themselves and cause liquids to pond.
- 1.1.3** Clean up liquid and materials with a shop Vac, absorbant materials, Vactor truck or other methods.
- 1.1.4** Dispose of all wastewater and materials properly in the sludge pit at Herriman City Public Works yard.
- 1.1.5** At the completion of the project clean up and remove protection devices from the storm drain inlets.
- 1.1.6** Inspect and verify no contaminants have entered the storm water system.
- 1.1.7** If contaminants have entered the storm water system, contact the Storm Water Department.
- 1.1.8** Document work performed with estimated quantities of materials used and cleaned up.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes          | Author           |
|-----------------|---------------|-----------------------------|------------------|
| 2               | 02/21/2017    | Updated Format              | Monte Johnson    |
| 3               | 04/21/2020    | Updated format/ added 1.1.7 | Eric Didericksen |

**Approvals:**

| Name | Title | Signature |
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# Saw Cutting



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .011 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection Saw Cutting

## **Safety:**

Use appropriate PPE when Saw Cutting

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.0 Saw Cutting**

- 1.1.1** Always perform work in dry weather when possible.
- 1.1.2** Place protection devices in and around storm drain inlets down stream from the project.
- 1.1.3** Place sandbags as needed to seal and create ponding of liquid and materials.
- 1.1.4** Utilize the most efficient cutting methods to minimize waste water and slurry.
- 1.1.5** Clean up liquid and materials with a shop vac, absorbant materials, vactor truck, or other methods.
- 1.1.6** At the completion of the project clean up and remove protection devices from the storm drain inlets.
- 1.1.7** Inspect and verify that no contaminants have entered the storm water system.
- 1.1.8** If contaminants have entered the storm water system, contact the Storm Water Department.
- 1.1.9** Dispose of all wastewater and materials properly in the sludge pit at Herriman City Public Works Yard.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes          | Author           |
|-----------------|---------------|-----------------------------|------------------|
| 2               | 02/21/2017    | Updated format              | Monte Johnson    |
| 3               | 04/23/2020    | Updated format/ added 1.1.7 | Eric Didericksen |

**Approvals:**

| Name | Title | Signature |
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# Snow Removal



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .012 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection Snow Removal

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure**

### **1.0 Snow Removal**

#### **1.1 Salt Distribution**

- 1.1.1** Calibrate salters yearly (200lb. per lane mile).
- 1.1.2** Avoid spreading an excessive amount of salt.
- 1.1.3** Turn off spreader when the vehicle is stopped.
- 1.1.4** Clean up salt spills as soon as practical.

#### **1.2 Brine**

- 1.2.1** Calibrate brine distribution equipment yearly.
- 1.2.2** Avoid spraying an excessive amount of brine.
- 1.2.3** Inspect tanks and equipment regularly to avoid potential leaks.
- 1.2.4** Clean up any spills as soon as practical.

## **Revision History:**

| Revision Number | Revision Date | Summary of Changes                  | Author           |
|-----------------|---------------|-------------------------------------|------------------|
| 2               | 02/21/2017    | Updated format                      | Monte Johnson    |
| 3               | 04/24/2020    | Updated format/ added 1.1.1 & 1.2.1 | Eric Didericksen |

## **Approvals:**

| Name | Title | Signature |
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# Pesticides



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .013 | Revision:<br>003 | Effective Date:<br>07/20/2015 |
| Approved By:               |                  | Author:<br>Monte Johnson      |

## **Policy:**

Storm Water Protection Pesticide Use

## **Safety:**

Read all labels for required PPE before mixing and applying product

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way

## **Procedure:**

### **1.0 Pesticides**

#### **1.1 Application**

- 1.1.1 Person applying pesticide to Right-of-Way must be a licenced pesticide applicator.
- 1.1.2 Read entire pesticide label before mixing or applying chemical.  
( **THE LABEL IS THE LAW** )
- 1.1.3 Never mix or apply more than what is listed on the label.
- 1.1.4 Minimize the use of pesticides by using other methods such as mechanical methods.
- 1.1.5 Do not apply to standing water or prior to a rain event where pesticides can run off target and enter the storm drain system.
- 1.1.6 Utilize containment systems when mixing chemicals.
- 1.1.7 Clean up spills and leaks immediatley.

#### **1.2 Storage**

- 1.2.1 Store pesticides according to the label.
- 1.2.2 Store pesticides inside and locked up if possible.
- 1.2.3 Place Pesticides on containment bins away from any storm drain inlets.
- 1.2.4 Clean up spills and leaks immediately.

#### **1.3 Disposal**

**1.3.1** Read label for proper disposal of pesticide.

**1.3.2** Tripple rinse all empty containers prior to throwing away.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author           |
|-----------------|---------------|--------------------|------------------|
| 2               | 02/21/2017    | Updated format     | Monte Johnson    |
| 3               | 05/08/2020    | Updated format     | Eric Didericksen |

**Approvals:**

| Name | Title | Signature |
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# Street Sweeping



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .014 | Revision:<br>001 | Effective Date:<br>05/20/2020 |
| Approved By:               |                  | Author:<br>Eric Didericksen   |

## **Policy:**

Stormwater Management Street Sweeping

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.0 Street Sweeping**

#### **1.1 Pre-trip**

- 1.1.1 Prioritize routes for the highest frequency of cleaning in areas with the highest pollutant loading. (Main Collector Roads)
- 1.1.2 Perform pre-trip and preventative maintenance on sweeper before each use.

#### **1.2 Process**

- 1.2.1 All city owned streets are to be swept at least twice per year . Main roads are swept at a higher frequency.
- 1.2.2 Street maps are used to ensure all streets are swept at specified intervals.
- 1.2.3 Sweep streets at appropriate speeds to pick up debris.
- 1.2.4 Dump sweeping debris in designated area only. (Sludge Pit)

#### **1.3 Clean-up**

- 1.3.1 At the end of the shift, wash the sweeper debris body in designated area only. (Sludge Pit).
- 1.3.2 The decant water is routed to the sanitary sewer, the solids can now be moved to the drying beds.
- 1.3.3 Once solids are dry, haul to the landfill for proper disposal.

#### **1.4 Documentation**

- 1.4.1 Log all streets swept in the sweeper map book and create work order.
- 1.4.2 Include the date and amount of debris collected.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
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**Approvals:**

| Name | Title | Signature |
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# Catch Basin Cleaning



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .015 | Revision:<br>001 | Effective Date:<br>06/03/2020 |
| Approved By:               |                  | Author:<br>Eric Didericksen   |

## **Policy:**

Stormwater Management Catch Basin Cleaning

## **Safety:**

Use appropriate PPE when cleaning catch basins. Hard hats, ear protection, eye protection

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed with in the public Right-of-Way.

## **Procedure:**

### **1.0 Catch Basin Cleaning**

#### **1.1 Process**

- 1.1.1 Clean off debris on and around grate.
- 1.1.2 Visually inspect grate for any repairs needed.
- 1.1.3 Use Vactor truck to suck standing water and debris from catch basin.
- 1.1.4 Use the high pressure water hose to break up sediment to be sucked up by vactor.
- 1.1.5 Use rodder hose to clean sediment in pipe between catch basins.
- 1.1.6 After catch basin is clean, inspect the inside of catch basin for any repairs needed.
- 1.1.7 Catch basins are to be cleaned once every two years.

#### **1.2 Clean-up**

- 1.2.1 Dump Vactor truck in designated area only. (Sludge Pit)
- 1.2.2 At end of shift, wash Vactor debris body out in designated area only. (Sludge Pit)  
Follow manufacturer wash out procedures.
- 1.2.3 The decant water is routed to the sanitary sewer, the solids can now be moved to the drying beds.
- 1.2.4 Once solids are dry, haul to the landfill for proper disposal.

#### **1.3 Documentation**

- 1.3.1 Log all catch basins cleaned in map book and create work order.
- 1.3.2 Include the date and amount of debris collected.

**1.3.3** Create work orders for any problems or repairs needed.

**1.3.4** Create work orders for any repairs needed.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
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**Approvals:**

| Name | Title | Signature |
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# Vehicle and Equipment Storage



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .016 | Revision:<br>001 | Effective Date:<br>06/04/2020 |
| Approved By:               |                  | Author:<br>Eric Didericksen   |

## **Policy:**

Stormwater Management Vehicle and Equipment storage

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed when storing vehicles and equipment.

## **Procedure:**

### **1.0 Vehicle and Equipment Storage**

#### **1.1 Process**

- 1.1.1** Inspect parking areas for leaks on a regular basis. (**Monthly Visual Inspection SOP-SW .001**)
- 1.1.2** Store vehicles inside whenever possible where floor drains are connected to sanitary sewer.
- 1.1.3** If inside storage for vehicles is not available, park vehicles in designated areas.
- 1.1.4** Maintain vehicles and equipment to prevent leaks.
- 1.1.5** If a leak is detected, clean up spill using dry methods.
- 1.1.6** Properly dispose of dry absorbents.
- 1.1.7** Place drip pan under leaking vehicle to collect fluids and schedual for repairs.
- 1.1.8** If possible move vehicle indoors until leak is fixed.
- 1.1.9** Empty fluids collected in drip pans into designated containers at the shop.
- 1.1.10** Never store leaking vehicles over strom drain



**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
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**Approvals:**

| Name | Title | Signature |
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# Vehicle and Equipment Maintenance



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .017 | Revision:<br>001 | Effective Date:<br>06/04/2020 |
| Approved By:               |                  | Author:<br>Eric Didericksen   |

## **Policy:**

Stormwater Management Vehicle and Equipment Maintenance

## **Safety:**

Use appropriate PPE when performing vehicle maintenance.

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to work performed while performing vehicle and equipment maintenance.

## **Procedure:**

### **1.0 Vehicle and Equipment Maintenance**

#### **1.1 Maintenance**

**1.1.1** Maintenance activities should be performed inside fleet shops unless equipment is too large to fit inside or temporary repairs need to be performed before equipment can be moved inside fleet shop.

**1.1.2** If maintenance activities are performed outside the fleet shops, use drip pans, dry absorbents, and containment methods to prevent contaminants from entering the storm water system.

**1.1.3** Perform routine inspections of equipment and vehicles to identify potential maintenance needs.

**1.1.4** Perform routine maintenance of equipment and vehicles according to manufacturer recommended maintenance schedules.

**1.1.5** Properly dispose or recycle all waste.

#### **1.2 Body and Paint Repairs**

**1.2.1** Perform all body and paint work indoors.

**1.2.2** Dry cleanup methods, vacuuming or sweeping should be used to cleanup metal filings, dust, and paint chips.

**1.2.3** Properly dispose of all waste materials.

#### **1.3 Material Storage**

- 1.3.1** Store new materials (oil, cleaners, fluids, ect.) indoors in cabinets.
- 1.3.2** Store used materials in labeled containers under cover with secondary containment.
- 1.3.3** Do not combine chemicals in container.
- 1.3.4** Transfer fluids from collection devices to labeled storage tanks for recycle and disposal.
- 1.3.5** Store batteries indoors to contain potential leaks.
- 1.3.6** Keep lids on waste containers and under cover to reduce exposure to rain.
- 1.3.7** Periodically inspect containers and secondary containment for signs of leaks.

#### **1.4 Parts Cleaning**

- 1.4.1** Clean parts in designated area. Never clean parts outdoors where waste water can enter the storm drain system.
- 1.4.2** When using solvents to clean parts, wash over solvent tank or drip pans to catch excess solvents.

#### **Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
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#### **Approvals:**

| Name | Title | Signature |
|------|-------|-----------|
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|      |       |           |

# Material Storage



|                            |                  |                               |
|----------------------------|------------------|-------------------------------|
| Identifier:<br>SOP-SW .018 | Revision:<br>001 | Effective Date:<br>06/05/2020 |
| Approved By:               |                  | Author:<br>Eric Didericksen   |

## **Policy:**

Stormwater Management Material Storage

## **Purpose:**

To protect our environment, Best Management Practices (BMP's) are developed and implemented to reduce the amount of pollutants from entering our storm water system. This SOP includes BMP's that are applicable to material storage.

## **Procedure:**

### **1.0 Material Storage**

#### **1.1 General**

- 1.1.1** Keep inventory of materials to minimize the amount of material used and stored.
- 1.1.2** Inspect material storage areas periodically for signs of leaks or spills.
- 1.1.3** Repair or replace leaking storage containers
- 1.1.4** Refer to **SOP Spill Prevention and Respond Plan** for clean up of spills or leaks.
- 1.1.5** Clean up material storage areas using dry cleanup methods. (vacuum/Sweep)
- 1.1.6** Store materials in a way that reduces the potential to enter the storm water system.
- 1.1.7** Provide tight fitting lids for containers.
- 1.1.8** Store materials indoors or under cover to prevent stormwater from coming in contact with materials. Use secondary containment if required.

#### **1.2 Hazardous Material**

- 1.2.1** Refer to **SOP Spill Prevention and Respond Plan**.

#### **1.3 Loose Materials**

- 1.3.1** Contain (road base, sand, gravel, mulch, ect) in material storage bins to prevent runoff into storm water system.
- 1.3.2** Raw metal and rusting iron must be stored in a way to prevent coming in contact with stormwater.
- 1.3.3** Refer to **SOP Salt Storage** for procedures with storing salt.

**Revision History:**

| Revision Number | Revision Date | Summary of Changes | Author |
|-----------------|---------------|--------------------|--------|
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|                 |               |                    |        |

**Approvals:**

| Name | Title | Signature |
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● Manhole  
● Connection Point  
— Pipe  
▲ Drains  
— Sewer Line  
1 inch = 105 feet



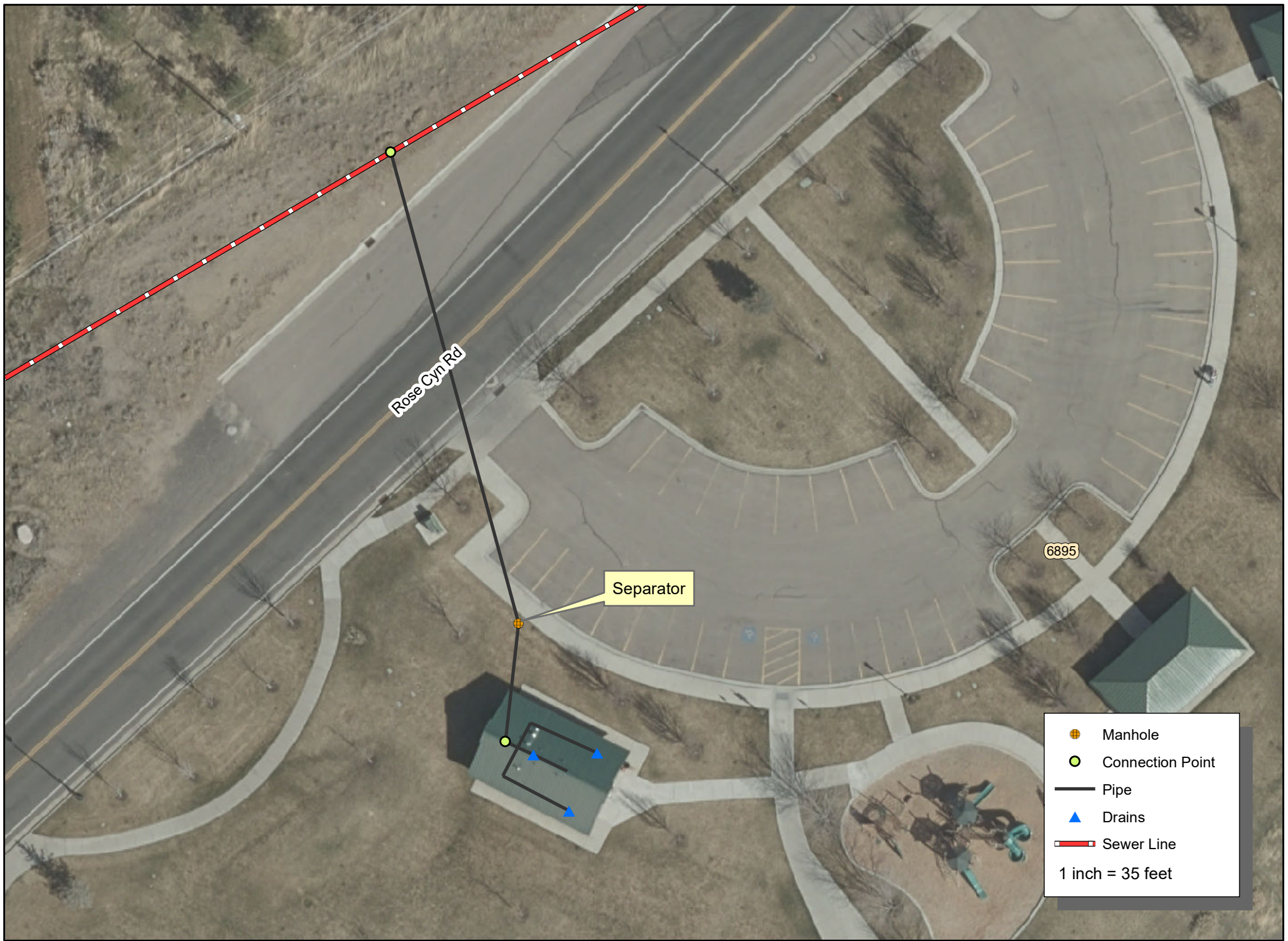
Herriman Main St

- Manhole
  - Connection Point
  - First Floor Pipe
  - Second Floor Pipe
  - First Floor Drain
  - Second Floor Drain
  - Sewer Line
- 1 inch = 35 feet





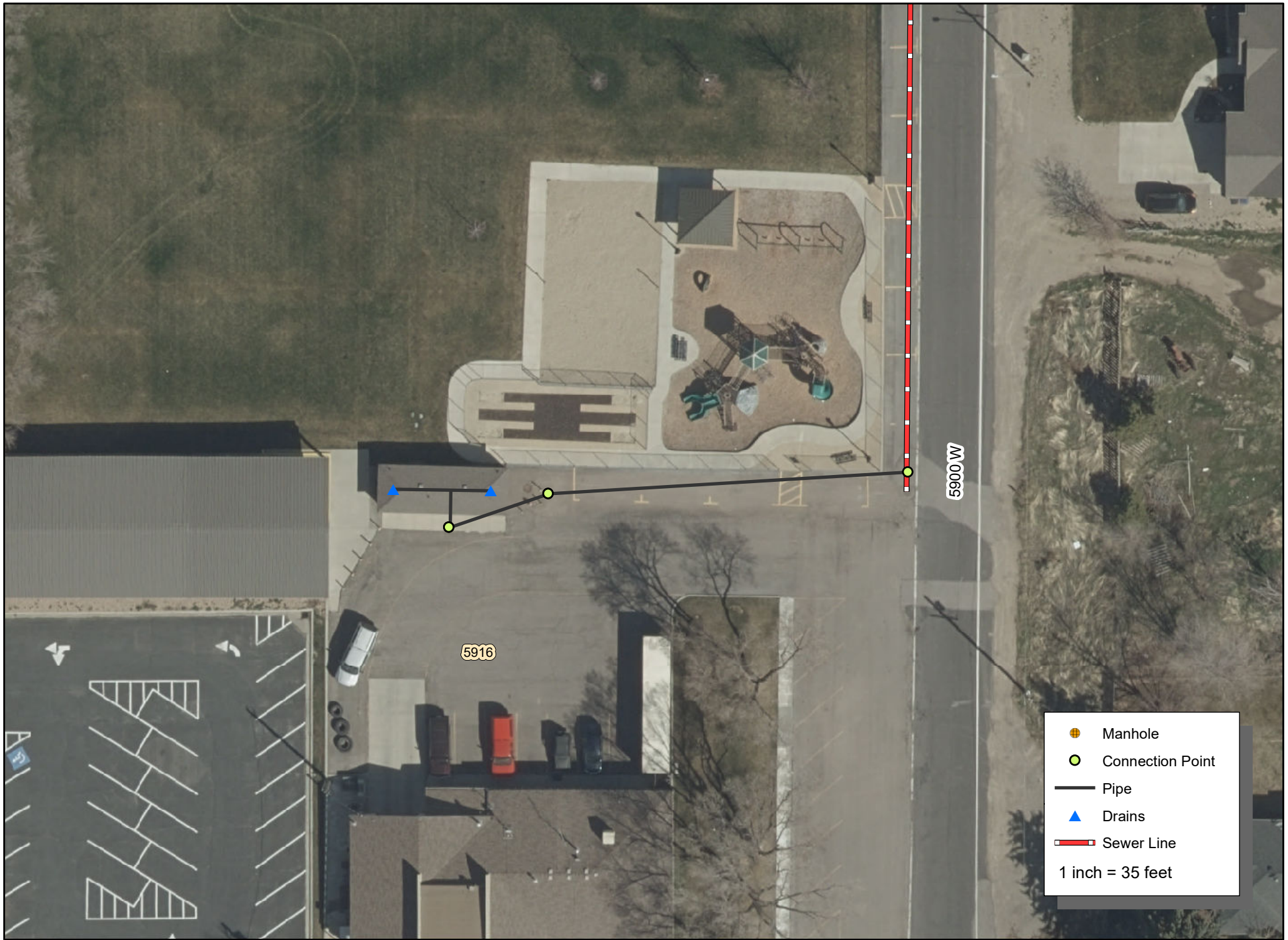











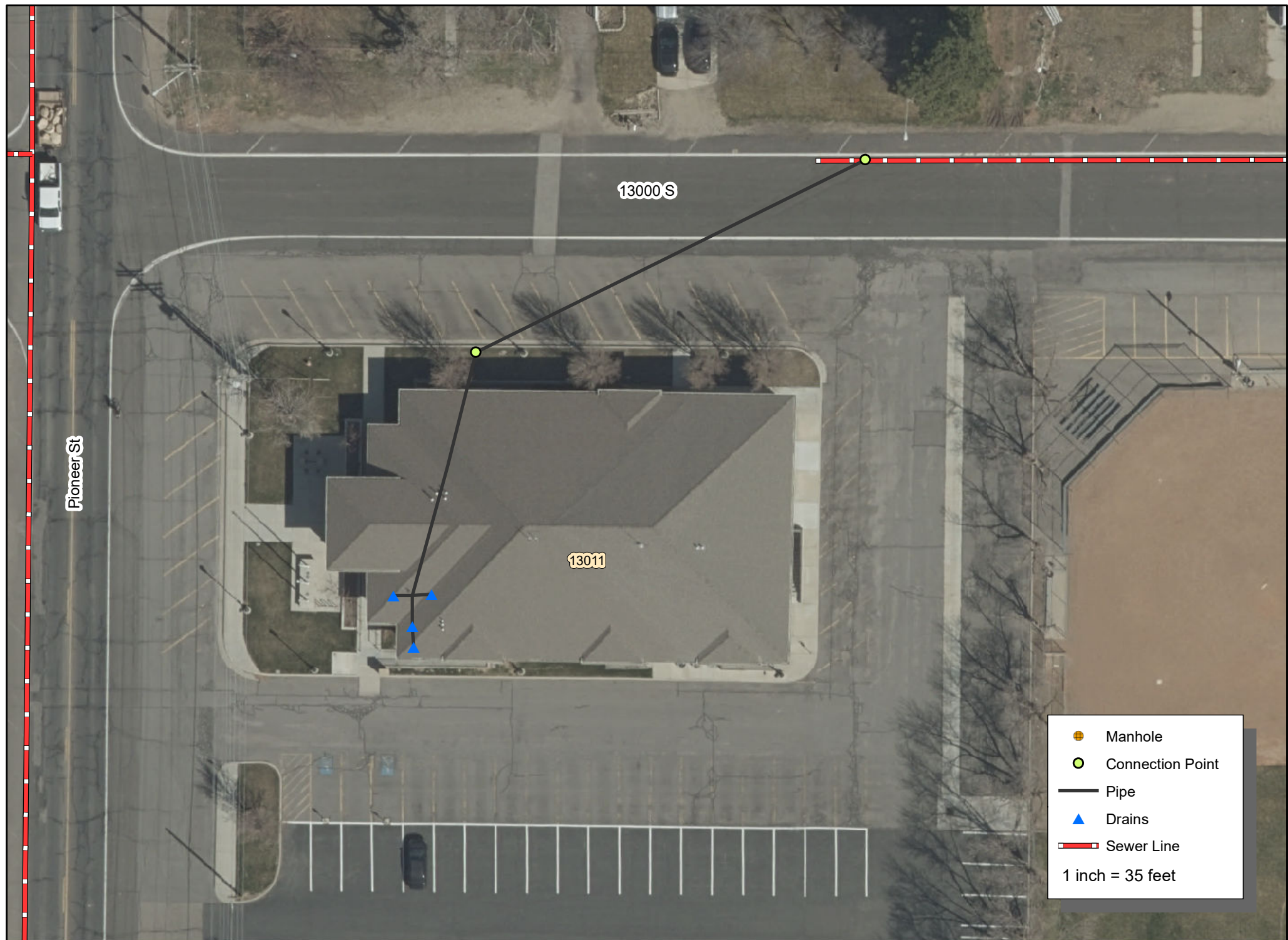






|   |                  |
|---|------------------|
|  | Manhole          |
|  | Connection Point |
|  | Pipe             |
|  | Drains           |
|  | Sewer Line       |
| 1 inch = 35 feet  |                  |

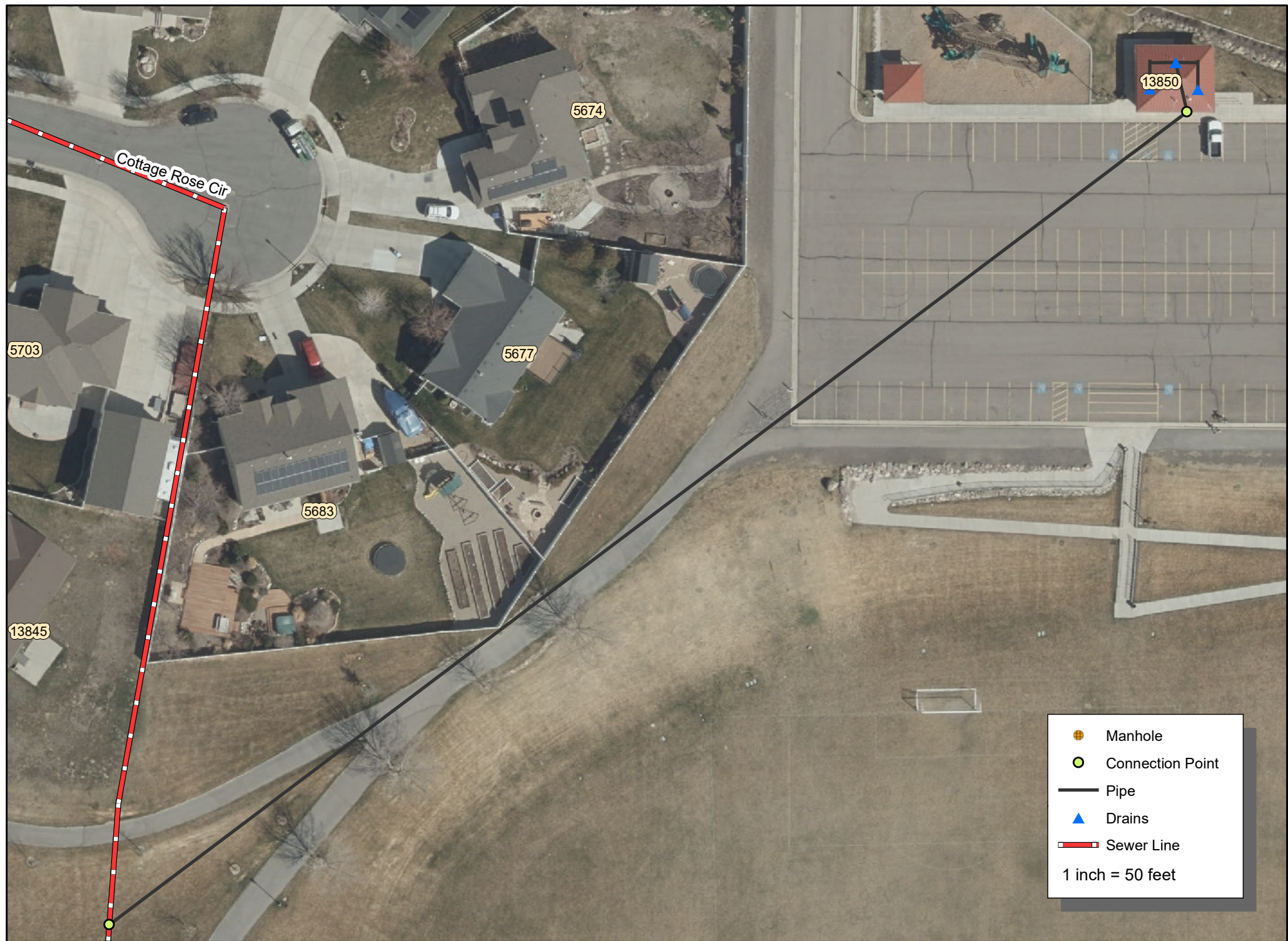




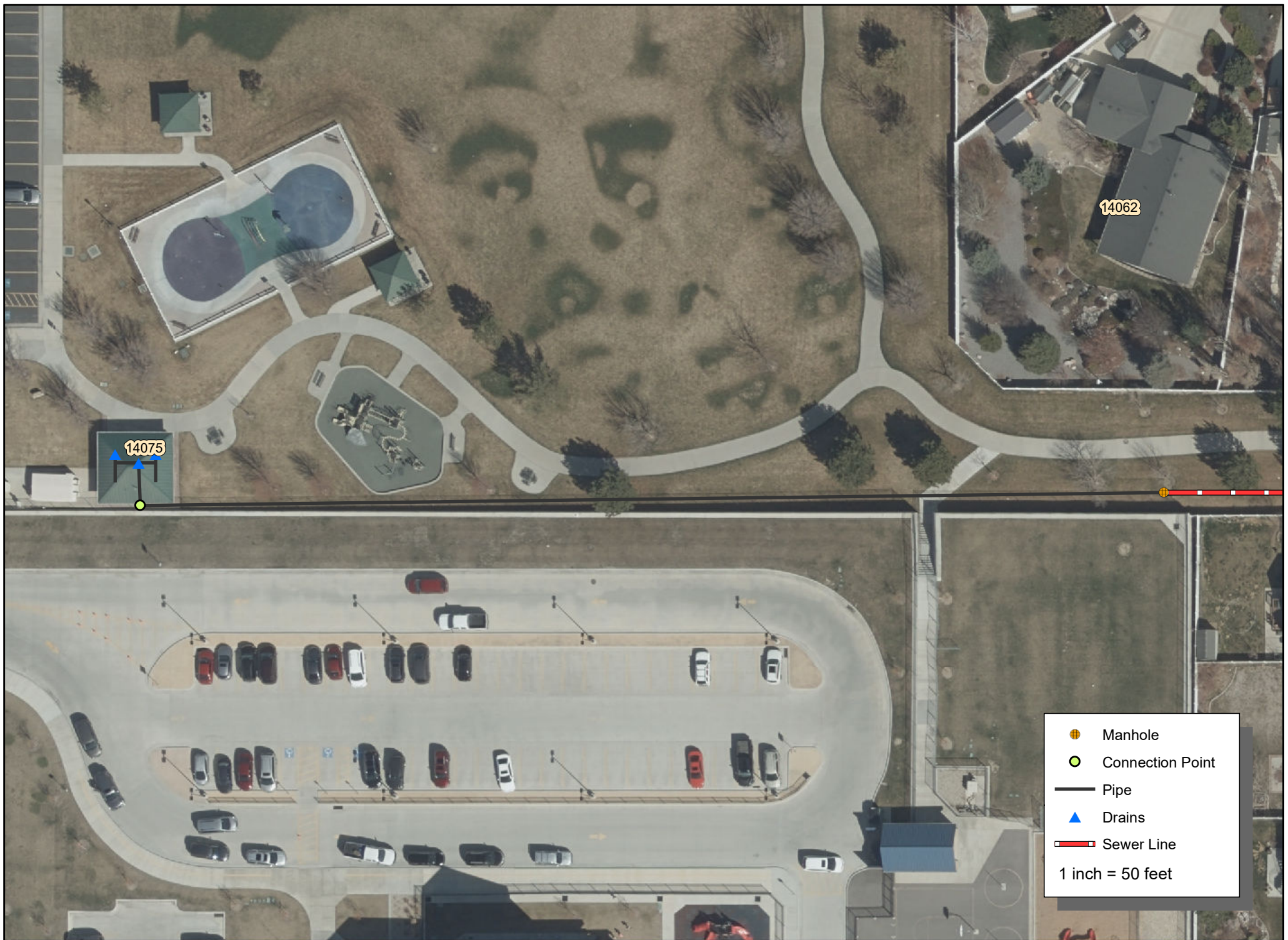




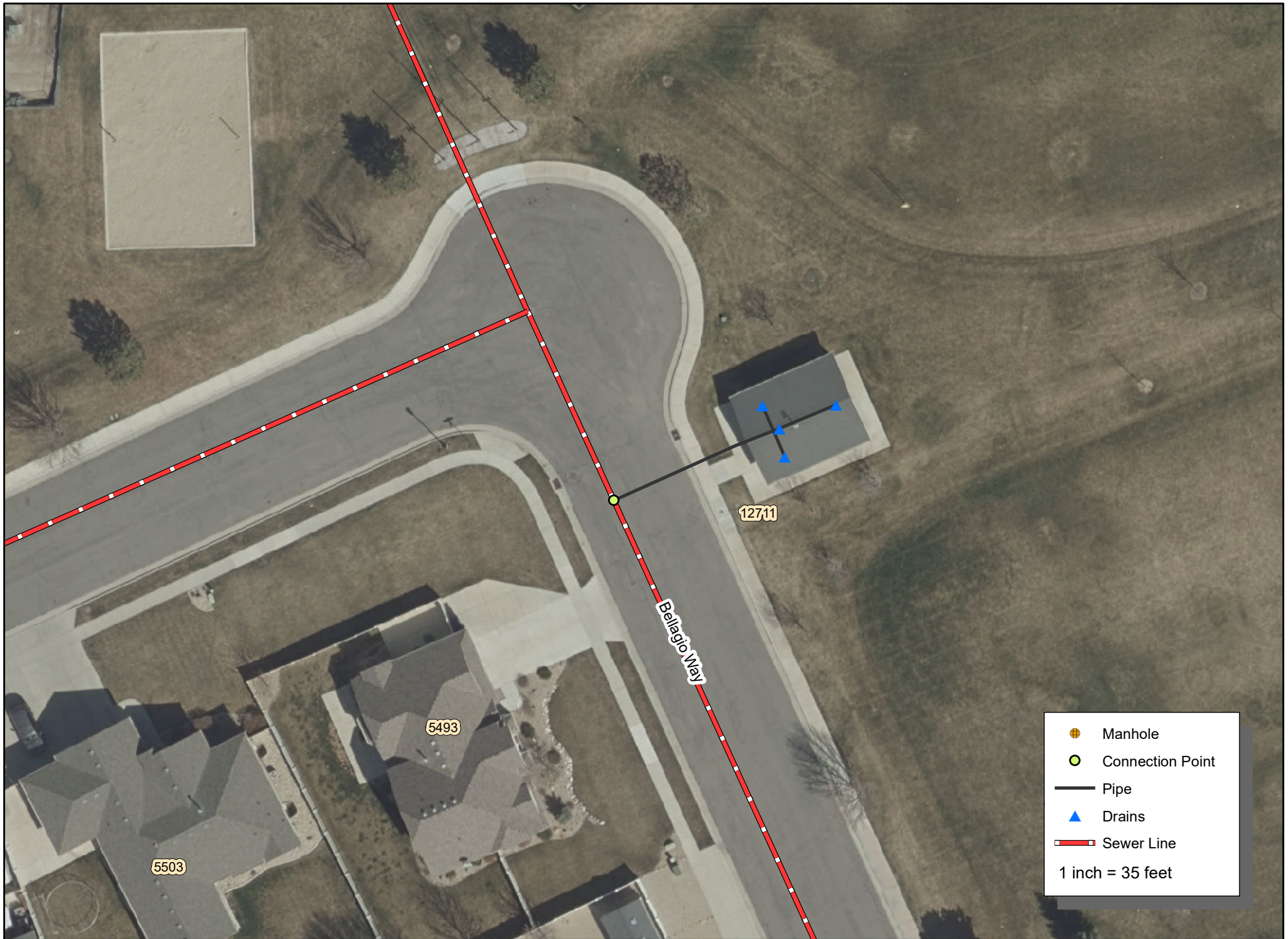




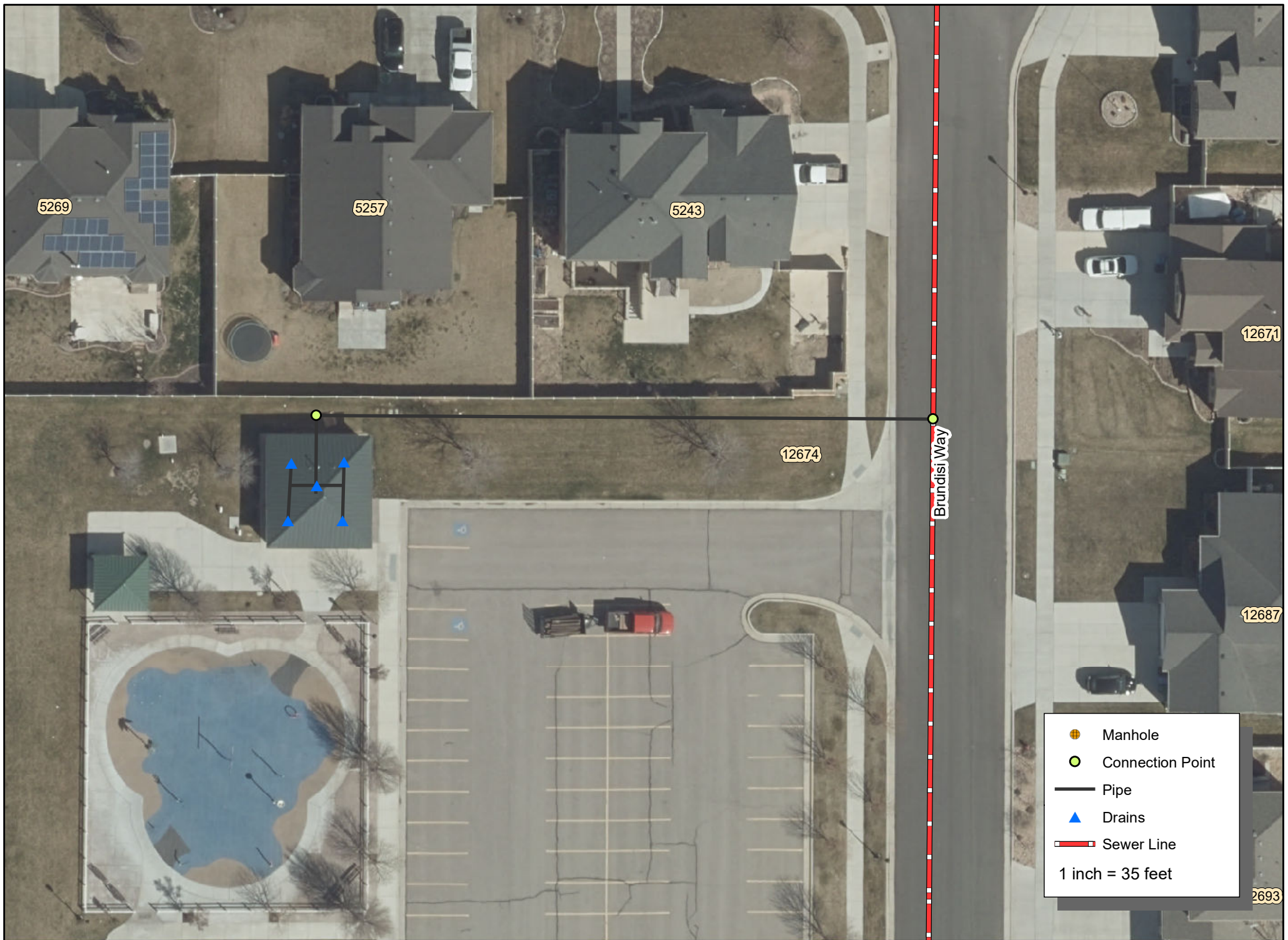

















|   |                  |
|---|------------------|
|  | Manhole          |
|  | Connection Point |
|  | Pipe             |
|  | Drains           |
|  | Sewer Line       |
| 1 inch = 35 feet  |                  |





# Structural Control Assessment Form

Person(s) Assessing Controls:

Date of Assessment:

Description of Existing Structural Control:

Assessment Findings:

Recommendations of changes or additions to improve water quality:

Date Changes or Additions Implemented:

## ***Appendix G – Supplemental Documents***

***Herriman City SWMP Organization Chart***

***Salt Lake County Coalition Interlocal Agreement***

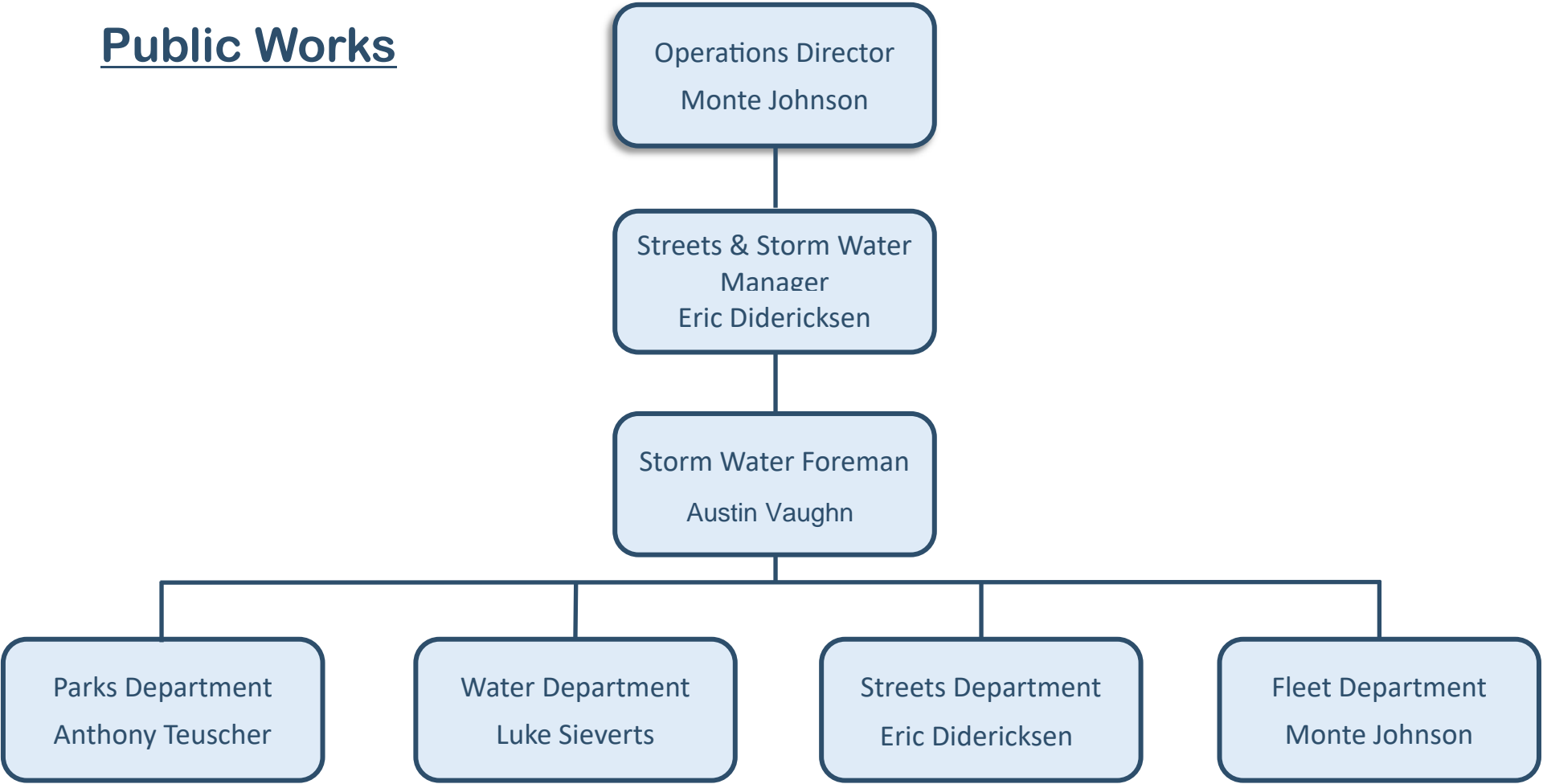
***Small MS4 General UPDES Permit. UTR090000***

***State of Utah SWPPP Template***

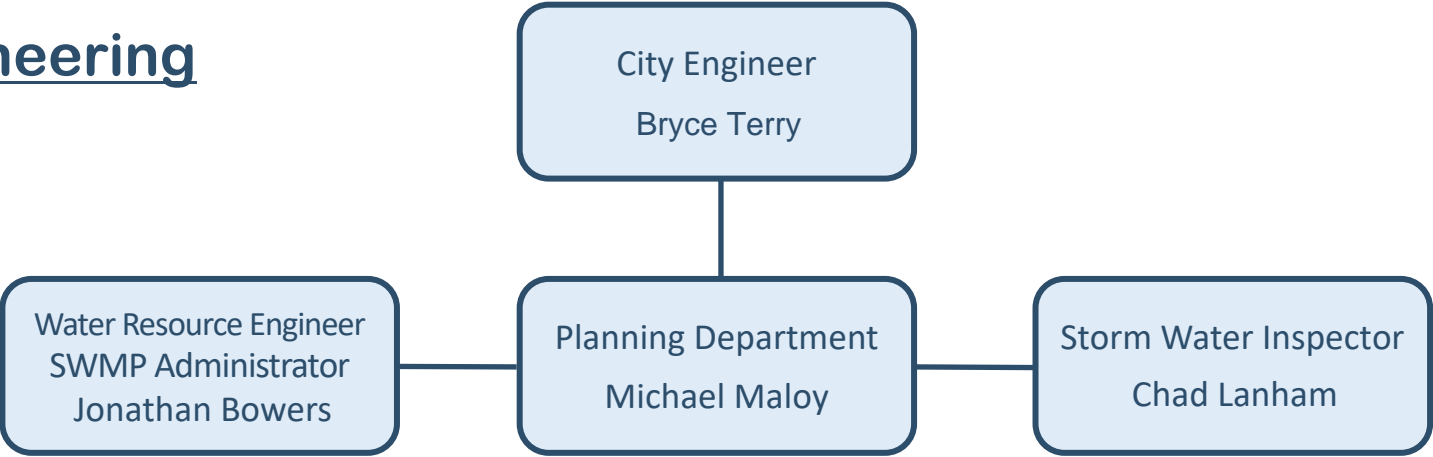
***Herriman City Retrofit Plan***

# MS4s Organization Charts

## Public Works



## Engineering





# MS4s Organization Chart Responsibilities



RESOLUTION NO. R27-2022

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HERRIMAN, UTAH,  
AUTHORIZING THE MAYOR TO SIGN AN INTERLOCAL COOPERATION  
AGREEMENT BETWEEN THE CITY OF HERRIMAN AND SALT LAKE COUNTY.**

**WHEREAS**, the City of Herriman (the “City”) and the County of Salt Lake (the “County”) are local government units under the laws of the State of Utah; and

**WHEREAS**, the parties are public agencies and are therefor authorized by the Utah Interlocal Cooperation Act, Utah Code § 11-13-101, *et seq.*, to enter into agreements with each other which will enable them to make the most efficient use of their powers; and

**WHEREAS**, in connection with the Utah Pollutant Discharge Elimination System, hereinafter “UPDES,” permitting process, the parties desire to cooperate with each other in funding a 2022 through 2028 multimedia public information and education campaign (hereafter “Campaign”) for the purpose of increasing public awareness about storm water pollution and educating the public about the prevention of storm water pollution in the City and the County; and

**WHEREAS**, the parties desire to enter into an agreement whereby their respective responsibilities concerning the campaign are specifically set forth.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HERRIMAN, UTAH:**

**SECTION 1. Authorization to Sign.** The City Council hereby approves the Agreement, attached as **Exhibit A**, and authorizes the Mayor to sign the same.

**SECTION 2. Effective Date.** This Resolution shall become effective immediately upon passage.

**APPROVED BY THE CITY COUNCIL OF THE CITY OF HERRIMAN, UTAH, ON  
THIS 28<sup>th</sup> DAY OF SEPTEMBER, 2022.**

**HERRIMAN CITY COUNCIL**

Mayor: \_\_\_\_\_

Lorin Palmer

Attest: \_\_\_\_\_

Jackie Nostrom, City Recorder



## **EXHIBIT A**

(Interlocal Agreement)

County Contract No. \_\_\_\_\_

D.A. No. \_\_\_\_\_

INTERLOCAL COOPERATION AGREEMENT BETWEEN  
HERRIMAN AND SALT LAKE COUNTY FOR  
2022-2028 UPDES MEDIA CAMPAIGN COST SHARING

THIS AGREEMENT is made this 12 day of October, 2022, by and between HERRIMAN, a municipal corporation of the State of Utah, hereinafter "City," and SALT LAKE COUNTY, a body corporate and politic of the State of Utah, hereinafter "County." City and County may be referenced to jointly as the "parties."

WITNESSETH:

WHEREAS, the parties are public agencies and are therefore authorized by the Utah Interlocal Cooperation Act, section 11-13-101, et seq., U.C.A., to enter into agreements with each other which will enable them to make the most efficient use of their powers; and,

WHEREAS, In connection with the Utah Pollutant Discharge Elimination System, hereinafter "UPDES," permitting process, the parties desire to cooperate with each other in funding a 2022 through 2028 multimedia public information and education campaign (hereinafter "Campaign") for the purpose of increasing public awareness about storm water pollution and educating the public about the prevention of storm water pollution in the City and the County; and,

WHEREAS, the parties desire to enter into an agreement whereby their respective responsibilities concerning the campaign are specifically set forth.

AGREEMENT:

NOW, THEREFORE, in consideration of the mutual promises set forth herein, the parties agree as follows:

1. Media Campaign Services. The County will continue to retain the services of a consultant and has developed a plan for the public education and awareness campaign, which will consist of many phases of development for the benefit of all coalition participants.

2. Term. This Agreement shall be in effect from July 1, 2022 through June 30, 2028. The Parties shall meet and confer as needed during the term of this Agreement if the scope of work, budget, payment schedule, or other matters require modification.

3. Budget. The proposed budget for the campaign is \$193,000.00 per year, and includes the components and funding shown on Appendix A which is incorporated as part of this agreement.

4. County Responsibilities. The County shall be responsible for all matters pertaining to administering the campaign and the consultant's contract.

5. City Responsibilities. The City shall pay to the County the sum of \$8,386.31 per year for years 2022-2028. The first payment shall be made within thirty (30) days after receipt of an invoice. The first invoice will be sent by June 30, 2023. Thereafter, payments shall be made no later than September 15 for each year the Agreement remains in effect. This amount may be increased by County each year by the lesser of three percent or the percentage increase, if any, in the latest published "Consumer Price Index, All Urban Consumers." For subsequent annual payments, the County shall submit to City an invoice with the total cost of such services no later than August 15 of each year, which invoice the City shall pay within thirty days.

6. Interlocal Cooperation Act. In satisfaction of the requirements of the Interlocal Act, and in connection with this Agreement, the Parties agree as follows:

(a) This Agreement shall be approved by each Party pursuant to Section 11-13-2025 of the Interlocal Act;

(b) This Agreement shall be reviewed as to proper form and compliance with applicable law by a duly authorized attorney on behalf of each Party, pursuant to Section 11-13-202.5 of the Interlocal Act;

(c) A duly executed original counterpart of this Agreement shall be filed with keeper of records of each Party, pursuant to Section 11-13-209 of the Interlocal Act;

(d) Except as otherwise specifically provided herein, each Party shall be responsible for its own costs of any action taken pursuant to this. Agreement, and for any financing of such costs; and

(e) No separate legal entity is created by the terms of this Agreement To the extent that this Agreement requires administration other than as set forth herein, it shall be administered by a joint board of the public works directors of the City and the County, or their designees. No real or personal property shall be acquired jointly by the Parties as a result of this Agreement. To the extent that a Party acquires, holds or disposes of any real or personal property for use in the joint or cooperative undertaking contemplated by this Agreement, such Party shall do so in the same manner that it deals with other property of such Party.

7. Termination. Pursuant to Utah Code Ann. 11-13-206(a), the parties agree that this agreement may be terminated (with or without cause) by either party upon at least thirty (30) days prior written notice to the other party, in which event an accounting shall be made of all funds not spent or encumbered as of the date of termination.

8. Applicable Law. The provisions of this agreement shall be governed by and construed in accordance with the laws of the State of Utah.

8. Integration. This agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior agreements and understandings



pertaining thereto.

9.       Amendment. The parties may amend this agreement by a writing signed by the parties. The amendment shall not be effective if it is not in writing or if it is not signed by all the parties.

10.      No Agency. Agents, employees or representatives of each party shall-not be deemed to be agents, employees or representatives of the other.

IN WITNESS WHEREOF, the Parties have subscribed their names hereon and caused this agreement to be duly executed on the date and year specified above.

[Signature Page to Follow]

2022-2028 UPDES MEDIA CAMPAIGN COST SHARING INTERLOCAL AGREEMENT  
SIGNATURE PAGE FOR THE COUNTY

**SALT LAKE COUNTY**

By: Lisa Hartman Digitally signed by Lisa Hartman  
Date: 2022.10.12 10:35:49 -06'00'  
Mayor or Designee  
Date: \_\_\_\_\_

**Administrative Approval:**

By: Jared C Steffey Digitally signed by Jared C Steffey  
Date: 2022.10.10 12:44:50 -06'00'  
Scott Baird,  
Department Director

Date: \_\_\_\_\_

By: Kade Moncur Digitally signed by Kade Moncur  
Date: 2022.10.10 09:08:47 -06'00'  
Kade Moncur,  
Division Director

Date: 10/10/2022

**Reviewed as to Form:**

By: Ryan W. Lambert Digitally signed by Ryan W. Lambert  
Date: 2022.09.12 13:02:05 -06'00'  
Ryan W. Lambert,  
Deputy District Attorney


2022-2028 UPDES MEDIA CAMPAIGN COST SHARING INTERLOCAL  
AGREEMENTSIGNATURE PAGE FOR THE CITY

**HERRIMAN**

By   
Mayor or designee


Date 9-28-2022

ATTEST:

By   
City Recorder  
Date 9/28/2022



Reviewed as to Form and Legality:

By   
City Attorney  
Date 9/29/22

## 2022-2028 UPDES MEDIA CAMPAIGN COST SHARING INTERLOCAL

### Appendix A

#### Salt Lake County Stormwater Coalition 2023 Budget

Television Advertising  
Bus Advertising  
Public Opinion Poll  
Stormwater Quality Fair  
Water Science and Engineering Competition  
Design and Distribute Educational Materials  
Stormwater Coalition Website Updates and Maintenance  
Social Media Management  
Public Relations Consultant

Budget Total: \$194,194.93

Note: Some budget items will vary year to year based on permit cycle requirements

## Herriman City

RESOLUTION NUMBER: **R27-2022**

**SHORT TITLE:** RESOLUTION AUTHORIZING THE MAYOR TO SIGN AN INTERLOCAL COOPERATION AGREEMENT BETWEEN HERRIMAN CITY AND SALT LAKE COUNTY

### PASSAGE BY THE CITY COUNCIL OF HERRIMAN CITY ROLL CALL

| NAME            | MOTION | SECOND | FOR | AGAINST | OTHER |
|-----------------|--------|--------|-----|---------|-------|
| Lorin Palmer    |        |        | X   |         |       |
| Jared Henderson |        |        | X   |         |       |
| Teddy Hodges    |        | X      | X   |         |       |
| Sherrie Ohrn    |        |        | X   |         |       |
| Steven Shields  | X      |        | X   |         |       |
|                 | TOTALS |        | 5   |         |       |

This resolution was passed by the City Council of Herriman City, Utah on the 18<sup>th</sup> day of September, 2022, on a roll call vote as described above.

**STATE OF UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WATER QUALITY**

Authorization to Discharge Under the  
Utah Pollutant Discharge Elimination System (UPDES)

General Permit for Discharges from Small Municipal Separate  
Storm Sewer Systems (MS4s)

**UPDES PERMIT NUMBER UTR090000**

This Permit is issued in compliance with the provisions of the Utah Water Quality Act, Utah Code Title 19, Chapter 5, (the "Act") and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et. seq., as amended to date), and the rules and Regulations made pursuant to those statutes.


This Permit authorizes storm water discharges to waters of the state of Utah resulting from a Small Municipal Separate Storm Sewer System (Small MS4) as provided in Part 1.0 of this Permit. This authorization is conditioned upon an operator of a Small MS4 meeting the eligibility requirements in Part 1.2 of this Permit prior to filing a Notice of Intent ("NOI") to discharge under this General Permit. An operator of a Small MS4 is not covered by this General Permit if the operator submits an NOI but has not met these conditions.

This authorization is subject to the authority of the *Director* of the Division of Water Quality to reopen this Permit (see Part 6.22 of Permit), or to require a discharger to obtain an individual Permit (see Part 6.15 of this Permit). The issuance of a discharge Permit authorization under this General Permit does not relieve Permittees of other duties and responsibilities under the Act or rules made under that Act. Significant terms used in this Permit are defined in Part 7.0 of this Permit.

**This modified Permit shall become effective August 16, 2023.**

**This Permit and the authorization to discharge shall expire at midnight, May 11<sup>th</sup>, 2026, except as described in Part 6.3 of this Permit.**

**Signed this August 16, 2023**



r

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John K. Mackey, P.E.  
Director



**UPDES GENERAL PERMIT FOR DISCHARGES FROM  
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

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## **1.0 Coverage Under this Permit**

### **1.1. Authority to Discharge**

This General Permit authorizes the discharge, to waters of the state of Utah, of storm water from a Small MS4 as defined in R317-8-1.6(15) and Part 7.0. of this Permit. This authorization is subject to all of the terms and conditions of this Permit. This General Permit does not authorize discharges prohibited under Part 1.4. of this Permit.

### **1.2. Permit Area and Eligibility**

1.2.1. This Permit covers all areas of the State of Utah.

1.2.1.1. No operator of a Small MS4 as described in 40 CFR 122.32 may discharge from that system without authorization from the *Director*. (See Utah Administrative Code Section R317-8-11.3(1)(h), which sets forth the Permitting requirement, and R317-8-1.10(12), which incorporates 40 CFR 122.32 by reference.) Authorization to discharge under the terms and conditions of this Permit is granted if:

1.2.1.1.1 It applies to an operator of a Small MS4 within the State of Utah.

1.2.1.1.2 The operator is not a “large” or “medium” MS4 as defined in 40 CFR 122.26(b)(4) or (7);

1.2.1.1.3 The operator submits a Notice of Intent (NOI) in accordance with Part 2.0 of this Permit;

1.2.1.1.4 The MS4 is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census;

1.2.1.1.5 The operator is ordered by the *Director* to obtain coverage under this Permit, as provided in the UPDES rules, R317-8.

1.2.2. The following are types of authorized discharges:

1.2.2.1. *Storm water discharges.* This Permit authorizes storm water discharges to waters of the state from the Small MS4s identified in 1.2.1., except as excluded in Part 1.4.

1.2.2.2. *Non-storm water discharges.* The following non-storm water discharges do not need to be addressed unless the Permittee or the *Director* identifies these discharges as significant sources of pollutants to waters of the state or as causing or contributing to a violation of water quality standards:

- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;

- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering runoff;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Residual street wash water;
- Dechlorinated water reservoir discharges; and
- Discharges or flows from emergency firefighting activity

### 1.3. **Local Agency Authority**

This Permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges to storm drain systems or other water courses within their jurisdiction.

### 1.4. **Limitations on Coverage**

This Permit does not authorize:

- 1.4.1. Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are in compliance with a separate UPDES Permit or are determined not to be a substantial contributor of pollutants to waters of the state.
- 1.4.2. Storm water discharges associated with industrial activity as defined in *Utah Administrative Code (UAC) R317-8-11.3(6)(c)*.
- 1.4.3. Storm water discharges associated with construction activity as defined in *UAC R317-8-11.3(6)(e)*.
- 1.4.4. Storm water discharges currently covered under another Permit.
- 1.4.5. Discharges that would cause or contribute to in-stream exceedances of water quality standards as contained in *UAC R317-2*.
- 1.4.6. Discharges of any pollutant into any waters of the state for which a Total Maximum Daily Load (TMDL) has been approved by EPA, unless the discharge is consistent with the TMDL. The discharge must be consistent with the TMDL at the time a Notice of Intent is submitted. If conditions change after coverage is issued, the coverage may remain active provided the conditions and requirements of Part 3.1. of this Permit are complied with.

## 2.0 **Notice of Intent and Storm Water Management Program Requirements**

- 2.1. The requirements of this Part apply only to Permittees **not** covered under the previous General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems. (“**New Applicant**”). Permittees that were covered under the previous MS4 General Permit (“Renewal Permittees”) and have submitted a notice of intent (NOI) at least **180 days** prior to the expiration date of the previous Permit, are covered by this Permit and must follow the requirements of Part 2.3.

- 2.1.1. **New Applicants** must meet the following application requirements. The Notice of Intent (NOI) must include submittal of the Storm Water Management Program (SWMP) document. Detailed information on SWMP requirements can be found in Part 4.0 of this Permit.
- 2.1.2. Within **180 days** of notification from the *Director*, the operator of the MS4 shall submit a NOI form as provided by the Division at <https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits> (The *Director* retains the right to grant permission for a later submission date when a good cause has been demonstrated). One original completed NOI shall be submitted, by mail or hand delivery to:

Attention: MS4 Coordinator  
General Permitting Section  
Department of Environmental Quality  
Division of Water Quality  
195 North 1950 West  
PO Box 144870  
Salt Lake City, UT 84114-4870

- 2.1.3. Late submittal of an NOI is prohibited (unless permission has been granted by the *Director*). If a late NOI is submitted, authorization is only for discharges that occur after Permit coverage is granted. The *Director* reserves the right to take appropriate enforcement actions for any unpermitted discharges.
- 2.1.4. Where application is made by a New Applicant that has assumed operational control of an MS4 for which coverage under this Permit was previously held by a separate entity, the *Director* may determine that the new applicant shall comply with the Permit requirements in this Permit, as directed for Renewal Permittees. Notification shall be made by the *Director* of this requirement in writing to the New Applicant prior to issuance of Permit coverage
- 2.1.5. Implementation of the Permittee’s SWMP must include the six minimum control measures, including development of Measurable Goals, as described in Part 4.2. Measurable Goals for each of the minimum control measures must include, at a minimum, the year by which the Permittee will undertake required actions, including: interim milestones and the frequency of the action (if applicable.)
- 2.1.6. Implementation of the Permittee’s SWMP as described in the Permittee’s application is required to begin within **30 days** after the completed application is submitted. The

Permittee must fully develop and implement the SWMP as discussed in Part 4.0 of the Permit by the end of the Permit term unless a more restrictive timeframe is indicated.

- 2.1.7. If an Operator is designated by the *Director* as requiring Permit coverage later than one year after the effective date of this General Permit, the *Director* may approve alternative deadlines that would allow the Permittee to have its program areas implemented.

## **2.2. Contents of the Notice of Intent**

The Notice of Intent requires, at a minimum, the following information:

- 2.2.1. Name, address, and telephone number of the principal executive officer, ranking elected official or other duly authorized employee in charge of municipal resources used for implementation of the SWMP;
- 2.2.2. Name(s)/ identification of waters of the state as defined by UAC R317-1-1 that receive discharges from the Permittee's MS4;
- 2.2.3. Name of the person responsible for overseeing implementation and coordination of the SWMP;
- 2.2.4. Summary description of the overall water quality concerns, priorities, and measurable goals specific to the Permittee that were considered in the development of the SWMP;
- 2.2.5. The SWMP document shall consist of, at a minimum, a description of the program elements that will be implemented (or already exist) for each of the SWMP minimum control measures. The plan must be detailed enough for the *Director* to determine the Permittee's general strategy for complying with the required items in each of the six minimum control measures in the SWMP document (see Part 4.2 of this Permit);
- 2.2.6. Information on the chosen Best Management Practices (BMPs) and the measurable goals for each of the storm water minimum control measures in Part 4.2 of this Permit and, as appropriate, the timeframe by which the Permittee will achieve required actions, including interim milestones;
- 2.2.7. Permittees which are applying as Co-Permittees shall each submit an NOI and individual SWMP document which will clearly identify the areas of the MS4 for which each of the Co-Permittees are responsible. Permittees which are relying on another entity (ies) to satisfy one or more of their Permit obligations shall include with the NOI, a summary of the Permit obligations that will be carried out by the other entity (ies). During the term of the Permit, Permittees may terminate or amend shared responsibility arrangements by notifying the *Director*, provided this does not alter implementation deadlines.
- 2.2.8. Certification and signature requirements in accordance with Part 6.8.

**2.3. Storm Water Management Program Plan Description for Renewal Permittees**

- 2.3.1. The requirements of this part apply only to **Renewal Permittees** that were previously covered under the last MS4 General Permit. New Applicants are not required to meet the requirements of this Part and must follow the requirements of Part 2.0.
- 2.3.2. Renewal Permittees must submit a **revised SWMP document** to the *Director* within **180 days** of the effective date of this Permit, which includes at a minimum, the following information:
  - 2.3.2.1. Permit number;
  - 2.3.2.2. MS4 location description and map;
  - 2.3.2.3. Information regarding the overall water quality concerns, priorities, measurable goals, and interim milestones specific to the Permittee that were considered in the development and/or revisions to the SWMP document;
  - 2.3.2.4. A description of the program elements that will be implemented (or are already being implemented) in each of the six minimum control measures (see Part 4.0);
  - 2.3.2.5. A description of any modifications to ordinances or long-term/ongoing processes implemented in accordance with the previous MS4 General Permit for each of the six minimum control measures;
  - 2.3.2.6. A description of how the Permittee intends to meet the requirements of the Permit as described in Part 4.0 by either referencing existing program areas that already meet the Permit requirements or a description and relevant measurable goals that include, as appropriate, the year by which the Permittee will achieve required actions, including interim milestones.
  - 2.3.2.7. Indicate the joint submittal(s) of Co-Permittees (if applicable) and the associated responsibility (ies) in meeting requirements of the SWMP.
  - 2.3.2.8. Certification and signature requirements in accordance with Part 6.8.
  - 2.3.2.9. The revised SWMP document must contain specific details for complying with the required items in each of the six minimum control measures contained within the SWMP document (See Part 4.2.).



### 3.0 **Special Conditions**

#### 3.1. **Discharges to Water Quality Impaired Waters**

##### 3.1.1. Applicability:

3.1.1.1. Permittees must determine whether storm water discharge from any part of the MS4 contributes to a 303(d) listed (i.e., impaired) waterbody. A 303(d) list of impaired waterbodies is available at: <https://wq.deq.utah.gov/>. Water quality impaired waters means any segment of surface waters that has been identified by the *Director* as failing to support one or more of its designated uses. If the Permittee has any discharges to an impaired waterbody, the Permittee must comply with Part 3.1.2. and Part 3.2., if applicable, and if no discharges to impaired waterbodies exist, the remainder of this Part 3.1 does not apply.

3.1.1.2. If the Permittee has “303(d)” discharges described above, the Permittee must determine whether a Total Maximum Daily Load (TMDL) has been developed by the *Director* and approved by EPA for the listed waterbody. If there is an approved TMDL, the Permittee must comply with all requirements associated with the TMDL (see Part 3.2.) in addition to the requirements of Part 3.1.2. If no TMDL has been approved, the Permittee must comply with Part 3.1.2. and will be required to meet any TMDL requirements once it is developed and approved.

3.1.2. If the Permittee discharges to an impaired waterbody, the Permittee must include in its SWMP document a description of how the Permittee will control the discharge of all pollutants of concern. This description must identify the measures and BMPs that will collectively control the discharge of the pollutants of concern. The measures should be presented in the order of priority with respect to controlling the pollutants of concern.

3.1.3. Where a discharge is already authorized under this Permit and is later determined to cause or have the reasonable potential to cause or contribute to the violation of an applicable water quality standard, the *Director* will notify the Permittee of such violation(s). The Permittee must take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and document these actions as required by the *Director*. If violations remain or re-occur, coverage under this Permit may be terminated by the *Director* and an alternative General Permit or Individual Permit may be issued. Compliance with this requirement does not preclude the State from taking an enforcement action as provided by the Utah Water Quality Act for the underlying violation.

#### 3.2. **Jordan River Watershed Wide *Escherichia coli* (*E. coli*) TMDL**

3.2.1. Permittees that discharge to waters listed on the Utah 303(d) list as impaired for *E. coli* for which storm water is a contributing source per the *Jordan River Watershed Wide E. coli TMDL* must update their SWMP document within **180 days** to include a written plan (*TMDL Compliance Plan*) addressing the pollutant reduction requirements of the TMDL as it relates to MS4s. The *Jordan River E. coli TMDL MS4 Guidance Document* available on the division’s website will provide supplemental information to assist MS4s in compliance with the below Permit requirements.

3.2.2. The *TMDL Compliance Plan* will supplement and build on the six (6) minimum control

measures identified in Part 4.2 of this permit. The Permittee must develop, fund, and implement source control BMPs that reduce the discharge of *E. coli*. The *TMDL Compliance Plan* must address the following:

- 3.2.2.1. Identify potential sources of *E. coli* in the MS4 and target specific audiences that may be contributing to the *E. coli* sources. Provide and document education and outreach given to the target audiences on the impacts to water quality associated with these types of discharges and BMPs that can be implemented to reduce the discharge of *E. coli*.
  - 3.2.2.1.1. The Permittee can meet the requirements of permit part 3.2.2.1. through contribution to a collaborative program (e.g., storm water coalition) that evaluates, identifies, and targets sources, as well as, provides outreach that addresses *E. coli*.
- 3.2.2.2. The Permittee must maintain a written or mapped inventory of areas in the MS4 that are potential sources of *E. coli* (areas with septic, dense waterfowl areas, dog parks, etc.).
  - 3.2.2.2.1. The Permittee must create a plan to prioritize reduction activities to address the areas and sources identified in the inventory. The plan must include BMPs the permittee will implement over the permit term (structural and non-structural).
  - 3.2.2.2.2. The Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.3.3.1. and begin inspecting the additional priority areas annually at a minimum and documenting the inspections on an inspection form.
  - 3.2.2.2.3. The Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.6.6.2. for street sweeping and storm sewer system maintenance and begin maintaining the areas at the same frequency. The Permittee's road and parking lot sweeping and storm drain system maintenance SOPs should identify all priority areas (including *E. coli* sources) and must include a schedule that includes priority area frequency.
- 3.2.2.3. The Permittee must evaluate their written inventory of potential "high priority" permittee owned and/or operated facilities (Permit Part 4.2.6.1.) and identify sites that have potential sources of *E. coli*. Permittees must add to their inventory any Permittee owned or operated dog parks, parks with open water, sites with septic, or properties that are known potential sources of *E. coli*. Sites that have been identified as potential sources of *E. coli* must have BMPs (structural or nonstructural) that reduce the potential of the discharge of *E. coli*.
- 3.2.2.4. Permittees must evaluate the potential *E. coli* generating activities below to determine whether existing SOPs should target reduction of *E. coli* discharge or if additional SOPs should be developed for the reduction of *E. coli* discharge from the MS4:
  - Roads, highways, and parking lots: Surface cleaning and controlling litter
  - Parks and open space: Lake and lagoon maintenance
  - Parks and open space: Mowing/Trimming/Planting
  - Storm water collection and conveyance system: Inspection and Cleaning of Stormwater Conveyance Structures, Controlling Illicit Connections and Discharges, Controlling Illegal Dumping
  - Material storage areas: Solid Waste Collection, Controlling Litter, Controlling Illegal Dumping
  - Storm water collection and conveyance system: Water line Maintenance, Sanitary Sewer Maintenance, Spill/Leak/Overflow Control, Response, and Containment.

- 3.2.2.5. Permittees must promote the use of Low Impact Development (LID) controls for which *E. coli* (listed a bacteria) has a medium or high pollutant removal effectiveness, as identified in the *Guide to Low Impact Development within Utah, Appendix C* on the division's website: <https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf>.
- 3.2.2.6. Permittees must add potential *E. coli* reduction as a criterion for ranking when evaluating the Permittees retrofit plan (Permit Part 4.2.6.9.).
- 3.2.3. Permittees must report annually on their TMDL compliance by submitting the TMDL Compliance Report section within the annual report form on the Division's website. The first TMDL Compliance Report within the annual report will be due to the Division by October 1, 2024. The reporting will include identification of problem areas for which source control BMPs were developed, the cost, and the anticipated pollutant reduction.

### **3.3. Nitrogen and Phosphorus Reduction**

- 3.3.1. As part of the Permittee's Storm Water Management Program (SWMP), all Permittees must specifically address the reduction of water quality impacts associated with nitrogen and phosphorus in discharges from the MS4.
  - 3.3.1.1. The Permittee can meet the requirements of this section through contribution to a collaborative program (e.g. storm water coalitions) that evaluates, identifies, and targets sources, as well as provides outreach that addresses potential sources within the Permittee's watershed.
  - 3.3.1.2. The Permittee must identify and target sources (e.g., residential, industrial, agricultural, or commercial) that are contributing, or have the potential to contribute, nitrogen and phosphorus to waters of the state, where the Permittee is authorized under this Permit to discharge.
  - 3.3.1.3. The Permittee must prioritize targeted sources that are likely to result in a reduction of nitrogen and phosphorus in discharges through education and outreach. The Permittee must distribute educational materials or equivalent outreach to the prioritized targeted sources. Educational materials or equivalent outreach must describe storm water quality impacts associated with nitrogen and phosphorus in storm water runoff and illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nitrogen and phosphorus. The Permittee may incorporate the education and outreach to meet this requirement into the education and outreach strategies provided in accordance with Permit Part 4.2.1.

### **3.4. Co-Permittees**

- 3.4.1. Two or more operators of interrelated or neighboring Small MS4s may apply as Co-Permittees.
- 3.4.2. In order to be permitted as Co-Permittees, the MS4(s) must each submit an NOI which meets the requirements outlined in Permit Part 2.0. Each description of the MS4(s) Storm Water Management Program Plan(s) must clearly describe which Permittees are responsible for implementing each of the minimum control measures.
- 3.4.3. Each Co-Permittee is individually liable for:

- 3.4.3.1. Permit compliance for discharges from portions of the MS4 where it is the operator and for areas within its legal jurisdiction;
- 3.4.3.2. Ensuring that the six minimum control measures described in Part 4.2 are implemented for portions of the MS4 where it is the operator and in areas within its legal jurisdiction; and
- 3.4.3.3. If any Permit conditions are established for specific portions of the MS4, Co-Permittees need only comply with the Permit conditions relating to those portions of the MS4 for which they are the operator.
- 3.4.4. Each Co-Permittee is jointly liable for compliance with annual reporting requirements identified in Part 5.5, with the exception that a Co-Permittee is individually liable for any parts of the annual report that relate exclusively to portions of the MS4 where it is the operator.
- 3.4.5. Specific Co-Permittees are jointly liable for Permit compliance on portions of the MS4 as follows:
  - 3.4.5.1. Where operational or SWMP implementation authority over portions of the MS4 has been transferred from one Co-Permittee to another in accordance with legally binding interagency agreements, both the owner and the operator may be jointly liable for Permit compliance on those portions of the MS4; and;
  - 3.4.5.2. Where one or more Co-Permittees jointly owns or operates a portion of the MS4, each owner/operator is jointly liable for compliance with Permit conditions on the shared portion of the MS4.

#### 4.0 **Storm Water Management Program**

Permittees covered under the previous General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, (“**Renewal Permittees**”), are expected to have fully implemented all of the following six minimum control measures as required in the previous Permit term. Permittees that were newly designated during the previous Permit term have 5 years from the date of their submitted NOI to develop, fully implement, and enforce their Storm Water Management Program (SWMP). A Renewal Permittee must continue to implement its SWMP designed to reduce the discharge of pollutants from the MS4 as described in the application and submittals provided in accordance with the previous MS4 General Permit, while updating its SWMP document pursuant to this Permit. This Permit does not extend the compliance deadlines set forth in the previous MS4 General Permit unless specifically noted. All requirements contained in this renewal Permit are effective immediately unless an alternative timeframe is indicated.

#### 4.1. **Requirements**

- 4.1.1. All Permittees must develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants to the Maximum Extent Practicable from the MS4, protect water quality, and satisfy the appropriate water quality requirements of the *Utah Water Quality Act*. The SWMP must include the six minimum control measures described in Part 4.2 of this Permit.
  - 4.1.1.1. The SWMP shall be developed and implemented in accordance with the schedules contained in Part 4.0. of this Permit.
- 4.1.2. Each Permittee shall have an ongoing documentation process for gathering, maintaining, and using information to conduct planning, set priorities, track the development and implementation of the SWMP, evaluate Permit compliance/non-compliance, and evaluate the effectiveness of the SWMP implementation.
  - 4.1.2.1. Each Permittee shall track the number of inspections performed, official enforcement actions taken, and types of public education activities implemented as required for each SWMP component. This information shall be provided to the *Director* upon request and used by the *Director* to determine compliance with this Permit.
  - 4.1.2.2. Each Permittee must secure the resources necessary to meet all requirements of this permit. Each Permittee must conduct an annual analysis of the capital and operation and maintenance expenditures needed, allocated, and spent, as well as, the necessary staff resources needed and allocated to meet the requirements of this permit, including any development, implementation, and enforcement activities required. Each permittee must submit a summary of its fiscal analysis with each annual report.
- 4.1.3. The SWMP document shall include BMPs that the Permittee or another entity will implement for each of the storm water minimum control measures.
  - 4.1.3.1. The Measurable Goals for each of the BMPs shall include, at a minimum, the months and years in which the Permittee will undertake required actions including: interim milestones and the frequency of the actions (if applicable).

- 4.1.3.2. The SWMP document shall indicate the person(s) responsible for implementing or coordinating the BMPs contained within the SWMP document.
- 4.1.3.3. Within **180 days** of the effective date of the Permit, the Permittee shall revise the SWMP document to clearly identify the roles and responsibilities of all offices, departments, Directors, or sub-sections, and if necessary other responsible entities. It shall also include any necessary agreements, contracts, or memorandum of understanding (MOUs) between said entities that affect the implementation and operation of the SWMP. Necessary agreements, contracts, and MOUs shall deal with coordination or clarification of the responsibilities associated with the detection and elimination of improper connections or illicit discharges to the MS4, BMP coordination or other coordinated programs or sensitive issues of unclear or overlapping responsibility. Such agreements, contracts, and MOUs shall be retained by the Permittee as required by the SWMP document.

#### **4.2. Minimum Control Measures**

Permittees covered under the previous Small MS4 General UPDES Permit No. UTR090000 (“**Renewal Permittees**”), are expected to have fully implemented Storm Water Management Programs (SWMPs) that reflect the permit requirements of the previous permit cycle. A Renewal Permittee shall continue to implement its SWMP as described in the application and submittals provided in accordance with the previous Small MS4 General Permit, while updating its SWMP document pursuant to this renewal Permit to achieve pollutant reductions to the Maximum Extent Practicable from the MS4, as specified in Part 4.1. This Permit does not extend the compliance deadlines set forth in the previous MS4 Permit or any corrective action plans and associated schedules unless specifically noted.

To achieve pollutant reductions to the Maximum Extent Practicable, Permittees shall include the following six minimum control measures in the SWMP:

##### **4.2.1. *Public Education and Outreach on Storm Water Impacts***

The Permittee must implement a public education and outreach program to promote behavior change by the public to reduce water quality impacts associated with pollutants in storm water runoff and illicit discharges. Outreach and educational efforts shall include a multimedia approach and shall be targeted and presented to specific audiences for increased effectiveness. The educational program must include documented education and outreach efforts for the following four audiences: (1) residents, (2) institutions, industrial, and commercial facilities, (3) developers and contractors (construction), and (4) MS4-owned or operated facilities.

The minimum performance measures which should be based on the land uses and target audiences found within the community include:

- 4.2.1.1. Target specific pollutants and pollutant sources determined by the Permittee to be impacting, or have the potential to impact, the beneficial uses of a receiving water. This includes providing information which describe the potential impacts from storm water discharges; methods for avoiding, minimizing, reducing and /or eliminating the adverse impacts of storm water discharges; and the actions individuals can take to



improve water quality, including encouraging participation in local environmental stewardship activities.

- 4.2.1.2. Provide and document education outreach given to the general public on the Permittee's prohibitions against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: maintenance of septic systems; effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of onsite infiltration of storm water; effects of automotive work and car washing on water quality; proper disposal of swimming pool water; and proper management of pet waste. These topics are not inclusive and the Permittee must focus on those topics most relevant to the community.
- 4.2.1.3. Provide and document education and outreach given to institutions, industrial, and commercial facilities on an annual basis of the Permittee's prohibitions against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: proper lawn maintenance (use of pesticides, herbicides and fertilizer); benefits of appropriate onsite infiltration of storm water; building and equipment maintenance (proper management of waste water); use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to ground water); proper storage of materials (emphasize pollution prevention); proper management of waste materials and dumpsters (cover and pollution prevention); and proper management of parking lot surfaces (sweeping). These topics are not inclusive and the Permittee must focus on those topics most relevant to the community. This education can also be a part of the Illicit Discharge Detection and Elimination measure detailed in Part 4.2.3.
- 4.2.1.4. Provide and document education and outreach given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMP use, to reduce adverse impacts from storm water runoff from development sites. This education can also be a part of the Construction Site Storm Water Runoff minimum control measure detailed in Part 4.2.4.
- 4.2.1.5. Provide and document education and training given to employees of Permittee-owned or operated facilities concerning the Permittee's prohibition against illicit discharges and improper disposal of waste and the impacts to water quality associated with these types of discharges. The Permittee must at a minimum consider the following topics: equipment inspection to ensure timely maintenance; proper storage of industrial materials (emphasize pollution prevention); proper management and disposal of wastes; proper management of dumpsters; minimization of use of salt and other de-icing materials (cover/prevent runoff to MS4 and ground water contamination); benefits of appropriate onsite infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).
- 4.2.1.6. Provide and document education and training to MS4 engineers, development and plan review staff, land use planners, and other pertinent parties about Low Impact Development (LID) practices, green infrastructure practices, and the specific

requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.

- 4.2.1.7. An effective program must show evidence of focused messages and audiences, as well as, demonstrate that the defined goal of the program has been achieved. The Permittee must identify specific messages for each targeted audience. The Permittee must also identify methods that will be used to evaluate the effectiveness of the educational messages and overall education program. Any methods used to evaluate the effectiveness of the program must be tied to the defined goals of the program and the overall objective of changes in behavior and knowledge.
- 4.2.1.8. The Permittee must include written documentation or rationale as to why particular BMPs were chosen for its public education and outreach program.

#### **4.2.2. *Public Involvement/Participation***

The Permittee must implement a program that complies with applicable State and Local public notice requirements. The SWMP shall include ongoing opportunities for public involvement and participation, but at a minimum two (2) times annually. Permittees can meet this requirement through advisory panels, public hearings, watershed committees, stewardship programs, environmental activities, volunteer opportunities, or other similar activities. The Permittee should involve potentially affected stakeholder groups, including but is not limited to, commercial and industrial businesses, trade associations, environmental groups, homeowners' associations, and education organizations.

The minimum performance measures are:

- 4.2.2.1. Permittees shall adopt a program or policy directive to create opportunities for the public to provide input during the decision-making processes involving the development, implementation and update of the SWMP document, including development and adoption of all required ordinances or regulatory mechanisms.
- 4.2.2.2. **Renewal Permittees** shall make the revised SWMP document available to the public for review and input within **180** days from the effective date of this Permit. **New Applicants** shall make the SWMP document available to the public for review and input within **180** days of receiving notification from the *Director* of the requirement for Permit coverage.
- 4.2.2.3. A current version of the SWMP document shall remain available for public review and input for the life of the Permit. If the Permittee maintains a website, the latest version of the SWMP document shall be posted on the website within **180 days** from the effective date of this Permit and shall clearly identify a specific contact person and provide the phone number and/or email address to allow the public to review and provide input for the life of the Permit.

#### **4.2.3. *Illicit Discharge Detection and Elimination (IDDE)***

All Permittees shall revise (as necessary), implement and enforce an Illicit Discharge and Elimination (IDDE) program to systematically find and eliminate sources of non-storm water discharges from the MS4 and to implement defined procedures to prevent

illicit connections and discharges according to the minimum performance measures listed below. The IDDE program must be described in writing, incorporated as part of the Permittee's SWMP document, and contain the elements detailed in this part of the Permit.

The minimum performance measures are:

- 4.2.3.1. Maintain a current storm sewer system map of the MS4, showing the location of all municipal storm sewer outfalls with the names and location of all State waters that receive discharges from those outfalls, storm drain pipes, and other storm water conveyance structures within the MS4.
- 4.2.3.2. Effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges to the MS4, including spills, illicit connections, illegal dumping and sanitary sewer overflows ("SSOs") into the storm sewer system. The IDDE program shall require removal of such discharges consistent with Part 4.2.3.6. of this Permit and implement appropriate enforcement procedures and actions. The Permittee must have a variety of enforcement options in order to apply and escalate enforcement procedures as necessary based on the severity of violation and/or the failure of the violator to address the violation(s). Discharges pursuant to a separate UPDES Permit (other than the UPDES Permit for discharges from the MS4) and non-storm water discharges listed in Part 1.2.2.2. are exempt.
  - 4.2.3.2.1 The Permittee's IDDE program must have adequate legal authority to detect, investigate, eliminate, and enforce against non-storm water discharges, including illegal dumping, into the MS4. Adequate legal authority consists of an effective ordinance, by-law, or other regulatory mechanism. The documented IDDE program that is included in the Permittee's SWMP must include a reference or citation of the authority the Permittee will use to implement all aspects of the IDDE program.
- 4.2.3.3. Implement a written plan to detect and address non-storm water discharges to the MS4, including spills, illicit connections, sanitary sewer overflows and illegal dumping. The plan shall include:
  - 4.2.3.3.1 Written systematic procedures for locating and listing the following priority areas likely to have illicit discharges (if applicable to the jurisdiction):
    - Areas with older infrastructure with increased potential for illicit connections;
    - Industrial, commercial, or mixed-use areas;
    - Areas with a history of past illicit discharges;
    - Areas with a history of illegal dumping;
    - Areas with onsite sewage disposal systems;
    - Areas with older sewer lines or a history of sewer overflows or cross-connections;
    - Areas upstream of sensitive waterbodies; and,
    - Other areas the Permittee determines to have increased potential for illicit discharges.

The Permittee must document the basis for its selection of each priority area and create a list of all priority areas identified in the system. This priority area list must be updated annually to reflect changing priorities.

- 4.2.3.3.2 Field inspections of areas which are considered a priority area as identified in Permit Part 4.2.3.3.1. Compliance with this provision shall be achieved by inspecting each priority area annually at a minimum. All field assessment activities shall utilize an inspection form to document findings.
- 4.2.3.3.3 Dry weather screening (See Definitions in 7.0) activities for the purpose of verifying outfall locations and detecting illicit discharges within the Permittee's jurisdiction that discharge to a receiving water. All outfalls shall be inspected at least once during the 5-year Permit term. Dry weather screening activities shall utilize an inspection form to document findings.
- 4.2.3.3.4 If the Permittee discovers or suspects that a discharger may need a separate UPDES Permit (e.g., Industrial Storm Water Permit, Dewatering Permit), the Permittee shall notify the *Director* within **30 days**.
- 4.2.3.4. Implement standard operating procedures (SOPs) or similar types of documents for tracing the source of an illicit discharge. The document should include procedures such as: visual inspections, opening manholes when necessary, using mobile cameras, using field tests of selected chemical parameters as indicators of discharge sources, collecting and analyzing water samples for the purpose of determining sanctions or penalties, and/or other detailed inspection procedures.
- 4.2.3.5. Implement SOPs or similar types of documents for characterizing the nature of illicit discharges and the potential public or environmental threat posed by them when found by or reported to the Permittee by the hotline or other telephone number described in 4.2.3.9. These procedures shall include detailed instructions for evaluating how the discharge will be immediately contained and the steps to be taken to contain the discharge. Compliance with this provision will be achieved by initiating an investigation immediately upon being alerted of a potential illicit discharge.
  - 4.2.3.5.1 When the source of an illicit non-storm water discharge is identified and confirmed, the Permittee must record the following information in an inspection report: the date the Permittee became aware of the non-storm water discharge, the date the Permittee initiated an investigation of the discharge, the date the discharge was observed, the location of the discharge, a description of the discharge, the method of discovery, date of removal, repair, or enforcement action; date and method of removal verification. Analytical monitoring may be necessary to aid in the identification of potential sources of an illicit discharge and to characterize the nature of the illicit discharge. The decision process for utilizing analytical monitoring must be fully documented in the inspection report.
- 4.2.3.6. Implement SOPs or similar types of documents for ceasing the illicit discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for removing the source of the discharge or otherwise eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated. Illicit discharges to the MS4 are prohibited and any such discharges violate this Permit and remain in violation until they are eliminated.

- 4.2.3.6.1 Upon detection, the Permittee shall require immediate cessation of improper disposal practices pursuant to Part 4.2.3.2.1. of this Permit. Upon confirmation of responsible parties, the Permittee shall take all necessary actions in accordance with its enforcement procedures pursuant to Part 4.2.3.6. of this Permit.
- 4.2.3.6.2 Although the Permittee is required to prohibit illicit discharges within their boundaries and to take appropriate action to detect and address any violations, this Permit does not impose strict liability on the Permittee.
- 4.2.3.6.3 All IDDE investigations must be thoroughly documented and may be requested at any time by the *Director*. If a Permittee is unable to meet the minimum performance measures outlined in Parts 4.2.3.5. or 4.2.3.6., the Permittee must immediately submit to the *Director* written documentation or rationale describing the circumstances why compliance with the minimum performance measures was not possible. All IDDE documentation shall be retained by the Permittee as required by the SWMP document.
- 4.2.3.7. Permittees shall inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.
- 4.2.3.8. Permittees shall promote or provide services for the collection of household hazardous waste.
- 4.2.3.9. Permittees shall publicly list and promote a hotline or other local telephone number for public reporting of spills and other illicit discharges. A written record shall be kept of all calls received, all follow-up actions taken, and any feedback received from public education efforts.
- 4.2.3.9.1 The Permittee must develop a written spill and improper disposal response SOP or similar type of document and a flow chart for internal use, that shows the procedures for responding to public referrals of illicit discharges, the various responsible agencies and their contacts, and who would be involved in illicit discharge incident response, even if it is a different entity, other than the Permittee. The procedure and list must be incorporated as part of the IDDE program and incorporated into the Permittee's SWMP document. The list must be maintained and updated as changes occur.
- 4.2.3.10. Permittees shall implement procedures for program evaluation and assessment which includes maintaining a database for mapping, tracking of the number and type of spills or illicit discharges identified; and inspections conducted.
- 4.2.3.11. Permittees shall at a minimum, require that all staff, contracted staff, or other responsible entities, that as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4 receives annual training in the IDDE program including identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections. Office personnel who might receive initial reports of illicit discharges, should also receive the annual training. All Permittees shall require that all new hires are trained within **60 days** of hire date and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing. Training shall include how to identify a spill, an improper disposal, or an illicit connection to the MS4 and proper procedures for reporting the illicit discharge. Training records must be kept and shall include dates,

activities or course descriptions, and names and positions of staff in attendance. The Permittee shall include a summary of such training in the annual report.

- 4.2.3.12. The *Director* reserves the right to request documentation or further investigation of a particular non-storm water discharge of concern, to determine a reasonable basis for allowing the non-storm water discharge and excluding the discharge from the Permittee's program or to require inclusion of the discharge in the Permittee's program, if water quality concerns cannot otherwise be reasonably satisfied.

**4.2.4. *Construction Site Storm Water Runoff Control***

All Permittees shall revise (as necessary), implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction sites with a land disturbance of greater than or equal to one acre. This includes 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 according to the minimum performance measures listed below. Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements.

The minimum performance measures are:

- 4.2.4.1. Revise (as necessary) and enforce an ordinance or other regulatory mechanism that requires the use of erosion and sediment control practices at construction sites. The ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the requirements set forth in the most current UPDES Storm Water General Permits for Construction activities which can be found at [construction.stormwater.utah.gov](http://construction.stormwater.utah.gov). The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall apply, at a minimum, to construction projects disturbing greater than or equal to one acre, as well as, construction projects of 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.
- 4.2.4.1.1 The ordinance or other regulatory mechanism shall, at a minimum, require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality, reduce the discharge of pollutants, and control waste. This includes, but not limited to, discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality. The SWPPP requirements must be, at a minimum, equivalent with the SWPPP requirement set forth in the most current UPDES Storm Water General Permits for Construction Activities, which can be found at: [construction.stormwater.utah.gov](http://construction.stormwater.utah.gov).
- 4.2.4.1.2 Permittees shall require construction operators to obtain coverage under the current UPDES Storm Water General Permits for Construction Activities for the duration of the project. Coverage can be renewed; or obtained online by completing a NOI or renewal request at <https://deq.utah.gov/water-quality/updes-ereporting#construction>



- 4.2.4.1.3 The ordinance shall include a provision for access by qualified personnel to inspect construction storm water BMPs on private properties that discharge to the MS4.
- 4.2.4.2. Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism. The enforcement strategy shall include:
- 4.2.4.2.1 Standard operating procedures (SOPs) or similar types of documents that include specific processes and sanctions to minimize the occurrence of violations and obtain compliance from violators. The SOP or similar type of document shall include appropriate, escalating enforcement procedures and actions, including an appeals process that is published in a publicly accessible location.
- 4.2.4.2.2 Documentation and tracking of all enforcement actions.
- 4.2.4.3. Development and implementation of a checklist for pre-construction SWPPP review that is consistent with the requirements of the current UPDES Storm Water General Permits for Construction Activities. MS4s are required to keep records for, at a minimum, all construction sites that disturb 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, to ensure plans are complete and in compliance with State regulations. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.
- Prior to construction, the Permittee shall:
- 4.2.4.3.1 Conduct a pre-construction SWPPP meeting which includes a review of the site design, planned operations at the construction site, planned BMPs during the construction phase, and planned BMPs to be used to manage runoff created after development.
- 4.2.4.3.2 The Permittee must develop procedures for receiving and considering information and comments submitted by the public on proposed projects.
- 4.2.4.3.3 Identify priority construction sites considering the following factors at a minimum:
- Soil erosion potential;
  - Site slope;
  - Project size and type;
  - Sensitivity of receiving waterbodies (impaired or high-quality waters);
  - Proximity to receiving waterbodies; and,
  - Non-storm water discharges and past record of non-compliance by the operators of the construction site.
- 4.2.4.4. All Permittees shall develop and implement SOPs or similar types of documents for construction site inspection and enforcement of construction storm water pollution control measures. The procedures must clearly identify who is responsible for site inspections, as well as, who has authority to implement enforcement procedures. An individual or entity who prepares a SWPPP for a construction project may not perform the construction site inspections required of Part 4.2.4.4.1 and 4.2.4.4.3 on behalf of the Permittee. The Permittee must have the authority to the extent authorized by law to impose sanctions to ensure compliance with the local program. These procedures and regulatory authorities must be written and documented in the SWMP.

The construction site storm water runoff control inspection program must provide:

- 4.2.4.4.1 At a minimum, monthly inspections of all new construction sites with a land disturbance of 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 are required. These inspections must be conducted by qualified personnel using the Construction Storm Water Inspection Form (Checklist) found on the Division's website at <https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits>.

A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollutant prevention, who possesses the skills to assess conditions at effectiveness of any storm water controls selected and installed to meet the requirements of this permit, such as but not limited to the following:

- Utah Registered Storm Water Inspector (RSI)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Storm Water Quality (CPSWQ)
- Certified Erosion, Sediment, and Storm Water Inspector (CESSWI)
- Certified Inspector of Sediment and Erosion Control (CISEC)
- National Institute for Certification in Engineering Technologies, Erosion and Sediment Control, Level 3 (NICET)
- Certified Stormwater Inspector Construction (CSI-Construction)
- Qualified Compliance Inspector of Stormwater (QCIS)
- EPA NPDES Construction General Permit Inspector Training

- 4.2.4.4.2 The Permittee must inspect all phases of construction, including prior to land disturbance, during active construction, and following active construction. The Permittee must document the procedure for being notified by construction operators/owners of their completion of active construction in its SWMP. Notification is required so that verification of final stabilization and removal of all temporary control measures may be conducted. This procedure must be provided to the construction operator/owner before active construction begins.

- 4.2.4.4.3 Inspections by the MS4 of priority construction sites, as defined in Part 7.0., must be conducted at least biweekly (every two weeks) using the Construction Storm Water Inspection Form (Checklist) found on the *Division's* website at <https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits>.

- 4.2.4.4.4 Permittees may utilize an electronic site inspection tool in place of up to one-half of on-site MS4 inspections at a construction site provided that the Permittee demonstrates to the Director that the tool meets the requirements of Part 4.2.4.

- 4.2.4.4.5 Based on site inspection findings, the Permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the Permittee's enforcement strategy. These follow-up and enforcement actions must be tracked and documented.

- 4.2.4.5 The Permittee must ensure that all staff whose primary job duties are related to implementing the construction storm water program, including permitting, plan

review, construction site inspections, and enforcement, are annually trained to conduct these activities. The training can be conducted by the MS4 or outside training can be attended. Such training must be extended to third-party inspectors and plan reviewers as well. The Permittee shall ensure that all new hires are trained within **60 days** of hire date and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing. Training records must be kept and contain, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance.

- 4.2.4.6. All Permittees shall maintain records of all projects disturbing 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. Permittees shall keep records which include but not limited to, site plan reviews, SWPPPs, inspections, and enforcement actions including verbal warnings, stop work orders, warning letters, notices of violation, and any other enforcement conducted. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.

**4.2.5. *Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)***

The Permittee shall revise (as necessary), implement, and enforce a program to address post-construction storm water runoff to the MS4 from private and public new development and redevelopment construction sites meeting the thresholds below. The water quality considerations of this minimum control measure do not replace or substitute for water quantity or flood management requirements implemented on the local level for new development or redevelopment sites. The water quality controls may be incorporated into the design of structures intended for flow control; or water quality control may be achieved with separate control measures. The program must apply to private and public development sites.

The minimum performance measures are:

- 4.2.5.1. Post-construction Controls. The Permittee's new development/redevelopment program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality. BMPs must be selected that address pollutants known to be discharged or have potential to be discharged from the site.
- 4.2.5.1.1. The Permittee's new development/redevelopment program should include non-structural BMPs. The Permittee should consider non-structural BMPs, including, requirements and standards to minimize development in areas susceptible to erosion and sediment loss; minimize the disturbance of native soils and vegetation; preserve areas that provide important water quality benefits; implement measures for flood control; and protect the integrity of natural resources and sensitive areas.
- 4.2.5.1.2. Retention Requirement. The Permittee must develop and define a specific hydrologic method or methods for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs in their jurisdiction and to facilitate plan review.

New development projects 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 must manage rainfall on-site and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80<sup>th</sup> percentile rainfall event or a predevelopment hydrologic condition, whichever is less. This objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, have evapotranspiration, and/or harvest and reuse rainwater. The 80<sup>th</sup> percentile rainfall event is the event whose precipitation total is greater than or equal to 80 percent of all storm events over a given period of record.

Redevelopment projects that disturb greater than or equal to one acre, including projects less than an acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre must provide a site-specific and project-specific plan aimed at net gain to onsite retention or a reduction to impervious surface to provide similar water quality benefits. If a redevelopment project increases the impervious surface by greater than 10%, the project shall manage rainfall on-site and prevent the off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less than or equal to the 80<sup>th</sup> percentile rainfall event. This objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, have evapotranspiration, and/or harvest and reuse rainwater.

- 4.2.5.1.3. Low Impact Development Approach. The program shall include a process which **requires** the evaluation of a Low Impact Development (LID) approach for all projects subject to the requirements in 4.2.5.1.2. A LID approach promotes the implementation of BMPs that allow storm water to infiltrate, have evapotranspiration or harvest<sup>1</sup> and use storm water on site to reduce runoff from the site and protect water quality.

Guidance for implementing LID can be found in DWQ's LID controls which are appropriate for use in the State of Utah can be found in *A Guide to Low Impact Development within Utah* (the Guide), available on DWQ's website.

Permittees must allow for use of a minimum of five LID practices from the list in Appendix C of the Guide. If a Permittee has not adopted specific LID practices from Appendix C, any LID approach that meets 4.2.5.1.2 and is feasible may be used to meet this requirement.

- 4.2.5.1.4. Feasibility. If meeting the retention standards described in Part 4.2.5.1.2 is infeasible, a rationale shall be provided for the use of alternative design criteria. The new or redevelopment project must document and quantify that infiltration, evapotranspiration, and rainwater harvesting have been used to the maximum extent feasible and that full employment of these controls are infeasible due to constraints. LID infeasibility may be due to one or more of the following conditions: high groundwater, drinking water source protection areas, soil conditions, slopes, accessibility, excessive costs, or any other justifiable constraint.

Guidance for assessing and documenting site conditions can be found in DWQ's "A Guide to Low Impact Development within Utah" Appendix B "Storm Water Quality Report Template" located on the DWQ website at: <https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf>.

A MS Word version can be found on DWQ's website at:  
<https://documents.deq.utah.gov/water-quality/stormwater/DWQ-2018-013750.docx>.

- 4.2.5.2. Regulatory Mechanism. Develop and adopt an ordinance or other regulatory mechanism that requires long-term post-construction storm water controls at new development and redevelopment sites. The ordinance or other regulatory mechanism shall apply, at a minimum, to new development and redevelopment sites that discharge to the MS4 that disturb 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. The ordinance or other regulatory mechanism shall require BMP selection, design, installation, operation, and maintenance standards necessary to protect water quality and reduce the discharge of pollutants to the MS4. The Permittee shall implement an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism. The Permittee's ordinance or other regulatory mechanism must include an appeals process.
- 4.2.5.2.1 The Permittee must include enforcement provisions in the ordinance or other regulatory mechanism that must contain procedures for specific processes and sanctions to minimize the occurrences of violations and obtain compliance from chronic and recalcitrant violators. These processes and sanctions shall include appropriate, escalating enforcement procedures and actions.
- 4.2.5.2.2 The Permittee must maintain documentation on how the requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the MS4.

Documentation shall include:

- How long-term storm water BMPs were selected;
- The pollutant removal performance expected from the selected BMPs; and
- The technical basis which supports the performance claims for the selected BMPs.

All Permittees shall adopt and implement SOPs or similar types of documents for site inspection and enforcement of post-construction storm water control measures. These procedures must ensure adequate ongoing long-term operation and maintenance of approved storm water control measures.

- 4.2.5.2.3 The ordinance or other regulatory mechanism shall include provisions for post-construction access for Permittees to inspect storm water control measures on private properties that discharge to the MS4 to ensure that adequate maintenance is being performed. The ordinance or other regulatory mechanism may require private property owner/operators or qualified third parties to conduct maintenance and provide annual certification that adequate maintenance has been performed and the structural controls are operating as designed to protect water quality, in lieu of the Permittee. If the Permittee requires a maintenance agreement addressing maintenance requirements for any control measures installed on site, the agreement must allow the Permittee to conduct oversight inspections of the storm water control measures and also account for transfer of responsibility in leases and/or deeds. The agreement must also allow the

Permittee to perform necessary maintenance or corrective actions neglected by the property owner/operator and bill or recoup costs from the property owner/operator as needed.

- 4.2.5.2.4 Permanent structural BMPs shall be inspected at least once during installation by qualified personnel. Upon completion, the Permittee must verify that long-term BMPs were constructed as designed.
- 4.2.5.2.5 Inspections and any necessary maintenance must be conducted at least every other year or as necessary to maintain functionality of the control by either the Permittee, or, if applicable, the property owner/operator. On sites where the property owner/operator is conducting maintenance, the Permittee shall inspect those storm water control measures at least once every five years, or more frequently as determined by the Permittee, to verify and ensure that adequate maintenance is being performed. Following an inspection, if there is an observed failure of a facility to perform as designed, the Permittee must document its findings in an inspection report. The inspection report must include the following:
- Inspection date;
  - Name and signature of inspector;
  - Project location;
  - Current ownership information;
  - A description of the condition of the storm water control measure including the quality of: vegetation and soils; inlet and outlet channels and structures; catch basins; spillways; weirs, and other control structures; and sediment and debris accumulation in storage as well as in and around inlet and outlet structures; and,
  - Specific maintenance issues or violations found that need to be corrected by the property owner or operator along with deadlines and re-inspection dates.
- 4.2.5.3. Plan Review. The Permittee shall:
- 4.2.5.3.1 Adopt and implement procedures for site plan review which evaluates potential water quality impacts. The procedures shall apply through the life of the project from conceptual design to project closeout.

<sup>1</sup>Since 2010, rainwater harvesting is legal in the State of Utah. Depending on the volume of rainwater collected and stored for beneficial use, the Permittee must meet the requirements of the Utah Division of Water Rights to harvest rainwater found on their website: <http://waterrights.utah.gov/forms/rainwater.asp>.



4.2.5.3.2 Review post-construction plans for, at a minimum, all new development and redevelopment sites that disturb 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, to ensure that the plans include long-term storm water management measures meet the requirements of this minimum control measure.

4.2.5.4. Inventory. The Permittee must maintain an inventory of all post-construction structural storm water control measures installed and implemented at new development and redeveloped sites that disturb 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. This inventory must include both public and private sector sites located within the Permittee's service area that were developed since the Permittee obtained coverage by this permit or the date that post-construction requirements came into effect, whichever is later.

4.2.5.4.1 Each entry to the inventory must include basic information on each project, such as project's name, owner's name and contact information, location, start/end date, etc.

In addition, inventory entries must include the following for each project:

- Short description of each storm water control measure (type, number, design or performance specifications);
- Short description of maintenance requirements (frequency of required maintenance and inspections); and
- Inspection information (date, findings, follow up activities, prioritization of follow-up activities, compliance status).

4.2.5.4.2 Based on inspections conducted pursuant to Part 4.2.5.2.5, the Permittee must update the inventory when changes occur in property ownership or the specific control measures implemented at the site.

4.2.5.5. Training. Permittees shall ensure that all staff involved in post-construction storm water management, including those that conduct plan review, annual maintenance inspections, and enforcement, receive appropriate training. Training shall be provided or made available for staff in the fundamentals of long-term storm water management through the use of structural and non-structural control methods. Training records must be kept and include, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance. The Permittee shall ensure that all new hires are trained within **60 days** of hire and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing.

#### 4.2.6. ***Pollution Prevention and Good Housekeeping for Municipal Operations***

All Permittees must implement a program for Permittee-owned or operated facilities, operations and structural storm water controls that includes SOPs, pollution prevention BMPs, storm water pollution prevention plans or similar type of documents, and a training component that have the ultimate goal of preventing or reducing the runoff of pollutants to the MS4 and waters of the state. All components of the program shall be

included in the SWMP document and must identify the department responsible for performing each activity described in this section. The Permittee shall develop an inventory of all such Permittee-owned or operated facilities. The Permittee must review this inventory annually and update as necessary.

- 4.2.6.1. The Permittee shall develop and keep current a written inventory of all the below potential “high priority” facilities that are owned or operated by the Permittee and all the associated storm water controls, at a minimum. The *Director* maintains the authority to add additional facilities to the list, as needed.

The inventory should include, but not limited to, the following facilities:

- Composting facilities;
- Equipment storage and maintenance facilities;
- Fuel farms;
- Hazardous waste disposal facilities;
- Hazardous waste handling and transfer facilities;
- Incinerators;
- Landfills;
- Landscape maintenance facilities on municipal property;
- Materials storage yards;
- Pesticide storage facilities;
- Public buildings, including libraries, police stations, fire stations, municipal buildings, restrooms, and similar Permittee-owned or operated buildings;
- Public parking lots;
- Public golf course maintenance facilities;
- Public swimming pool maintenance facilities;
- Public works yards;
- Public Marinas and Boat Launches;
- Recycling facilities;
- Salt storage facilities and de-icing storage facilities;
- Solid waste handling and transfer facilities;
- Street repair and maintenance facilities and or shed sites;
- Vehicle storage and maintenance yards;
- Airports;
- Animal control facilities;
- Vehicle salvage yards;
- Chemical storage facilities; and
- Transportation hubs, including bus stations

- 4.2.6.2. All Permittees shall assess the written inventory of Permittee-owned or operated facilities, operations, and storm water controls identified in Part 4.2.6.1 and make a list of common pollutants that may originate from these facilities and how to prevent them from entering the storm water system. A description of the assessment process and findings must be included in the SWMP document.

- 4.2.6.3. Based on the assessment required in Part 4.2.6.2., the Permittee must identify as “high-priority” those facilities or operations that have:

- Pollutants stored at the site;

- Improperly stored materials;
- Potential pollutant-generating activities performed outside (e.g. changing automotive fluids)
- Close proximity to fresh water and water bodies, including but not limited, to streams, canals, rivers, ponds and lakes;
- Potential to discharge pollutant(s) of concern to impaired water(s).

The Permittee shall provide water quality control measures and BMPs at all high-priority sites designed to target the specific pollutants generated onsite, and/or the pollutants associated with the impaired waters. The Permittee shall monitor the control measures and BMPs regularly to verify that the BMPs are functioning. Control measures, BMPs, and monitoring schedules shall be specified in the Permittee's SWMP.

- 4.2.6.4 The Permittee shall update the SWMP to include a list of "high priority" facilities according to 4.2.6.3 and prepare a Storm Water Pollution Prevention Plan (SWPPP) for each facility within **180 days** from the effective date of this permit. Each "high priority" facility shall implement a SWPPP outlining measures to prevent pollutants from entering the storm drain system from each of these facilities and contain an inspection schedule of the facility.

The SWPPP shall include a site map showing the following information:

- Facility address;
- Staff/contact information for the facility;
- Property boundaries;
- Buildings and impervious surfaces;
- Directions of storm water flow (use arrows);
- Locations of structural control measures;
- Facility BMPs (non-structural);
- Location and name of the nearest defined drainage(s) which could receive runoff from the facility, whether it contains water or not;
- Locations of all storm water conveyances including ditches, pipes, basins, inlets, and swales;
- Locations where on-site activities may be exposed to storm water, including, but limited to the following:
  - Fixed fueling operations;
  - Vehicle and equipment maintenance and/or cleaning areas;
  - Brine making areas;
  - Loading/unloading areas;
  - Waste storage or disposal areas;
  - Liquid storage tanks;
  - Process and equipment operating areas;
  - Materials storage or disposal areas;
- Locations where significant spills or leaks have occurred;
- Locations of all visual storm water monitoring points;
- Locations of storm water inlets and outfalls, with a unique identification code for each outfall and an approximate outline of the areas draining to each outfall;

- Locations of all non-storm water discharges; and
  - Locations of sources of run-on to your site from adjacent properties.
- 4.2.6.5. The following inspections shall be conducted at “high priority” Permittee-owned or operated facilities:
- 4.2.6.5.1 Monthly visual inspections: The Permittee must perform monthly visual inspections of “high priority” facilities and related storm water outfalls in accordance with the developed SOPs to verify the performance of the BMPs and all other systems designed and placed to eliminate pollutant discharges. The monthly inspections must be tracked in a log for every facility and records must be kept with the SWMP document. The inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies.
- 4.2.6.5.2 Semi-Annual comprehensive inspections: At least twice per year, a comprehensive inspection of “high priority” facilities, including all storm water controls, must be performed, with specific attention paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant-generating areas. The semi-annual inspection results must be documented and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. An inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.
- 4.2.6.5.3 Annual visual observation of storm water discharges: At least once per year, the Permittee must visually observe the quality of the storm water discharges from the “high priority” facilities. Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied as soon as practicable, but at a minimum, before the next storm event. Remediation is required to prevent discharge to the storm drain system. Visual observations must be documented and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. The inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.
- 4.2.6.6. Permittees shall develop and implement SOPs to protect water quality at each of the facilities owned or operated by the Permittee and/or activities conducted by the Permittee including, but not limited to, those listed below:
- Buildings and facilities;
  - Material storage areas;
  - Heavy equipment storage areas and maintenance areas;
  - Parks and open space;
  - Vehicle and Equipment;
  - Roads, highways, and parking lots; and
  - Storm water collection and conveyance system.
- 4.2.6.6.1 SOPs shall address the following practices to ensure they are protective of water quality:
- Use, storage and disposal of chemicals;
  - Storage of salt, sand, gravel, landscaping materials, asphalt and other materials;

- Waste and trash management;
- Cleaning, washing, painting and maintenance activities including: cleaning of maintenance equipment, building exteriors, and trash containers;
- Sweeping roads and parking lots;
- Proper application, storage, and disposal of fertilizer, pesticides, and herbicides and minimizing their use;
- Lawn maintenance and landscaping activities including: proper disposal of lawn clipping and vegetation;
- Green waste deposited in the street;
- Proper disposal of pet wastes;
- Vehicle maintenance and repair activities including: use of drip pans and absorbents under or around leaky vehicles and equipment;
- Vehicle/equipment storage including storing indoors where feasible;
- Vehicle fueling including placing fueling areas under cover in order to minimize exposure where feasible;
- Road and parking lot maintenance, including: pothole repair, pavement marking, sealing, and repaving;
- Cold weather operations, including: plowing, sanding, application of deicing compounds, and maintenance of snow disposal areas;
- Right-of-way maintenance, including: mowing, herbicide and pesticide application;
- Municipally-sponsored events such as large outdoor festivals, parades, or street fairs and the clean-up following these events;
- Regular inspection, cleaning, and repair of storm water conveyance and structural storm water controls;
- Graffiti removal; and
- Any activities or operations not listed above that would reasonably be expected to discharge contaminated runoff;

4.2.6.6.2 SOPs must include a schedule for Permittee owned road and parking lot sweeping and storm drain system maintenance. The SOPs must include regular inspection, cleaning, and repair of catch basins, storm water conveyance pipes, ditches and irrigation canals, culverts, structural storm water controls, and structural runoff treatment and/or flow control facilities. Permittees must prioritize sweeping and storm sewer system maintenance, with the highest priority areas being maintained at the greatest frequency. Priorities should be driven by water quality concerns, most recent assessment the receiving water, the amount and type of material that typically accumulates in an area, or other location-specific factors.

4.2.6.6.3 Permittees must ensure and document proper disposal methods of all waste and wastewater removed during cleaning and maintenance of the storm water conveyance system. These disposal methods apply to, but are not limited to, street sweeping and catch basin cleaning. Materials removed from the MS4 should be dewatered in a contained area and discharged to the local sanitary sewer (with approval of local authorities) where feasible. The solid material will need to be stored and disposed of properly to avoid discharge during a storm event. Any other treatment and disposal measures shall be reviewed and approved by the *Director*. Some materials removed from storm drains and open channels may require special handling and disposal, and

may not be authorized to be disposed of in a landfill. The solid material shall be stored and disposed of in accordance to federal, state and local laws.

- 4.2.6.6.4 Permittees must ensure that vehicle, equipment, and other wash waters are not discharged to the MS4 or waters of the state as these types of discharges are strictly prohibited under this Permit. Additionally, the Permittee must minimize discharges to waters of the state that are associated with snow disposal and melt.
- 4.2.6.6.5 The Permittee shall develop a spill prevention plan in coordination with the local fire department.
- 4.2.6.6.6 All Permittees must maintain an inventory of all floor drains inside all Permittee-owned or operated buildings and ensure that all floor drains discharge to appropriate locations. The inventory shall be updated as necessary to ensure accuracy.
- 4.2.6.7. The Permittee shall be responsible for ensuring, through contractually-required documentation and/or periodic site visits that contractors performing Operation and Maintenance (O&M) activities for the Permittee are using appropriate storm water controls and following the SOPs, storm water control measures, and good housekeeping practices of the Permittee.
- 4.2.6.8. The Permittee must develop and implement a process to assess the water quality impacts and the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4. This process shall include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives. A description of this process shall be included in the SWMP document.
- 4.2.6.8.1 Existing flood management structural controls shall be assessed to determine whether changes or additions should be made to improve water quality. A description of this process and any changes or additions made should be included in the SWMP document.
- 4.2.6.9. The Permittee must develop a plan to retrofit existing developed sites that the Permittee owns or operates that are adversely impacting water quality. The retrofit plan must be developed to emphasize controls that infiltrate, have evapotranspiration, or harvest and use storm water discharges.

The plan must include a ranking of retrofit sites based on the following criteria:

- Proximity to waterbody;
  - Current assessment of waterbody with the goal to improve impaired waterbodies and protect unimpaired waterbodies;
  - Hydrologic condition of the receiving waterbody;
  - Proximity to sensitive ecosystem or protected area; and
  - Any sites that could be further enhanced by retrofitting storm water controls.
- 4.2.6.10. The Permittee shall require that all employees, contracted staff, and other responsible entities that have primary operation, or maintenance job functions that are likely to impact storm water quality receive annual training. The annual training shall address the importance of protecting water quality, the requirements of this Permit, O&M requirements, inspection procedures, ways prevent or minimize impacts to water



quality by how they perform their job activities SOPs and SWPPPs for the various Permittee-owned or operated facilities, as well as, procedures for reporting water quality concerns, including potential illicit discharges. Training records must be kept and contain, at a minimum, dates, activities or course descriptions, and names and positions of staff in attendance. The Permittee shall document and maintain records of the training provided and the staff in attendance. The Permittees must ensure that all new hires are trained within **60 days** of hire and annually thereafter, at a minimum. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing.

#### **4.3. Sharing Responsibility**

- 4.3.1. Implementation of one or more of the six minimum measures may be shared with another entity, or the entity may fully take over the measure. A Permittee may rely on another entity only if:
- 4.3.2. The other entity, in fact, implements the control measure;
- 4.3.3. The particular control measure, or component of that measure, is at least as stringent as the corresponding Permit requirement; and
- 4.3.4. The other entity agrees to implement the control measure through a written agreement. This obligation must be maintained as part of the description given in the Permittee's SWMP document. If the other entity agrees to report on the minimum control measure, the Permittee must supply the other entity with the reporting requirements contained in Part 5.5. of this Permit. If the other entity fails to implement the control measure, then the Permittee remains liable for any discharges due to any failure to implement the control measure.
- 4.3.5. The Permittee conducts training of the responsible entity on the Permit requirements and applicable standard operating procedures.

#### **4.4. Reviewing and Updating Storm Water Management Programs**

- 4.4.1. *Storm Water Management Program Review:* All Permittees must conduct, at a minimum, an annual review of the SWMP document in conjunction with preparation of the annual report required in Part 5.5.
- 4.4.2. *Storm Water Management Program Update:* A Permittee may change the SWMP document during the life of the Permit in accordance with the following procedures:
  - 4.4.2.1. Changes adding components, controls, or requirements to the SWMP document may be made at any time upon written notification to the *Director*. Changes that reduce or replace any component, control, or requirement of the SWMP document is not authorized, unless it meets requirements outlined in Part 4.4.2.2.
  - 4.4.2.2. Changes replacing an ineffective or unfeasible BMP specifically identified in the SWMP document with an alternate BMP may be adopted at any time, provided the analysis is clearly outlined and subsequently approved by the *Director*.

An analysis shall include:

- 4.4.2.2.1 An explanation of why the BMP is ineffective or infeasible;
- 4.4.2.2.2 Expectations or report on the effectiveness of the replacement BMP; and
- 4.4.2.2.3 An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced, or has achieved those goals.
- 4.4.3. Change requests or notifications must be made in writing and signed in accordance with Part 6.8.
- 4.4.4. Change requests or notifications will receive confirmation and approval or denial in writing from the *Director*.
- 4.4.5. Storm Water Management Program Updates required by the *Director*: The *Director* may require changes to the SWMP as needed to:
  - 4.4.5.1. Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
  - 4.4.5.2. Include more stringent requirements necessary to comply with new Federal regulatory requirements; or
  - 4.4.5.3. Include such other conditions deemed necessary by the *Director* to comply with the goals and requirements of the Clean Water Act.

## **5.0 Narrative Standard, Monitoring, Recordkeeping and Reporting**

### **5.1. Narrative Standard**

It shall be unlawful and a violation of this Permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or conditions which produce undesirable aquatic life or which produces objectionable tastes in edible aquatic organisms; or concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

### **5.2. Analytical Monitoring**

Permittees are not required to conduct analytical monitoring (see definition in Part 7.0) during the effective term of this Permit, with the following exceptions:

- 5.2.1. Water quality sampling may be required for compliance with TMDLs, pursuant to Part 3.1. of this Permit.
- 5.2.2. Sampling or testing may be required for characterizing illicit discharges pursuant to Parts 4.2.3.4., 4.2.3.5., and 4.2.3.5.1 of this Permit.
- 5.2.3. In the event that the Permittee elects to conduct analytical monitoring as part of its Storm Water Management Program, the Permittee is required to comply with Part 6.18. of this Permit.

### **5.3. Non-analytical Monitoring**

- 5.3.1. Non-analytical monitoring (see definitions in Part 7.0) such as visual dry weather screening is required to comply with Part 4.2.3.3.2 of this Permit.

### **5.4. Record keeping**

- 5.4.1. Permittees must keep all supplementary documents associated with this Permit (e.g., Storm Water Management Program (SWMP) document, SWMP Implementation Schedule) current and up to date to ensure the purpose and objectives of the required document are achieved.
- 5.4.2. All modifications to supplementary documents must be submitted to the *Director* in accordance with Parts 4.4 and 6.8.
- 5.4.3. The *Director* may at any time make a written determination that parts or all of the supplementary documents are not in compliance with this Permit. If such a determination is made the Permittee must make modifications to these parts within a time frame specified by the *Director*.
- 5.4.4. The Permittee shall retain all required plans, records of all programs, records of all monitoring information, copies of all reports required by this Permit, and records of all

other data required by or used to demonstrate compliance with this Permit, for at least five years. This period may be explicitly modified by alternative provisions of this Permit or extended by request of the *Director* at any time.

- 5.4.5. The Permittee must make records, including the Notice of Intent (NOI) and the SWMP document, available to the public if requested.

## 5.5. **Reporting**

- 5.5.1. The Permittee must submit an annual report to the *Director* by October 1 for the reporting period of July 1 to June 30 of each year of the Permit term.
- 5.5.2. The report must be submitted using the report form provided on the *Division's* website at <https://deq.utah.gov/water-quality/municipal-separate-storm-sewer-system-ms4s-permits-updes-permits>
- 5.5.3. The Permittee shall sign and certify the annual report in accordance with Part 6.8.
- 5.5.4. Signed copies of the Annual Report and all other reports required herein, must be submitted directly to the DWQ electronic document system at:  
<https://deq.utah.gov/water-quality/water-quality-electronic-submissions>

## **6.0 Standard Permit Conditions**

### **6.1. Duty to Comply**

The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for Permit termination; revocation and reissuance; modification; or for denial of Permit coverage. The Permittee shall give advance notice to the *Director* of any planned changes in the Permitted facility or activity, which may result in noncompliance with Permit requirements.

### **6.2. Penalties for Violations of Permit Conditions**

The *Act* provides that any person who violates a Permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates Permit conditions or the Act is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding \$50,000 per day.

### **6.3. Duty to Reapply**

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit. The application shall be submitted at least **180 days** before the expiration date of this Permit. Continuation of expiring Permits shall be governed by regulations promulgated at *UAC R317-8-5* and any subsequent amendments.

### **6.4. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce otherwise permitted activities in order to maintain compliance with the conditions of this Permit.

### **6.5. Duty to Mitigate**

The Permittee must take all reasonable steps to minimize or prevent any discharge in violation of this Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

### **6.6. Duty to Provide Information**

The Permittee shall furnish to the *Director*, within a time specified by the *Director*, any information which the *Director* may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the *Director*, upon request, copies of records required to be kept by this Permit.

**6.7. Other Information**

When the Permittee becomes aware that it failed to submit any relevant facts in a Permit application, or submitted incorrect information in a Permit application or any report to the *Director*, it shall promptly submit such facts or information.

**6.8. Signatory Requirements**

All notices of intent, storm water management programs, storm water pollution prevention plans, reports, certifications or information either submitted to the *Director* or that this Permit requires to be maintained by the Permittee, shall be signed, dated and certified as follows:

- 6.8.1. All Permit applications shall be signed by either a principal executive officer or ranking elected official.
- 6.8.2. All reports required by the Permit and other information requested by the *Director* shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 6.8.2.1. The authorization is made in writing by a person described above and submitted to the *Director*, and,
  - 6.8.2.2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
  - 6.8.2.3. Changes to authorization. If an authorization under *Part 6.8.2.* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of *Part 6.8.2.* must be submitted to the *Director* prior to or together with any reports, information, or applications to be signed by an authorized representative.
- 6.8.3. *Certification.* Any person signing documents under this Part shall make the following 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."



**6.9 Availability of Reports**

Except for data determined to be confidential under the Government Records Access and Management Act (*see* particularly Utah Admin. Code § 63-2-309) and Utah Admin Code § 19-1-3-6, all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the office of the *Director*. As required by the *Act*, Permit applications, Permits and effluent data shall not be considered confidential.

**6.10. Penalties for Falsification of Reports**

The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both. Utah Admin Code § 19-5-115(4)

**6.11. Penalties for Tampering**

The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

**6.12. Property Rights**

The issuance of this Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

**6.13. Severability**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

**6.14. Requiring a Different Permit**

The *Director* may require the Permittee authorized by this Permit to obtain an individual *UPDES* Permit. Any interested person may petition the *Director* to take action under this paragraph. The *Director* may require the Permittee authorized to discharge under this Permit to apply for an individual *UPDES* Permit only if the Permittee has been notified in writing that a Permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the Permittee to file the application, and a statement that on the effective date of the municipal *UPDES* Permit, coverage under this Permit shall automatically terminate. Permit applications shall be submitted to the address of the *Division* shown in *Part 5.5.* of this Permit. The *Director* may grant additional time to submit the application upon request of the applicant. If the municipality fails to submit in a timely manner a municipal *UPDES* Permit application as required by the *Director*, then the applicability of this Permit to the Permittee is automatically terminated at the end of the day specified for application submittal.

**6.15. State/Federal Laws**

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by *UCA 19-5-117* and *Section 510* of the *Clean Water Act* or any applicable Federal or State transportation regulations.

**6.16. Proper Operation and Maintenance**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit and with the requirements of the SWMP. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by the Permittee only when necessary to achieve compliance with the conditions of the Permit.

**6.17. Monitoring and Records**

- 6.17.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 6.17.2. The Permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the *Director* at any time.
- 6.17.3. Records of monitoring information shall include:
  - 6.17.3.1 The date, exact place, and time of sampling or measurements;
  - 6.17.3.2 The name(s) of the individual(s) who performed the sampling or measurements;
  - 6.17.3.3 The date(s) and time(s) analyses were performed;
  - 6.17.3.4 The name(s) of the individual(s) who performed the analyses;
  - 6.17.3.5 The analytical techniques or methods used; and
  - 6.17.3.6 The results of such analyses.

**6.18. Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under *Utah Admin. Code ("UAC") R317-2-10*, unless other test procedures have been specified in this Permit.

**6.19. Inspection and Entry**

The Permittee shall allow the *Director* or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- 6.19.1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Permit;
- 6.19.2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this Permit;
- 6.19.3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment); and
- 6.19.4. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by law, any substances or parameters at any location.

**6.20. Permit Actions**

This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance does not suspend any Permit condition.

**6.21. Storm Water-Reopener Provision**

At any time during the duration (life) of this Permit, this Permit may be reopened and modified (following proper administrative procedures) as per *UAC R317.8*, to include, any applicable storm water provisions and requirements, a storm water pollution prevention plan, a compliance schedule, a compliance date, monitoring and/or reporting requirements, or any other conditions related to the control of storm water discharges to "waters of state".

## 7.0 **Definitions**

Definitions related to this Permit and small municipal separate storm sewers (MS4s).

"40 CFR" refers to Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government.

"Act" means the *Utah Water Quality Act*.

"Analytical monitoring" refers to monitoring of waterbodies (streams, ponds, lakes, etc.) or of storm water, according to UAC R317-2-10 and 40 CFR 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants," or to State or Federally established protocols for biomonitoring or stream bio-assessments.

"Beneficial Uses" means uses of the waters of the state, which include but are not limited to: domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.

"Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"CWA" means *The Clean Water Act of 1987*, formerly referred to as the Federal Water Pollution Control Act.

"Co-Permittee" means any operator of a regulated Small MS4 that is applying jointly with another applicant for coverage under this Permit. A Co-Permittee owns or operates a regulated Small MS4 located within or adjacent to another regulated MS4. A Co-Permittee is only responsible for complying with the conditions of this Permit relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1).

"Control Measure" refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

"Common plan of development or sale" means one plan for development or sale, separate parts of which are related by any announcement, piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, plat, blueprint, contract, Permit application, zoning request, computer design, etc.), physical demarcation (including contracts) that identify the scope of the project. A plan may still be a common plan of development or sale even if it is taking place in separate stages or phases, is planned in combination with other construction activities, or is implemented by different owners or operators.

"Developed site" means a parcel or property that was previously in commercial, industrial, institutional, governmental, or residential use. A parcel that was previously in an agricultural use would not be considered to be a developed site.

“Director” means the director of the Utah Division of Water Quality, otherwise known as the Executive Secretary of the Utah Water Quality Board.

“Division” means the Utah Division of Water Quality.

“Discharge” for the purpose of this Permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).

“Dry weather screening” is monitoring done in the absence of storm events to discharges representing, as much as possible, the entire storm drainage system for the purpose of obtaining information about illicit connections and improper dumping.

“Escalating enforcement procedures” refers to a variety of enforcement actions in order to apply as necessary for the severity of the violation and/or the recalcitrance of the violator.

“Entity” means a governmental body or a public or private organization.

“EPA” means the United States Environmental Protection Agency.

“General Permit” means a Permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual Permits being issued to each discharger.

“Ground water” means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

“High quality waters” means any water, where, for a particular pollutant or pollutant parameter, the water quality exceeds that quality necessary to support the existing or designated uses, or which supports an exceptional use.

“Illicit connection” means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

“Illicit discharge” means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) to waters of the state.

“Impaired waters” means any segment of surface waters that has been identified by the *Director* as failing to support one or more of its designated uses. The *Director* periodically compiles a list of such waters known as the 303(d) List.

“Large MS4” *Large municipal separate storm sewer system* means all municipal separate storm sewers that are located in an incorporated place with a population of 250,000 or more as determined by the current Decennial Census by the Bureau of the Census.

“Low Impact Development” (LID) is an approach to land development (or re-development) that works with nature to more closely mimic pre-development hydrologic functions. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bio-retention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements.

"MS4" is an acronym for "municipal separate storm sewer system".

"Maximum Extent Practicable" (MEP) is the technology-based discharge standard for Municipal Separate Storm Sewer Systems established by paragraph 402(p)(3)(B)(iii) of the Federal Clean Water Act (CWA), which reads as follows: "Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants."

"Medium MS4" *Medium municipal separate storm sewer system* means all municipal separate storm sewers that are located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census

"Monitoring" refers to tracking or measuring activities, progress, results, etc.;

"Municipal separate storm sewer system" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) pursuant to paragraphs R317-8-1.6(4), (8), & (15), or designated under UAC R317-8-11.3(6)(a) and UAC R317-8-11.3(6)(b):

- that is owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state;
- that is designed or used for collecting or conveying storm water;
- which is not a combined sewer; and
- which is not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR 122.2.

"NOI" is an acronym for "Notice of Intent" to be covered by this Permit and is the mechanism used to "register" for coverage under a General Permit.

"Non-analytical monitoring" refers to monitoring for pollutants by means other than UAC R317-2-10 and 40 CFR 136, such as visually or by qualitative tools that provide comparative or rough estimates.

"Operator" is the person or entity responsible for the operation and maintenance of the MS4.

"Outfall" means a point source as defined by UAC R317-8-1.5(34) at the point where a municipal separate storm sewer discharges to waters of the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the state and are used to convey waters of the state.



“Phase II areas” means areas regulated under UPDES storm water regulations encompassed by Small MS4's (see definition 7.39.).

“Priority construction site” means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-storm water discharges and past record of non-compliance by the operators of the construction site.

“Redevelopment” is the replacement or improvement of impervious surfaces on a developed site.

“Runoff” is water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system. Runoff includes storm water and water from other sources that travels across the land surface.

“SWMP” is an acronym for storm water management program. The SWMP document is the written plan that is used to describe the various control measures and activities the Permittee will undertake to implement the storm water management plan.

“SWPPP” is an acronym for storm water pollution prevention plan.

“Small municipal separate storm sewer system” is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all Small MS4s located in “urbanized areas” (UAs) as defined by the Bureau of the Census (unless waived by the UPDES Permitting authority), and on a case-by-case basis those Small MS4s located outside of UAs that the UPDES Permitting authority designates.

- This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

“SOP” is an acronym for standard operating procedure which is a set of written instructions that document a routine or repetitive activity. For the purpose of this Permit, SOPs should emphasize pollution control measures to protect water quality.

“Storm water” means storm water runoff, snowmelt runoff, and surface runoff and drainage.

“Storm water management program” means a set of measurable goals, actions, and activities designed to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable and to protect water quality.

“TMDL” is an acronym for “Total Maximum Daily Load” and in this Permit refers to a study that: 1) quantifies the amount of a pollutant in a stream; 2) identifies the sources of the pollutant; and 3) recommends regulatory or other actions that may need to be taken in order for the impaired waterbody to meet water quality standards.

“Urbanized area” is a land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.

“waters of the state” means all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private which are contained within, flow through, or border upon this state or any portion thereof, except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife which shall not be considered to be “waters of the state” under this definition (“UAC” R317-1-1).

## A: SWPPP Template (Utah) – Instructions

DWQ has developed this Storm Water Pollution Prevention Plan (SWPPP) template for construction sites permitted under the Construction General Storm Water Permit (CGP). The template gives you a framework to ensure that your SWPPP addresses the necessary elements required by the permit. It may be helpful to use this template with EPA’s guidance on *Developing Your Storm Water Pollution Prevention Plan* (SWPPP Guide). Both are available on DWQ’s construction storm water website at <https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits>

This template covers most of the SWPPP elements that the Utah CGP requires, however, you are encouraged to customize this template to reflect unique conditions at the site or address a requirement not covered in the provided sections.

### *Using the SWPPP Template*

Each section of this template includes instructions and space for project information. You should read the instructions for each section before you complete that section. If you require additional clarification, the instructions often reference a permit section where you can find the exact wording for the requirement as well as other resources that may be useful. For a cleaner document you may want to delete instructions when finished. This template was developed in Word so that you can easily add tables and additional text. Some sections may require only a brief description or not apply at all to your project, while others may require several pages of explanation.

### *Tips for completing the SWPPP template*

- If there is more than one key player affecting storm water for your project, consider coordinating development of your SWPPP with the other key players.
- Make sure you inform subcontractors about limitations or special requirements if their work intersects with SWPPP requirements. You might write a section of your SWPPP specifically for a subcontractor and deliver that section to the sub-contractor before his work commences.
- Modify this SWPPP template so that it addresses the requirements in your construction general permit and meets the needs of your project. Be sure to include important aspects of the SWPPP that go beyond the boundaries of the project.
- EPA’s guidance on *Developing Your Storm Water Pollution Prevention Plan* (SWPPP Guide) can be accessed here: [https://www3.epa.gov/npdes/pubs/sw\\_swppp\\_guide.pdf](https://www3.epa.gov/npdes/pubs/sw_swppp_guide.pdf)

# Storm Water Pollution Prevention Plan

## for:

Insert Project Name  
Insert Project Site Location/Address  
Insert City, State, Zip Code  
Insert Project Site Telephone Number (if applicable)

## Operator:

Insert Company or Organization Name  
Insert Name  
Insert Address  
Insert City, State, Zip Code  
Insert Telephone Number  
Insert Fax/Email

## Primary SWPPP Contact

Insert Company or Organization Name  
Insert Name  
Insert Address  
Insert City, State, Zip Code  
Insert Telephone Number  
Insert Fax/Email

## SWPPP Preparation Date:

\_\_\_/\_\_\_/\_\_\_

## UPDES Permit Tracking Number\*:

UTR\_\_\_\_\_

*\*This is the unique number assigned to your project after you have applied for coverage under the Utah Pollutant Discharge Elimination System (UPDES) construction general permit. If this template is filled out first, you can leave the tracking number blank until after you have applied for coverage.*

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## SECTION 1: CONTACT INFORMATION/ RESPONSIBLE PARTIES

### Instructions (CGP 7.3.1./7.3.7.):

- Identify the staff members that are part of the project's storm water team as well as their responsibilities. The storm water team is comprised of individuals who are responsible for the development of the SWPPP, any later modifications to it, installing and maintaining storm water controls, conducting site inspections, and making corrective actions where required.
- Each member of the storm water team must have ready access to either an electronic or paper copy of the 2019 CGP and the SWPPP.
- Starting January 1, 2021: A SWPPP writer for a site greater than 5 acres, with a perennial surface water within 50 feet of the project, or with a steep slope (70% or 35 degrees or more) must hold a certification to demonstrate that they are a "qualified person" per CGP Part 7.2.
- The following personnel, at a minimum, must receive training on their responsibilities (CGP Part 7.3.7/6.1):
  - ✓ Personnel who are responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention measures);
  - ✓ Personnel responsible for the application and storage of treatment chemicals;
  - ✓ Personnel who are responsible for conducting inspections (must hold a certification) as required in Part 4.1.; and
  - ✓ Personnel who are responsible for taking corrective actions as required in Part 5.
- A sample training log is provided in Appendix F. Certifications can also be recorded in this appendix.
- For more on training, see *SWPPP Guide*, Chapter 8.

### 1.1 Storm Water Team

| Name and/or Position, and Contact  | Responsibilities, Qualifications, and Training       |
|--|--|
| Insert name of responsible person<br>Insert Company Name<br>Insert Position<br>Insert Telephone Number<br>Insert Email | Insert Responsibility, Qualifications, and Trainings |
| Insert name of responsible person<br>Insert Company Name<br>Insert Position<br>Insert Telephone Number<br>Insert Email | Insert Responsibility, Qualifications, and Trainings |
| Insert name of responsible person<br>Insert Company Name<br>Insert Position<br>Insert Telephone Number<br>Insert Email | Insert Responsibility, Qualifications, and Trainings |

[Insert or delete rows as necessary.]



## SECTION 2: NATURE OF CONSTRUCTION ACTIVITIES

### 2.1 Construction Site Estimates

**Instructions (CGP 7.3.2.b.-c.):**

- Estimate the area to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.

The following are estimates for the construction site.

Total project area (lot size): \_\_\_\_\_ acres

Construction site area to be disturbed: \_\_\_\_\_ acres

### 2.2 Construction Activity Descriptions

**Instructions (CGP 7.3.2.a., d. & g.):**

- Briefly describe the nature of the construction activity and approximate time frames.
- For more information see CGP Part 7.3.2 and *SWPPP Guide*, Chapter 3.A.

Describe the general scope of the work for the project, major phases of construction, etc:

INSERT TEXT HERE

Describe any on-site and off-site construction support activity areas:

INSERT TEXT HERE

Typical site business days and times:

INSERT TEXT HERE

## 2.3 Phase/Sequence of Construction Activity

### Instructions (CGP 7.3.2.e.):

- Describe the intended construction sequencing and timing of major activities, including any opportunities for phasing grading and stabilization activities to minimize the overall amount of disturbed soil that will be subject to potential erosion at one time. Also, describe opportunities for timing grading and stabilization so that all or a majority of the soil disturbance occurs during a time of year with less erosion potential (i.e., during the dry or less windy season).
- For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 2. It might be useful to develop a separate, detailed site map for each phase of construction.

### Phase I

- Describe phase and activities
- Duration of phase (start date, end date)
- List BMPs associated with this phase
- Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)

### Phase II

- Describe phase and activities
- Duration of phase (start date, end date)
- List BMPs associated with this phase
- Describe stabilization methods for this phase (describe any temporary stabilization methods that will be used before final stabilization)

[Repeat as needed]

## 2.4 Maps

### Instructions (CGP 7.3.3.):

- Attach site maps. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

### These maps should include the following:

- Boundaries of the property
- Locations of earth-disturbing activities, including demolition, and note any phasing;
- Direction(s) of storm water flow and approximate slopes before and after major grading activities;
- Type and extent of pre-construction cover (vegetative cover, pavement, etc.);
- Locations of stockpiles and material storage;
- Water crossings and all water of the state within one mile downstream of the site's discharge point;
- Designated points where vehicles enter onto paved roads;
- Locations of structures and other impervious surfaces upon completion of construction;
- On-site and off-site construction support activity areas covered by the permit;
- Storm water and authorized non-storm water discharge locations to inlets or waters of the state;
- Locations of all potential pollutant-generating activities;
- Locations of storm water controls, including natural buffer areas; and
- Locations where polymers, flocculants, or other treatment chemicals will be used and stored.
- For more information, see *SWPPP Guide*, Chapter 3.C.

The SWPPP site map(s) are filed in Appendix A

## SECTION 3: WATER QUALITY

### 3.1 Discharge Information

**Instructions(CGP 1.4.):**

- A Municipal Separate Storm Sewer System (MS4) is a storm water conveyance system owned and operated by a state, city, town, county, district, association, or other public body. If you discharge to one of these systems mark “yes” and identify which MS4. You must submit your SWPPP to this MS4 for review. A list of MS4s that are currently designed under a Utah municipal storm water permit can be found here: <https://documents.deq.utah.gov/water-quality/stormwater/DWQ-2018-006843.xlsx>

Does your project/site discharge storm water into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☐ No

List the MS4 that receives the discharge from the construction project: INSERT TEXT HERE

### 3.2 Receiving Waters

**Instructions (CGP 3.1.):**

- In the below table, list the name of the first surface water(s) that would receive discharges from your site. Multiple rows are provided in case your site discharges in multiple locations which flow to different surface waters. For discharges that enter a storm sewer system prior to discharge, the first surface water to which you discharge is the water body that receives the storm water discharge from the storm sewer system. You may need to contact the storm sewer system owner to find out where it discharges to.
- See <http://wq.deq.utah.gov> for impairment or quality information. Use this to identify the status in column 2 of Table 1. Select the waterbody you wish to look-up and find the results from the 20XX Assessment on the left hand side.
- For more information on TMDLs and impaired waters visit <https://deg.utah.gov/water-quality/watershed-monitoring-program/approved-tmdls-watershed-management-program> or [www.epa.gov/tmdl/impaired-waters-and-stormwater](http://www.epa.gov/tmdl/impaired-waters-and-stormwater).
- If any of the surface waters you listed are impaired, provide specified information about pollutants causing the impairment in column 3 of Table 1. Your SWPPP should specifically include measures to prevent the discharge of these pollutants.
- If any of the surface waters you listed are identified as a Category 1 or 2 water (a Category 1 water is only found within Forest Service boundaries) provide the category in column 3 of Table 1.
- For more information, see CGP Part 3.1 and 3.2 and *SWPPP Guide*, Chapter 3.B.

### Names of Receiving Waters

| Name of Receiving Water (first surface water that receives storm water or where storm system discharges to) | Is the water impaired or high quality?  | If high quality: Is it Category 1 or 2?<br><br>If impaired: List pollutants that the waterbody is impaired for |
|---|---|--|
| 1.  | <input type="checkbox"/> Not high quality/impaired<br><input type="checkbox"/> Impaired, has approved TMDL<br><input type="checkbox"/> Impaired, no TMDL<br><input type="checkbox"/> High quality |  |
| 2.  | <input type="checkbox"/> Not high quality/impaired<br><input type="checkbox"/> Impaired, has approved TMDL<br><input type="checkbox"/> Impaired, no TMDL<br><input type="checkbox"/> High quality |  |

[Insert or delete rows as necessary.]

### 3.3 Impaired Waters

#### Instructions (CGP 3.2.):

- If you discharge to an impaired water as listed in the above table, provide information on additional efforts that will be taken to control the release of impairment causing pollutants. This is especially important for projects discharging to a surface water with an EPA approved TMDL for sediment or nutrients and an extra effort must be provided to prevent sediment from leaving the site.

Description of additional precautions taken if you are discharging to an impaired surface water. State if no impairment causing pollutants are on site:

INSERT TEXT HERE

### 3.4 High Water Quality

#### Instructions (CGP 3.2.):

- If you discharge to a high quality water as listed in the above, provide information on additional efforts that will be taken to control the release of pollutants. Per CGP Part 1.1.7, you can discharge to a Category 1 water if your discharge is temporary and limited and where best management practices will be employed to minimize pollution effects. Discharge to Category 2 waters is allowed only if the discharge will not lower the water quality of the water body.

Description of additional precautions taken to minimize pollution effects if you are discharging to a high quality surface water:

INSERT TEXT HERE

## SECTION 4: POLLUTION PREVENTION STANDARDS

### 4.1 Potential Sources of Pollution

**Instructions (CGP 7.3.2.f.):**

- Identify and list all potential sources of sediment, which may reasonably be expected to affect the quality of storm water discharges from the construction site.
- Identify and describe all potential sources of pollution or pollutant-generating activity (e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal), other than sediment, which could be exposed to rainfall or snowmelt, and may reasonably be expected to discharges from the construction site.

For more information, see *SWPPP Guide*, Chapter 3.A.

| <b>Pollutant-Generating Activity</b> | <b>Pollutants or Pollutant Constituents</b><br>(that could be discharged if exposed to storm water) | <b>Location on Site</b><br>(or reference SWPPP site map where this is shown) |
|--------------------------------------|---|--|
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |
|                                      |   |  |

[Include additional rows as necessary.]



## 4.2 Non-Storm Water Discharges

### Instructions (CGP 7.3.4.):

- Identify all allowable sources of non-storm water discharges and how they will be controlled. A list of allowable non-storm water discharges are found in the CGP Part 1.2.3.
- For more information, see *SWPPP Guide*, Chapter 3.A.

Check allowable non-storm water discharges that are present and describe the measures used to reduce them or prevent them from contributing pollutants to discharges:

| Authorized Non-Storm Water Discharges  | Present   | Comments/Controls |
|--|---|-------------------|
| Discharges from emergency fire-fighting activities   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Fire hydrant flushing  | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Properly managed landscape irrigation (excludes fertilizer injector systems)   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Properly managed vehicle and equipment wash water with no soaps, solvents, or detergents   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Water used to control dust   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Drinking water, includes uncontaminated water line flushing  | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| External building washdown with no soaps, solvents, detergents, or hazardous substances  | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Pavement wash waters with no detergents or toxic or hazardous materials. Must have a sediment basin, sediment trap, of similarly effective control prior to discharge. | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Uncontaminated air conditioning or compressor condensate   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Uncontaminated, non-turbid discharges of ground water (from natural sources) or spring water   | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |
| Uncontaminated foundation or footing drains  | <input type="checkbox"/> Y <input type="checkbox"/> N |                   |

### 4.3 Dewatering Practices

**Instructions (CGP 1.2.5. and 2.3.7.):**

If you will be discharging storm water that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, it must be permitted by UPDES permit UTG070000 (Construction Dewatering and Hydrostatic Testing Permit) unless it can be managed onsite through percolation or evaporation. The permit can be found at <https://deg.utah.gov/water-quality/current-updes-permits> in the bottom table. Call DWQ at 801-536-4300 for more information.

- Include schedule and general locations of dewatering. Dewatering locations must be on the site map.

☐ Check box if section not applicable to this site (Note: If not applicable skip to next section)

Describe the general scope of dewatering practices for the project and any BMPs used to manage the dewatering practices:

INSERT TEXT HERE

4.3.1: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

BMP Description:

|   |  |
|---|--|
| <b><i>Installation<br/>Schedule/Instructions:</i></b> |  |
| <b><i>Maintenance and Inspection:</i></b>             |  |
| <b><i>Responsible Staff:</i></b>                      |  |
| <b><i>Design Specifications and<br/>Drawings:</i></b> |  |

## 4.4 Natural Buffers or Equivalent Sediment Controls

### Instructions (CGP Part 7.3.5.b.(1), 2.2.1, and Appendix A):

This section only applies if a surface water is located within 50 feet your construction activities. If this is the case, review CGP Part 2.2.1. and Appendix A of the CGP for information on how to comply with the buffer requirements.

- Describe the compliance alternative that was chosen to meet the buffer requirements, and include any required documentation supporting the alternative selected. The compliance alternative selected must be maintained throughout the duration of permit coverage. However, if you select a different compliance alternative during your period of permit coverage, you must modify your SWPPP to reflect this change.
- If you qualify for one of the exceptions in CGP Part A.2.2., include documentation related to your qualification for such exceptions.
- Review Appendix A of the CGP for step-by-step instructions and examples on how to comply with the different buffer alternatives.

### Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances?

☐ YES ☐ NO

(Note: If "no", no further documentation is required. Delete the rest of Section 4.3 below this point.)

List the water body: INSERT TEXT HERE

### Check the compliance alternative that you have chosen:

☐ I will provide and maintain a 50-foot undisturbed natural buffer around the surface water.

☐ It is infeasible to provide and maintain a full 50-foot undisturbed natural buffer. I will provide and implement erosion and sediment controls to achieve the required sediment load reduction for my conditions.

- Reason that a 50' buffer could not be maintained: INSERT TEXT HERE
- Width of buffer that will be retained: INSERT TEXT HERE
- Additional controls used to achieve equivalent sediment load reduction of a 50' buffer: INSERT TEXT HERE
- Description of the calculations and assumptions used to determine sediment load reductions: INSERT TEXT HERE

☐ The project qualifies as "small residential lot" disturbing less than an acre. The natural buffer is preserved in accordance with CGP A.2.3., storm water is treated by site erosion and sediment controls before discharge, natural buffers are shown on the site map, and buffer areas are marked on site. Select one of the 2 alternatives for small residential lots:

☐ Alternative 1: Using Table A-1 in CGP for requirements

- Width of buffer that will be retained: INSERT TEXT HERE
- Additional controls to be used: INSERT TEXT HERE

☐ Alternative 2: Using Tables A-2 through A-7 in CGP for requirements

- Width of buffer that will be retained: INSERT TEXT HERE
- Sediment Risk Level Determined: INSERT TEXT HERE
- Additional controls to be used: INSERT TEXT HERE

☐ I qualify for one of the exceptions in Part A.2.2. (If you have checked this box, provide information on the applicable buffer exception that applies, below.)

☐ There is no discharge of storm water through the area between the disturbed portions of the site and the surface water that is located within 50 feet.

☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.

☐ For a linear project, site constraints (e.g., limited right-of-way) make it infeasible for me to meet any of the compliance alternatives.

- Reason it is infeasible: INSERT TEXT HERE
- Buffer width retained or supplemental controls used: INSERT TEXT HERE

☐ Buffer disturbances are authorized under a CWA Section 404 permit.

- Describe earth disturbances in buffer area: INSERT TEXT HERE

*(Note: This exception does not apply to portions upland of the Section 404 permitted work.)*

☐ Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).

- Describe earth disturbances in buffer area: INSERT TEXT HERE

## SECTION 5: EROSION AND SEDIMENT CONTROLS – BMPS

### 5.1 *List of Erosion and Sediment BMPs on Site*

**Instructions (CGP Part 2.2. and 7.3.5):**

- Identify best management practices (BMPs) that will be implemented on site to control erosion and sediment transport from storm water.
- Use the below CGP requirements and the pollutant generating activities identified in SWPPP section 4.1. to determine where BMPs are necessary. Fill out the rightmost column with BMPs you are selecting. Some requirements may not apply to your site.
- For each BMP you must provide a description of the control, any design specifications, routine maintenance specifications, a schedule for storm water control implementation/installation, and the staff responsible for maintaining the BMP. These details are listed in the BMP section below the table.
- BMPs are listed as examples, you may use BMPs not listed.
- Details and design specifications can be provided in this section or in Appendix H if they are large.
- Perimeter control maintenance must include removal of sediment before it has accumulated to one-half the above-ground height of the control.
- For more information, see *SWPPP Guide*, Chapter 4.
- BMP guidance may be found in your MS4's or other local jurisdiction's design manual, guidance manuals listed in Appendix D of the *SWPPP Guide*, or EPA's National Menu of BMPs  
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#constr>

| <b>CGP Requirement</b>  | <b>Example BMPs</b>  | <b>EPA SWPPP Guide Section</b> | <b>BMPs Selected (Name and Reference Number if applicable)</b> |
|---|--|--------------------------------|--|
| Preserve vegetation where possible and direct storm water to vegetated areas when feasible (CGP 2.2.2.) | Phasing to minimize disturbance, signs/fences to protect areas not being disturbed.                        | Chapter 4, ESC Principle 1     |  |
| Install sediment controls along perimeter areas that receive pollutant discharges (CGP 2.2.3.).         | Silt fence, fiber rolls, earth berms   | Chapter 4, ESC Principle 7     |  |
| Minimize sediment track-out (CGP 2.2.4.)  | Restrict access, stabilize exits, track-out pads, tire washing station, clean-up sediments                 | Chapter 4, ESC Principle 9     |  |
| Manage stockpiles with perimeter controls and locate away from storm water conveyances (CGP 2.2.5.)     | Sediment barriers downgradient, proper location, covered stockpiles, diverting storm water from stockpiles | Chapter 4, ESC Principle 4     |  |
| Minimize dust (CGP 2.2.6.)  | Water application, mulching, chemical dust suppression techniques  |                                |  |
| Minimize steep slope disturbance (CGP 2.2.7.)   | Erosion control blankets, tackifiers, protect slopes from disturbance                                      | Chapter 4, ESC Principle 5     |  |
| Preserve topsoil (CGP 2.2.8.)   | Stockpile topsoil  | Chapter 4, ESC Principle 1     |  |
| Minimize soil compaction where final cover is vegetation (CGP 2.2.9.)                                   | Restrict vehicle access, recondition soils before seeding  |                                |  |
| Protect storm drain inlets (CGP 2.2.10.)  | Inserts, rock-filled bags, covers  | Chapter 4, ESC Principle 6     |  |
| Slow down runoff with erosion controls and velocity dissipation devices (CGP 2.2.11.)                   | Check dams, riprap   | Chapter 4, ESC Principle 3     |  |



|   |  |                            |  |
|---|--|----------------------------|--|
| Appropriately design any sediment basins or impoundments (CGP 2.2.12.)                    | Design to 2-year 24-hour storm or 3,600 cubic feet per acre drained, include design specifications | Chapter 4, ESC Principle 8 |  |
| Follow requirements for any treatment chemicals (polymers, flocculants, coagulants, etc.) | Store in leak proof containers and cover, proper training, minimize use                            |                            |  |
| Stabilize exposed portions of site with 14 days of inactivity (CGP 2.2.14).               | Seeding, erosion control blankets, gravel, hydromulch  | Chapter 9                  |  |

5.1.1: (Place name of BMP here – reference to detailed instructions in Appendix H if

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

5.1.2: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

5.1.3: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|                                    |  |
|------------------------------------|--|
| <b>Installation Schedule:</b>      |  |
| <b>Maintenance and Inspection:</b> |  |

|  |  |
|--|--|
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

5.1.4: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

|  |  |
|--|--|
| <b>BMP Description/Instructions:</b>       |  |
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

5.1.5: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

|  |  |
|--|--|
| <b>BMP Description/Instructions:</b>       |  |
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

[Repeat as needed]

**Instructions (CGP 7.3.5.b.(2)):**

- For areas where perimeter controls are not feasible on a linear construction site, include a description of why it is not feasible and other practices that will be implemented to minimize discharges of pollutants from the site.

## 5.2 Linear Site Perimeter Control Exemption

☐ Check box if section not applicable to this site (Note: If not applicable skip to next section)

If the site is linear and perimeter controls are not feasible, describe other practices in use:  
INSERT TEXT HERE

### 5.3 Final Stabilization

**Instructions (CGP 7.3.5.b.(6) and 2.2.14.b.):**

- Describe procedures for final stabilization. If final cover is vegetation, you must establish uniform perennial vegetation that provides 70% or more of the vegetative cover that existed prior to earth-disturbing activities. Exception: Arid, semi-arid, and drought stricken areas are required to be seeded/planted so that the before mentioned vegetative requirement is expected to be met within 3 years. Establishment of vegetation is not required, however additional erosion controls may be needed.
- You can amend or add to this section as areas of your project are finally stabilized.
- Update your site plans to indicate areas that have achieved final stabilization.

Description of final stabilization practices and schedule:

| Type of stabilization<br>(vegetation/landscaped, graveled,<br>paved, etc.) | Location | Implementation Schedule |
|--|----------|-------------------------|
|  |          |                         |
|  |          |                         |
|  |          |                         |
|  |          |                         |

## SECTION 6: BMPS - POLLUTION PREVENTION/OPERATIONAL CONTROLS

### 6.1 Spill Prevention and Response

**Instructions CGP Part 7.3.5.b.(7):**

- Describe the spill prevention and control plan. Include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control.
- Some projects/site may be required to develop a Spill Prevention Control and Countermeasure (SPCC) plan under a separate regulatory program (40 CFR 112). If you are required to develop an SPCC plan, or you already have one, you should include references to the relevant requirements from your plan.
- The plan must include the materials and method of containment and for flowing liquid, cleanup, disposal and follow the minimum spill controls below.
- For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 6.

Describe spill procedures and materials available for expeditious containment, clean-up and disposal of spills:

INSERT TEXT HERE OR REFERENCE DOCUMENT

Identify the employee responsible for detection and response of spills and leaks:

INSERT TEXT HERE

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittees. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within 14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

| Agency  | Phone Number                     |
|---|----------------------------------|
| National Response Center                            | (800) 424-8802                   |
| Division of Water Quality ( DWQ)<br>24-Hr Reporting | (801)-231-1769<br>(801) 536-4123 |
| Utah Department of Health<br>Emergency Response     | (801) 580-6681                   |

| Material  | Media Released To | Reportable Quantity  |
|---|-------------------|----------------------|
| Engine oil, fuel, hydraulic & brake fluid             | Land              | 25 gallons           |
| Paints, solvents, thinners                            | Land              | 100 lbs (13 gallons) |
| Engine oil, fuel, hydraulic & brake fluid             | Water             | Visible Sheen        |
| Antifreeze, battery acid, gasoline, engine degreasers | Air, Land, Water  | 100 lbs (13 gallons) |
| Refrigerant   | Air               | 1 lb                 |

## 6.2 Pollution Prevention Controls

### Instructions (CGP Part 2.3. and 7.3.5):

- Describe the key good housekeeping and pollution prevention (P2) BMPs that will be implemented to control pollutants in storm water (CGP Part 2.3).
- Use the below CGP requirements and the pollutant generating activities identified in SWPPP section 4.1. which were not addressed with the erosion and sediment BMPs to determine where BMPs are necessary.
- For each BMP you must provide a description of the control, any design specifications, routine maintenance specifications, a schedule for storm water control implementation/installation, and the staff responsible for maintaining the BMP.
- BMPs are listed as examples, you may use BMPs not listed.
- Details and design specifications can be provided in this section or in Appendix H.
- For more information, see *SWPPP Guide*, Chapter 5.
- Consult your state's or local jurisdiction's design manual or resources in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs  
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#constr>

| CGP Requirements                           | Example BMPs  | EPA SWPPP Guide Section   | BMPs Selected (Name and Reference Number if applicable) |
|--|---|---------------------------|---|
| Equipment and vehicle fueling (CGP 2.3.1)  | Spill kits, SPCCP, drip pans, locate activities away from conveyances, use secondary containment            | Chapter 5, P2 Principle 4 |   |
| Equipment and vehicle washing (CGP 2.3.2.) | Locating away from surface waters and storm water conveyances, directing wash waters to a sediment basin or | Chapter 5, P2 Principle 5 |   |

|  |   |                                 |  |
|--|---|---------------------------------|--|
|  | sediment trap, using filtration devices   |                                 |  |
| Storage, handling, and disposal of building products and waste (CGP 2.3.3.)                | Cover (plastic sheeting / temporary roofs), secondary containment, leakproof containers, proper dumpsters, secured portable toilets, locate away from storm water conveyances | Chapter 5, P2 Principle 1 and 2 |  |
| Washing of stucco, paint, concrete, form release oils, curing compounds, etc. (CGP 2.3.4.) | Leak proof containers, lined pits, locate away from storm water conveyances   | Chapter 5, P2 Principle 3       |  |
| Properly apply fertilizer (CGP 2.3.5)  | Follow manufacture specifications, document deviations in applications, avoid applications to frozen ground, before heavy rains, or to storm water conveyances                |                                 |  |

6.2.1.: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

6.2.2.: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |



6.2.3.: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

6.2.4: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

6.2.5: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

6.2.6: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

[Repeat as needed]

## SECTION 7: SPECIAL CONDITIONS

### Instructions:

The conditions listed below require additional details or actions added to your SWPPP. If they do not apply you may delete them from this SWPPP.

### 7.1 Emergency Related Projects

#### Instructions (CGP 1.1.5):

- For emergency activities that require immediate authorization but last longer than 30 days, a SWPPP may be submitted within 30 days of starting work.
- To be an emergency related project it must be considered a public emergency and the cause must be documented along with the description of necessary construction to reestablish effected public services.

Emergency-Related Project?

☐ Yes

☐ No

DESCRIBE THE NATURE OF THE PUBLIC EMERGENCY AND WHY IMMEDIATE AUTHORIZATION WAS NECESSARY.

### 7.2 UIC Class 5 Injection Wells

#### Instructions (CGP 7.3.8.):

- If you are using any of the following storm water controls at your site as they are described below, you must document any contact you have had with DWQ for implementing the requirements for underground injection wells in the Safe Drinking Water Act and DEQ's implementing regulation at UAC R317-7.
- There may be additional local requirements related to such structures
- For the State UIC Contact at DWQ call (801) 536-4300.

☐ Check box if section not applicable to this site (Note: If not applicable skip to next section)

Class V UIC Wells on site (all must be reported to DWQ for inventory):

- ☐ Infiltration trenches (if storm water is directed to any shaft or hole that is deeper than its widest surface dimension or has a subsurface fluid distribution system)
- ☐ Commercially manufactured pre-cast or pre-built subsurface detention vault/infiltration system
- ☐ Drywell, seepage pit, or improved sinkhole (if storm water is directed to any shaft or hole that is deeper than its widest surface dimension or has a subsurface fluid distribution system)

Description of your Class V Injection Well and any local requirements:

INSERT DESCRIPTION AND ANY DWQ OR LOCAL REQUIREMENTS

Description of any additional BMPs used in conjunction with the UIC well.

7.2.1: (Place name of BMP here – reference to detailed instructions in Appendix H if necessary)

**BMP Description/Instructions:**

|  |  |
|--|--|
| <b>Installation Schedule:</b>              |  |
| <b>Maintenance and Inspection:</b>         |  |
| <b>Responsible Staff:</b>                  |  |
| <b>Design Specifications and Drawings:</b> |  |

### 7.3 Chemical Treatment

**Instructions (see CGP 2.2.13. and 7.3.5.b.(5)):**

- If you are using treatment chemicals at your site, provide details for each of the items below. This information is required as part of the SWPPP requirements in CGP Part 7.2.9.b.

☐ Check box if section not applicable to this site (Note: If not applicable skip to next section)

#### **Soil Types**

List all the soil types (including soil types expected to be found in fill material) that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied: [INSERT TEXT HERE](#)

#### **Treatment Chemicals**

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: [INSERT TEXT HERE](#)

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: [INSERT TEXT HERE](#)

Provide information from any applicable Safety Data Sheets (SDS): [INSERT TEXT HERE](#)

Describe how each of the chemicals will stored: [INSERT TEXT HERE](#)

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: [INSERT TEXT HERE](#)

#### **Special Controls for Cationic Treatment Chemicals (if applicable)**

If you have been authorized by DWQ to use cationic treatment chemicals, identify the specific controls and implementation procedures you are required to implement to ensure that your use

of cationic treatment chemicals will not lead to a violation of water quality standards or harm aquatic life: [INSERT TEXT HERE](#)

***Schematic Drawings of Storm Water Controls/Chemical Treatment Systems***

Provide schematic drawings of any chemically-enhanced storm water controls or chemical treatment systems to be used for application of treatment chemicals: [INSERT TEXT HERE](#)

***Training***

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals: [INSERT TEXT HERE](#)

## SECTION 8: INSPECTIONS & CORRECTIVE ACTIONS

### 8.1 Inspections

#### Instructions (CGP Part 4.2-4.4.3):

- Select an inspection schedule. These are minimum frequencies, you may inspect more frequently. If so describe what your schedule would be.
- For more on this topic, see *SWPPP Guide*, Chapters 6 and 8.
- Also, see suggested inspection form in Appendix B of the *SWPPP Guide*.

#### Minimum Inspection Schedule Requirements:

|  |
|--|
| <b>Standard Frequency:</b>   |
| <input type="checkbox"/> Once every 7 calendar days.   |
| <input type="checkbox"/> Once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Rain gauge/weather station used: <a href="#">Gauge or station for rainfall depth</a>  |
| <b>Increased Frequency (if applicable):</b>  |
| <input type="checkbox"/> <i>Sites discharging to impaired or high quality waters:</i> Once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.   |
| <b>Decreased Frequency (if applicable):</b>  |
| <input type="checkbox"/> <i>Arid areas:</i> once a month and within 24 hours of a 0.5 inch storm event or greater.   |
| <input type="checkbox"/> <i>Semi-arid areas:</i> once a month and within 24 hours of a 0.5 inch storm event or greater during the dry season: <a href="#">List months for dry season</a> (also select the inspection schedule followed outside of the dry season).                                     |
| <input type="checkbox"/> <i>Frozen conditions with work suspended – must have 3 months of continuous expected frozen conditions based on historical averages:</i> no inspections <a href="#">List months of suspended inspections</a> (also select the inspection schedule followed when not frozen)   |
| <input type="checkbox"/> <i>Frozen conditions with continued activities - must have 3 months of continuous expected frozen conditions based on historical averages:</i> once per month <a href="#">List months of frozen conditions</a> (also select the inspection schedule followed when not frozen) |
| <b>Other:</b>  |
| <input type="checkbox"/> Describe alternative frequency: <a href="#">List alternative schedule, must meet minimum requirements</a>   |

Inspection Reports are filed in Appendix C



## **8.2 Corrective Actions**

### **Instructions:**

- A sample corrective action report is provided in Appendix D.
- Whenever a storm water control requires repair or replacement (beyond routine maintenance), a control necessary for permit compliance was never installed or was installed incorrectly, your discharges cause an exceedance of applicable water quality standards, or a prohibitive discharge has occurred, you must log corrective actions taken.
- This log should describe actions taken, date completed, whether a SWPPP modification was required.
- In some cases corrective actions may be documented on the inspection form. This is an acceptable alternative as long as corrective actions that occur outside of inspections are also documented.

Correction Action Report is filed in Appendix D.

## **8.3 Delegation of Authority**

### **Instructions:**

- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information in Section 1.1 of the SWPPP.
- Each inspection report must be signed in accordance with CGP Part 9.16 of the permit.
- If a delegation letter is necessary, see Appendix E of this template and keep a signed copy with this SWPPP.
- For more on this topic, see *SWPPP Guide*, Chapter 7.

See the signed delegation of authority forms in Appendix E.

## SECTION 9: RECORDKEEPING

### 9.1 *Recordkeeping*

**Instructions (CGP 7.3.10. and 9.10.):**

- The following is a list of records you must have accessible on site (electronically or paper) for inspectors to review:
  - ✓ A copy of the construction general permit (Appendix I)
  - ✓ The signed and certified NOI form or permit application form (Appendix B)
- Copies of the SWPPP and all reports required by the permit must be retained for at least three years from the date that the site is finally stabilized.
- For more on this subject, see *SWPPP Guide*, Chapter 6.C.

## 9.2 Log of Changes to the SWPPP

**Instructions (CGP Part 7.5.3):**

- Create a log here of changes and updates to the SWPPP. You should include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on.
- Instead of using the table, SWPPPs can also be redlined to show changes as long as the redlines are initialed and dated.

| Description of the Amendment | Date of Amendment | Amendment Prepared by [Name(s) and Title] |
|------------------------------|-------------------|---|
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   |   |

## SECTION 10: CERTIFICATION

**Instructions:**

- The SWPPP should be signed and certified by the owner and/or the general contractor. Attach a copy of the NOI and a copy of the General Storm Water Permit for Construction Activity. You can get a copy of the General Storm Water Permit for Construction Activity on the same web page that this template was obtained (<https://deg.utah.gov/water-quality/general-construction-storm-water-updes-permits>)

### Owner

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.

Name:

Title:

Signature:

Date:

### General Contractor

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.

Name:

Title:

Signature:

Date:

## **SWPPP APPENDICES**

Attach the following documentation to the SWPPP:

***Appendix A – Site Maps***

***Appendix B – NOI***

***Appendix C – Inspection Reports***

***Appendix D – Corrective Action Report***

***Appendix E – Subcontractor  
Certifications/Agreements/Delegation of  
Authority (see CGP 9.16(1)b.)***

***Appendix F – Training Logs and Certifications (see CGP 6)***

***Appendix G – Additional Information (i.e., Other permits such as  
dewatering, stream alteration, wetland; and out of  
date swppp documents)***

***Appendix H – BMP Instruction and Detail Specifications***

***Appendix I – Construction General Permit***

## **Appendix A: Site Maps**

Include any site maps in this appendix. For site map requirements review SWPPP section 2.5.

## **Appendix B: NOI**

Include a copy of your NOI in this appendix. The NOI must be signed.



## Appendix C: Inspection Reports

Place all completed inspection reports in this appendix. You may also put blank inspection reports here to be completed.

You are encouraged to create your own inspection forms for each site. Inspection reports must have the following information:

- 1) The inspection date.
- 2) The UPDES ID number (UTRXXXXX).
- 3) Name and title of personnel making the inspections.
- 4) Summary of inspection findings and any necessary corrective actions:
  - a. Are storm water controls properly installed and operational? If failed then why?
  - b. Presence of any conditions that could lead to spills or leaks.
  - c. Locations where new or modified controls are necessary.
  - d. Signs of visible erosion or sediment depositing related to your discharges.
  - e. Any incidents of noncompliance.
  - f. Visual quality of any discharges occurring.
- 5) Rainfall amount if the inspection was triggered by a precipitation event.
- 6) If it was unsafe to inspect any areas of the site, a description of the area and reason.

## **Appendix D: Corrective Action Report**

An example corrective action report has been included in this appendix. Review SWPPP section 8.2 for corrective action requirements. You can also create your own form or include corrective actions on your inspection form.

## Appendix D – *Sample* Corrective Action Report

| Inspection Date | Inspector Name(s) | Description of BMP Deficiency | Corrective Action Needed (including planned date/responsible person) | Date Action Taken/Responsible person |
|-----------------|-------------------|-------------------------------|--|--------------------------------------|
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |
|                 |                   |                               |  |                                      |

## **Appendix E: Subcontractor Certifications/Agreements/Delegation of Authority (CGP 9.16.(1)b.)**

A sample subcontractor agreement form and delegation of authority form have been included in this appendix. If these are used, keep complete signed forms here.

SUBCONTRACTOR CERTIFICATION  
STORM WATER POLLUTION PREVENTION PLAN

Project Number: \_\_\_\_\_

Project Title: \_\_\_\_\_

Operator(s): \_\_\_\_\_

As a subcontractor, you are required to comply with the Storm water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at request.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.**

This certification is hereby signed in reference to the above named project:

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Type of construction service to be provided: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

### Delegation of Authority

I, \_\_\_\_\_, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the UPDES "General Permit for Storm Water Discharges Associated with Construction Activity" (CGP), at the construction site:

\_\_\_\_\_, Permit No. UTR \_\_\_\_\_

The designee is authorized to sign all reports required by the Permit and other information requested by the Director of the Utah Division of Water Quality, or by an authorized representative of the Executive Secretary.

Name of Person or Position: \_\_\_\_\_

Owner/Operator: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Part 9.16 of the CGP, and that the designee above meets the definition of a "duly authorized representative" as set forth in Part 9.16.b. of the CGP.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based 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.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix F: Training Logs and Certifications (see CGP 6)**

A sample training log has been included in this appendix to keep track of trainings that have been provided. At a minimum, storm water team members that require training should be provided with the following if it relates to their duties (CGP Part 6.3.):

- The permit deadlines associated with installation, maintenance, and removal of storm water controls and with stabilization;
- The location of all storm water controls on the site required by this permit and how they are to be maintained;
- The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions

Certifications for SWPPP inspectors or writers can also be placed in this appendix.



## Appendix F – *Sample* SWPPP Training Log

### Storm Water Pollution Prevention Training Log

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Instructor's Name(s): \_\_\_\_\_

Instructor's Title(s): \_\_\_\_\_

Course Location: \_\_\_\_\_ Date: \_\_\_\_\_

Course Length (hours): \_\_\_\_\_

Storm Water Training Topic: *(check as appropriate)*

- ☐ Erosion Control BMPs      ☐ Emergency Procedures  
☐ Sediment Control BMPs      ☐ Good Housekeeping BMPs  
☐ Non-Storm Water BMPs

Specific Training Objective: \_\_\_\_\_

Attendee Roster: *(attach additional pages as necessary)*

| No. | Name of Attendee | Company |
|-----|------------------|---------|
| 1   |                  |         |
| 2   |                  |         |
| 3   |                  |         |
| 4   |                  |         |
| 5   |                  |         |
| 6   |                  |         |
| 7   |                  |         |
| 8   |                  |         |
| 9   |                  |         |
| 10  |                  |         |

## **Appendix G: Additional Information**

Use this appendix for additional information such as other permits (dewatering, stream alteration, etc.) or out of date SWPPP documents.

## **Appendix H: BMP Instruction and Detail Specifications**

Use this appendix if complete BMP specifications are not provided in Section 5 or 6 of the SWPPP.

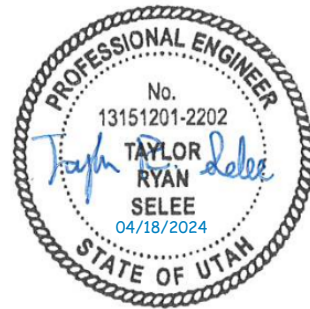
## **Appendix I: Construction General Permit**

If all storm water team members access the CGP via the internet while on site the following link to access the Construction General Permit is sufficient:

<http://construction.stormwater.utah.gov>

Otherwise, include a printed out copy of the Construction General Permit in this appendix.

# HERRIMAN CITY 2024 STORM DRAIN RETROFIT PLAN



April 16, 2024

Project #: 2211-048

Prepared by:



[www.jonesanddemille.com](http://www.jonesanddemille.com)  
1.800.748.5275

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|  |  |            |
|--|--|------------|
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## 1. EXECUTIVE SUMMARY

At the request of the City, Jones & DeMille Engineering (JDE) prepared a Storm Drain Retrofit Plan of Herriman City owned and operated facilities in accordance with the Authorization to Discharge Municipal Storm Water Under the Utah Pollutant Discharge Elimination System (UPDES) Permit No. UTS000001. This permit applies to Jordan Valley Municipal Separate Storm Sewer Systems (MS4) and regulates water quality control measures including long-term stormwater controls, construction Storm Water Pollution Prevention Plans (SWPPP), public stormwater education, and standard operating procedures.

The Jordan Valley Municipalities (MS4) Permit No. UTS000001 section 4.2.6.9 requires applicable municipalities to create a plan to “retrofit existing developed sites that the Co-Permittee owns or operates that are adversely impacting water quality.” The permit lists the following five criteria for ranking potential retrofit sites:

1. Proximity to waterbody
2. Status of waterbody to improve impaired water bodies and protect unimpaired water bodies
3. Hydrologic condition of the receiving waterbody
4. Proximity to sensitive ecosystem or protected area
5. Any upcoming sites that could be further enhanced by retrofitting storm water controls.

Working with Herriman City, JDE identified all City owned and operated facilities. We then developed a comprehensive system to document potential environmental impacts using the criteria listed above and ranked the facilities in priority of retrofit. Herriman City has 90 active sites such as parks, culinary water well houses, public buildings, and maintenance shops. However, because some sites have distinct, separate storm drain systems, they were divided which resulted in 96 sites being analyzed.

To identify and organize all of the City owned and operated facilities, Herriman City provided their existing GIS data of all City facilities, storm drain infrastructure, and water source protection zones. Impaired water bodies data was taken from the state 2022 Integrated Report 303(d) list website. This data and available aerial photographs were compiled into an interactive online map, which was used throughout all stages of the project.

Using the interactive map and visiting several sites with the pertinent City Staff, additional information necessary for evaluating potential environmental impacts was documented. Potential environmental impacts were rated on storm drain catchment, conveyance, destination, and site size as well as potential pollutants that result from the facilities uses and storage.

## 1.1. POTENTIAL ENVIRONMENTAL IMPACTS SCORE

Each component of the storm drain system was given a score based on its impact on the storm water runoff. Catchment is the area on which water falls and is collected, this was scored based on ability to filter pollutants out of the stormwater. Conveyance is the means of moving the water from the catchment area to a defined destination, which was scored based on the infrastructure's ability to filter and reduce the volume of stormwater. Destination is where the water ends up, whether that be a basin or directly into a water body, the destination was scored based on capacity for evapotranspiration and pollutant reduction. Site size was scored on a graduated scale. A score was given based on the use of a site and the potential for pollutant production resulting from a variety of site components existing for the site use. Many sites are used for storage of materials, storage was scored based on potential pollutant type stored. The scores were then combined to create an overall Potential Environmental Impacts Score used in the following equation:

$$E = 25 + 3 * (C_A + C_O + D + A) + U + L$$

*E = Potential Environmental Impacts Score*

*C<sub>A</sub> = Catchment Score*

*C<sub>O</sub> = Conveyance Score*

*D = Destination Score*

*A = Size Score*

*U = Sum of Site Use Scores*

*L = Sum of Storage Scores*

An example of the scoring of individual pieces of the storm drain system is Figure 1. Example of Storm Drain Component Scoring, the full scoring matrix is included in Appendix B.

| Conveyance                         | Score |
|------------------------------------|-------|
| Hard Surface Flow                  | 3     |
| Intercepted Hard Surface Flow      | 3     |
| Pipe                               | 1     |
| Separator and Pipe                 | -1    |
| Rock Channel                       | -2    |
| Vegetated Swale                    | -3    |
| Intercepted Vegetated Surface Flow | -4    |
| Vegetated Surface Flow             | -4    |

Figure 1. Example of Storm Drain Component Scoring

## 1.2. PRIORITY SCORING

Each of the five Jordan Valley MS4 Permit criteria were given scores. The scores for each facility and the Potential Environmental Impact Score were used in the following equation:

$$R = E * \left[ \left( W * \frac{H + P_E}{2} * I \right) + (S * P_E) + (A_P * P_E) + t \right]$$

*R = Retrofit Score*

*E = Potential Environmental Impacts Score*

*W = Discharge into Waterbody Score*

*H = Hydrologic Condition Score*

*P<sub>E</sub> = Effective Proximity*

*I = Impairment Status Score*

*S = Sensitive Ecosystem Score*

*A<sub>P</sub> = Protected Area Score*

*t = Upcoming Improvements Score*

The resulting Site Retrofit Priority Score provides a relative score between all the Herriman City facilities allowing sites to be ranked in order of most beneficial storm drain retrofit. Herriman City's top ten are:

1. W & M Butterfield Park - North
2. Rosecrest Park - Parking
3. Cove Pond Park
4. HP Bunker and 2 Tanks
5. High Country 1 Well House
6. Rosecreek Park - Drainage/Linear
7. UFA St 123
8. W & M Butterfield Park - West
9. City Hall
10. Rosecreek Park - North Basin

## 2. BACKGROUND INFORMATION

In February of 2020, the Utah Division of Water Quality updated the Authorization to Discharge Municipal Storm Water Under the Utah Pollutant Discharge Elimination System (UPDES) Permit Number UTS000001, which applies to the Jordan Valley Municipalities including Herriman City. This update included section 4.2.6.9, which requires each municipality to “develop a plan to retrofit existing

developed sites that the Co-Permittee owns or operates that are adversely impacting water quality.” The permit further requires that the retrofit plan “emphasize controls that infiltrate, evapotranspire or harvest and use storm water discharges.” Five criteria are listed for ranking a site’s retrofit priority:

1. Proximity to waterbody
2. Status of waterbody to improve impaired water bodies and protect unimpaired water bodies
3. Hydrologic condition of the receiving waterbody
4. Proximity to sensitive ecosystem or protected area
5. Any upcoming sites that could be further enhanced by retrofitting storm water controls.

Herriman City contracted Jones & DeMille Engineering (JDE) in the Summer of 2022 to create a comprehensive storm drain retrofit plan of City sites to meet the requirements of the UPDES Permit and Section 4.2.5 Long Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management) in the Herriman City Storm Water Management Plan. JDE worked with Herriman City to identify City sites, gather data, establish a universal ranking criteria which includes the State’s defined criteria, and create an objective ranking system to prioritize the future retrofit projects.

Concurrent with this project, the Utah Division of Water Quality was studying the Jordan River Watershed E. Coli TMDL. Midas Creek and Rose Creek have been listed as “Impaired Assessment Units” and are being further investigated. There are approximately 4 miles of Midas Creek that runs through Herriman City. There are approximately 2.5 miles of Rose Creek that runs through Herriman City. The TMDL report lists point sources such as stormwater and concentrated animal feeding operations as points of contamination. It was further stated, “Upon completion and approval of this TMDL by EPA, MS4 permits will be modified and reissued with updated guidance on E. Coli reduction measures that will include development of TMDL compliance plans for permitted MS4s.” This will likely cause a revision to the Jordan Valley Municipalities permit. The results of the study and the proposed requirements were included in this plan.

Herriman City has 90 active City owned and operated sites. Some of these sites have significant separations of storm drain systems within the site. One example is Rosecreek Park, which has four distinct storm drain systems. One system uses a vegetated swale to treat the stormwater from the paved trail, one slopes away from the swale to a regional detention basin treating the runoff from the parking lot and play structures, two others treat stormwater with natural onsite retention. When sites had separate systems like this they were split and considered separately. Additionally, three sites, the old City Hall, Main St Park, and Unified Fire Authority Station 103 border each other and use the same storm drain system, so they were considered as a single site. This resulted in 96 sites being analyzed.

### 3. DATA GATHERING

An imperative piece of this study was to have the data used for all the sites as accurate as possible. The data gathered included locations, uses, and onsite storage of City sites; locations, sizes, and types of storm drain infrastructure; locations and sizes of local water bodies, parcel data, locations and specific

impairments of impaired waterbodies, locations of sensitive ecosystems and protected areas, and any upcoming site improvements. The majority of the required data was already available through Herriman City, Salt Lake County Recorder's Office, and the State 303d List. The few small gaps remaining in the data were supplemented with information gained during site visits.

### 3.1. GIS DATA

GIS data is the backbone of the study that created the storm drain retrofit plan. Herriman City already maintained and provided GIS data for locations of City sites, locations, sizes and types of storm drain infrastructure, locations and sizes of local waterbodies, and locations of sensitive ecosystems and protected areas. GIS data for impaired waterbodies was downloaded from the Utah Division of Water Quality 2022 Integrated Report website. Publicly available aerial imagery was used to help identify City site uses, onsite storage, and surface flow directions. All this GIS data and aerial imagery was combined into an interactive GIS map that was used for data analysis. The largest benefits of the new interactive GIS map are a high density of applicable data, a lack of extraneous data, the ability to measure areas, infrastructure, and proximities of sites to waterbodies.

### 3.2. SITE VISITS

Site visits with JDE and Herriman City personnel were conducted to increase understanding of upcoming improvements and interactions between surface flow and storm drain infrastructure for sites that were not evident from the GIS data and had a high potential to impact water quality. JDE went to 10 sites which were determined from preliminary review of the GIS data and recommendations from Herriman City.

## 4. GRADING CRITERIA

With GIS data being the backbone of the study, the retrofit priority ranking criteria acted as the muscle. The ranking criteria put the GIS data into action by specifying how to analyze the data. These two pieces together were the basis for the entire analysis. The UPDES permit provides 5 criteria:

1. Proximity to waterbody
2. Status of waterbody to improve impaired water bodies and protect unimpaired water bodies
3. Hydrologic condition of the receiving waterbody
4. Proximity to sensitive ecosystem or protected area
5. Any upcoming sites that could be further enhanced by retrofitting storm water controls.

However, during the evaluation, we identified additional criteria to create a more effective ranking system resulting in a retrofit priority list that prioritizes the greatest water quality impact. The additional criteria are:

6. If and how the stormwater reaches a waterbody
7. The existing storm drain catchment's ability to filter the stormwater
8. The existing storm drain conveyance's ability to filter and reduce stormwater



9. The existing storm drain destination's ability to filter and evapotranspire stormwater before it reaches a waterbody
10. The size of the City facility
11. The use of the facility
12. The onsite storage at the facility.

Each site was given a score for each of the 12 criteria based on how well the site met the criteria relative to the other sites. For each criteria, a higher score is given to a higher priority response, a lower score or even a negative score was given to criteria that improved water quality. This section includes detailed information about each criteria and how they were scored. How the individual criteria were interfaced to create a final ranking can be found in Section 5.

#### 4.1. RECEIVING WATERBODY

Four of the twelve criteria fit directly in the category of the receiving waterbody. Three of the UPDES permit's five criteria relate to the receiving waterbody. They are the proximity to the waterbody, impairment status of the waterbody, and hydrologic condition of the waterbody. The first additional criteria also applies to the receiving waterbody: if and how the stormwater reaches a waterbody.

##### 4.1.1. PROXIMITY

The proximity of the site to the receiving waterbody greatly impacts the effect the site's runoff can have on the waterbody; however, piping of the site's stormwater can have the same effect as if the site physically bordered the waterbody. Water that is piped from a distant site to a water body does not have the ability to be cleaned or filtered and is as if it were located right next to the waterbody. This led to the use of an "Effective Proximity." Effective proximity removes 95% of the piped length from the proximity score. The effective proximity was then placed into 5 categories and score 1-5 as shown in Table 1. Effective Proximity Score.

Table 1. Effective Proximity Score

| Effective Proximity |       | Score |
|---------------------|-------|-------|
| $\geq$              | $<$   |       |
| 0                   | 74    | 5     |
| 75                  | 149   | 4     |
| 150                 | 299   | 3     |
| 300                 | 499   | 2     |
| 500                 | 10000 | 1     |

#### 4.1.2. IMPAIRMENT STATUS

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The Utah Division of Water Quality assesses waterbodies each year to determine if they are out of healthy parameters for the waterbody's primary and secondary uses. As a result, a water body is identified as either impaired or not impaired. While it is important to protect all waterbodies, impaired waterbodies are given a higher priority as shown in Table 2. Impairment Status Score.

Table 2. Impairment Status Score

| Status       | Score |
|--------------|-------|
| Impaired     | 2     |
| Not Impaired | 1     |

#### 4.1.3. HYDROLOGIC CONDITION

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Hydrologic condition defines waterbodies by how they interact with the greater watershed. For the purposes of this study all receiving waterbodies were categorized as a river/perennial stream, lake, seasonal creek/canal, pond, dry drainage/ephemeral stream, wetland, or piped. A river or perennial stream is a year-round flowing body of water, such as the Jordan River. No lakes were encountered in this study; however, they are defined as a waterbody that is still, or minimally flowing having a single measurable surface elevation and is 20 acres or larger in surface area. A seasonal creek or canal are flowing bodies of water that only carry water during the wet months or the irrigation season, such as Rose Creek. A pond is a waterbody that is still, or minimally flowing having a single measurable surface elevation, and less than 20 acres in surface area. A dry drainage or ephemeral stream is waterbody that only flows water for a short duration following a rainfall event, such as Juniper Canyon. A wetland, for the purposes of this study, is an area characterized by frequent standing water and wetland type plants, such as the low-lying natural vegetation area on the east end of the Rose Creek Mirabella Open Space. No wetlands were delineated for this study. A piped water body is defined in this study as a canal or creek that has been piped, but still generally takes the same path it used to and goes to the same destination, such as the Butterfield Creek east of 6400 West. The hydrologic condition score is assigned 1-4 as shown in Table 3. Hydrologic Condition Score. The higher score going to the categories that affect the larger populations.

Table 3. Hydrologic Condition Score

| Hydrologic Condition | Score |
|----------------------|-------|
| River                | 4     |
| Lake                 | 4     |
| Creek/Canal          | 3     |
| Pond                 | 3     |
| Drainage             | 2     |
| Wetland              | 2     |
| Piped                | 1     |

#### 4.1.4. DISCHARGE INTO WATERBODY

The last criteria pertaining to the receiving waterbody is if and how the stormwater reaches a waterbody. Some sites don't discharge into a waterbody. Others only overflow into a waterbody or are filtered first. While some discharge directly into a waterbody. If a site's stormwater discharges to a regional detention pond, it is considered not discharging into a waterbody even if the detention pond discharges into the waterbody. A detention pond that discharges into a waterbody is categorized as "Overflow". See Table 4. Discharge Score for detailed scoring.

Table 4. Discharge Score

| Flows to Waterbody | Score |
|--------------------|-------|
| Yes                | 2     |
| Overflow           | 1     |
| Filtered           | 0.5   |
| No                 | 0     |

#### 4.2. SENSITIVE ECOSYSTEM OR PROTECTED AREA

Other than waterbodies, sensitive ecosystems, specifically wetlands, and protected areas, specifically drinking water source protection zone 2, are the most relevant areas where water quality can be negatively impacted. As such they are included in the criteria, but at a lower value because they are at lower risk of water quality impacts. Wetlands are actually very effective at removing stormwater pollutants similarly to rain gardens; however, they are included to ensure that the wetland habitats are preserved and not damaged by being overwhelmed with contaminants. Stormwater risks to drinking water protection zones only have an impact if the stormwater infiltrates and has a contaminate, which has a significantly reduced risk to water quality in comparison to the surface waters. See Table 5. Sensitive Ecosystem or Protected Area Score. Proximity from the site to the sensitive ecosystem or prot

ected area is also relevant and uses the same scale for proximity to waterbodies found in Table 1. Effective Proximity Score.

Table 5. Sensitive Ecosystem or Protected Area Score

| Sensitive Ecosystem or Protected Area | Score |
|---------------------------------------|-------|
| Wetland                               | 3     |
| Source Protection Zone 2              | 1     |
| None                                  | 0     |

#### 4.3. UPCOMING IMPROVEMENTS

The final UPDES permit requirement is any upcoming sites that could be further enhanced by retrofitting storm water controls. Upcoming improvements on a site do not necessarily present a risk to water quality; however, it does provide an opportunity for easier, less expensive retrofitting of existing storm drain infrastructure. That opportunity causes this criteria to be scored highly according to Table 6. Upcoming Improvements Score.

Table 6. Upcoming Improvements Score

| Upcoming Improvements | Score |
|-----------------------|-------|
| Yes                   | 5     |
| Possible              | 3     |
| None                  | 1     |

#### 4.4. POTENTIAL ENVIRONMENTAL IMPACTS

The largest set of criteria that were added comes in potential environmental impacts. The potential impact depends on the existing storm drain system and potential pollutant production based on site use and onsite storage.

##### 4.4.1. EXISTING STORM DRAIN SYSTEM

The existing storm drain system is divided into three separate interacting parts: catchment, conveyance, and destination. The size of the site is also an important factor that was taken into consideration.

###### 4.4.1.1. CATCHMENT

For the purposes of this study, catchment is defined as the first piece of storm drain infrastructure that the stormwater interacts with. On some sites there are only surface flows, so the surface where the

stormwater falls is on those sites considered the catchment. Catchment is scored on the infrastructure's ability to filter the stormwater. The catchment that increases the risk of pollutants in stormwater runoff such as hard surfaces receive a high score, whereas catchment that decreases the risk of pollutants in stormwater runoff such as a rain garden receive a negative score. All sites' catchment infrastructure is categorized and score according to Table 7. Catchment Infrastructure Score.

**Table 7. Catchment Infrastructure Score**

| Catchment              | Score |
|------------------------|-------|
| Hard Surface           | 2     |
| Standard Inlet         | 1     |
| Inlet and Separator    | -1    |
| Grass and Hard Surface | -2    |
| Brush and Hard Surface | -3    |
| Rain Garden            | -4    |

#### 4.4.1.2. CONVEYANCE

For this study, conveyance is defined as the storm drain infrastructure component that conveys the stormwater runoff from the catchment to its destination. Conveyance infrastructure is scored based on its capability to filter and reduce stormwater runoff. Conveyance that increases the risk of pollutants in the stormwater runoff or fails to reduce the volume of runoff receive a positive score with those posing a higher risk receiving a higher score. Infrastructure that filters pollutants out of the runoff and/or reduces the volume of runoff receive a negative score. Conveyance infrastructure that filters and/or reduces runoff more receives a more negative score with preference given to filtration. All sites' conveyance infrastructure is categorized and scored according to Table 8. Conveyance Infrastructure Score. Hard surface flow and vegetated surface flow refer to sites where no storm drain infrastructure intercepts the stormwater runoff prior to it reaching the destination. Intercepted hard surface flow and intercepted vegetated surface flow refer to sites where storm drain infrastructure intercepts after extended distances of surface flow. Parking lots, regardless of the size, designed with storm drain systems designate the designed storm drain catchment and conveyance rather than surface flow.

Table 8. Conveyance Infrastructure Score

| Conveyance                         | Score |
|------------------------------------|-------|
| Hard Surface Flow                  | 3     |
| Intercepted Hard Surface Flow      | 3     |
| Pipe                               | 1     |
| Separator and Pipe                 | -1    |
| Rock Channel                       | -2    |
| Vegetated Swale                    | -3    |
| Intercepted Vegetated Surface Flow | -4    |
| Vegetated Surface Flow             | -4    |

#### 4.4.1.3. DESTINATION

The destination is defined in this study as the stormwater runoff's first stop. Where the water travels after the first destination is not considered in the scoring. The stormwater destination is scored based on its capability to reduce pollutants and evapotranspire the stormwater runoff before it reaches a waterbody or wetland. An outfall is where the conveyance component discharges directly into a waterbody including a previously piped waterbody. Table 9. Stormwater Destination Score shows the scoring for stormwater runoff destinations.

Table 9. Stormwater Destination Score

| Destination                   | Score |
|-------------------------------|-------|
| Outfall                       | 5     |
| Regional Detention Pond       | 4     |
| Detention Pond                | 3     |
| Regional Retention Pond       | 2     |
| Separator and Detention Pond  | 2     |
| Sump/Underground Infiltration | 2     |
| Retention Pond                | 1     |
| Onsite/Natural Retention      | 1     |

#### 4.4.1.4. SITE SIZE

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The last criteria that is part of the existing storm drain system is the size of the site. Larger sites receive more stormwater and produce more runoff requiring greater stormwater controls to mitigate water quality effects of the site. The site size was categorized and scored as shown in Table 10. Site Size Score.

Table 10. Site Size Score

| Size (acres) |     | Score |
|--------------|-----|-------|
| ≥            | <   |       |
| 0            | 1   | 0     |
| 1            | 5   | 1     |
| 5            | 10  | 2     |
| 10           | 15  | 3     |
| 15           | 20  | 4     |
| 20           | 500 | 5     |

#### 4.4.2. POTENTIAL POLLUTANT PRODUCTION

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The purpose of the potential pollutant production section is to evaluate the risk of pollutant production based on the use of the site and onsite storage.

##### 4.4.2.1. SITE USE

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Site use is evaluated at a granular level by first ranking 20 potential site uses, none of which are mutually exclusive. Scores have been assigned to the potential site uses with the most potential pollutant producing uses receiving the highest scores, and the uses that reduce potential pollutants were given negative scores. Each site is evaluated for the presence of each potential site use, in most cases multiple uses were identified, the various factors are added together to produce a site use hazard score. The potential site uses were ranked and scored according to Table 11. Site Use Potential Pollutant Production Score.



Table 11. Site Use Potential Pollutant Production Score

| Use                                       | Rank | Score | Full Name/Description   |
|---|------|-------|---|
| <b>Fire Training Center Burn Building</b> | 20   | 10    | Fire Training Center Burn Building  |
| <b>Wash Rack - Uncontained</b>            | 19   | 9     | Vehicle/Equipment Wash Rack, Partially or completely uncontained  |
| <b>Heavy Equipment Storage</b>            | 18   | 8     | Heavy Equipment Storage   |
| <b>Large Parking Lot (&gt;45)</b>         | 17   | 7     | Parking Lot/Fleet Vehicle Storage, 45 or more cars  |
| <b>Wash Rack - Contained</b>              | 16   | 6     | Vehicle/Equipment Wash Rack, Fully Contained  |
| <b>Shops</b>                              | 15   | 6     | Shops (Public Works, parks, etc.)   |
| <b>Medium Parking Lot (&lt;45)</b>        | 14   | 5     | Parking Lot/Fleet Vehicle Storage, 11-45 Cars   |
| <b>Onsite Road</b>                        | 13   | 5     | Long Driveway/Road  |
| <b>Small Parking Lot (&lt;10)</b>         | 12   | 4     | Parking Lot/Fleet Vehicle Storage, 1-10 cars  |
| <b>Dog Park</b>                           | 11   | 4     | Dog Park/Outdoor Animal Area  |
| <b>Public Buildings</b>                   | 10   | 3     | Public Building/Office  |
| <b>Outdoor Structure</b>                  | 9    | 3     | Outdoor Structure (Pavilions, Sport Courts, Amphitheaters, Exposed Water Tanks, Play Structures, skate parks, etc.) |
| <b>Pump House</b>                         | 8    | 2     | Well house/Pump house   |
| <b>Outdoor Pool</b>                       | 7    | 2     | Outdoor pool  |
| <b>Trail</b>                              | 6    | 1     | Trail   |
| <b>Pond</b>                               | 5    | 0     | Pond (year-round water)   |
| <b>Manicured Green Space</b>              | 4    | -1    | Manicured Green Space/ball field/cemetery   |
| <b>Detention Basin</b>                    | 3    | -2    | Detention Basin   |
| <b>Natural Green Space</b>                | 2    | -3    | Natural Green Space   |
| <b>Retention Basin</b>                    | 1    | -4    | Retention Basin   |

#### 4.4.2.2. ONSITE STORAGE

Onsite storage is the final criteria in the retrofit ranking. The onsite storage score evaluates what is being stored and its potential to produce pollutants. Some sites have materials stored that if they were to be in contact with the storm water runoff, would create a potential hazard. Items which pose a higher risk are assigned a higher score. If a site has multiple items being stored, they will be added together to provide a site storage hazard score. Scores are according to

Table 12. Onsite Storage Score.

Table 12. Onsite Storage Score

| Onsite Storage                                      | Score |
|---|-------|
| None  | 0     |
| Negligible  | 1     |
| Minimal Chemicals - Indoor                          | 2     |
| Contaminated Water from Training (Evaporation Pond) | 3     |
| Significant Chemicals - Indoor                      | 3     |
| Aggregate Materials                                 | 4     |
| Minimal Chemicals - Outdoor                         | 5     |
| Significant Chemicals - Outdoor                     | 6     |

## 5. RANKING AND SCORING EQUATIONS

A series of equations were developed to combine the scores in a manner that prioritizes the criteria appropriately and rank all sites in order of the most beneficial retrofits. There are two equations that tie together: the potential environmental impacts scoring equation and the retrofit priority ranking equation. Higher scores were given to higher priority responses for each criteria, the equations are designed to produce higher values for sites with unfavorable water quality impacts.

### 5.1. POTENTIAL ENVIRONMENTAL IMPACTS SCORING EQUATION

The potential environmental impacts scoring equation combines the potential pollutant production scores (see section 4.4.2) and the existing storm drain system scores (see section 4.4.1). The equation prioritizes the existing storm drain system scores equally with the potential pollutant production scores because either set of criteria can equally affect stormwater quality. A factor of three (3) on the existing storm drain system scores is used to equalize the scores with the potential pollutant production scores, sum of land use scores and sum of storage scores. A constant of 25 is used to ensure that all solutions to the equation are positive, which is necessary when these solutions are plugged into the retrofit priority ranking equation. Below is the equation used.

$$E = 25 + 3 * (C_A + C_O + D + A) + U + L$$

*E = Potential Environmental Impacts Score*

*C<sub>A</sub> = Catchment Score*

*C<sub>O</sub> = Conveyance Score*

*D = Destination Score*

*A = Size Score*

*U = Sum of Site Use Scores*

*L = Sum of Storage Scores*

## 5.2. RETROFIT PRIORITY RANKING EQUATION

The retrofit priority ranking equation combines the potential environmental impacts score from the equation in section 5.1 with the receiving waterbody score (see section 4.1), the sensitive ecosystem and the protected area scores (see section 4.2), and the upcoming improvements score (see section 4.3). The equation averages the hydrologic condition and effective proximity scores to equally weight these criteria and not over emphasize the sites' priority based on location, a factor that cannot be changed. The discharge into waterbody score is not included in the averaging so that if a site drainage does not discharge into a waterbody, it will cancel out the rest of the waterbody scores. This is also done to ensure that the ranking result is not based on the location of the site, but rather all the stated criteria. The impairment status score is not included in the averaging so as to put a greater emphasis on the impairment status criteria.

The sensitive ecosystem and protected area proximity scores and the upcoming improvement scores are added to the combined waterbody scores giving each of those three criteria significant emphasis without minimizing the significance of the potential environmental impacts score. The potential environmental impacts score is then multiplied by the rest of the combined scores. Below is the equation used.

$$R = E * \left[ \left( W * \frac{H + P_E}{2} * I \right) + (S * P_E) + (A_P * P_E) + t \right]$$

*R = Retrofit Priority Score*

*E = Potential Environmental Impacts Score*

*W = Discharge into Waterbody Score*

*H = Hydrologic Condition Score*

*P<sub>E</sub> = Effective Proximity*

*I = Impairment Status Score*

*S = Sensitive Ecosystem Score*

*A<sub>P</sub> = Protected Area Score*

*t = Upcoming Improvements Score*

## 6. RESULTS

The criteria scoring and equations used resulted in a largely objective ranking of the Herriman City sites' priority. Table 13. Herriman City Sites Priority Ranking contains the full retrofit priority ranking. An interactive map has been created to visually see all the sites evaluated in this plan along with the ranking that resulted from the study. Exhibits found in Appendix A have been created from the interactive map.

<https://jonesanddemille.maps.arcgis.com/apps/mapviewer/index.html?webmap=7e25dd59bbbbb40659e8e7fc812017540>

Table 13. Herriman City Sites Priority Ranking

| Top Retrofit Priorities |  |
|-------------------------|--|
| 1                       | W & M Butterfield Park - North                 |
| 2                       | Rosecrest Park - Parking                       |
| 3                       | Cove Pond Park                                 |
| 4                       | HP Bunker and 2 Tanks                          |
| 5                       | High Country 1 Well House                      |
| 6                       | Rosecreek Park - Drainage/Linear               |
| 7                       | UFA St 123                                     |
| 8                       | W & M Butterfield Park - West                  |
| 9                       | City Hall                                      |
| 10                      | Rosecreek Park - North Basin                   |
| 11                      | 4000 W Pump Station                            |
| 12                      | Herriman City Cemetery                         |
| 13                      | Pickle Ball and Sand Volleyball at Midas Creek |
| 14                      | Western Creek Park                             |
| 15                      | Butterfield Creek Trail                        |
| 16                      | Rosecrest Splash Pad                           |
| 17                      | Copper Creek Park                              |
| 18                      | Butterfield Pond Storm Drain Basin             |
| 18                      | Old City Hall/Main St Park/UFA St 103          |
| 20                      | Autumn Dusk Park                               |
| 20                      | Upper Rose Creek Trail                         |
| 22                      | Midas Creek Tail                               |
| 22                      | Desert Creek Park                              |
| 24                      | Rosecrest Park - All but parking               |
| 25                      | Autumn Crest Blvd Storm Drain Basins           |
| 26                      | Triangle - Twisted Oak Dr Storm Drain Basin    |
| 26                      | Butterfield Park Way Storm Drain Basin         |
| 28                      | Juniper Canyon Trail                           |
| 29                      | Rosecreek Park - Horseback Ln                  |
| 30                      | Anthem Park Blvd Storm Drain Basin             |
| 31                      | New - Twisted Oak Dr Storm Drain Basin         |
| 31                      | Lower Rose Creek Trail                         |
| 31                      | W & M Butterfield Park - East                  |
| 34                      | L&L Hamilton Park                              |
| 35                      | Blackridge Reservoir Park                      |
| 36                      | Utah Power & Light Co Trail                    |
| 37                      | Valve Station Cove and Tank                    |
| 38                      | Morning Light Dr Storm Drain Basin             |
| 39                      | 15000 S Pump Station and Storm Drain Basin     |

|    |  |
|----|--|
| 40 | Desert Lilly Cir Storm Drain Basin         |
| 41 | Yukon Park                                 |
| 42 | Blackridge Reservoir Trail                 |
| 43 | Rivulet Rd Storm Drain Basin               |
| 44 | S Step Rock Ln Debris Flow Basin           |
| 45 | Morning Light Dr Tennis Court              |
| 46 | Fieldstone Park                            |
| 47 | Dog Park                                   |
| 48 | Blackridge Reservoir Tank                  |
| 49 | Laguna Property Debris Flow Basin          |
| 50 | Hamilton Farms 6740 Storm Drain Basin      |
| 51 | Shearing Cv Storm Drain Basin              |
| 52 | Muirwood Cir Trail and Pavilion            |
| 53 | Winding Oak Dr Storm Drain Basin           |
| 53 | Rose Canyon Rd Storm Drain Basin           |
| 55 | Rose Basin Rd Storm Drain Basin            |
| 56 | Masacaro Booster Pump                      |
| 57 | Arlinridge Dr Trail                        |
| 58 | East Boundary Trail                        |
| 59 | 6600 W Storm Drain Basin                   |
| 59 | High Country 1 Booster Pump                |
| 61 | Madingley Cir Storm Drain Basin            |
| 62 | Rose Creek Subway Park                     |
| 62 | Fort Herriman Cove Storm Drain Basin       |
| 64 | Tuscany Park                               |
| 65 | Umbria Park                                |
| 66 | Grand Trotter Trail                        |
| 67 | Emmeline Dr Water Tank and Pump            |
| 68 | Rose Creek Mirabella Open Space            |
| 69 | Herriman Blvd Storm Drain Basin            |
| 69 | Emmebella Park                             |
| 71 | Sentinel Ridge Park                        |
| 72 | Arches Park                                |
| 72 | Emmeline Park                              |
| 72 | Herriman City Park on 7300                 |
| 75 | Hill Island Park                           |
| 75 | Freeman Park                               |
| 75 | Sulky Cv/Barrel Ct Park                    |
| 78 | Creek Ridge Park                           |
| 79 | Rosecreek Park - Roselina Basketball Court |
| 79 | Grand Trotter Open Space Park              |

|    |  |
|----|--|
| 79 | Friendship Dr Storm Drain Basin          |
| 82 | Ivie Farms Dr Storm Drain Basin and Park |
| 82 | Boyde Park                               |
| 84 | Palisade Rose Dr Storm Drain Basin       |
| 85 | Brundisi Wy Storm Drain Basin            |
| 86 | Triple Crown/Mirabella Open Space        |
| 87 | Murdoch Peak Dr Storm Drain Basin        |
| 87 | Valle Vista Park                         |
| 89 | HCELL Pump Station                       |
| 90 | Knapper Point Cv Storm Drain Basin       |
| 91 | Belmont Park Ave Storm Basin             |
| 91 | Fort Pierce Wy Storm Drain Basin         |
| 93 | Scenic Mountain Storm Drain Basin        |
| 94 | Hall Crossing Dr Storm Drain Basin       |
| 94 | Sage Grass Ln Storm Drain Basin          |
| 94 | Wild Tolman Storm Drain Basin            |

#### 6.1. TOP TWELVE PROJECTS DESCRIPTION AND COST ESTIMATE

The 12 highest priority sites were analyzed for concept project descriptions and cost estimates. The purpose of this section is to assist in forecasting potential projects in the next ten years. The average estimated cost of the top 12 projects is estimated to be \$75,200.00. The total estimated cost of the top 12 projects is estimated to be \$902,400.00.

##### 6.1.1. W & M BUTTERFIELD PARK CONCEPT

The W & M Butterfield Park is a combination of rodeo grounds, ballpark, and the Herriman City Public Works Yard that serves as the material storage and equipment facility for multiple departments. It is located adjacent to the Rose Creek channel, which is an impaired receiving water. This project will include retrofit improvements to mitigate runoff contaminants prior to discharging into Rose Creek. The one retention/detention basin that handles the runoff from all the large asphalt parking lots on the site will be retrofitted so that the runoff surface flows from the edge of the basin into the basin rather than coming up through the bubble up in the bottom. This increases the filtration of the runoff. This will also require 150' of 24" RCP to be replaced. A single dry well will be installed in the stall barn's floor drain lateral to disconnect it from the storm drain system. An approximately 1100' long, 5' wide bio swale is planned to be installed along the uphill side of the Creek to ensure contaminants are removed and improve the impairments of this creek. This project is estimated to cost \$173,500.00.



#### 6.1.2. ROSECREST PARK – PARKING CONCEPT

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Rosecrest Park is a highly frequented park that serves the community for many events. This project includes capture of contaminants from parking lot runoff before it flows into the storm drain system, which is adjacent to Rose Creek. Improvements include construction of a bio-swale that will intercept parking lot runoff and other incidental Low Impact Development (LID) BMPs including tree wells. This project is estimated to cost \$27,500.00.

#### 6.1.3. COVE POND PARK CONCEPT

---

This site includes an existing park that is immediately adjacent to the Rose Creek channel. The park includes a playground area, parking lot, and pavilions. The improvements to this site will include LID BMPs that will collect and infiltrate runoff volume, equal to the Water Quality Capture Volume (WQCV), prior to discharging into Rose Creek. Such improvements include infiltration galleries and bio-swales that will be incorporated into the storm drain system. This project is estimated to cost \$67,200.00.

#### 6.1.4. HP BUNKER AND 2 TANKS CONCEPT

---

This specific parcel is home to two water tanks, and a structure that houses the pumps and chlorination system, and a parking lot. Improvements to this site include infiltration systems that will be sized to hold the Water Quality Capture Volume (WQCV) such that no runoff will be allowed to leave the site for all storm events equal or less than the 80<sup>th</sup> percentile storm event. This project is estimated to cost \$14,000.00.

#### 6.1.5. HIGH COUNTRY 1 WELL HOUSE CONCEPT

---

This site is almost entirely hard surface and a well house inside of a sharp angle between two roads (Shaggy Mountain Rd and Cedar Glenn Cir) that don't have any storm drain controls. Improvements to this site will include 130 feet of rock swale ending in a dry well on the east side of Cedar Glenn Cir. This project is estimated to cost \$17,500.00.

#### 6.1.6. UNIFIED FIRE AUTHORITY STATION NO. 123 CONCEPT

---

This facility is publicly owned and constructed in 2010. It is approximately 3.7 acres and mostly comprised of impervious surface. The Juniper Canyon is the eventual receiving water that is downstream of this project by approximately 900 ft. This site has a number of rock swales and a grass basin; however, it appears that the existing pipes bypass some of the existing LID facilities. Improvements include reconstructing existing pipes and connecting structures to better utilize the LID infrastructure that will match or exceed the water quality capture volume such that contaminants are captured prior to discharging to the Juniper Canyon. This project is estimated to cost \$35,300.00.

#### 6.1.7. ROSECREEK PARK – DRAINAGE/LINEAR CONCEPT

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This project includes improvements within the channel of Rose Creek. Rose Creek has a significant amount of tributary area that is developed and includes impervious surface. Any means to promote infiltration in this area will significantly improve the creek impairments. This includes, but not limited to check dams or bio-swales along the Rose Creek Channel. This project is estimated to cost \$107,900.00.

#### 6.1.8. CITY HALL CONCEPT

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The new City Hall was completed in September 2017, prior to the state required Low Impact Development. As a result, there are no water quality management improvements that exist at this site, which serves as a working place for Herriman City Staff and the Herriman City Police Department. There is a significant amount of parking lot and impervious surfaces that directly discharges into the storm drain system with little to no water quality treatment. Adjacent to this facility includes Crane Park, which includes open space, a children's park, and an ice-skating ribbon that is used year-round (ice skating in the winter and roller skating in the off-season). All new Low Impact Development improvements added to this site will not only positively impact the water quality of the site but serve as a show case opportunity to the community, residents, and patrons of the city who visit. The specific improvements include 10 tree filters and 4 separate rain gardens totaling 2,525 sf to treat and/or retain the parking lot runoff prior to discharging into the storm drain system. Additional improvements also include educational signage for those who pass and observe the facility. This project is estimated to cost \$348,700.00.

#### 6.1.9. ROSECREEK PARK – NORTH BASIN CONCEPT

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This site is home to a skate park, two parking lots, a sand volleyball court, a playground, and an adjacent detention basin facility that detains runoff not only from this site, but also a significant portion of a developed area. LID improvements for this site include localized infiltration systems to capture runoff at the parking lots, the volleyball court, and the skate park that will treat contaminants from these sites prior to discharging into the adjacent detention facility. As an alternative to localized infiltration systems, the project includes the option to install infiltration galleries in the detention facility that will treat runoff from the site and the tributary area of the detention basin, which includes a significant area of Herriman City. These options will be further evaluated as design concepts are developed and quantified. This project is estimated to cost \$49,100.00.

#### 6.1.10. 4000 W PUMP STATION CONCEPT

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This site is a pump house completely surrounded by hard surface parking lot. The stormwater is collected and conveyed in a gutter at the edge of the parking lot. Gutter ends at a small section of riprap. Improvements to this project will include a dry well at the location of the riprap, which will keep the stormwater out of the nearby canal. This project is estimated to cost \$10,600.00.

#### 6.1.11. HERRIMAN CITY CEMETERY

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This site utilizes a detention pond that drains directly into the piped Butterfield Creek. Improvements to this site will include adding a retention forebay to the existing detention basin large enough to retain and treat the 80<sup>th</sup> percentile storm. This project is estimated to cost \$21,200.00.

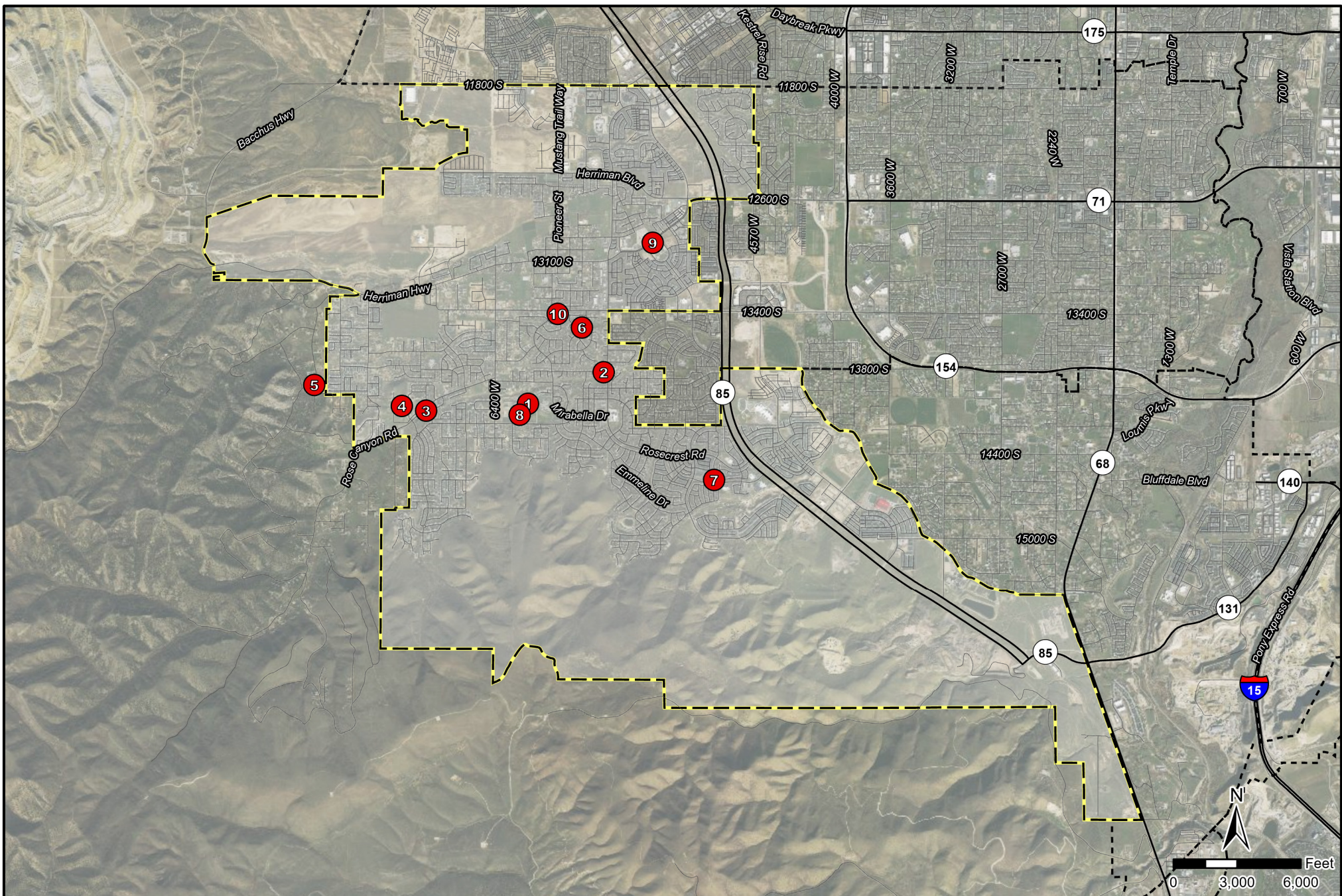
#### 6.1.12. PICKLE BALL AND SAND VOLLEYBALL AT MIDAS CREEK


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This site is a small park near Midas Creek and surface flows stormwater from the sidewalks, pavilion, and pickle ball court across the paved trail and into Midas Creek. Improvements to this site will include replacing sections of sidewalk to flow the stormwater into the planting beds, which will be reconstructed as rain gardens. This project is estimated to cost \$29,900.00.

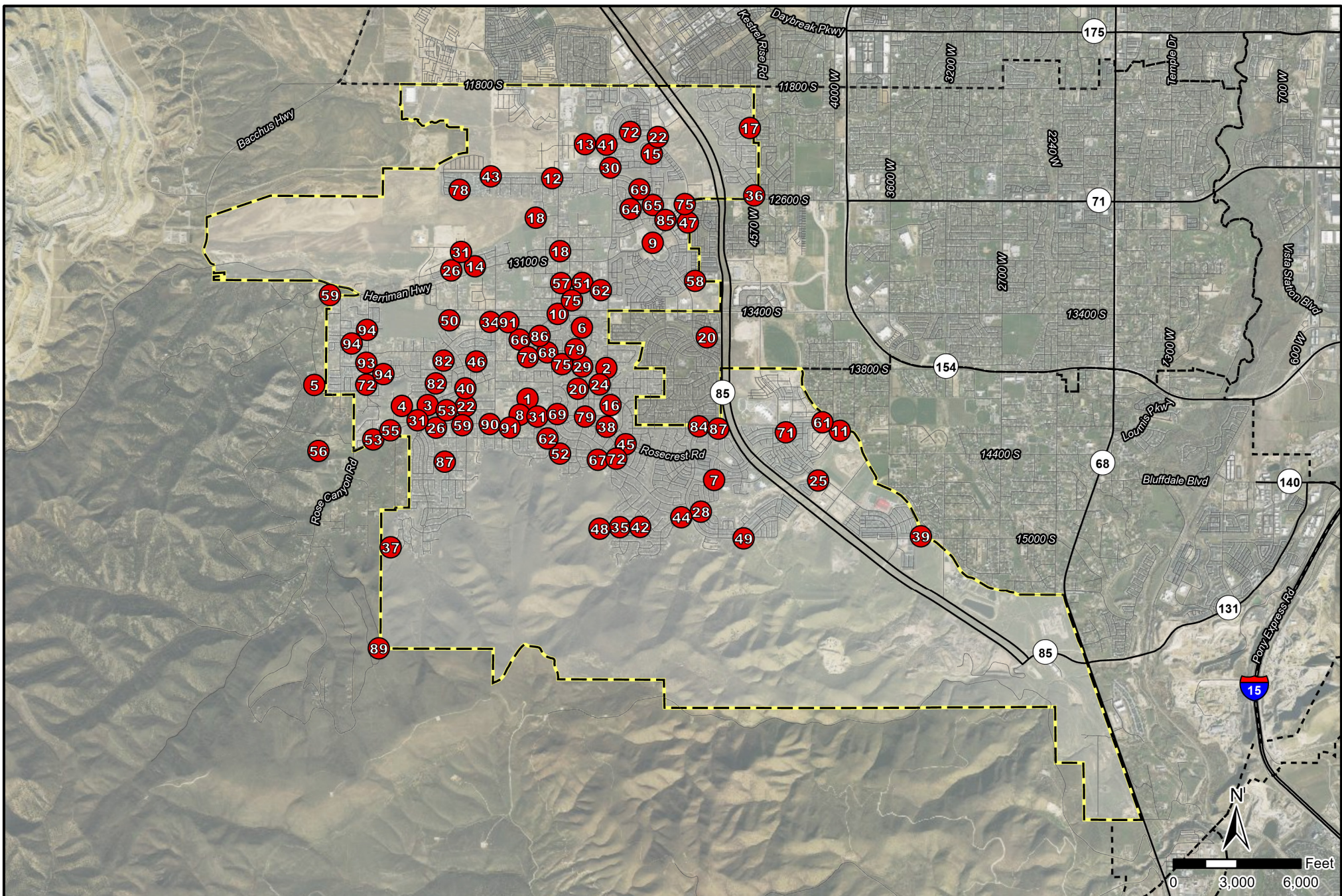
## APPENDIX A. RESULTS MAPS






|  |   |  |  |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>● Top Ten - Ranked Priority Facility</li> <li>▬ Herriman City Boundary</li> <li>- - - Other Municipal Boundary</li> </ul> |  <p><b>Jones &amp; DeMille<br/>Engineering</b></p> <p>- Shaping the Quality of Life -<br/>800.748.5275 www.jonesanddemille.com</p> | <p><b>Herriman City</b></p>  | <p><b>Salt Lake County,<br/>Utah</b></p> |
|  |   | <p><b>Storm Water Retrofit Plan<br/>Top Ten - Priority Facility Ranking Overview</b></p>   | <p>Scale: 1" = 6,000'</p>                |
|  |   | <p>Map Name: H:\JD\Proj\2211-048\Design\GIS\Projects\2211-048_Plan.aprx - Exh Herriman City - Storm Water Retrofit Plan - Priority Facility Ranking - Top Ten 8.5x11L<br/>Project Number: 2211-048 Drawn by: JEM 02-23 Last Edit: 04/28/2023</p> | <p><b>1</b></p>                          |





|  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li><span style="color: red;">●</span> Ranked Priority Facility</li> <li><span style="border-bottom: 2px dashed yellow;">  </span> Herriman City Boundary</li> <li><span style="border-bottom: 2px dashed black;">  </span> Other Municipal Boundary</li> </ul> | <div>  <p><b>Jones &amp; DeMille Engineering</b></p> <p>- Shaping the Quality of Life -<br/>800.748.5275    www.jonesanddemille.com</p> </div> | <div>Herriman City</div> <div> <b>Storm Water Retrofit Plan</b><br/> <b>Priority Facility Ranking Overview</b> </div> <div> <div>Map Name: H:\JD\Proj\2211-048\Design\GIS\Projects\2211-048_Plan\2211-048_Plan.aprx - Exh Herriman City - Storm Water Retrofit Plan - Priority Facility Ranking Overview 8.5x11L</div> <div>Project Number: 2211-048</div> <div>Drawn by: JEM 02-23</div> <div>Last Edit: 04/28/2023</div> </div> | <div>Salt Lake County, Utah</div> <div>Scale: 1" = 6,000'</div> <div>1</div> |
|  |  |   |  |



## APPENDIX B. SCORING MATRIX



Scoring

| Site Ranking              |       |
|---------------------------|-------|
| Discharges into Waterbody | Score |
| Yes                       | 2     |
| Overflow                  | 1     |
| Filtered                  | 0.5   |
| No                        | 0     |

| Hydrologic Condition | Score |
|----------------------|-------|
| River                | 4     |
| Lake                 | 4     |
| Creek/Canal          | 3     |
| Pond                 | 3     |
| Drainage             | 2     |
| Wetland              | 2     |
| Piped                | 1     |

| Proximity Score |       | Score |
|-----------------|-------|-------|
| ≥               | <     |       |
| 0               | 75    | 5     |
| 75              | 150   | 4     |
| 150             | 300   | 3     |
| 300             | 500   | 2     |
| 500             | 10000 | 1     |

| Status       | Score |
|--------------|-------|
| Impaired     | 2     |
| Not Impaired | 1     |

| Sensitive Ecosystem | Score |
|---------------------|-------|
| Wetland             | 3     |
| None                | 0     |

| Protected Area           | Score |
|--------------------------|-------|
| Source Protection Zone 2 | 1     |
| None                     | 0     |

| Upcoming Improvements | Score |
|-----------------------|-------|
| Yes                   | 5     |
| Possible              | 3     |
| None                  | 1     |

| Use                                | Rank | Factor | Full Name/Description  |
|------------------------------------|------|--------|--|
| Fire Training Center Burn Building | 21   | 10     | Fire Training Center Burn Building   |
| Wash Rack - Uncontained            | 20   | 9      | Vehicle/Equipment Wash Rack, Partially or completely uncontained   |
| Heavy Equipment Storage            | 19   | 8      | Heavy Equipment Storage  |
| Large Parking Lot (>45)            | 18   | 7      | Parking Lot/Fleet Vehicle Storage, 45 or more cars   |
| Wash Rack - Contained              | 17   | 6      | Vehicle/Equipment Wash Rack, Fully Contained   |
| Shops                              | 16   | 6      | Shops (Public Works, parks, etc.)  |
| Medium Parking Lot (<45)           | 15   | 5      | Parking Lot/Fleet Vehicle Storage, 11-45 Cars  |
| Onsite Road                        | 14   | 5      | Long Driveway/Road   |
| Small Parking Lot (<10)            | 13   | 4      | Parking Lot/Fleet Vehicle Storage, 1-10 cars   |
| Dog Park                           | 12   | 4      | Dog Park/Outdoor Animal Area   |
| Public Buildings                   | 11   | 3      | Public Building/Office   |
| Outdoor Structure                  | 10   | 3      | Outdoor Structure (Pavilions, Sport Courts, Ampitheaters, Exposed Water Tanks, Play Structures, skate parks, etc.) |
| Pump House                         | 9    | 2      | Well house/Pump house  |
| Outdoor Pool                       | 8    | 2      | Outdoor pool   |
| Trail                              | 7    | 1      | Trail  |
|                                    |      |        |  |
| Pond                               | 5    | 0      | Pond (year round water)  |
| Manicured Green Space              | 4    | -1     | Manicured Green Space/ball field/cemetery  |
| Detention Basin                    | 3    | -2     | Detention Basin  |
| Natural Green Space                | 2    | -3     | Natural Green Space  |
| Retention Basin                    | 1    | -4     | Retention Basin  |

| Catchment              | Score |
|------------------------|-------|
| Hard Surface           | 2     |
| Standard Inlet         | 1     |
| Inlet and Separator    | -1    |
| Grass and Hard Surface | -2    |
| Brush and Hard Surface | -3    |
| Rain Garden            | -4    |

| Conveyance                         | Score |
|------------------------------------|-------|
| Hard Surface Flow                  | 3     |
| Intercepted Hard Surface Flow      | 3     |
| Pipe                               | 1     |
| Separator and Pipe                 | -1    |
| Rock Channel                       | -2    |
| Vegetated Swale                    | -3    |
| Intercepted Vegetated Surface Flow | -4    |
| Vegetated Surface Flow             | -4    |

| Destination                   | Score |
|-------------------------------|-------|
| Outfall                       | 5     |
| Regional Detention Pond       | 4     |
| Detention Pond                | 3     |
| Regional Retention Pond       | 2     |
| Separator and Detention Pond  | 2     |
| Sump/Underground Infiltration | 2     |
| Retention Pond                | 1     |
| Onsite/Natural Retention      | 1     |

| Size |     | Score |
|------|-----|-------|
| ≥    | <   |       |
| 0    | 1   | 0     |
| 1    | 5   | 1     |
| 5    | 10  | 2     |
| 10   | 15  | 3     |
| 15   | 20  | 4     |
| 20   | 500 | 5     |

| Onsite Storage                                      | Score |
|---|-------|
| None  | 0     |
| Negligible  | 1     |
| Minimal Chemicals - Indoor                          | 2     |
| Contaminated Water From Training (Evaporation Pond) | 3     |
| Significant Chemicals - Indoor                      | 3     |
| Aggregate Materials                                 | 4     |
| Minimal Chemicals - Outdoor                         | 5     |
| Significant Chemicals - Outdoor                     | 6     |

## APPENDIX C. POTENTIAL ENVIRONMENTAL IMPACTS SCORING MATRIX

| Facility |        |                      |  | Storm Drain               |                        |                                    |                               | Herriman City Potential Environmental Impacts of City Owned Facilities |                                |                                |                                 |                                |                         |                       |          |                   |              |      |       |                 |                 |                      |               |                         |                         |                       |       |            |                            | Onsite Storage |    | Comments | Potential Environmental Impact Score |    |  |  |
|----------|--------|----------------------|--|---------------------------|------------------------|------------------------------------|-------------------------------|--|--------------------------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|-----------------------|----------|-------------------|--------------|------|-------|-----------------|-----------------|----------------------|---------------|-------------------------|-------------------------|-----------------------|-------|------------|----------------------------|----------------|----|----------|--------------------------------------|----|--|--|
| No.      | On GIS | Type                 | Name   | Location                  | Catchment              | Conveyance                         | Destination                   | Size (ac)  | Potential Pollutant Production |                                |                                 |                                |                         |                       |          |                   |              |      |       |                 |                 |                      |               |                         |                         |                       |       |            |                            |                |    |          |                                      |    |  |  |
|          |        |                      |  |                           |                        |                                    |                               |  | Public Building                | Parking Lot - Small (<10 Cars) | Parking Lot - Medium (<45 Cars) | Parking Lot - Large (>45 Cars) | Green Space - Manicured | Green Space - Natural | Dog Park | Outdoor Structure | Outdoor Pool | Pond | Trail | Detention Basin | Retention Basin | Fire Training Center | Burn Building | Heavy Equipment Storage | Wash Rack - Uncontained | Wash Rack - Contained | Shops | Pump House | Onsite Road                |                |    |          |                                      |    |  |  |
|          |        |                      |  |                           |                        |                                    |                               |  | Factor                         |                                |                                 |                                |                         |                       |          |                   |              |      |       |                 |                 |                      |               |                         |                         |                       |       |            |                            |                |    |          |                                      |    |  |  |
|          |        |                      |  |                           |                        |                                    |                               |  | 3                              | 4                              | 5                               | 7                              | -1                      | -3                    | 4        | 3                 | 2            | 0    | 1     | -2              | -4              | 10                   | 8             | 9                       | 6                       | 6                     | 2     | 5          |                            |                |    |          |                                      |    |  |  |
| 1        | Y      | Park                 | Copper Creek Park                              | 12085 S Midas Park Rd     | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 31.86  | N                              | N                              | N                               | N                              | Y                       | Y                     | Y        | N                 | N            | Y    | N     | N               | Y               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 2  | 6        | 37                                   | 16 |  |  |
| 2        | Y      | Park                 | Arches Park                                    | 12101 S Tower Arch Ln     | Grass and Hard Surface | Vegetated Surface Flow             | Retention Pond                | 2.58   | N                              | N                              | N                               | Y                              | N                       | Y                     | N        | N                 | Y            | N    | N     | Y               | N               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | 5        | 18                                   | 51 |  |  |
| 3        | Y      | Park                 | Yukon Park                                     | 5617 W Yukon Park Ln      | Grass and Hard Surface | Vegetated Surface Flow             | Retention Pond                | 0.34   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | Y     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -5 | 0        | 10                                   | 78 |  |  |
| 4        | N      | Park                 | Pickle Ball and Sand Volleyball at Midas Creek | 12111 S Mustang Trail Wy  | Grass and Hard Surface | Hard Surface Flow                  | Outfall                       | 0.41   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | Y            | N    | N     | N               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 6  | 3        | 46                                   | 12 |  |  |
| 5        | N      | Trail                | Midas Creek Trail                              |                           | Brush and Hard Surface | Vegetated Surface Flow             | Outfall                       | 13.9   | N                              | N                              | N                               | N                              | N                       | N                     | Y        | N                 | N            | N    | N     | N               | Y               | N                    | Y             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 1  | -5       | 23                                   | 36 |  |  |
| 6        | Y      | Cemetery             | Herriman City Cemetery                         | 12454 S 6000 W            | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 9.7  | N                              | N                              | N                               | Y                              | N                       | Y                     | N        | N                 | Y            | N    | N     | N               | N               | Y                    | N             | N                       | N                       | N                     | N     | Y          | Negligible                 | None           | -1 | 11       | 33                                   | 20 |  |  |
| 7        | Y      | Storm Drain Facility | Rivulet Rd Storm Drain Basin                   | 12463 S Rivulet Rd        | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 0.78   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | Y    | N     | N               | N               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 1        | 17                                   | 58 |  |  |
| 8        | Y      | Park                 | Creek Ridge Park                               | 12532 S Oceanside Dr      | Grass and Hard Surface | Vegetated Surface Flow             | Onsite/Natural Retention      | 1.75   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | Y            | N    | N     | N               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | 3        | 16                                   | 64 |  |  |
| 9        | Y      | Storm Drain Facility | New - Twisted Oak Dr Storm Drain Basin         | 13026 S Twisted Oak Dr    | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 0.66   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | -1       | 15                                   | 66 |  |  |
| 10       | Y      | Park                 | Western Creek Park                             | 6552 W Reacemaker Wy      | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 1.73   | N                              | Y                              | N                               | N                              | N                       | Y                     | N        | N                 | Y            | N    | N     | Y               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | 6        | 25                                   | 31 |  |  |
| 11       | N      | Trail                | Butterfield Creek Trail                        |                           | Grass and Hard Surface | Vegetated Surface Flow             | Outfall                       | 12.01  | N                              | N                              | N                               | N                              | N                       | N                     | Y        | Y                 | N            | N    | N     | N               | N               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 2  | -4       | 27                                   | 27 |  |  |
| 12       | Y      | Storm Drain Facility | Triangle - Twisted Oak Dr Storm Drain Basin    | 13169 S Twisted Oak Dr    | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 1.29   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | -1       | 18                                   | 51 |  |  |
| 13       | N      | Storm Drain Facility | Butterfield Pond Storm Drain Basin             | 6584 W Silver Sky Dr      | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 3.99   | N                              | N                              | N                               | N                              | N                       | Y                     | Y        | N                 | N            | Y    | N     | N               | Y               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | -1       | 18                                   | 51 |  |  |
| 14       | N      | Facility             | Old City Hall/Main St Park/UFA St 103          | 13011 S Pioneer St        | Standard Inlet         | Hard Surface Flow                  | Sump/Underground Infiltration | 4.25   | Y                              | N                              | N                               | N                              | Y                       | Y                     | N        | N                 | N            | Y    | N     | N               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Minimal Chemicals - Indoor | None           | 7  | 20       | 66                                   | 3  |  |  |
| 15       | Y      | Park                 | Tuscany Park                                   | 5469 W Tuscana Wy         | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 11.45  | N                              | N                              | N                               | N                              | Y                       | Y                     | N        | N                 | Y            | N    | N     | N               | N               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 0  | 8        | 33                                   | 20 |  |  |
| 16       | Y      | Park                 | Umbria Park                                    | 12690 S Brundisi Wy       | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 3.58   | N                              | N                              | N                               | N                              | Y                       | Y                     | N        | N                 | N            | Y    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | 11       | 30                                   | 25 |  |  |
| 17       | Y      | Storm Drain Facility | Brundisi Wy Storm Drain Basin                  |                           | Grass and Hard Surface | Vegetated Surface Flow             | Regional Retention Pond       | 0.57   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | -2       | 11                                   | 75 |  |  |
| 18       | Y      | Storm Drain Facility | Anthem Park Blvd Storm Drain Basin             | 12388 S Anthem Park Blvd  | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 1.8  | Y                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | 1        | 20                                   | 45 |  |  |
| 19       | Y      | Storm Drain Facility | Herriman Blvd Storm Drain Basin                | 5381 W Herriman Blvd      | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 3  | Y                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | N               | Y               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -2 | 2        | 21                                   | 40 |  |  |
| 20       | N      | Park                 | Hill Island Park                               | 12607 S Herriman Main St  | Grass and Hard Surface | Intercepted Vegetated Surface Flow | Regional Retention Pond       | 1.36   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 1        | 17                                   | 58 |  |  |
| 21       | Y      | Park                 | Dog Park                                       | 12755 S Herriman Main St  | Grass and Hard Surface | Vegetated Surface Flow             | Sump/Underground Infiltration | 4.87   | N                              | N                              | Y                               | N                              | Y                       | Y                     | Y        | Y                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 10       | 26                                   | 28 |  |  |
| 22       | N      | Trail                | East Boundary Trail                            | 4976 W Herriman Rose Blvd | Grass and Hard Surface | Vegetated Surface Flow             | Onsite/Natural Retention      | 5.5  | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 1        | 17                                   | 58 |  |  |
| 23       | N      | Trail                | Utah Power & Light Co Trail                    | 4520 W 12600 S            | Grass and Hard Surface | Vegetated Swale                    | Detention Pond                | 13.9   | N                              | N                              | N                               | N                              | N                       | Y                     | Y        | N                 | Y            | N    | N     | N               | Y               | Y                    | Y             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 1  | -5       | 23                                   | 36 |  |  |
| 24       | N      | Facility             | City Hall                                      | 5355 W Herriman Main St   | Standard Inlet         | Pipe                               | Retention Pond                | 14.84  | Y                              | N                              | N                               | N                              | Y                       | Y                     | N        | N                 | Y            | N    | Y     | Y               | N               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 6  | 10       | 53                                   | 8  |  |  |
| 25       | Y      | Park                 | Rose Creek Subway Park                         | 5651 W Karalynn Ct        | Grass and Hard Surface | Vegetated Surface Flow             | Regional Retention Pond       | 0.79   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | -4       | 9                                    | 81 |  |  |
| 26       | N      | Trail                | Arlingridge Dr Trail                           |                           | Hard Surface           | Hard Surface Flow                  | Regional Detention Pond       | 0.81   | N                              | N                              | N                               | N                              | N                       | N                     | N        | N                 | N            | N    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 9  | 2        | 54                                   | 7  |  |  |
| 27       | Y      | Storm Drain Facility | Shearing Cv Storm Drain Basin                  | 13253 S Shearing Cv       | Grass and Hard Surface | Vegetated Surface Flow             | Detention Pond                | 0.53   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 1        | 17                                   | 58 |  |  |
| 28       | Y      | Park                 | Freeman Park                                   | 13371 S Freeman Ln        | Grass and Hard Surface | Intercepted Vegetated Surface Flow | Regional Retention Pond       | 0.51   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | Y    | N     | N               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | 4        | 17                                   | 58 |  |  |
| 29       | Y      | Park                 | Rosecreek Park - Drainage/Linear               | 13492 S Roselina Dr       | Grass and Hard Surface | Vegetated Swale                    | Detention Pond                | 18.76  | N                              | N                              | N                               | Y                              | N                       | Y                     | N        | N                 | Y            | N    | N     | N               | Y               | Y                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 2  | 7        | 38                                   | 15 |  |  |
| 30       | Y      | Park                 | Rosecreek Park - North Basin                   | 5955 W 13400 S            | Grass and Hard Surface | Vegetated Surface Flow             | Regional Detention Pond       | 7.79   | N                              | N                              | N                               | N                              | Y                       | Y                     | N        | N                 | Y            | N    | N     | Y               | Y               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | 0  | 9        | 34                                   | 19 |  |  |
| 31       | Y      | Park                 | Rosecreek Park - Horseback Ln                  | 13789 Sharness Cv         | Grass and Hard Surface | Vegetated Surface Flow             | Onsite/Natural Retention      | 8.96   | N                              | N                              | N                               | N                              | N                       | Y                     | Y        | Y                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 5        | 21                                   | 40 |  |  |
| 32       | Y      | Park                 | Rosecreek Park - Roselina Bball Court          | 5800 W Roselina Dr        | Grass and Hard Surface | Vegetated Surface Flow             | Onsite/Natural Retention      | 2.42   | N                              | N                              | N                               | N                              | N                       | Y                     | Y        | Y                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | 1        | 14                                   | 67 |  |  |
| 33       | N      | Trail                | Grand Trotter Open Space Park                  | 13676 S Mirabella Dr      | Grass and Hard Surface | Vegetated Surface Flow             | Onsite/Natural Retention      | 3  | N                              | N                              | N                               | N                              | N                       | Y                     | Y        | N                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -4 | 1        | 14                                   | 67 |  |  |
| 34       | N      | Park                 | Sully Cv/Barrel Ct Park                        | 13710 S Hanscomcab Wy     | Grass and Hard Surface | Intercepted Vegetated Surface Flow | Detention Pond                | 0.33   | N                              | N                              | N                               | N                              | N                       | Y                     | N        | N                 | N            | N    | N     | Y               | N               | N                    | N             | N                       | N                       | N                     | N     | N          | Negligible                 | None           | -3 | 1        | 17                                   | 58 |  |  |
| 35       | Y      | Park                 | Rose Creek Mirabella Open Space</              |                           |                        |                                    |                               |  |                                |                                |                                 |                                |                         |                       |          |                   |              |      |       |                 |                 |                      |               |                         |                         |                       |       |            |                            |                |    |          |                                      |    |  |  |

## APPENDIX D. SITE PRIORITY RANKING MATRIX

| No. | Facility                                       | Potential Environmental Impact Severity | Discharge into Waterbody | Nearest Downstream       | Herriman City Facilities Ranking Waterbody |                |                          |              | Sensitive Ecosystem or Protected Area |                |                     |                | Upcoming Improvements | Score  | Rank |
|-----|--|---|--------------------------|--------------------------|--|----------------|--------------------------|--------------|---------------------------------------|----------------|---------------------|----------------|-----------------------|--------|------|
|     |  |   |                          |                          | Hydrologic Condition                       | Proximity (ft) | Effective Proximity (ft) | Status       | Sensitive Ecosystem Type              | Proximity (ft) | Protected Area Type | Proximity (ft) |                       |        |      |
| 1   | Copper Creek Park                              | 37                                      | Filtered                 | Midas Creek              | Creek/Canal                                | 0              | 0                        | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 185    | 20   |
| 2   | Arches Park                                    | 18                                      | No                       | Midas Creek              | Creek/Canal                                | 848            | 848                      | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 18     | 72   |
| 3   | Yukon Park                                     | 10                                      | Overflow                 | Midas Creek              | Creek/Canal                                | 44             | 44                       | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 90     | 41   |
| 4   | Pickle Ball and Sand Volleyball at Midas Creek | 46                                      | Filtered                 | Midas Creek              | Creek/Canal                                | 40             | 40                       | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 230    | 13   |
| 5   | Midas Creek Tail                               | 23                                      | Filtered                 | Midas Creek              | Creek/Canal                                | 10             | 10                       | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 161    | 26   |
| 6   | Herriman City Cemetery                         | 33                                      | Overflow                 | Butterfield Creek        | Piped                                      | 199            | 9.95                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 231    | 12   |
| 7   | Rivulet Rd Storm Drain Basin                   | 17                                      | Overflow                 | Butterfield Creek        | Piped                                      | 3138           | 156.9                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 85     | 42   |
| 8   | Creek Ridge Park                               | 16                                      | No                       | Butterfield Creek        | Piped                                      | 4948           | 4948                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 16     | 78   |
| 9   | New - Twisted Oak Dr Storm Drain Basin         | 15                                      | Overflow                 | Butterfield Creek        | Creek/Canal                                | 242            | 12.1                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 135    | 31   |
| 10  | Western Creek Park                             | 25                                      | Overflow                 | Butterfield Creek        | Creek/Canal                                | 443            | 22.15                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 225    | 14   |
| 11  | Butterfield Creek Trail                        | 27                                      | Filtered                 | Butterfield Creek        | Creek/Canal                                | 10             | 10                       | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 189    | 18   |
| 12  | Triangle - Twisted Oak Dr Storm Drain Basin    | 18                                      | Overflow                 | Butterfield Creek        | Creek/Canal                                | 56             | 2.8                      | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 162    | 24   |
| 13  | Butterfield Pond Storm Drain Basin             | 18                                      | Overflow                 | Butterfield Creek        | Creek/Canal                                | 39             | 39                       | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 198    | 16   |
| 14  | Old City Hall/Main St Park/UFA St 103          | 66                                      | No                       | Butterfield Creek        | Piped                                      | 3615           | 3615                     | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 198    | 16   |
| 15  | Tuscany Park                                   | 33                                      | No                       | Butterfield Creek        | Creek/Canal                                | 2216           | 2216                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 33     | 64   |
| 16  | Umbria Park                                    | 30                                      | No                       | Butterfield Creek        | Creek/Canal                                | 2558           | 2558                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 30     | 65   |
| 17  | Brundisi Wy Storm Drain Basin                  | 11                                      | No                       | Butterfield Creek        | Creek/Canal                                | 2713           | 2713                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 11     | 85   |
| 18  | Anthem Park Blvd Storm Drain Basin             | 20                                      | Overflow                 | Butterfield Creek        | Piped                                      | 22             | 1.1                      | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 140    | 30   |
| 19  | Herriman Blvd Storm Drain Basin                | 21                                      | No                       | Butterfield Creek        | Creek/Canal                                | 1446           | 1446                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 21     | 68   |
| 20  | Hill Island Park                               | 17                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 4379           | 4379                     | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 17     | 75   |
| 21  | Dog Park                                       | 26                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 4915           | 4915                     | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 78     | 46   |
| 22  | East Boundary Trail                            | 17                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 4266           | 4266                     | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 51     | 58   |
| 23  | Utah Power & Light Co Trail                    | 23                                      | Filtered                 | Midas Creek              | Creek/Canal                                | 50             | 50                       | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 115    | 35   |
| 24  | City Hall                                      | 53                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 5928           | 2371.2                   | Not Impaired | None                                  | N/A            | None                | N/A            | Yes                   | 265    | 9    |
| 25  | Rose Creek Subway Park                         | 9                                       | Overflow                 | Butterfield Creek        | Piped                                      | 5562           | 278.1                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 45     | 62   |
| 26  | Arlinridge Dr Trail                            | 54                                      | No                       | Butterfield Creek        | Piped                                      | 5565           | 278.25                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 54     | 57   |
| 27  | Shearing Cv Storm Drain Basin                  | 17                                      | Overflow                 | Butterfield Creek        | Piped                                      | 6565           | 328.25                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 68     | 51   |
| 28  | Freeman Park                                   | 17                                      | No                       | Butterfield Creek        | Piped                                      | 7388           | 369.4                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 17     | 75   |
| 29  | Rosecreek Park - Drainage/Linear               | 38                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 4263           | 213.15                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 266    | 8    |
| 30  | Rosecreek Park - North Basin                   | 34                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 5315           | 265.75                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 238    | 10   |
| 31  | Rosecreek Park - Horseback Ln                  | 21                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 5290           | 264.5                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 147    | 29   |
| 32  | Rosecreek Park - Roselina Bball Court          | 14                                      | No                       | Rose Creek               | Creek/Canal                                | 7383           | 369.15                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 14     | 79   |
| 33  | Grand Trotter Open Space Park                  | 14                                      | No                       | Rose Creek               | Creek/Canal                                | 8152           | 3260.8                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 14     | 79   |
| 34  | Sulky Cv/Barrel Ct Park                        | 17                                      | No                       | Rose Creek               | Creek/Canal                                | 7109           | 2843.6                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 17     | 75   |
| 35  | Rose Creek Mirabella Open Space                | 19                                      | No                       | Rose Creek               | Creek/Canal                                | 7056           | 2822.4                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 19     | 70   |
| 36  | Triple Crown/Mirabella Open Space              | 10                                      | No                       | Rose Creek               | Creek/Canal                                | 7952           | 3180.8                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 10     | 86   |
| 37  | Grand Trotter Trail                            | 24                                      | No                       | Rose Creek               | Creek/Canal                                | 7940           | 3176                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 24     | 66   |
| 38  | Belmont Park Ave Storm Basin                   | 6                                       | No                       | Rose Creek               | Creek/Canal                                | 8862           | 3544.8                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 6      | 91   |
| 39  | Rosecrest Park - All but parking               | 32                                      | Filtered                 | Rose Creek               | Creek/Canal                                | 0              | 0                        | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 160    | 27   |
| 40  | Rosecrest Park - Parking                       | 60                                      | Yes                      | Rose Creek               | Creek/Canal                                | 412            | 20.6                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 1020   | 2    |
| 41  | Lower Rose Creek Trail                         | 24                                      | Filtered                 | Rose Creek               | Creek/Canal                                | 10             | 10                       | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 120    | 34   |
| 42  | Autumn Dusk Park                               | 21                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 81             | 4.05                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 189    | 18   |
| 43  | Emmebella Park                                 | 21                                      | No                       | Rose Creek               | Creek/Canal                                | 1748           | 699.2                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 21     | 68   |
| 44  | W & M Butterfield Park - East                  | 45                                      | No                       | Rose Creek               | Creek/Canal                                | 2565           | 1026                     | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 135    | 31   |
| 45  | W & M Butterfield Park - North                 | 100                                     | Yes                      | Rose Creek               | Creek/Canal                                | 15             | 15                       | Impaired     | None                                  | N/A            | None                | N/A            | Yes                   | 2100   | 1    |
| 46  | W & M Butterfield Park - West                  | 89                                      | No                       | Rose Creek               | Creek/Canal                                | 3477           | 1390.8                   | Impaired     | None                                  | N/A            | None                | N/A            | Possible              | 267    | 7    |
| 47  | Rosecrest Splash Pad                           | 26                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 2744           | 137.2                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 208    | 15   |
| 48  | Morning Light Dr Storm Drain Basin             | 14                                      | Overflow                 | Rose Creek               | Creek/Canal                                | 2120           | 106                      | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 112    | 38   |
| 49  | Morning Light Dr Tennis Court                  | 18                                      | Overflow                 | Blackridge Drainage      | Drainage                                   | 1479           | 73.95                    | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 81     | 44   |
| 50  | Emmeline Park                                  | 18                                      | No                       | Rose Creek               | Creek/Canal                                | 3288           | 1315.2                   | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 18     | 72   |
| 51  | Emmeline Dr Water Tank and Pump                | 23                                      | No                       | Rose Creek               | Creek/Canal                                | 3970           | 1588                     | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 23     | 67   |
| 52  | Muirwood Cir Trail and Pavilion                | 24                                      | Filtered                 | Muirwood Circle Drainage | Drainage                                   | 10             | 10                       | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 66     | 52   |
| 53  | Fort Herriman Cove Storm Drain Basin           | 10                                      | Overflow                 | Muirwood Circle Drainage | Drainage                                   | 10             | 10                       | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 45     | 62   |
| 54  | Blackridge Reservoir Trail                     | 28                                      | Filtered                 | Blackridge Drainage      | Drainage                                   | 50             | 50                       | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 77     | 47   |
| 55  | Blackridge Reservoir Park                      | 41                                      | Filtered                 | Blackridge Drainage      | Drainage                                   | 126            | 6.3                      | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 112.75 | 37   |
| 56  | Blackridge Reservoir Tank                      | 20                                      | Filtered                 | Blackridge Drainage      | Drainage                                   | 1478           | 1478                     | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 75     | 48   |
| 57  | Juniper Canyon Trail                           | 31                                      | Filtered                 | Juniper Canyon Drainage  | Drainage                                   | 50             | 50                       | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 147.25 | 28   |
| 58  | Friendship Dr Storm Drain Basin                | 14                                      | No                       | Rose Creek               | Creek/Canal                                | 1862           | 744.8                    | Impaired     | None                                  | N/A            | None                | N/A            | None                  | 14     | 79   |
| 59  | Palisade Rose Dr Storm Drain Basin             | 12                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 6034           | 2413.6                   | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 12     | 84   |
| 60  | Murdoch Peak Dr Storm Drain Basin              | 9                                       | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 5205           | 2082                     | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 9      | 87   |
| 61  | UFA St 123                                     | 63                                      | Overflow                 | Juniper Canyon Drainage  | Drainage                                   | 1002           | 50.1                     | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 283.5  | 6    |
| 62  | S Step Rock Ln Debris Flow Basin               | 22                                      | Filtered                 | Juniper Canyon Drainage  | Drainage                                   | 3483           | 1393.2                   | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 82.5   | 43   |
| 63  | Laguna Property Debris Flow Basin              | 19                                      | Filtered                 | Juniper Canyon Drainage  | Drainage                                   | 1985           | 794                      | Not Impaired | None                                  | N/A            | None                | N/A            | Possible              | 71.25  | 49   |
| 64  | Sentinel Ridge Park                            | 19                                      | No                       | Welby-Jacobs Canal       | Creek/Canal                                | 2076           | 103.8                    | Not Impaired | None                                  | N/A            | None                | N/A            | None                  | 19     | 70   |

|    |  |    |          |                    |             |       |        |              |      |     |                          |     |          |      |    |
|----|--|----|----------|--------------------|-------------|-------|--------|--------------|------|-----|--------------------------|-----|----------|------|----|
| 65 | Madingley Cir Storm Drain Basin            | 7  | Overflow | Welby-Jacobs Canal | Creek/Canal | 90    | 90     | Not Impaired | None | N/A | None                     | N/A | Possible | 45.5 | 61 |
| 66 | 4000 W Pump Station                        | 47 | Filtered | Welby-Jacobs Canal | Creek/Canal | 70    | 70     | Not Impaired | None | N/A | None                     | N/A | Possible | 235  | 11 |
| 67 | Autumn Crest Blvd Storm Drain Basins       | 58 | No       | Welby-Jacobs Canal | Creek/Canal | 2633  | 2633   | Not Impaired | None | N/A | None                     | N/A | Possible | 174  | 22 |
| 68 | 15000 S Pump Station and Storm Drain Basin | 37 | No       | Welby-Jacobs Canal | Creek/Canal | 216   | 86.4   | Not Impaired | None | N/A | None                     | N/A | Possible | 111  | 39 |
| 69 | Fort Pierce Wy Storm Drain Basin           | 6  | No       | Rose Creek         | Creek/Canal | 4815  | 1926   | Impaired     | None | N/A | None                     | N/A | None     | 6    | 91 |
| 70 | Knapper Point Cv Storm Drain Basin         | 1  | Overflow | Rose Creek         | Creek/Canal | 1336  | 1336   | Impaired     | None | N/A | None                     | N/A | Possible | 7    | 90 |
| 71 | 6600 W Storm Drain Basin                   | 6  | Overflow | Rose Creek         | Creek/Canal | 1882  | 94.1   | Impaired     | None | N/A | None                     | N/A | None     | 48   | 59 |
| 72 | Desert Creek Park                          | 26 | Filtered | Rose Creek         | Creek/Canal | 50    | 50     | Impaired     | None | N/A | None                     | N/A | Possible | 182  | 21 |
| 73 | Upper Rose Creek Trail                     | 24 | Filtered | Rose Creek         | Creek/Canal | 50    | 50     | Impaired     | None | N/A | None                     | N/A | Possible | 168  | 23 |
| 74 | Desert Lilly Cir Storm Drain Basin         | 11 | Overflow | Rose Creek         | Creek/Canal | 68    | 3.4    | Impaired     | None | N/A | None                     | N/A | None     | 99   | 40 |
| 75 | Winding Oak Dr Storm Drain Basin           | 7  | Overflow | Rose Creek         | Creek/Canal | 45    | 2.25   | Impaired     | None | N/A | None                     | N/A | None     | 63   | 53 |
| 76 | Butterfield Park Way Storm Drain Basin     | 18 | Overflow | Rose Creek         | Creek/Canal | 161   | 8.05   | Impaired     | None | N/A | None                     | N/A | None     | 162  | 24 |
| 77 | Cove Pond Park                             | 36 | Yes      | Rose Creek         | Creek/Canal | 353   | 17.65  | Impaired     | None | N/A | None                     | N/A | None     | 612  | 3  |
| 78 | Valle Vista Park                           | 9  | No       | Rose Creek         | Creek/Canal | 4629  | 231.45 | Impaired     | None | N/A | None                     | N/A | None     | 9    | 87 |
| 79 | Valve Station Cove and Tank                | 19 | Overflow | Wide Hollow        | Drainage    | 1949  | 97.45  | Not Impaired | None | N/A | None                     | N/A | Possible | 114  | 36 |
| 80 | HCEII Pump Station                         | 8  | No       | Rose Creek         | Creek/Canal | 6349  | 6349   | Impaired     | None | N/A | None                     | N/A | None     | 8    | 89 |
| 81 | Masacaro Booster Pump                      | 11 | Overflow | Rose Creek         | Creek/Canal | 6414  | 2565.6 | Impaired     | None | N/A | None                     | N/A | None     | 55   | 56 |
| 82 | High Country 1 Well House                  | 51 | No       | Butterfield Creek  | Creek/Canal | 5337  | 5337   | Impaired     | None | N/A | Source Protection Zone 2 | 0   | None     | 306  | 5  |
| 83 | High Country 1 Booster Pump                | 48 | No       | Butterfield Creek  | Creek/Canal | 1128  | 1128   | Impaired     | None | N/A | None                     | N/A | None     | 48   | 59 |
| 84 | Rose Canyon Rd Storm Drain Basin           | 7  | Overflow | Rose Creek         | Creek/Canal | 3609  | 180.45 | Impaired     | None | N/A | None                     | N/A | Possible | 63   | 53 |
| 85 | Rose Basin Rd Storm Drain Basin            | 6  | Overflow | Rose Creek         | Creek/Canal | 2780  | 139    | Impaired     | None | N/A | None                     | N/A | Possible | 60   | 55 |
| 86 | HP Bunker and 2 Tanks                      | 31 | Yes      | Rose Creek         | Creek/Canal | 1486  | 74.3   | Impaired     | None | N/A | None                     | N/A | None     | 527  | 4  |
| 87 | Ivie Farms Dr Storm Drain Basin and Park   | 13 | No       | Rose Creek         | Creek/Canal | 14365 | 718.25 | Impaired     | None | N/A | None                     | N/A | None     | 13   | 82 |
| 88 | Boyde Park                                 | 13 | No       | Rose Creek         | Creek/Canal | 13987 | 699.35 | Impaired     | None | N/A | None                     | N/A | None     | 13   | 82 |
| 89 | Fieldstone Park                            | 16 | Overflow | Rose Creek         | Creek/Canal | 11755 | 587.75 | Impaired     | None | N/A | None                     | N/A | None     | 80   | 45 |
| 90 | L&L Hamilton Park                          | 21 | Overflow | Rose Creek         | Creek/Canal | 9225  | 461.25 | Impaired     | None | N/A | None                     | N/A | None     | 126  | 33 |
| 91 | Hamilton Farms 6740 Storm Drain Basin      | 14 | Overflow | Rose Creek         | Creek/Canal | 10955 | 547.75 | Impaired     | None | N/A | None                     | N/A | None     | 70   | 50 |
| 92 | Hall Crossing Dr Storm Drain Basin         | 1  | No       | Butterfield Creek  | Creek/Canal | 2549  | 2549   | Impaired     | None | N/A | None                     | N/A | None     | 1    | 94 |
| 93 | Sage Grass Ln Storm Drain Basin            | 1  | No       | Rose Creek         | Creek/Canal | 19595 | 979.75 | Impaired     | None | N/A | None                     | N/A | None     | 1    | 94 |
| 94 | Scenic Mountain Storm Drain Basin          | 4  | No       | Rose Creek         | Creek/Canal | 17665 | 883.25 | Impaired     | None | N/A | None                     | N/A | None     | 4    | 93 |
| 95 | Wild Tolman Storm Drain Basin              | 1  | No       | Rose Creek         | Creek/Canal | 17155 | 857.75 | Impaired     | None | N/A | None                     | N/A | None     | 1    | 94 |
| 96 | Herriman City Park on 7300                 | 18 | No       | Rose Creek         | Creek/Canal | 19355 | 967.75 | Impaired     | None | N/A | None                     | N/A | None     | 18   | 72 |

## ***Appendix H – E.coli Compliance Documents***

***E. coli Source Focus for Reporting Year***

***E. coli Sources Audiences and BMP Worksheet***

***Herriman City E. coli TMDL Compliance Plan***



## Checklist for *E. coli* Source Inventory

| Category  |   |        |          |                      |                            |
|---|---|--------|----------|----------------------|----------------------------|
| MS4 Infrastructure                                    | Inventory status (select from dropdown) | Mapped | Priority | Implementation       | Public outreach component? |
| Impervious surface runoff                             | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Illegal dumping                                       | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Street litter/decaying plant matter                   | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Illicit connections to MS4                            | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Excessive irrigation/overspray                        | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Biofilms/regrowth in MS4                              | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Leaky sewer pipes                                     | Not planned this permit cycle           | No     | Low      | None this cycle      | No                         |
| Grass areas draining to MS4s                          | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| <b>Municipal Sanitary Infrastructure</b>              |   |        |          |                      |                            |
| Combined sewer overflows (CSOs)                       | Not applicable                          | No     | Low      | Covered by SVSD      | No                         |
| Sanitary sewer overflows (SSOs)                       | Not applicable                          | No     | Low      | Covered by SVSD      | No                         |
| Sanitary sewer inflow and infiltration (I&I)          | Not applicable                          | No     | Low      | Covered by SVSD      | No                         |
| Illicit sanitary connections to MS4s                  | Not applicable                          | No     | Low      | Covered by SVSD      | No                         |
| <b>Other Human Sanitary Sources</b>                   |   |        |          |                      |                            |
| Porta-potties (poorly maintained)                     | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Leaky sewer pipes                                     | Not applicable                          | No     | Low      | Covered by SVSD      | No                         |
| Leaky/failing septic systems                          | Planned this permit cycle               | Yes    | High     | See Updated SWMP     | No                         |
| Homeless encampments                                  | Not applicable                          | -      | -        | -                    | -                          |
| Dumpsters   | Planned this permit cycle               | No     | Medium   | See Updated SWMP     | Yes                        |
| Trash cans  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Garbage trucks  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| <b>Domestic pets</b>                                  |   |        |          |                      |                            |
| Dog parks   | Planned this permit cycle               | Yes    | High     | See Updated SWMP     | Yes                        |
| Dogs, cats, etc. residential                          | Planned this permit cycle               | No     | High     | See Updated SWMP     | Yes                        |
| <b>Urban wildlife</b>                                 |   |        |          |                      |                            |
| Rodents/vectors                                       | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Birds/bird congregation areas (gulls, geese, pigeons) | Planned this permit cycle               | Yes    | Medium   | See Updated SWMP     | Yes                        |
| Open space  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| <b>Other urban sources</b>                            |   |        |          |                      |                            |
| Landfills   | Not applicable                          | -      | -        | -                    | -                          |
| Food processing facilities                            | Not applicable                          | -      | -        | -                    | -                          |
| Outdoor dining  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Restaurant grease bins                                | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Bars/stairwells (washdown areas)                      | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Road construction                                     | Not planned this permit cycle           | No     | Low      | No additional action | No                         |
| <b>Urban non-stormwater discharges</b>                |   |        |          |                      |                            |
| Power washing   | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Car washing   | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Pools/hot tubs  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Reclaimed water/gray water                            | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| <b>Recreational sources</b>                           |   |        |          |                      |                            |
| Bathers/boaters                                       | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| RVs (mobile)  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| <b>Agricultural sources</b>                           |   |        |          |                      |                            |
| Livestock/manure storage                              | Planned this permit cycle               | Yes    | Medium   | See Updated SWMP     | Yes                        |
| Livestock, pasture                                    | Planned this permit cycle               | Yes    | Medium   | See Updated SWMP     | Yes                        |
| Livestock, corrals                                    | Planned this permit cycle               | Yes    | Medium   | See Updated SWMP     | Yes                        |
| Livestock (CAFOs)                                     | Not applicable                          | -      | -        | -                    | -                          |
| Manure spreading                                      | Planned this permit cycle               | Yes    | Medium   | See Updated SWMP     | Yes                        |
| Municipal biosolids reuse                             | Not applicable                          | -      | -        | -                    | -                          |
| Reclaimed water/gray water                            | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Irrigation tailwater                                  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Slaughterhouses                                       | Not applicable                          | -      | -        | -                    | -                          |
| <b>Other sources</b>                                  |   |        |          |                      |                            |
| Grazing   | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Streambank erosion                                    | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Wildlife populations                                  | Not planned this permit cycle           | No     | Low      | None this cycle      | None this cycle            |
| Other (describe in notes)                             | -                                       | -      | -        | -                    | -                          |
| Other (describe in notes)                             | -                                       | -      | -        | -                    | -                          |

## **E. coli Sources, Audiences, & Potential BMP Worksheet**

(Reference MS4 Permit Part 3.2.2.1. & 3.2.2.1.1.)

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**Source 1:** Septic systems

**Audience:** Private property owners

**WQ Impacts:** Septic system waste contains E. coli which is an illness-causing waterborne pathogen which degrades water quality at elevated concentrations.

**BMPs:**

- Encourage and educate regular septic system maintenance.
- Remind and encourage connection to the sewer system
- Work with SL County Health Department to account for all known septic systems

**Distribution:** Letter to residents with septic tanks, & social media posts.

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**Source 2:** Private Dumpsters

**Audience:** Commercial, Industrial, and Institutional Property Owners

**WQ Impacts:** Precipitation mixed with waste from dumpsters, if not properly contained or otherwise managed can allow E. coli to enter waterways. E. coli which is an illness-causing waterborne pathogen which degrades water quality at elevated concentrations.

**BMPs:**

- Ensure lids on dumpsters
- Include inspections on dumpsters during Long-Term Stormwater Inspections.
- Encourage infiltration BMPs around dumpsters

**Distribution:** Social media posts, and Notes on inspections from the city.

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**Source 3:** Dog Parks

**Audience:** Herriman City Parks & Recreation Department & Resident Patrons

**WQ Impacts:** Pet waste contains E. coli which is an illness-causing waterborne pathogen.

**BMPs:**

- Collect and dispose pet waste on a more recurring basis (Parks Department).
- Place signs to remind patrons of the expectation to pick-up waste.
- Add infiltration to list of retrofit projects
- Adjust standards to not allow Dog Parks in flood control facilities.

**Distribution:** Social media posts for patrons and additional signage in public areas.

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|                             |  |
|-----------------------------|--|
| <b><u>Source 4:</u></b>     | Dogs, Cats, etc. (Residential)   |
| <b><u>Audience:</u></b>     | All Herriman City Residents  |
| <b><u>WQ Impacts:</u></b>   | Pet waste contains <i>E. coli</i> which is an illness-causing waterborne pathogen.   |
| <b><u>BMPs:</u></b>         | <ul style="list-style-type: none"> <li>• Semi-annual social media posts specific to the importance of pet waste management.</li> </ul> |
| <b><u>Distribution:</u></b> | Social media posts, and Newsletter   |

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|                             |  |
|-----------------------------|--|
| <b><u>Source 5:</u></b>     | Dense Waterfowl Areas  |
| <b><u>Audience:</u></b>     | All Herriman City Residents & Reservoir Patrons  |
| <b><u>WQ Impacts:</u></b>   | Waterfowl waste contains <i>E. coli</i> which is an illness-causing waterborne pathogen which degrades water quality at elevated concentrations.   |
| <b><u>BMPs:</u></b>         | <ul style="list-style-type: none"> <li>• Map target locations of dense waterfowl.</li> <li>• Send semi-annual social media posts about the importance of not feeding waterfowl.</li> <li>• Provide additional signage at strategic locations that state “Do Not Feed Ducks or Geese.”</li> </ul> |
| <b><u>Distribution:</u></b> | Social media and hard signage in strategic locations.  |

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|                             |   |
|-----------------------------|---|
| <b><u>Source 6:</u></b>     | Livestock Manure Storage and Corals   |
| <b><u>Audience:</u></b>     | Property Owners with Livestock  |
| <b><u>WQ Impacts:</u></b>   | Agricultural waste contains <i>E. coli</i> which is an illness-causing waterborne pathogen which degrades water quality at elevated concentrations.   |
| <b><u>BMPs:</u></b>         | <ul style="list-style-type: none"> <li>• Map agricultural properties with livestock that are on or adjacent to receiving waters.</li> <li>• Mail educational brochures to all identified properties. Content to include suggested practices of owning and managing livestock in a way that mitigates <i>E. coli</i> contamination to receiving waters.</li> <li>• Semi-annual social medial posts about the importance of best management practices of ownership of livestock on or around receiving waters.</li> </ul> |
| <b><u>Distribution:</u></b> | Social media and hard copy distribution via mail.   |

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# Herriman City E. Coli TMDL Compliance Plan

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The Jordan Valley Municipalities Permit (Permit) was updated on August 16, 2023, to include Jordan River E. coli TMDL requirements. This TMDL Compliance Plan addresses the pollutant reduction requirements of the TMDL for Herriman City. This plan supplements and builds on the six Minimum Control Measures (MCMs) identified in Part 4.2 of the Permit. It is organized based on the new requirements in Part 3.2 of the Permit. Existing MCM Best Management Practices (BMPs) that will be updated and new MCM BMPs that will be added, are identified herein and are incorporated into the Herriman City Storm Water Management Plan (HC SWMP).

## 1. PUBLIC EDUCATION AND OUTREACH

### a. State Requirements

*MS4 Permit Part 3.2.2.1: Identify potential sources of E. coli in the MS4 and target specific audiences that may be contributing to the E. coli sources. Provide and document education and outreach given to the target audiences on the impacts to water quality associated with these types of discharges and BMPs that can be implemented to reduce the discharge of E. coli.*

*MS4 Permit Part 3.2.2.1.1: The Co-Permittee can meet the requirements of permit part 3.2.2.1. through contribution to a collaborative program (e.g., storm water coalition) that evaluates, identifies, and targets sources, as well as, provides outreach that addresses E. coli.*

### b. HC Compliance Plan for:

**Permit Part 3.2.2.1 – Salt Lake County Storm Water Coalition** (see SWMP Section 3.2.1.1 and 3.2.1.2) Herriman City plans to meet the requirements of permit part 3.2.2.1 through contribution to and participation in the Salt Lake County Storm Water Coalition. The HC stormwater committee will work with the coalition to evaluate, identify, and target sources, and provide outreach that addresses E. coli.

**Permit Part 3.2.2.1.1 – Publish Articles & Electronic Media** (see SWMP Section 4.2.1.2). Herriman City will include information that addresses E. coli in articles published in the newsletter and in public electronic media posts. This is an ongoing effort at Herriman City that will continue throughout the permitting period.

## 2. INVENTORY OF SOURCES OF E. COLI WITHIN THE MS4

### a. State Requirements

*MS4 Permit Part 3.2.2.2: The Co-Permittee must maintain a written or mapped inventory of areas in the MS4 that are potential sources of E. coli (areas with septic, dense waterfowl areas, dog parks, etc.).*

*MS4 Permit Part 3.2.2.2.1: The Co-Permittee must create a plan to prioritize reduction activities to address the areas and sources identified in the inventory. The plan must include BMPs the permittee will implement over the permit term (structural and non- structural).*

*MS4 Permit Part 3.2.2.2.2: The Co-Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.3.3.1. and begin inspecting the additional priority areas annually at a minimum and documenting the inspections on an inspection form.*

*MS4 Permit Part 3.2.2.2.3: The Co-Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.6.6.2. for street sweeping and storm sewer system maintenance and begin maintaining the areas at the same frequency. The Permittee's road and parking lot sweeping and storm drain system maintenance SOPs should identify all priority areas (including E. coli sources) and must include a schedule that includes priority area frequency.*

### b. HC Compliance Plan for:

**Permit Part 3.2.2.2 – Identify Priority Areas** Herriman City will develop and maintain an inventory of potential E. coli sources within the MS4. The inventoried areas will be added to the Priority Areas Map found in Appendix A of the HC SWMP. This effort will be included as part of the next reporting period (i.e. before October 1<sup>st</sup>, 2024).

**Permit Part 3.2.2.2.1 – Create a Plan** Herriman City has developed this Compliance Plan by 1) identifying sources of focus for the reporting year (see the attached E. coli Source Focus Checklist), and 2) identifying the reduction activities as shown in the attached E. coli Sources and BMP worksheet. This effort will be revisited each year of the permit term.

**Permit Part 3.2.2.2.2 – Priority Area Inspections** Herriman City will add the inventoried areas to the High Priority Map in Appendix A of the HC SWMP and to the inspection schedule for annual inspection, at a minimum (see updated HC SWMP sections 4.2.3.3.2 and 4.2.3.3.3). The updated map and inspection schedules are planned to be updated on or before June 30<sup>th</sup>, 2024.

**Permit Part 3.2.2.2.3 – Prioritizing Street Sweeping & Storm Drain Maintenance** Herriman City will add the prioritized areas from 3.2.2.2 to the street sweeping and storm drain maintenance schedule, as discussed in Section 4.2.6.6.2 of the HC SWMP, and update the existing SOPs to include those areas and specify the appropriate frequency. This effort is planned to be complete on or before June 30<sup>th</sup>, 2024.

### 3. MS4 OWNED/OPERATED FACILITIES & OPERATIONS

#### a. State Requirements

MS4 Permit Part 3.2.2.3: *The Co-Permittee must evaluate their written inventory of potential “high priority” permittee owned and/or operated facilities (Permit Part 4.2.6.1.) and identify sites that have potential sources of E. coli. Permittees must add to their inventory any Permittee owned or operated dog parks, parks with open water, sites with septic, or properties that are known potential sources of E. coli. Sites that have been identified as potential sources of E. coli must have BMPs (structural or nonstructural) that reduce the potential of the discharge of E. coli.*

MS4 Permit Part 3.2.2.4: *The Co-Permittee must evaluate the potential E. coli generating activities below to determine whether existing SOPs should target reduction of E. coli discharge or if additional SOPs should be developed for the reduction of E. coli discharge from the MS4:*

- *Roads, highways, and parking lots: Surface cleaning and controlling litter*
- *Parks and open space: Lake and lagoon maintenance*
- *Parks and open space: Mowing/Trimming/Planting*
- *Storm water collection and conveyance system: Inspection and Cleaning of Stormwater Conveyance Structures, Controlling Illicit Connections and Discharges, Controlling Illegal Dumping*
- *Material storage areas: Solid Waste Collection, Controlling Litter, Controlling Illegal Dumping*
- *Storm water collection and conveyance system: Water line Maintenance, Sanitary Sewer Maintenance, Spill/Leak/Overflow Control, Response, and Containment.*

#### b. HC Compliance Plan for:

**Permit Part 3.2.2.3 – Assessment of City-Owned and Operated Facilities** Currently, the only High Priority site identified in the HC SWMP is the Butterfield Park and Public Works Facility. Herriman City will assure that the following are included in the inventory High Priority Sites of city- owned or operated facilities: 1) owned/operated dog parks, 2) owned/operated parks with open water, 3) owned/operated sites with septic, and 4) owned/operated properties that are known potential sources of E. coli. The stormwater committee will evaluate the inventory of city- owned or operated facilities and identify sites that have potential sources of E. coli. A new post construction SWPPP will be developed for all sites added to the list of High Priority inventory. These efforts are planned to be complete on or before June 30<sup>th</sup>, 2024.

**Permit Part 3.2.2.4 -Storm Water Quality SOPs for Maintenance Activities** The Herriman City SOP's will be reviewed, updated, and implemented to address potential E. coli generating activities identified in Part 3.2.2.4. Additional SOP's will be developed as needed. This effort will be completed on or before June 30<sup>th</sup>, 2024.

#### 4. LID CONTROLS THAT TARGET E. COLI

##### a. State Requirements

MS4 Permit Part 3.2.2.5: *The Co-Permittee must promote the use of Low Impact Development (LID) controls for which E. coli (listed a bacteria) has a medium or high pollutant removal effectiveness, as identified in the Guide to Low Impact Development within Utah, Appendix C on the division's website:*

<https://documents.deq.utah.gov/waterquality/stormwater/updes/DWQ-2019-000161.pdf>.

##### b. HC Compliance Plan for:

**Permit Part 3.2.2.5 – Promote LID BMPs that Focus on E. coli** Herriman City Standards and Specifications Manual will be updated and to include verbiage that promotes LID BMPs with a medium or high pollutant removal effectiveness. This will be reflected in section 4.12 (Water Quality). These efforts are planned to be complete on or before June 30<sup>th</sup>, 2024.

#### 5. INCORPORATION OF E. COLI CRITERION IN RETROFIT RANKING PLAN

##### a. State Requirements

MS4 Permit Part 3.2.2.6: *The Co-Permittee must add potential E. coli reduction as a criterion for ranking when evaluating the Permittees retrofit plan (Permit Part 4.2.6.9.).*

##### b. HC Compliance Plan for:

**Permit Part 3.2.2.6 – Retrofit Plan Update** The recently completed Herriman City Stormwater Retrofit Plan will be re-evaluated to assure that E. coli contamination potential is a factor of priority ranking. The results of the Retrofit Plan will be used to identify sites that have potential sources of E. coli. These efforts are planned to be complete on or before June 30<sup>th</sup>, 2024.