LEHI CITY

Storm Water Management Program

2016 - 2021

LEHI CITY
Permit No. UTR090038

LEHI CITY
STORM WATER MANAGEMENT PROGRAM
For the permit period of March 1, 2016 – February 28, 2021

Submitted to:

State of Utah
Department of Environmental Quality
Division of Water Quality

Submitted by:

Lehi City, Public Works Department

Adopted
June 23, 2020

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SIGNATORY PAGE

Governmental Entity Name: Lehi City **Permit number:** UTR090038

Mailing Address: 153 North 100 East

City: Lehi State: Utah Zip Code: 84043

Storm Water Management Program Responsible Person(s):

Name: Dave Norman Title: Public Works Director

Telephone Number: 385-201-1700

Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that 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."

Print Name: Dave Norman

Signature:  Date: June 24, 2020

Title: Public Works Director

Duly Authorized Position(s):

"Letter already on file with the Division of Water Quality, Storm Water Section, identifying the Water Director as having the authority to sign this and future documents pertaining to the UPDES Permit Program."

LEHI CITY
STORM WATER MANAGEMENT PROGRAM

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STORM WATER MANAGEMENT PROGRAM OVERVIEW

PURPOSE

This document summarizes the Lehi City Storm Water Management Program (SWMP). It provides a comprehensive strategy that outlines the City's Storm Sewer Utility's priorities and activities for the years 2016 – 2021. This SWMP has been developed to meet the requirements of Phase II regulations relating to the National Pollutant Discharge Elimination System (NPDES), part of the Clean Water Act (CWA) which are being administered by Utah Division of Water Quality. This Program was prepared to assist the City in planning, funding, and implementing a comprehensive program for managing storm water runoff. ***This document is to be a living document and is to be updated as needed to properly manage storm water.***

The SWMP will be implemented to limit, to the maximum extent practicable (MEP), the discharge of pollutants from the Lehi City storm drain system into waters of the State of Utah. The development and implementation of the SWMP is to fulfill requirements under the State of Utah UPDES Permit No. UTR090038 Authorization to discharge Municipal Storm Water, Section II, in accordance with Section 402(p))3))B) of the Federal Clean Water Act, and the State Storm Water Regulations (UAC R317-8-3.8)

SWMP COORDINATION

Agency:	Lehi City, Public Works Department
Contact:	Water Systems Director
UPDES Number:	UTR090038

STAFFING AND RESOURCE ALLOCATIONS

The City is organized as a Six Member Council form of government. The City Council is responsible for budgeting and policy making decisions. The City Administrator is responsible for the day-to-day operations of the City. The City Administrator has designated the Water Systems Director to oversee the management of the SWMP. The responsibility for implementation of the SWMP has been delegated to the Storm Drain Supervisor. The Storm Drain Supervisor will oversee the efforts of the staff as they implement the specifics of the SWMP. An organizational chart showing the lines of responsibility for the implementation of the SWMP is provided in Appendix A.

Additionally, responsibilities associated with different positions or groups may be outlined in different sections of this program. This is done in order to delegate work and specific responsibilities to City Staff for efficiency and to allow different insights to accomplish the goals and objectives identified in this SWMP and the MS4 permit.

In April 1999, Lehi City adopted a resolution establishing a Storm Water Drainage Utility Fee for the purpose of managing and constructing a storm water management system. Budgets required for the development and implementation of specific drainage related BMPs will be appropriated

Permit Requirement 2.3.2.2 MS4 Location Description and Map

Lehi City is the northernmost community in Utah County covering an area of slightly more than 21 square miles as shown in Figure 1. The City, established in 1852, has a population of approximately 56,486 (2015). Originally a farming community, the City is now a commercial and technological center for Utah County and is one of the fastest growing metropolitan areas in the State.

Lehi City is bisected by Interstate-15, the major north/south highway in the State. The major storm water drainage pattern is from northeast to southwest, draining runoff from the Traverse Mountain Range to Utah Lake. The City has a major drainage feature (Dry Creek) which conveys runoff from upstream mountain watershed and other municipalities and it conveys runoff through the City. The City also discharges storm water runoff into several other drainage features within the City such as; Cedar Hollow, Fox Ditch, Bull River Ditch and Mill Pond to collect and convey runoff to both the Jordan River and Utah Lake. Existing City storm drainage facilities include open channels/ditches, detention facilities, and storm drain pipe systems.

Permit Requirement 3.1.1.1 - 3.1.1.2 does the City Discharge to a 303(d) Waterbody?

Under Section 3.1 of the Small MS4 General UPDES Permit, Permit Number UTR090038, it states, "Permittees must determine whether storm water discharge from any part of the MS4 contributes to a 303(d) listed waterbody."

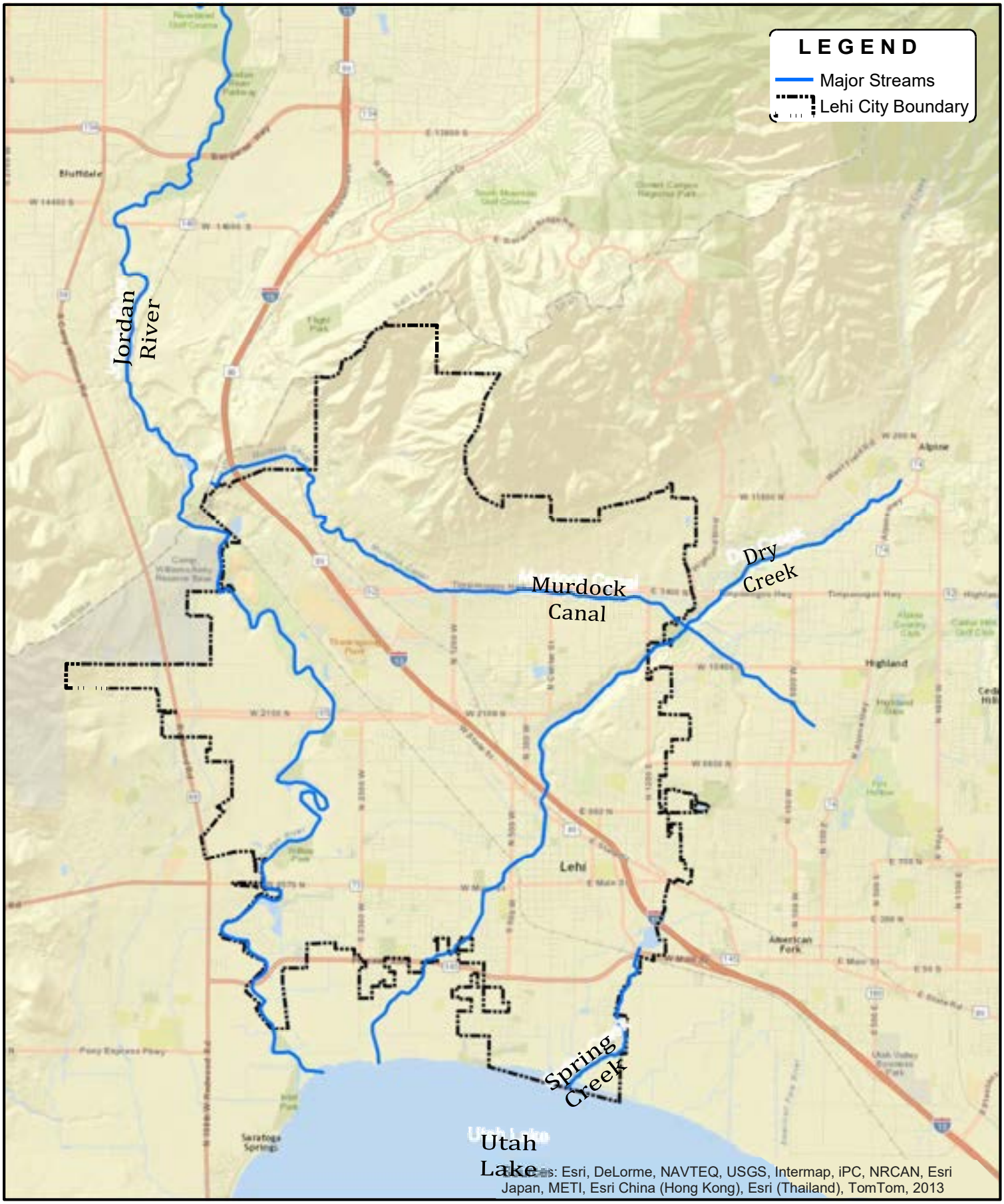
Lehi City has 85 storm drain outfalls as shown in the figure in Appendix B. Of these outfalls, 52 discharge into the Jordan River, 22 into the Dry Creek, and 5 into Spring Creek and 6 discharge directly into Utah Lake. Spring Creek and Dry Creek discharge into Utah Lake. Utah Lake discharges into the Jordan River. Table 1 summarizes the State status of 303d listed water bodies into which Lehi City discharges storm water.

Table 1: Summary of 303d Listed Waters of the State

Water Body	Reach ID	Reach Description	Pollutant	TMDL* Priority
Jordan River	Jordan River - 8	Jordan River from Narrows to Utah Lake	Arsenic	Medium
Jordan River		Jordan River from Narrows to Utah Lake	TDS	High
Spring Creek	Spring Creek	Spring Creek below Mill Pond	Cadmium	Low
Utah Lake	Utah Lake	Fresh Water Lake	TDS	High
Utah Lake	Utah Lake	Fresh Water Lake	Phosphorous (Total)	Medium
Utah Lake	Utah Lake	Fresh Water Lake	PCB in Fish Tissue	Low

*Total Maximum Daily Load (TMDL)

At this time, only the Jordan River has an approved TMDL. However, the TMDL is phased and is currently in the data collection phase. Additionally, a draft TMDL has been completed for Utah Lake. Lehi City will continue to monitor the progress of these TMDLs for associated requirements.



LEHI CITY

LOCATION MAP

LEHI CITY
SWMP

NORTH:

SCALE:
0 3,500 7,000
Feet

FIGURE NO.
1

Lehi City's storm water management system also contains a number of sumps that allow collected runoff to percolate into the ground. The figure in Appendix C shows the location of existing storm water sumps.

Permit Requirement 2.3.2.3 Water Quality Concerns

As is outlined in Table 1-1 Lehi discharges into these waters of the state which are at risk of potential contaminants from Arsenic, Cadmium, Phosphorous, PCB in Fish Tissue, and TDS. Although priority levels vary for the different pollutants and water bodies, taking steps to minimize the discharge of these pollutants in storm water is important in order to protect water quality. Arsenic, Cadmium, and PCB are not believed to come from urban storm water discharges. Therefore, they will not be addressed in this document. However, Phosphorous, TDS, and other pollutants are often found in sediment which is transported in storm water. These pollutants will be addressed in this document.

Concerns and Priorities

Due to significant growth and development activities in the City, there are large areas of land which are being denuded and disturbed during construction activities. Many development activities increase the potential for sediment, debris, and other pollutants to be transported with storm water runoff into storm drain facilities. Lehi City staff has identified sediment and nutrients as the major concern related to storm water quality issues in the City.

Sediment is common in storm water, especially in disturbed areas. Typical sources of sediment within the City boundaries include construction sites, paved road surfaces, natural erosion from the ephemeral washes on the south face of Traverse Mountain and along the banks of Dry Creek, and runoff from agricultural sites. Sediment often contains pollutants including; nutrients, metals, hydrocarbons, etc. These pollutants are often harmful and can effect aquatic habitat and drinking water quality.

Nutrients of concern to Lehi, include nitrogen and phosphorous. These are common in storm water runoff. Typical sources of nutrients include fertilizers, pet wastes, plant decay, and sewer overflows. Lehi City currently discharges storm water into Utah Lake which is considered by the State to be impaired for phosphorous.

Permit Requirement 3.2.1 Nutrient Reduction

In order to protect the water quality of receiving water bodies, Best Management Practices (BMPs) for new or redeveloped sites are required. Developers and contractors are required to plan, design, and implement BMPs to accomplish the goal of reducing sediment and pollutants in the receiving water bodies. BMPs should address removal of phosphorous, total suspended solids, and other target pollutants. Proposed BMPs will be evaluated by City staff to verify selected BMPs are adequately addressing pollutant removal.

Minimum Control Measures

To reduce the discharge of pollutants into the waters of the State, the EPA's National Pollutant Discharge Elimination System (NPDES) Phase II Regulations require that Municipal Separate Storm Sewer System (MS4) operators implement a storm water management program that

includes six Minimum Control Measures (MCMs). The following MCMs will be addressed in later sections of this document:

- MCM 1: Public Education and Outreach on Storm Water Impacts - efforts to educate the public.
- MCM 2: Public Involvement/Participation - efforts to ensure that the public can help in education, and ensure the public has a say in how the SWMP is implemented.
- MCM 3: Illicit Discharge Detection and Elimination - efforts to eliminate non-storm water discharges into the storm sewer.
- MCM 4: Construction Site Runoff Control - efforts to minimize the discharge of sediment and other pollutants from construction sites.
- MCM 5: Post-Construction Storm Water Management in New Development and Redevelopment - efforts to ensure that BMPs will function properly after construction is completed.
- MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations - efforts to minimize pollutants from City operations discharging into the storm sewer.

Permit Requirement 2.3.2.5 Modifications to City Ordinances

Lehi City tracks changes to the City's ordinances. The date of the enactment of each ordinance along with dates associated with amendments to each ordinance can be found at the following link https://www.lehi-ut.gov/departments/water/storm-water/.

MCM1: PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

In order to comply with the State of Utah requirements outlined in the MS4 permit, a program has been established that includes public education and outreach that focuses on storm water discharges within Lehi City. The plan focuses the following four groups:

1.) Residents
2.) Institutions, industrial, and commercial facilities
3.) Developers and contractors (construction)
4.) MS4-owned or operated facilities

The purpose of the public education and outreach is to reduce negative impacts on water quality due to storm water discharges. As was outlined in the overview sediment and nutrients are the major sources of pollution from storm water discharges throughout the City. Lehi City understands that it cannot observe all storm water discharge points continually, and therefore plans on reaching out to the four groups to help achieve their water quality goals.

The planned activities to meet the requirements of this minimum control measure are outlined in Table MCM1.

MCM1: Public Education and Outreach on Storm Water Impacts Activities

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.1	The Permittee must implement a public education and outreach program to promote behavior change by the pubic 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 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 based on the land uses and target audiences found within the community;	The City has identified sediment and nutrients as the major pollutants of concern. The multimedia approach focuses on the education and elimination of discharging of these pollutants. Spring and fall notifications will be sent out to the public to increase awareness of pollutant discharge	4 Target Audiences	Stormwater Management Engineer	Well informed public	number of people contacted by outreach measures		Spring/Fall
4.2.1.2	Provide and document information given to the general public of the Permittee's prohibitions against and the water quality impacts associated with illicit discharges and improper disposal of waste. The Permittee must at a minimum considers the following topics. These topics are not inclusive, and the Permittee must focus on those topics most relevant to the community: maintenance of septic systems; effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site 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.	***Storm Water Educational Articles*** - Lehi City sends periodic articles that inform and educate the public in the monthly utility billing. These articles include fact sheets or information and/or educational brochures. ***Utah County Storm Water Coalition*** - Lehi City is an active participant in the Utah County Storm water Coalition both financially and in man- hour support. These activities include (but not limited to) attendance at the regularly scheduled meetings, purchase of educational materials, support of training, and support of past studies (such as the Storm water Attitude and Awareness Study). The Coalition provides a resource for directional input and disbursement of information and education to Lehi City residents. Lehi City shares in the educational process of educating fourth graders through a Utah County Coalition hired professional educator. In addition, Utah County, through coalition direction, has facilitated an educational stormwater hotline (801-851-7873) to convey information for the disposal of; paints, oils, batteries, anti-freeze, and other household chemicals. ***County Fair Participation*** - Lehi City will assist in the Stormwater Educational booth when requested at the County Fair sponsored by the Utah County Stormwater Coalition. ***School Education Program*** - Lehi City is an active participant in the Utah County Stormwater Coalition's Stormwater Educational Program which educates fourth graders regarding storm water do's and don'ts. The City participates financially to the program which visits annually the following elementary schools within Lehi City. ***City Website*** - Lehi City periodically posts articles regarding the protection and preservation of water quality. Links to these articles and the City's SWMP can be found at https://www.lehi-ut.gov/departments/water/. The storm water hotline number (801-836-1045) can also be found on the website.	General Public	County Coalition outreach program, Lehi City Administration	To educate the general public with regards to the dangers and impacts of discharging pollutants into the storm drain system and inform them how they can be involved in protecting our water.	Track articles sent out with utility billing. Track participation in storm water coalition. Track number of people that visited booth during county fair. Review Quiz scores of 4th graders.	Educational Material and tracking available upon request.	Educational material to be reviewed periodically to provide information that will help educate the general public.
4.2.1.3	Provide and document information given to institutions, industrial, and commercial facilities on an annual basis of the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. The Permittee must at a minimum consider the following topics. These topics are not inclusive and the Permittee must focus on those topics most relevant to the community: proper lawn maintenance (use of pesticides, herbicides and fertilizer); benefits of appropriate on-site 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). This education can also be a part of the Illicit Discharge Detection and Elimination measure detailed in Part 4.2.3.	The City is continuously working with ComplianceGo to provide training and educate target audience and track the training provided. The City is working on requiring that business licenses will not be issued until the training is completed by business owners which include industrial and commercial facilities.	Institutions, Industrial, and Commercial	Business Licensing, Stormwater Management Engineer, Public Works Director	To educate institutions, industrial, and commercial facilities of the dangers and impacts of discharging pollutants into storm drain facilities.	Track distribution material and list of recipients.	Educational Material and tracking available upon request.	Educational material to be reviewed periodically to provide information that is areas of concern.
4.2.1.4	Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMPs for reducing 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.	The City makes available appropriate education and training material to construction site operators for minimizing stormwater pollution during construction activities. These include: • "A Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices" -EPA • Lehi City Design Standards. • Implementing a training requirement: annual training, RSI and RSW • Working on a video regarding stormwater pollution on the construction site Also, information and references for owners, designers, engineers, and contractors to utilize in the planning and implementation of structural and non-structural BMPs to reduce pollutants discharged to the storm drain system during construction will be provided. Lehi City is working with ComplianceGo to provide training and educate target audience and track the training provided.	Engineers, Contractors, Developers, and Review Staff	Public Works Director	To educate engineers, contractors, developers, and review staff on the design requirements needed to improve water quality.	Track dispersion of materials, training attendance, and quality of submittals being reviewed by design staff.	Educational Material, training schedule, and tracking available upon request.	Educational and training materials will be reviewed periodically to assure a focused approach on identified concerns.
4.2.1.5	Provide and document information and training given to employees of Permittee- owned or operated facilities concerning the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. 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 on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).	The City offers training to City employees involved with the operation of the facilities regarding water quality impacts associated with illicit discharges and improper disposal of waste. Training topics include (but not limited to) equipment inspection to ensure timely maintenance; property management and disposal of wastes; proper management of dumpsters; minimization and use of salt and other de-icing materials; and proper maintenance of parking lot surfaces. The City is working with ComplianceGo to provide training and educate target audience and track the training provided.	Staff	Public Works Director, Stormwater Management EngineerStorm kskssssssss	To educate all employees of the potential dangers and impacts of the discharge of pollutants into storm water facilities. Additionally, staff are trained according to the tasks they will need to perform.	Number of people who attend classes	Review Training material to assure training focuses on employees' responsibilities	Employees trained upon hire and reviewed annually
4.2.1.6	Provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable to learn about Low Impact Development (LID) practices, green infrastructure practices, and to communicate the specific requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.	Provide additional training to development and plan review committee staff (D.R.C.), land use planners regarding Low Impact Development (LID) practices and green infrastructure practices which detail specific requirements for construction and post-construction control and the associated BMPs. Continuing education opportunities will be provided in addition to conference attendance.	Engineers and Other Development and Plan Review Staff	Engineering Dept.	To train design and review staff of the proper implementation of LID and Green infrastructure.	Number of people who attend classes	Review Training material	Annually
4.2.1.7	An effective program must show evidence of focused messages and audiences as well as demonstration that the defined goal of the program has been achieved. The Permittee must define the specific messages for each audience. The Permittee must identify methods that will be used to evaluate the effectiveness of the educational messages and the 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.	See above						
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.	The rationale is documented in the Storm Water Management Plan text.		Stormwater Management EngineerS				Ongoing

MCM2: PUBLIC INVOLVEMENT/PARTICIPATION

In order to comply with the State of Utah requirements outlined in the MS4 permit, a program has been established which includes involving the public through various programs and a notification hotline.

The purpose of the public involvement/participation is to reduce negative impacts on water quality by allowing citizens to be the eyes and ears of the City. The City has a public hotline (801-836-1045) which allows citizens to report storm water concerns and potential illicit discharges into the storm water system. Additionally, the City desires to receive input from citizens and organizations throughout the City by allowing for personal interaction between the public and City Staff.

The planned activities to meet the requirements of this minimum control measure are outlined in Table MCM2.

MCM2: Public Involvement/Participation Activities

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.2	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 such as advisory panels, public hearings, watershed committees, stewardship programs, environmental activities, other volunteer opportunities, or other similar activities. The Permittee should involve potentially affected stakeholder groups, which include but is not 1iii1ite‹i 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.	The City requires public notice before any land can be developed. The public is encouraged to attend City Council meetings. Notification is given to all residents in the prior monthly utility newsletter, Twitter and Facebook of upcoming events.	Public	Planning and Zoning	Provide opportunities for the public to be involved.	Track attendance of council meetings. Track online comments.	Notification Letters and report tracking is available upon request	Annually/As needed
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.	The SWMP is currently available for review on Lehi City's storm water website.	Public	Public Works Director, Stormwater Management Engineer	Allow concerned citizens and community members to help and give input to keeping drainage channels clean.	Track public comments.		
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 18 0 days from the effective date of this Permit and shall clearly denote a specific contact person and phone number or email address to allow the public to review and provide input for the life of the Permit.	The SWMP is currently posted on Lehi City's website. The SWMP will remain online throughout the life of the permit.	Public	Public works Director, Stormwater Management Engineer, Admin	Prevent Storm Water Pollution by offering a greater visibility of violation areas and allowing the public to alert the City.	SWMP to remain online throughout permit term.		
4.2.2.4	The Permittee must, at a minimum, comply with State and Local public notice requirements when implementing a public involvement/participation program.							

MCM3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

In order to comply with the State of Utah requirements outlined in the MS4 permit, a program has been established which includes identifying, tracking, tracing, and eliminating illicit discharges.

The purpose of the illicit discharge detection and elimination plan is to improve storm water quality throughout the City. This plan includes procedures for inspecting, tracing, tracking, characterizing, and ceasing illicit discharges. A City ordinance has established regulations regarding illicit discharges into storm drain facilities and allows for escalating enforcement actions against violators.

The planned activities to meet the requirements of this minimum control measure are outlined in Table MCM3.

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.3	All Permittees shall revise as necessary, implement and enforce an 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 listed below.							
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 pipe and other storm water conveyance structures within the MS4.	Runoff throughout the City is predominately in a southwest direction. Most of the flow eventually drains either west to Jordan River or south to Utah Lake. The City continues to update the system map (available from Lehi City Engineering) as needed by conducting annual reviews. The City created an inspection form used during the reviews.	4 Target Audiences	Water GIS	Have an updated Storm Water map for reference. Inspection forms on file	Assets list	MS4 Storm Water Map	Annually
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, 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 escalating enforcement procedures as necessary for the severity of violation and/or the recalcitrance of the violator. Exceptions are 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.	Has an IDDE (Illicit Discharge Detection and Elimination) ordinance (9-3-6) on city website at https://www.sterlingcodifiers.com/codebook/index.php?book_id=611.	4 Target Audiences	Supervisor		# of IDDE detected and cleaned up	City Ordinance	
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.	Has an IDDE ordinance (9-3-6) on city website	4 Target Audiences	Supervisor			City Ordinance	
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:	Plan is outlined below.	4 Target Audiences					
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 that are more likely to have 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 with a history of sewer overflows or cross-connections; • Areas upstream of sensitive waterbodies; and, • Other areas the Permittee determines to be likely to have 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.	The City has developed procedures for identifying priority areas. The procedures include evaluating: Areas with older infrastructure; Industrial, commercial, or mixed use areas; Areas having a past history for illicit discharges; Areas having a past history of illegal dumping; Areas with onsite sewage disposal systems; Areas with older sewer lines or having a history of sewer overflows or cross connections; Areas upstream of sensitive waterbodies.	4 Target Audiences	Supervisor	Have a system in place to identify and track high priority areas.	Priority area list is up to date.	Priority Area List. SOP	Updated Annually
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.	Priority areas are inspected annually.	4 Target Audiences	Inspectors	Have each priority area inspected annually for IDDEs.	Annual Inspection forms for each priority area.	Priority Area Inspection Form	Annual Inspections
4.2.3.3.3	Dry weather screening (See Definition 7.13) activities for the purpose of verifying outfall locations and detecting illicit discharges that discharge within the Permittee's jurisdiction 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.	The Dry Weather Screening Program consists of inspecting the major and minor outfalls that are governed by the City. The Dry Weather Screening Program provides a framework for field screening the outfalls to identify suspect outfalls as a basis for initiating more detailed drainage area investigations.	4 Target Audiences	Maintenance Crew and Supervisor	Inspect all storm drain outfalls within the City.	Outfall Inspection Forms for every outfall.	Dry Weather Screening Inspection Form	20% per year or once every 5 years
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.	The City notifies the Director if they identify the need of a separate UPDES permit.	4 Target Audiences	Supervisor	Have staff trained to identify the need of a separate UPDES permit.	Maintain a list of permitees which have been reported to the Director.	SOP	As Necessary
4.2.3.4	Implement standard operating procedures (SOPs) or similar type of documents for tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, 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.	The City has developed procedures for tracing illicit discharges which will be used to identify the source when illicit discharges are reported.	4 Target Audiences	Supervisor	Have staff trained on the necessary procedures for tracing illicit discharges.	Document training attendance	Illicit Discharge Tracing SOP,	As Necessary
4.2.3.5	Implement standard operating procedures (SOPs) or similar type of documents for characterizing the nature of, and the potential public or environmental threat posed by, any illicit discharges 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 shall be immediately contained and steps to be taken for containment of the discharge. Compliance with this provision will be achieved by initiating an investigation immediately upon being alerted of a potential illicit discharge.	The City has developed an incident report for illicit discharges within the City. The information is uploaded into iWorks and a hard copy is created and kept on file.	4 Target Audiences	Supervisors	Have a documented record of illicit discharges.	Illicit Discharge report log.	Illicit Discharge Report Template and Illicit Discharge Report Log	As Necessary
4.2.3.5.1	When the source of a 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.	The City has developed an incident report for illicit discharges within the City and maintains a log of illicit discharges. The information is uploaded into iWorks and a hard copy is created and kept on file.	4 Target Audiences	Supervisor	Have a documented record of illicit discharges.	Illicit Discharge report log.	Illicit Discharge Report Template and Illicit Discharge Report Log	As Necessary

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.3.6	Implement standard operating procedures (SOPs) or similar type 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. Upon detection, the Permittee shall require immediate cessation of improper disposal practices upon confirmation of responsible parties in accordance with its enforceable legal authorities established pursuant to Part 4.2.3.2.1. of this Permit.	The City has developed an SOP for ceasing illicit discharges. Engineering Dept has worked with the Legal Dept to create a City ordinance (9-3-6).	4 Target Audiences	Supervisor	Have a SOP which identifies the steps necessary to cease illicit discharges. Have enforcement capabilities as outlined in the City's ordinance.	Track Illicit Discharges including follow up inspections and enforcement activities.	Ceasing Illicit Discharges SOP	As Necessary
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.	The City maintains records of all IDDE investigations through iWorks.	DEQ	Supervisor	To keep IDDE investigations records current.	# of Records		Ongoing
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.	In cases where illicit discharges may be harmful the City notifies the public though Facebook, Twitter, Reverse 911 and other emergency notification methods. See 4.2.1.3	4 Target Audiences	Stormwater Management Engineer	Keep the public safe and informed of potential hazard.	Maintain log of public notifications with regards to Illicit Discharges.	Public Notifications Log	As Necessary
4.2.3.8	Permittees shall promote or provide services for the collection of household hazardous waste.	Utah County, through coalition direction, has facilitated an educational stormwater hotline (801-851-7873) to convey information for the disposal of; paints, oils, batteries, anti-freeze, and other household chemicals. A list of collection facilities is posted on the following internet site: http://www.utahcountyonline.org/dept/Health/hhw/	4 Target Audiences	Stormwater Management Engineer with County Coalition	Educate citizens regarding proper disposal of household hazardous wastes.		LBOF Chemical Record	
4.2.3.9	Permittees shall publicly list and publicize 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.	The City offers several means of reporting information to the necessary City representatives such as telephone hotline (385-201- 1700), website and mailers. Lehi is working to redesign their website to allow access to reporting information.	4 Target Audiences	Stormwater Management Engineer	To allow the public to help identify potential illicit discharges and illegal dumping which may occur throughout the City.	Track correspondence from citizens including response.	Log of public interaction	Ongoing
4.2.3.9.1	The Permittee must develop a written spill/dumping 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 incidence 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.	The City has developed a SOP including a flow chart for responding to illicit discharges.	4 Target Audiences	Stormwater Management Engineer	Train staff of the necessary procedures to quickly respond to a report of an illicit discharge.		Training Logs	
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.	Information is tracked and maintained through iWorks	4 Target Audiences	Supervisor	An interactive map that can efficiently track IDDE.		# of Reports	
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 including office personnel who might receive initial reports of illicit discharges, receives annual training in the IDDE program including identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections. All Permittees 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. The Permittee shall provide training to all field staff 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. The Permittee shall also train office personnel who might receive initial reports of illicit discharges. 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.	The City provides training to staff who may come into contact or observe illicit discharges, on the identification, investigation, termination, cleanup, and reporting of illicit discharges. Lehi City worked with ComplianceGo to get a training system established for staff members. See 4.2.1.5				Training Logs		
4.2.3.12	The Director reserves the right to request documentation or further study of a particular non-storm water discharge of concern, to require a reasonable basis for allowing the non-storm water discharge and excluding the discharge from the Permittee's program, and to require inclusion of the discharge in the Permittee's program, if water quality concerns cannot otherwise be reasonably satisfied.							

MCM4: CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

In order to comply with the State of Utah requirements outlined in the MS4 permit, a plan has been established that requires implementation of Best Management Practices (BMPs) in order to reduce the discharge of pollutants from construction sites.

The purpose of the construction site storm water runoff control plan is to minimize the discharge of pollutants from construction sites into the City's storm water facilities. The City has accomplished this by developing regulations that require the development and implementation of a storm water pollution prevention plan (SWPPP) for construction sites. As part of each SWPPP, implementation of BMPs is required to protect water quality. The City has found that reviewing SWPPP documents prior to any construction greatly reduces the discharge of pollutants into the storm water system. The City has established a BMP review process for development throughout the City.

The planned activities to meet the requirements of this minimum control measure are outlined in Table MCM4.

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.4	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, 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 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: http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm. 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 and to construction projects of less than one acre that are part of a larger common plan of development or sale. Existing local requirements to apply storm water controls at sites less than 1 acre or not part of a Common Plan of Development may be retained.	The City has developed an ordinance (9-3-6) that requires the use of erosion and sediment control by implementing selected BMP's. The City developed stricter enforcement of said ordinance.	Developers and Contractors	Inspectors, Engineering	To reduce the amount of sediment and nutrients discharged into waters of the state.	# of SWPPP Reviewed/Inspected	City Ordinance and Enforcement Activity Log	Review Ordinance As needed
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 such as, 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: http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm	The City has developed an ordinance (9-3-4) that requires the preparation of a SWPPP to reduce sediment and nutrients in storm water discharges.	Developers and Contractors	Inspectors, Engineering	An ordinance that requires the preparation and application of a SWPPP.	# of SWPPP Reviewed/Inspected	City Ordinance and Enforcement Activity Log	Review Ordinance As needed
4.2.4.1.2	Permittees shall require construction operators obtain and maintain coverage under the current UPDES Storm Water General Permits for Construction Activities for the duration of the project. Coverage can be obtained by completing a NOI as well as renewed online at https://secure.utah.gov/account/login.html?returnToUrl=https%3A//secure.utah.gov/stormwater/uii_authentication	The City has developed an ordinance (9-3-4) that requires construction operators obtain and maintain coverage under the UPDES general permit as required under this permit.	Developers and Contractors	Inspectors	To have an ordinance that requires the necessary coverage of construction operators and allows for enforcement for non-compliance.	# of UPDES Permits	City Ordinance and Enforcement Activity Log	Review Ordinance As needed
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.	The City has developed an ordinance (9-3-4) that gives access to qualified personnel to inspect construction storm water BMP's which discharge into waters of the State.	Developers and Contractors					
4.2.4.2	Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism which shall include:							
4.2.4.2.1	Standard operating procedures (SOPs) or similar type of documents that include specific processes and sanctions to minimize the occurrence of, and obtain compliance from violators which shall include appropriate, escalating enforcement procedures and actions including an appeals process that is published in a publicly accessible location.	The City has developed SOPs which require the submittal of necessary documentation to verify SWPPP compliance and every site using BMPs	Developers and Contractors	Engineering, Stormwater Management Engineer	Enforcement procedures develop which encourage compliance with this program using escalating enforcement procedures.	# of SWPPPs.	SWPPP Reviews	Ongoing
4.2.4.2.2	Documentation and tracking of all enforcement actions	The City maintains a log of enforcement actions taken regarding storm water regulations hosted on ComplainceGo.	Developers and Contractors	Inspectors	Have a log that tracks enforcement actions.	Enforcement Action Log	Enforcement Action Log	Ongoing
4.2.4.3	Development and implementation of a checklist for pre-construction Storm Water Pollution Prevention Plan (SWPPP) review that is consisten with the requirements of the current UPDES Storm Water General Permits for Construction Activities and 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:	The City has developed SOPs to assure proper review of SWPPPs completed. The City keeps record of SWPPP documentation.	Developers and Contractors	Storm Water Compliance Administration, T-O	To provide consistent and meaningful review of SWPPPs and keep record or SWPPPs.	# of SWPPPs Reviewed	SWPPP review SOPs and SWPPP tracking Log	Ongoing
4.2.4.3.1	Conduct a pre-construction SWPPP meeting which includes a review of the site design, the planned operations at the construction site, planned BMPs during the construction phase, and the planned BMPs to be used to manage runoff created after development.	The City requires submittal and approval of site and subdivision plans by the City's Development Review Committee (DRC). The review requires implementation of construction and long-term BMPS. The city requires pre-con meeting before all projects start	Developers and Contractors	Lehi City Administration	To allow for consistent review of construction projects during design to verify implementation of water quality BMPs.	# of Meetings	SWPPP review SOPs	As Needed
4.2.4.3.2	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.	The City has developed a map identifying the location of priority construction sites based on soil erosion potential, site slope, large volumes of disturbed soils, sensitivity and proximity of receiving water bodies, and areas having a history of non-compliance.	Developers and Contractors	Inspectors	Provide additional inspections in high risk areas	Construction Site Priority Map	Construction Site Priority Map	As needed

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.4.4	All Permittees shall develop and implement SOPs or similar type of documents for construction site inspection and enforcement of construction storm water pollution control measures. The procedures must clearly define 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:	The City has developed SOPs for inspecting and enforcing storm water control measures.	Developers and Contractors	Inspectors	Develop SOPs which allow for uniform review of construction sites and allow enforcement actions to be performed by certified personnel.			
4.2.4.4.1	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 at least monthly 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-ms4spermits-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) • Utah Department of Transportation Erosion Control Supervisor (ECS) (applicable to road/street projects only)	The City has certified storm water inspectors which inspect existing construction sites monthly.	Developers and Contractors	Inspectors	Inspect each site monthly.	# of Inispections	Inspection Checklist	Monthly Inspection
4.2.4.4.2	The Permittee must inspect all phases of construction: prior to land disturbance, during active construction, and following active construction. The Permittee must document in its SWMP the procedure for being notified by construction operators/owners of their completion of active construction 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.	The City has developed notification procedures which require construction operators/owners to notify the City prior to construction, during active construction, and following active construction. This is required to allow proper inspection of the different phases of construction.	Developers and Contractors	Inspectors, City Engineer, Public Works Director	Document project status	list of construction project's status	Inspection Logs	As needed
4.2.4.4.3	Inspections by the MS4 of priority construction sites defined in Part 7.36. 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-ms4spermits-updes-permits.	The City has certified storm water inspectors which inspect priority construction sites biweekly.	Developers and Contractors	Inspectors	Have bi-weekly inspection of priority construction sites to review compliance with the requirements of the Permit.	Review and track inspection forms.	Inspection Logs	Bi-Weekly
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.	The City has developed a system where Developers and Contractors may send in photos when it's not possible to visit the site. This is only utilized for time sensitive inspections where qualified staff are not immediately available.	Developers and Contractors	Inspectors	The ensure inspections can be completed in time sensitive instances.	Review and Track photos and correspondence that is sent in.	Activity Log	As needed
4.2.4.4.5	Based on site inspection findings, the permittee must take all necessary follow-up actions (i.e., reinspection, enforcement) to ensure compliance in accordance with the permittee's enforcement strategy. These follow-up and enforcement actions must be tracked and documented.	The City follows the enforcement strategy outlined in 4.2.4.2	Developers and Contractors	Inspectors	To ensure compliance with the regulations of this permit.	Monitor and track enforcement activities associated with SWPPPs.	Enforcement Activity Log	As needed
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 extend 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. The training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.	City staff specifically assigned to storm drain permitting, plan review, inspection, and enforcement will be trained upon hire and annually at a minimum. See 4.2.1.5	Developers and Contractors	Inspectors	To ensure City Staff are sufficiently trained to complete their associated tasks.	Training logs	Training Log	Annual Trainings
4.2.4.6	All Permittees shall implement a procedure to 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 are not limited to, site plan reviews, SWPPPs, inspections and enforcement actions including verbal warnings, stop work orders, warning letters, notices of violation, and other enforcement records. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.	The City has developed procedures for maintaining records for construction sites.	Developers and Contractors	Inspectors	Have written documentation of construction sites throughout the City.	Construction Tracking Program.	Construction Tracking Program.	As needed

MCM5: LONG-TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORM WATER MANAGEMENT)

In order to comply with the State of Utah requirements outlined in the MS4 permit, a program has been established that requires implementation of Best Management Practices (BMPs) in order to reduce the discharge of pollutants as part of the long-term storm water management plan.

The primary goal of the long-term storm water management is to have post-development runoff hydrology closely mimic the hydrology of pre-development conditions. As part of the City's review process, BMPs including Low Impact Development (LID) practices, should be included where feasible to infiltrate, evapotranspire, or harvest storm water runoff. These BMPs should also show that they remove target pollutions to protect water quality.

The planned activities to meet the requirements of this minimum control measure are outlined in Table MCM5.

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.5	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 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 anticipated to be discharged from the site.	The City has developed an ordinance (9-3-4) which requires the submission, review, and approval of development or redevelopment plans.	Planners, D.R.C., Engineers, Developers	Public Works Director		# of agreements		
4.2.5.1.1	The Permittee's new development/redevelopment program shall include non- structural BMPs such as requirements and standards to minimize development in areas susceptible to erosion and sediment loss; to minimize the disturbance of native soils and vegetation; to preserve areas in the municipality that provide important water quality benefits; to implement measures for flood control; and to protect the integrity of natural resources and sensitive areas.	The City has developed non-structural BMPs which discourage development in areas susceptible to erosion and protect sensitive areas throughout the City.	Engineering	Engineering	To protect water quality by discouraging development in sensitive areas or those being highly susceptible to erosion.	Track Development	Development Log	Ongoing
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. By July 1, 2020, new development or redevelopment projects 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 must manage rainfall on-site, and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th 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, evapotranspire and/or harvest and reuse rainwater. The 80th 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. By July 1, 2020, 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 80th percentile rainfall event. This objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, evapotranspire and/or harvest and reuse rainwater.	The City has calculated the depth of a 80th percentile storm to be 0.45 inches. The City Ordinance requires that the first 0.45 inches be retained on site for development and re-development sites.	Planners, D.R.C., Engineers, Developers	Engineering Dept	To limit runoff by infiltrating and evapotranspiring runoff to better simulate historic runoff conditions.	# of sites that we are able to retain 0.45 in in runoff		On going
4.2.5.1.3	Low Impact Development Approach. By July 1, 2020, the program shall include a process which requires the evaluation of an 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, evapotranspire or havest 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. 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	The City has developed standard operating procedures which require an evaluation of a LID approach. If LID is not feasible documentation will be required outlining physical limitations.	Planners, D.R.C., Engineers, Developers	Engineering Dept	More LID	# of sites with LID	Development Log	
4.2.5.1.5	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 Small MS4 General UPDES Permit Permit No. UTR090000 24 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 others. 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.		Planners, D.R.C., Engineers, Developers	Engineering Dept			Documentation for why LID cannot be used	As Needed

Table MCM5: Long-Term Storm Water Management in New Development and Redevelopment Activities (Post-Construction Storm Water Management) (cont.)

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
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 and 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	The City developed procedures to ensure adequate long-term operation and maintenance of stormwater controls at post-construction sites. Proper operation and maintenance of the control measures help to minimize pollutants in stormwater runoff. Improper maintenance or failure of stormwater controls following construction lead to adverse impacts on stormwater quality. Established procedures ensure adequate long-term operation and maintenance of stormwater controls is imperative in reducing stormwater pollution. The plan includes retrofitting existing features that adversely impact water quality.	Planners, D.R.C., Engineers, Developers	Engineering, Inspectors	Verify that post-construction storm water controls are functioning as intended.	Documentation from DRC that storm water management was addressed during design and review process.	GIS database.	Annually
4.2.5.2.1	The Permittee must include enforcement provisions in the ordinance or other regulatory mechanism, including procedures that include specific processes and sanctions to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators which shall include appropriate, escalating enforcement procedures and actions.	The City has developed an ordinance (9-3-7) which allows for escalating enforcement procedures.	Planners, D.R.C., Engineers, Developers	Public Works Director	To give the City the necessary authority to enforce penalties for violations.	Track violations.	Violations Tracking Sheet	As Needed
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 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 type 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.	The City requires the Developer to provide documentation on how long-term and post construction BMPs are intended to function after construction.	Developer	Stormwater Management Engineer, Public Works Director	To have BMPs throughout the City which provide water quality protection.	Documentation from DRC that storm water management was addressed during design and review process.	City BMPS and Ordinance	Ongoing
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, in lieu of requiring that the Permittee's staff inspect and maintain storm water controls on private property, instead 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 this case, the Permittee must require 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.	The City Ordinance (9-3-5) requires access for certified inspectors to storm water control measures on private and public property. The ordinance also requires a maintenance plan or agreement be developed which should include inspections to ensure proper operation of the storm water structures.	Developers, Owners	Engineering, Publics Work Director	Maintenance agreement with BMPs on site.	# of agreements and Inspections	Log of Maintenance Agreements	2 times per site
4.2.5.2.4	Permanent structure 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.	The City requires that structural BMPs be inspected at least once during installation and upon completion to verify BMPs were constructed as designed. All structural BMPs within the city are inspected once during construction and prior to final approval to confirm they are built to submitted plans	Planners, D.R.C., Engineers, Developers	Inspectors, Stormwater Management Engineer	To assure proper installation in accordance to approved Site Plans.	Track inspections including any enforcement activities taken.	Inspection Log	A minimum of 2 times per site.
4.2.5.2.5	Inspections and any necessary maintenance must be conducted annually by either the Permittee or through a maintenance agreement, 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. The Permittee must document its findings in an inspection report which includes 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 of operator along with deadlines and reinspection dates.	The City requires inspection of storm water control measures on an annual basis. If private inspection and maintenance is occurring the City will at a minimum inspect each site at least once every five years. Annual Maintenance Report of Stormwater Facilities. The Owner shall, at its sole cost and expense, inspect the Stormwater Facilities and submit an inspection report and certification to the City annually. The purpose of the inspection and certification is to assure safe and proper functioning of the Stormwater Facilities. The annual inspection shall cover all aspects of the Stormwater Facilities, including, but not limited to, the parking lots, structural improvements, berms, channels, outlet structure, pond areas, access roads, vegetation, landscaping, etc. Deficiencies shall be noted in the inspection report. The report shall also contain a certification as to whether adequate maintenance has been performed and whether the structural controls are operating as designed to protect water quality. The annual inspection report and certification shall be due by June 30th of each year and shall be on forms acceptable to the City.	Developers, Owners	Inspectors, Stormwater Management Engineer, Public Works Director	To assure proper maintenance occurs to ensure proper operation of storm water control measures.	Inspection Log	# of Inspections	Annually
4.2.5.3	Plan Review. The Permittee shall: Adopt and implement procedures for site plan review which evaluate water quality impacts. The procedures shall apply through the life of the project from conceptual design to project closeout.		Planners, D.R.C., Engineers, Developers					

Table MCM5: Long-Term Storm Water Management in New Development and Redevelopment Activities (Post-Construction Storm Water Management)

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
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 that meet the requirements of this minimum control measure.	The City has developed a SOP for reviewing post- construction plans.	Planners, D.R.C., Engineers, Developers	Public Works Director, Stormwater Management Engineer	Maintain water quality using long-term storm water facilities so they continue to be effective	Track post-construction reviews # of agreements	Agreements and Inspections	Ongoing
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 that were developed since the Permittee obtained coverage by this permit or the date that post-construction requirements came into effect, whichever is later; and area located within the Permittee's service area.							
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).	The City established an inventory for post-construction storm water control measures (both public and private). These control measures are maintained in the city's iWorks and can additionally be found in the Storm water Master Plan.	Inspectors, Commercial and Industrial property owners, HOAs	Stormwater Management Engineer, Public Works Director, GIS	To maintain a current inventory of the condition and required action for the different storm water control measures and assure the necessary maintenance is being performed.	# of all measures updated	Inventory	updated annually
4.2.5.4.2	Based on inspections conducted pursuant to Part 4.2.5.2.5., the Permittee must update the inventory as appropriate where changes occur in property ownership or the specific control measures implemented at the site.	The City will continue to keep the inventory updated as inspections are conducted. Same as 4.2.5.7.1	Inspectors	Stormwater Management Engineer, County Recorder	To maintain a current inventory of the condition and required action for the different storm water control measures and assure the necessary maintenance is being performed.	# of all measures updated	Log	updated annually
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. The training records to be kept include 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.	The City provides adequate training of all staff involved in Permitting, planning, and review as required. Training is completed using ComplianceGo software and includes IDDE training. Staff members will be sent to training seminars to allow for job specific needs.	All City staff	Public Works Director	Educated staff that knows their roles	# of trained employees	Training Log	Annual trainings and new hires to complete ComplianceGo training.

MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations

In order to comply with the State of Utah requirements outlined in the MS4 permit, a program has been established for Pollution Prevention and Good Housekeeping for Municipal Operations.

The purpose of the pollution prevention and good housekeeping for municipal operations is to protect storm water quality from City owned or operated facilities. The City has developed pollution prevention plans and implements good housekeeping practices for City-owned facilities. By complying with the same standards and standard operating procedures that other developers are required to follow, the City strives to set an example for others.

The planned activities to meet the requirements of this minimum control measure outlined in Table MCM6.

Table MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations Activities

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.6	All Permittees must implement a program for Permittee-owned or operated facilities, operations and structural storm water controls that includes standard operating procedures (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 must 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	As a minimum requirement, the Permittee shall develop and keep current a written inventory of all the following potential "high priority" facilities that are owned or operated by the Permittee and all the storm water controls that may include but is not limited to: • Composting facilities • Equipment storage and maintenance facilities • Fuel farms • Hazardous waste disposal facilities • Hazardous waste handling and transfer facilities • Incinerators • Landfills • Landscape maintenance on municipal property • Materials storage yards • Pesticide storage facilities • Public buildings, including libraries, police stations, fire stations, municipal buildings, and similar Permittee-owned or operated buildings • Public parking lots • Public golf courses • Public swimming pools • Public works yards • Recycling facilities • Salt storage facilities • Solid waste handling and transfer facilities • Street repair and maintenance sites • Vehicle storage and maintenance yards • Permittee-owned and/or maintained structural storm water controls.	The city has created a list of high priority sites and created site specific SWPPP plans. This list of high priority sites is maintained on the ComplianceGo website. The City continually inventories and maintains all City owned facilities including; public buildings, swimming pools, landfills, material storage yards, salt pile storage, transfer locations, gasoline tanks, and maintenance equipment sites.	Pertinent Lehi City Employees	Stormwater Management Engineer, Public Works Director	To ensure high risk sites do not continue to the degradation of water quality	Inventory list and inspections	Inventory	Annual Update
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.	The City assesses the inventory for potential to discharge to storm water for each of the Permittee-owned or operated facilities.	All City Staff	Water System Director, Public Works Director	Ensure list is complete and accurate	An assessment of specific possible pollutants	A description of the assessment process and findings	As needed
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: 1. pollutants stored at the site, 2. the identification of improperly stored materials, 3. potential pollutant-generating activities performed outside (e.g. changing automotive fluids) 4. close proximity upstream to fresh water and water bodies, including but not limited to streams, canals, rivers, ponds and lakes, 5. potential discharge of 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.	The facilities are prioritized for operations that have a high potential to generate stormwater pollutants.	Pertinent Lehi City Employees	Water System Director, Public Works Director	Properly manage pollutants at city owned facilities	A list showing which facilities are "high-priority"	List of high-priority facilities or operations	As needed

Table MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations Activities (cont.)

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
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 measure to prevent pollutants to enter the storm drain system from each of these facilities. The SWPPP shall include a site map showing the following information: • Property boundaries; • Buildings and impervious surfaces; • Directions of storm water flow (use arrows); • Locations of structural control measures; • 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 the following activities are exposed to storm water: o Fixed fueling operations; o Vehicle and equipment maintenance and/or cleaning areas; o Brine making areas; o Loading/unloading areas; o Waste storage or disposal areas; o Liquid storage tanks; o Process and equipment operating areas; o 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; • Locations of sources of run-on to your site from adjacent property.	The City has created a SWPPP for any "high- priority" Permittee-owned or operated facilities within 180 days from the effective date of this permit. • Cemetery • Fleet Complex • Parks Department • Power Department • Public Works • Sports Park • Streets-Landfill	Pertinent Lehi City Employees	Public Works Director, Stormwater Management Engineer	Insure chemicals at city owned facilities are stored properly	SWPPPs completed and inspected	SWPPP for each "high-priority." Map included.	Inspect annually; update as needed.
4.2.6.5	The following inspections shall be conducted at "high priority" Permittee-owned or operated facilities:	Facility Inspections include: weekly visual inspections of all facilities, quarterly comprehensive inspections of "high priority" facilities, and quarterly visual observation of stormwater discharges from the "high priority" facilities. This list of high priority sites is maintained on the ComplianceGo website.	Pertinent Lehi City Employees	Lehi City Department Supervisors			List of high-priority facilities	
4.2.6.5.1	<u>Monthly visual inspections</u>: 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 any pollutant discharge. The monthly inspections must be tracked in a log for every facility and records kept with the SWMP document. The inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies.	Monthly visual inspections of "high priority" facilities	City Staff	Department Superintendent				Monthly
4.2.6.5.2	<u>Semi-Annual comprehensive inspections</u>: 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.	Semi-annual comprehensive inspections of "high priority" facilities	City Staff	Inspectors	Sites that are properly maintained	Completed inspections	Inspections	Semi-Annually
4.2.6.5.3	<u>Annual visual observation of storm water discharges</u>: 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 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.	Annual visual observation of stormwater discharges from the "high priority" facilities	City Staff	Inspectors	To visually observe and detect potential pollutants in the storm water discharge from high priority areas.	Keep sites clean, find water quality problems and correct	inspection documentation	Annually

Table MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations Activities (cont.)

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
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 other maintenance activities including cleaning of maintenance equipment, building exteriors, trash containers; • Sweeping roads and parking lots; • Proper application, storage, and disposal of fertilizer, pesticides, and herbicides including minimization of use; • Lawn maintenance and landscaping activities including proper disposal of lawn clipping and vegetation; • 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, and 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; • Regular inspection, cleaning, and repair of storm water conveyance and structural storm water controls; and • Any activities or operations not listed above that would reasonably be expected to discharge contaminated runoff.	The City developed an SOP to address: • spill prevention, employee training, waste management, street cleaning, and floor drain inventory. • material storage areas, heavy equipment storage areas, and maintenance areas owned or operated by the City. • operation and maintenance of parks and other open space owned or operated by the City. • operation and maintenance of City owned or operated roads, highways, and parking lots. • operation and maintenance of the storm water collection and conveyance system. A list of SOPs is located through the City's iWorks webpage.	Pertinent Lehi City Employees	Public Works Director and department managers	To reduce the discharge of pollutants by developing and implementing SOPs for all City owned or operated facilities.	review SOPs	SOPs for facilities	On going
4.2.6.6.2	SOPs must include a schedule for Permittee owned road and parking lot sweeping and storm drain system maintenance including 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, the condition of the receiving water, the amount and type of material that typically accumulates in an area, or other location-specific factors	Refer to City's list of SOPs located through the City's iWorks webpage.	Pertinent Lehi City Employees	Public Works Director, Streets Crew, Stormwater Management Engineer	To reduce the discharge of pollutants by developing and implementing SOPs for all City owned or operated facilities.	Review SOPs	Street Sweeping Schedule. BMPs to reduce pollutant discharges from streets and parking lots. SOPS for storm water collecting and conveyance system	As needed
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.	Refer to City's list of SOPs located through the City's iWorks webpage.	Pertinent Lehi City Employees	Public Works Director, Streets Crew, Stormwater Management Engineer	To reduce the discharge of pollutants by developing and implementing SOPs for all City owned or operated facilities.	Review SOPs	SOPs for waste and wastewater	As needed
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. This Permit strictly prohibits such discharges. The Permittee must minimize discharges to waters of the state that are associated with snow disposal and melt.	The City developed an SOP for operation and maintenance of City owned or operated vehicles and equipment.	Pertinent Lehi City Employees	Public Works Director, Fleet Manager, Stormwater Management Engineer	To reduce the discharge of pollutants by developing and implementing SOPs for the operation and maintenance of all City owned or operated vehicles and equipment	Review SOPs	SOPs for Vehicles and Equipment	As needed
4.2.6.6.5	The Permittee shall develop a spill prevention plan in coordination with the local fire department.	Refer to City's list of SOPs located through the City's iWorks webpage.	Pertinent Lehi City Employees	Public Works Director	Reduce the discharge of pollutants and facilitate Fire Department aid.	Spill Prevention Plan	A Spill Prevention Plan that can be available at the time of a potential spill	Updated Annually
4.2.6.6.6	All Permittees must maintain an inventory of all floor drains inside all Permittee-owned or operated buildings. The inventory shall be kept current. The Permittee shall ensure that all floor drains discharge to appropriate locations.	The City keeps inventory of all locations of floor drains in GIS.	Pertinent Lehi City Employees	Stormwater Management Engineer			Documentation of floor drain locations and their outfalls	Annually
4.2.6.7	The Permittee shall be responsible for ensuring, through contractually-required documentation and/or periodic site visits that contractors performing O&M activities for the Permittee are using appropriate storm water controls and following the standard operating procedures, storm water control measures, and good housekeeping practices of the Permittee.	The City provides Operation and Maintenance with staff at almost all critical sites. When Contractors are utilized, they are monitored by City staff and use the make policy and procedure manual as City Staff.	Pertinent Lehi City Employees	Inspectors	To reduce the discharge of pollutants by developing SOPs for storm water control measures and good house keeping practices.	Review SOPs	Log inspections completed	As needed.
4.2.6.8	The Permittee must 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 Permittee or that discharge to the MS4. A description of this process must be included in the SWMP document.	The City assesses new flood management structural controls for its water quality impacts.	Developers, Planning	Engineering Dept, Stormwater Management Engineer	To assess the impacts on water quality caused by new flood management structural controls	Track water quality assessments	Water Quality Assessment Form	As needed

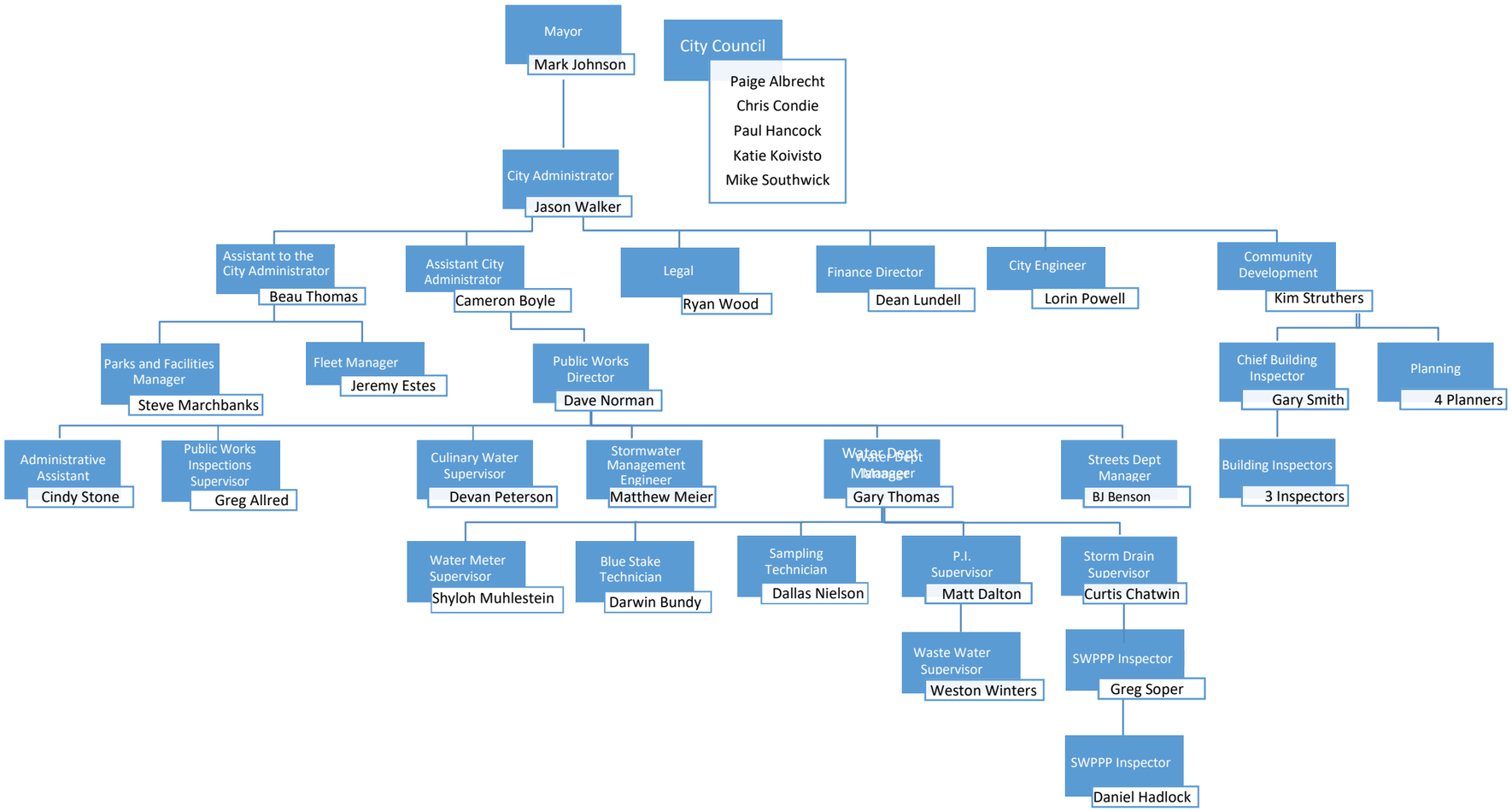
Table MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations Activities (cont.)

Permit Number	Permit Requirement	Plan of Action	Audience(s)	Responsible Staff	Desired Result	Measure of Success	Supporting Documents	Frequency/Dates
4.2.6.8.1	Existing flood management structural controls must be assessed to determine whether changes or additions should be made to improve water quality. A description of this process and determinations should be included in the SWMP document.	The City assesses existing flood management structural controls for its water quality impacts.	Pertinent Lehi City Employees	Engineering Dept, Stormwater Management Engineer	To assess the impacts on water quality caused by existing flood management structural controls	Track water quality assessments	Water Quality Assessment Form	As needed
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 evapotranspire or harvest and use storm water discharges. The plan must include a ranking retrofit sites based on the following criteria: • Proximity to waterbody • Status of waterbody to improve impaired waterbodies and protect unimpaired waterbodies • Hydrologic condition of the receiving waterbody • Proximity to sensitive ecosystem or protected area • Any upcoming sites that could be further enhanced by retrofitting storm water controls.	The City has developed a plan to encourage retrofitting existing developed sites which have been identified to negatively impact water quality.	Planners, D.R.C., Engineers, Developers	Engineering Dept	To improve water quality by replacing poor functioning infrastructure with structures that protect water quality degradation.	Track areas that have been identified as having adverse impacts on water quality. Projects improve water quality	Retrofit Log	On going
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 that shall address the importance of protecting water quality, the requirements of this Permit, operation and maintenance requirements, inspection procedures, ways to perform their job activities to prevent or minimize impacts to water quality, SOPs and SWPPPs for the various Permittee-owned or operated facilities and procedures for reporting water quality concerns, including potential illicit discharges. Training records must be kept and shall include 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.	The City trains employees whose primary construction, operation, or maintenance job functions are likely to impact stormwater quality. Training occurs upon hire and annually at a minimum. Each city department will review one (1) SOP per quarter and provide staff training and update as necessary.	Pertinent Lehi City Employees	Lehi City Department Supervisors, Stormwater Management Engineer	City staff that have primary construction, operation, or maintenance job functions are trained upon hire and annually at a minimum.	Document Training and Attendance	Training Material and Attendance Log	Annually and upon hire

APPENDIX A

LEHI CITY ORGANIZATIONAL CHART

Lehi City Organizational Chart



APPENDIX B

LEHI CITY STORM DRAIN OUTFALLS

Existing and Proposed Storm Drain System

Produced by Lehi City GIS
Jason DeWitt, GIS Coordinator
October 31, 2018

Scale: 1:12,000

1,000 500 0 1,000 2,000 3,000 4,000
Feet

Legend

Storm Drain Manholes

Storm Drain Outlets

Storm Drain Lines

Other Sizes

Pipe Size

12"
15"
18"
21"
24"
30"
36"

APPENDIX C

LEHI CITY STORM DRAIN SUMPS

Lehi

Produce
Jason D
January

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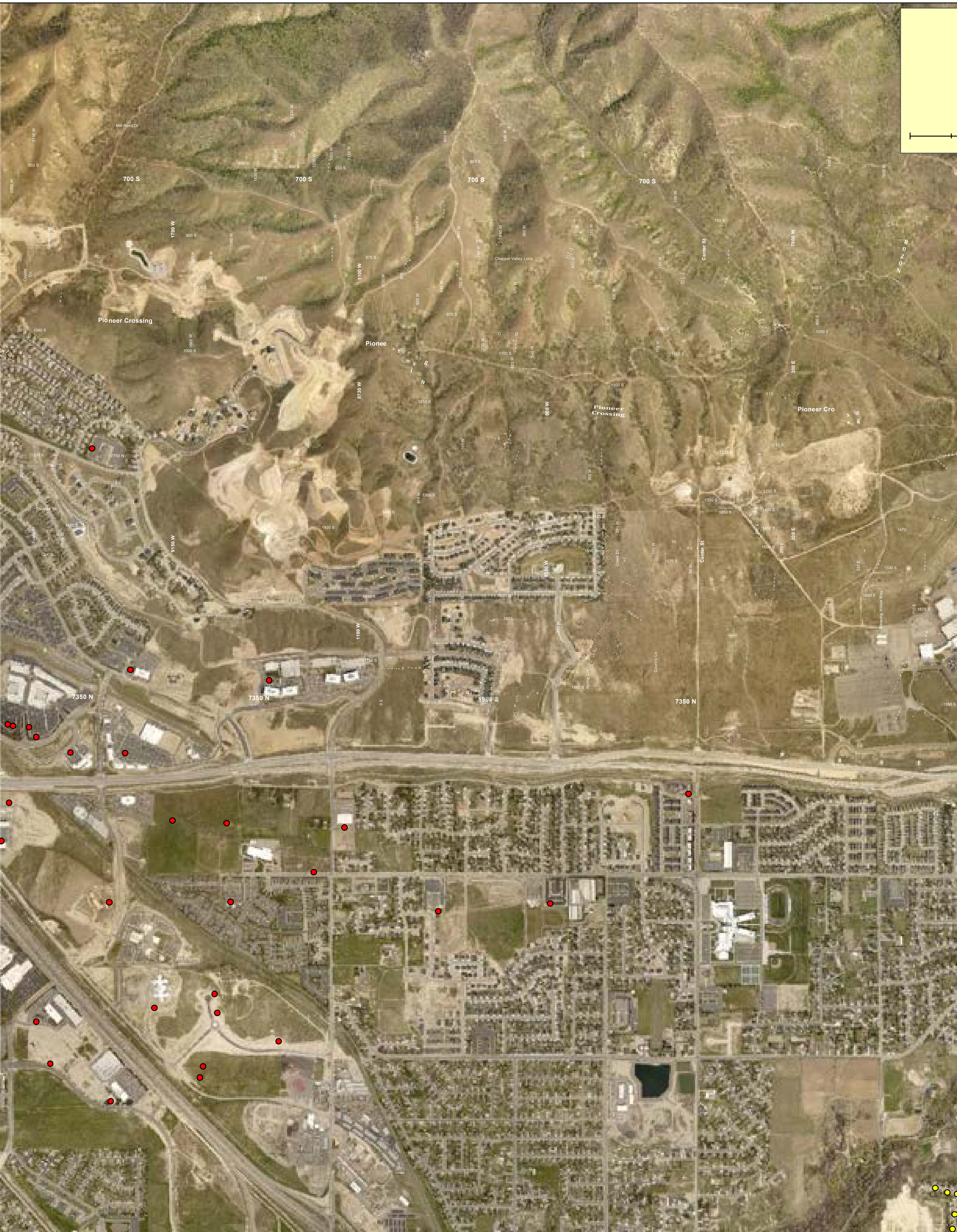

700 S
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1100 W
Center St
7600 W
Pioneer Crossing
Pionee
8730 W
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Pioneer Crossing
300 E
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9150 W
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