



Storm Water Management Plan

2020-2025

Cottonwood Heights City
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Abbreviations

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

2.3 – Storm Water Management Program Plan

Description

2.3.2 - Revised SWMP Document

The updated SWMP will be submitted to the Utah Division of Water Quality within 180 days of the effective date of the permit.

2.3.2.1 – Permit Number

UTS000001

2.3.2.2 – MS4 Location

Cottonwood Heights City is located in Salt Lake County, south of Salt Lake City. Its general location is south of Holladay (I-215), East of Midvale, and North of Sandy City. Its borders are I-215, Union Park Ave, and Creek Road. A map can be found in Appendix A.

2.3.2.3 – Overall Water Quality Concerns

Water Quality concerns include organic matter which may contribute to Big and Little Cottonwood Creeks that are considered impaired. Impairments include E. coli, OE Bioassessment, and temperature for both and Cadmium & TDS for Little Cottonwood Creek. To address these concerns, Cottonwood Heights City has selected the measurable goals outlined in each minimum control measure's section of the SWMP. Potential "high-risk" pollutant sources have been targeted with the dry weather screening program. Existing storm water controls which may impair water quality are also being prioritized for potential retrofits through the City's Stormwater Master Plan.

2.3.2.4 – Program Elements

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

2.3.2.5 – Ordinance Modifications

This SWMP has been re-written to include existing and ongoing processes that have been implemented as well as new implementations. Typically this document will be reviewed/rewritten after the annual report is sent to the DWQ in October. To be reviewed/rewritten between October-March.

2.3.2.6 – Permit Requirements

For each minimum control measure, a list of measurable goals are outlined in sections 4.2.1 through 4.2.6 of this document. This document includes descriptions of existing and on-going elements as well as new elements that will be implemented to achieve permit requirements-

2.3.2.7 – Responsibilities

Cottonwood Heights is responsible for the stormwater management plan and requirements within with the exception of collaboration with the Salt Lake County Stormwater Coalition as outlined in the SWMP.

2.3.2.8 – Certification

All signatures and certifications for the SWMP will be in accordance with Part 6.8.

2.3.2.9 – Measurable Goals

The SWMP includes specific details for compliance with each of the minimum control measures (Part 4.2 of the Jordan Valley Municipalities Permit).

3.1 - Impaired Waters

3.1.1.1 – Discharges in to 303(d) Water Bodies

Cottonwood Heights' MS4 drains to Big Cottonwood Creek and Little Cottonwood Creek both of which are considered impaired water bodies.

3.1.1.2 – TMDL Requirements

Big Cottonwood Creek has been identified as having an E. coli, OE Bioassessment and Temperature impairment. Little Cottonwood Creek has been identified as having an E. coli, TDS, OE Bioassessment, Temperature and Cadmium impairment. A TMDL has not been approved by the EPA for either water body within Cottonwood Heights' according to the following link at the time this document was re-written/revised:

<http://mapserv.utah.gov/surfacewaterquality/>

Cottonwood Heights will comply with part 3.1.2 and any TMDL requirements that are put into effect.

3.1.2 – Water Quality Control

E. coli – will be addressed through section 4.2.1 focusing on educating the public on pet wastes.

TDS – will be addressed in sections 4.2.1, 4.2.5 & 4.2.6 focusing on fertilizers, pesticides, herbicides and deicing salts.

Temperature – will be addressed in Section 4.2.5 by minimizing surface runoff through the use of LIDs.

Cadmium – will be addressed in section 4.2.1 by encouraging the public to wash cars at a commercial car wash or on a permeable surface.

OE Bioassessment – through each of the six minimum control measures improving water quality will result in improvement in OE Bioassessment.

3.1.3 – New or Pre-Approved Discharge Determined as a Pollutant

In the event that an existing authorized discharge under the permit is determined to cause or contribute to violation of an applicable water quality standard, Cottonwood Heights will take action as required by

the Director of the Division of Water Quality. All actions will be documented along with any amendments to this SWMP.

3.2 – Nitrogen and Phosphorus Reduction

3.2.1 – Reduction of Nitrogen and Phosphorus

Cottonwood Heights will address the water quality impacts associated with Nitrogen and phosphorus through the public education program as outlined in section 4.2.1.

3.2.1.1 – Storm Water Coalition

Cottonwood Heights is and will continue to be an active participant in the Salt Lake County Stormwater Coalition which will evaluate, identify, target, and provide outreach that addresses sources of pollution from nitrogen and phosphorus.

3.2.1.2 – Target Sources

Cottonwood Heights targets residential sources through section 4.2.1 and commercial sources through the use of education of hazards of nitrogen and phosphorus by distributing education materials outlined in section 4.2.1.3.

3.2.1.3 – Prioritize Targeted Sources

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

4.0 - Storm Water Management Program

4.1 - Requirements

4.1.1 - Storm Water Management Program

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

4.1.1.1 - Implementation

This SWMP will be developed and implemented in accordance with section 4.0 of the permit.

4.1.2 - Development and Implementation

The Cottonwood Heights Stormwater Manager will assess the SWMP annually to assess any needs for improvement. This assessment is done after the annual report is filed with the DWQ typically between October and March. The assessment is reviewed with the Public Works Director/City Engineer (or his designee), Staff Engineer and the Stormwater Manager.

4.1.2.1 - Implementation Tracking

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

4.1.2.2 - Resources for SWMP

The resources required to comply with the permit are provided through the Cottonwood Heights City general fund #11-4414. A summary of the resources is included in the annual report.

4.1.3 - BMPs Implemented

This document includes BMPs that Cottonwood Heights City implements for each of the minimum control measures.

4.1.3.1 - Measurable Goals

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

4.1.3.2 - Responsible Party for implementation

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

4.1.3.3 – Revisions of the SWMP

This document was revised within 180 days of the effective date of the permit to clearly identify roles and responsibilities that affect the implementation and operations of the SWMP. This will include any and all agreements, contracts, and MOUs and clearly describe the responsibilities of all parties that affect the implementation and operation of the SWMP.

4.1.3.4 - Good Faith Effort

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

4.2 - Minimum Control Measures

Cottonwood Heights City has updated the SWMP to meet the requirements of the six minimum control measures of the renewal permit. The measures are as follows:

1. Public Education and outreach on storm water impacts.
2. Public Involvement/Participation.
3. Illicit Discharge Detection and Elimination (IDDE).
4. Construction Site Storm Water Runoff Control.
5. Long-Term Storm Water Management in New Development and Redevelopment.

6. Pollution Prevention and Good Housekeeping for Municipal Operations.

The updated SWMP will continue successful programs that have already been in place. This SWMP will also implement new programs and updates that are being incorporated.

4.2.1 – Public Education and Outreach on Storm Water Impacts

Cottonwood Heights City implements a public education program aimed at improving the public’s awareness about how activities they do can affect storm water quality. This program includes educational materials distributed to various audiences, media ads produced by the Salt Lake County Stormwater Coalition, and training employees.

BMPs included in this section of the SWMP include training of municipal employees and education of the public sector. These education and training programs will introduce the Utah Pollutant Discharge Elimination System (UPDES) program and focus on targeted pollutants and how to control their sources.

4.2.1.1 – Targeted Pollutant Sources

Below, Cottonwood Heights City has identified the target pollutants for each specific target audience:

Audience	Sediments	Nitrogen & Phosphorous	Heavy Metals	Trash & Debris	Oil/Grease	Bacteria
General Public	X	X		X	X	X
Institutions, Industrial and Commercial Facilities	X	X	X	X	X	
Construction/Development	X	X		X	X	
MS4 Facilities	X	X	X	X	X	

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

4.2.1.2 – General Public Education & Outreach

Cottonwood Heights is a member of the Salt Lake County Stormwater Coalition. Meetings are held on the third Wednesday of each month. The coalition consists of various local agencies whose purpose is reducing the load of pollutants entering storm drains and receiving water bodies by promoting good behaviors to protect storm water quality. Coalition produces media ads for radio, television, movie theaters, and online which promote good behaviors to protect stormwater quality. The Coalition also sponsors an annual Water Quality Fair where elementary school students, teachers and chaperones attend and learn about stormwater quality through various displays at the event. Cottonwood Heights will continue to have representation at these meetings and the annual Water Quality Fair. When possible Cottonwood Heights provides a portion for reimbursement of the bus fees for the Elementary Schools to attend the event.

Storm water promotional materials is distributed to Butlerville Days volunteers, an annual City-sponsored festival on or around July 24th each year.

The Cottonwood Heights Newsletter is sent out each month to all residential addresses in the City. The city includes periodic content which promote good behavior to prevent stormwater pollution. Content

will address one or more of the targeted pollutants including organic matter, pet waste, fertilizer use, household hazardous waste disposal and car washing.

Cottonwood Heights uses Twitter to “tweet” out educational messages (typically monthly) to the public to let them know what they can do to help the quality of stormwater. This began in October of 2017 and is ongoing.

Previous newsletter ads and “tweets” can be found by request from the Stormwater Manager. These campaigns are part of the Cottonwood Heights City IDDE education program required in part 4.2.3.7 of the permit.

4.2.1.3 – Institutions, Industrial and Commercial Facilities

Businesses and commercial facilities will be educated on specific measures they can take in conjunction with their required city inspections. The higher risk pollutants include food grease, lawn pollutants (grass clippings and fertilizers) and general waste from dumpsters and parking lots. The educational efforts Cottonwood Heights implements for this measure addresses those more prevalent pollutants and also provides an opportunity to educate businesses about IDDE hazards as required by Part 4.2.3.7 of the permit.

Storm water inspections for all businesses with a Cottonwood Heights Storm Water Management Agreement provide an opportunity for institutional education. Inspectors discuss with the business any observed pollutants or hazards and deficiencies affecting storm water quality that were encountered during the inspection.

Educational inserts are added to annual businesses license renewals and new business licenses educating them on how to improve water quality. A copy of the insert can be found in Appendix B.

4.2.1.4 – Construction Education Program

The City requires that all contractors working on development and re-development project in the city attend a preconstruction meeting that covers a review of the approved SWPPP. A stormwater training is conducted that educates contractors on best management practices and the expectations of Cottonwood Heights. This training is required annually to be allowed to work in Cottonwood Heights. Utility construction, submittal, development, BMPs, and SWPPP requirements are discussed at the preconstruction meeting.

The City’s Guidance Document for Stormwater Management is provided to engineers and developers and outlines construction and long term goals for reducing the adverse impacts from storm water runoff from development sites.

SWPPP review is outlined in the preconstruction meeting agenda and each site is reviewed in depth with the contractor and/or developer. Meeting Agendas are signed by the City and Contractor for the purpose of documentation. This educational measure is part of the IDDE education program as required by part 4.2.3.7 and 4.2.3.11. Additional requirements are set forth in part 4.2.4.5 to educate the construction industry.

4.2.1.5 – LID, Green Infrastructure, Post-Construction Education

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

A representative of the Public Works Staff attend the monthly USWAC & Salt Lake County Stormwater Coalition meetings. Information is discussed in weekly staff meetings with the Public Works Director, Staff Engineer, Field Maintenance Supervisor, Superintendent and Stormwater Manager.

4.2.1.6 – Evaluation

Public opinion surveys will be performed to evaluate the effectiveness of the public education program and evaluate the selected BMPs. This will occur at least once per permit term. A copy of the most recent survey results is included in Appendix B. A new survey will be completed this permit term and added to Appendix B.

4.2.1.7 – Selection Rationale

The following rationale was used to select the BMPs for the specified groups:

General Public (administered by the Salt Lake County Stormwater Coalition)

- Buses for students to water quality fair – This helps educate children at an early age the importance of water quality and how they can affect it.
- Media Ads – Online and television ads reach the largest populations and provides good educational messages to encourage behavioral changes.

Commercial Facilities

- Inserts sent to business with new licenses and license renewals to all commercial and residential businesses. A copy of the insert can be found in Appendix B.
- Storm Water Inspections – for those businesses with a Cottonwood Heights Long Term Storm Water Management Agreement, inspections provide an opportunity for inspectors to educate the business about better storm water protection practices and ensure proper maintenance is being completed to minimize quality impacts in the storm water system.

Construction Industry

- Pre-construction meeting & SWPPP review – This BMP was selected because we can have an interactive conversation with contractors about how their site can be prevented from causing storm water contamination. The importance of stormwater can be emphasized to the contractor/developer.
- Construction permit application process – The SWPPP is reviewed by trained individuals to ensure that proper protection will be in place during all phases of the construction process.

MS4 Employees

- Annual Training – This BMP allows a process to educate employees on how they can impact storm water quality when completing their day to day operations.

Public Education and Outreach Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PEO-1	Classes to Water Quality Fair	Have at least 2 schools attend the fair (when fair is held).	City will reimburse schools for busing costs for elementary schools to attend an Annual Water Quality Fair presented by Salt Lake County.	4.2.1.2	Ongoing
PEO-2	Citywide Newsletter	Ensure newsletter ad is published and documented.	Place newsletter ads at least once annually.	4.2.1.2	Ongoing
PEO-3	Twitter Campaign	Ensure tweets are sent out each month to followers to the City's Twitter Account	Send out 12 monthly tweets per year.	4.2.1.2	Ongoing
PEO-4	Encourage Proper Hazardous Waste Disposal	Ensure at least one "tweet" is sent out annually.	Publish online educational literature information about proper hazardous waste disposal locations for residents.	4.2.1.2	Ongoing
PEO-5	Support the Salt Lake County Stormwater Coalition and their media ad campaigns	Attend 75% of monthly meetings and continue financial support of the Coalition	Continue support and participation of the SLCS through financial support and involvement in monthly SLCS meetings. Continue use of the public education program provided by the SLCS.	4.2.1.2	Ongoing
PEO-6	Implement Business Education through Business Licensing	100% business licenses issued/renewed given educational insert.	Require all new and renewal business license applicants to be given literature on their impacts to water quality.	4.2.1.3	Ongoing
PEO-7	SWPPP Education	Require a preconstruction meeting with a SWPPP review for contractors working in Cottonwood Heights at least once per year	In the preconstruction meeting for developments/redevelopments and City projects one acre or greater, contractors are given a presentation and discussing storm water pollution prevention measures and BMPs at their site.	4.2.1.4	Ongoing
PEO-8	Employee Training –	Maintain RSI and CISEC	Complete annual training opportunities for staff	4.2.1.5	Annually

	Storm Water Personnel	certifications for Storm Water Personnel	discussing most pertinent water quality prevention measures.		
PEO-9	Employee Training – Public Works Staff	Provide annual training on employee responsibilities.	Provide annual training to all Public Works Staff regarding water quality in relation to their daily activities	4.2.1.5	Annually
PEO-10	3 rd party training	Provide annual training on employee responsibilities.	Provide annual training to Cottonwood Heights Parks and Recreation Service area staff on water quality in relation to their daily activities.	4.2.1.5	Annually
PEO-11	Violations	Decrease in number of violations.	Have a decrease in the number of violations issued.	4.2.1.7	Ongoing
PEO-12	Violations	Increase in citizens reporting spills	Have an increase in the number of phone calls we receive from the public reporting spills and discharges.	4.2.1.7	Ongoing

4.2.2 – Public Involvement/Participation

The public Involvement/Participation program section addresses the importance of public involvement with respect to the protection of storm water quality. Community participation provides for broader public support, public understanding of the nature and magnitude of the problems faced with, shorter implementation schedules, a broader base of expertise and development of important relationships with other community programs. The BMPs described in this section of the SWMP include opportunities for the public to play an active role in the development and implementation of the SWMP.

This program will be closely integrated with the Public Education and Outreach Program to incorporate education with hands-on programs. The following BMPs describe implementation tasks and assessment tasks to be completed by Cottonwood Heights for Public Involvement/Participation Program.

Public involvement activities include:

- Public notices and comment period about updates to the SWMP
- Boy Scout Eagle service projects
- Community group service projects
- Salt Lake County Stormwater Coalition participation which generally has representation at local watershed councils and water fairs

A program utilizing Eagle Scouts or other interested community groups is in place to attach reflective markers and no dumping markers on storm drain inlets to discourage illicit dumping and littering. This increases public awareness that water discharges directly to creeks and streams. The City will document the number of storm drains that are marked. The City will coordinate the purchase of inlet markers, adhesives and PPE. The City and has maps to track project locations.

Community service projects may be organized to clean detention basins and other open spaces within Cottonwood Heights to prevent non-storm water discharges.

Cottonwood Heights City participates with Wasatch Front Waste and Recycling District for an annual leaf drop off. Cottonwood Heights advertises through the City’s Newsletter, Twitter, Facebook and website the availability of leaf bags from the District and allows residents to pick them up at City Hall and other locations. Leaf Bags are typically dropped off by residents at a local park within the City for proper disposal by the District.

4.2.2.1 – Public Input during SWMP Writing Process

The City will follow the public comment process for all ordinances developed or changed. The SWMP Will be made publicly available at City Hall and in the office of the Storm Water Manager. A storm drainage ordinance was adopted by the City and is currently in use. The ordinance can be found at:

<https://www.cottonwoodheights.utah.gov/home/showdocument?id=1273>

4.2.2.2 – SWMP Availability

The SWMP is available online at the City’s website and at the office of the storm water manager for the general public.

4.2.2.3 – Adopted SWMP accessibility for the life of the permit

A current version of the SWMP will be available for the general public online and at the Cottonwood Heights Municipal Center for the duration of the permit. For questions regarding this SWMP, you may contact Mike Mirabella at mmirabella@ch.utah.gov

4.2.2.4 – Public Notice Requirements

Cottonwood Heights City will comply with all State and Local public notice requirements. The City will follow the public comment process for all ordinances developed or changed. The City Council will hold a public hearing during a council meeting to receive public comments. Prior to the meeting, the hearing will be advertised on the City website, and at the Cottonwood Heights Municipal Center. The City will review the comments received prior to passing the ordinance. A storm drainage ordinance was adopted by the City and is currently in use.

Public Involvement and Participation Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PIP-1	Open houses for stormwater quality projects	Host open houses prior to construction projects where feasible	Cottonwood Heights City hosts open houses for city-funded projects that affect stormwater quality and allows for public input on these projects.	4.2.2	Ongoing
PIP-2	Eagle Scout & Volunteer Projects	Encourage eagle scout & volunteer projects.	Provide inlet markers and maps of where inlets are located to volunteer organizations.	4.2.2	Ongoing

PIP-3	Public Notice for Comment on Updated SMWP	Post updated to our SWMP online and open it to public comment	Provide copies of the SMWP to the general public for review and comment at the Cottonwood Heights Municipal Center.	4.2.2.2	Ongoing
PIP-4	Current SWMP Publicly Available	Maintain updated SWMP online	Provide access to a current copy of the SWMP online for public comment and at the Cottonwood Heights Municipal Center.	4.2.2.3	Ongoing

4.2.3 – Illicit Discharge Detection and Elimination (IDDE)

The Illicit Discharges and Improper Disposal Program section of the SWMP addresses storm drain flows that contain pollutants during a dry weather period. The program implements BMPs to assist in identifying illicit discharges to the storm water system and eliminating these discharges from the system. This program focuses on prevention of new illicit discharges to the system by means of education, regulation, spill prevention, and improved response.

This program will also be integrated with the Public Education and Outreach Program to promote awareness of the importance of protecting the storm water system from illicit discharge and the resultant impact to receiving waters. The Following BMPs describe implementation tasks and assessment tasks to be completed by Cottonwood Heights for this program.

Maintenance Personnel (Public Works Staff), office personnel, Police, and Cottonwood Heights Parks and Recreation Service Area employees receive annual training as they may observe illicit discharges in their daily duties.

4.2.3.1 – MS4 Map

A comprehensive storm drain map showing all the outfalls into Big and Little Cottonwood Creeks has been developed using GIS software. The City will update the storm drain map as needed to identify all inlet points into the system. As any additional information of drainage structures are obtained, the information is documented to be investigated and mapped out on an ongoing basis. A map showing the inventory can be found in Appendix A.

4.2.3.2 – Ordinances for Illicit Discharge

A City ordinance is in place to prohibit illicit discharges. Cottonwood Heights City Code 17.18 defines illicit discharges and give authority for inspection and enforcement procedures and actions. Illicit discharges are defined as “any discharge to the storm drain system that is not composed entirely of storm water.” Examples of this include sanitary wastewater, improper disposal of waste oil, concrete, paint, household toxic chemicals, and spills from roadway accidents.

Escalating enforcement options for Cottonwood Heights City include:

- Verbal Warning – Applicable where violator had no knowledge that their action was a violation of City Code.

- Notice of Violation – This enforcement action may require, without limitation: (a) the performance of monitoring, analyses, and reporting; (b) the elimination of illicit connections or discharges and the immediate cessation of violating practices or operation; (c) the abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; (d) reimbursement of all of the City’s out-of-pocket costs in connection with such violation and its remediation; (e) Implementation of source control or treatment BMPs; and (f) the immediate removal of mud, dirt or debris left by any vehicle on a street that drains in to the City’s storm drain system per section 17.18.100 of the Cottonwood Heights City Municipal Code. This enforcement action may be carried out by the Salt Lake County Health Department and documented by Cottonwood Heights Public Works Personnel.
- Criminal Citation – Enforcement of a minor violation by Cottonwood Heights Code Enforcement. This enforcement action assesses a fee and requires corrective action. Additionally this action requires the offender to show up in person to the Holladay Justice Court and enter a plea of guilty or not guilty. A not guilty plea will have the case heard by a judge where the offender can plead his/her case.
- Stop Work Order – May be issued at any time to any person that violates the Illicit Discharge and Connection chapter 18 of title 17. This is typically done for severely egregious violations. The City requires all working operations to cease immediately at the site of violation until the site is brought into compliance. This enforcement action may be carried out by the Public Works or Code Enforcement Departments.
- Criminal penalties may be assessed for any intentional or reckless violation of the Illicit Discharge Chapter 18 of title 17. Penalties may be assessed for each day that a violation is committed, continued.
- Violators may also be subject to prosecution, fines and penalties from the State of Utah and/or the United States of America.
- The City may also install and/or maintain appropriate erosion and sediment control measures on any site. The property owner and the general contractor, if any, of the project shall be jointly and severally liable for any and all expenses related to performing such work.

A copy of the Escalating Enforcement Procedures SOP is included in Appendix G

Exceptions: (Cottonwood Heights Code 17.18.070)

- Water line flushing
- Landscape irrigation or lawn watering
- Diverted stream flows
- Rising ground water
- Ground water infiltration to storm drains
- Uncontaminated pumped ground water
- Foundation or footing drains (not connected to floor drains)
- Crawl space sump pumps
- Air conditioning condensation
- Springs
- Non-commercial washing of vehicles
- Natural riparian habitat or wetland flows

- Swimming pools (if de-chlorinated – typically less than one PPM chlorine)
- Firefighting activities, and any other water source not containing pollutants
- Discharges specified in writing as being necessary to protect public health and safety

Cottonwood Heights City does not own, operate, or maintain a sanitary sewer system. The sanitary sewer system in Cottonwood Heights is owned and maintained by Cottonwood Improvement District. If a SSO occurs, it is reported to Cottonwood Improvement District or Midvalley Improvement District whichever has jurisdiction at the location of the overflow.

4.2.3.2.1 – Legal Authority

Enforcement against non-storm water discharges are authorized through section 17.18.040. Code enforcement officers notified and are authorized to enforce ordinance violations.

4.2.3.3 – IDDE Mitigation Plan

The IDDE mitigation plan for spills, illicit connections, SSOs and illegal dumping are described here. Cottonwood Heights City relies on its trained employees who are out in the public regularly (e.g. inspectors, street sweepers, storm drain maintenance personnel, etc...) and public reported discharges to detect spills and illegal discharges. Our regular dry weather screening of outfalls in the City during the permit term may also detect these spills and discharges. Testing of screened outfalls began in 2017 and screens 20% of the outfalls annually through 2019. Beginning 2020, the city will screen all outfalls during the duration of the permit.

Cottonwood Heights City owns a storm drain camera that is also used to view conditions inside storm drain pipes. This method provides the City with a technique to locate any illicit connections and require proper mitigation in order to prevent illegal discharges from entering into the storm drain system. All storm drain pipes that are newly installed or replaced are required to be a minimum of 15” to allow the use of the camera.

4.2.3.3.1 – High Priority areas

During the update process for the SWMP, the Stormwater Manager determined the locations of high priority areas and outfalls within the Cottonwood Heights City stormwater system. The following procedure was used:

1. Identify on the map in the GIS software areas where businesses with higher pollutant risks are located (e.g. businesses with high use of chemicals or other pollutants and areas of the system with older infrastructure).
2. Mark on a printout map the identified areas.
3. Establish the high priority area map (found in appendix A).

These areas were selected based on the industrial and commercial uses, any known history of past illicit discharges and areas with older infrastructure. The high priority area map will be evaluated annually and updated as needed.

The priority area list will be updated annually and available from the Stormwater Manager.

4.2.3.3.2 – Field Assessment Activities

There are 94 known outfalls located within Cottonwood Heights City, including 4 priority areas. Beginning in 2017, twenty percent (20%) of high priority outfalls were screened and assessed through the duration of the permit at the time. Per the renewal permit conditions in 2020, field inspections of areas which are determined to be a priority area as identified in Permit Part 4.2.3.3.1 will be conducted annually at a minimum. A copy of the priority area inspection form can be found in Appendix C. A copy of the dry weather screening form is included in Appendix C.

4.2.3.3.3 – Permit Term Field Assessment Activities

All outfalls will be inspected at least once during the 5-year Permit Term. A copy of the dry weather screening form is included in Appendix C. High Priority Outfalls will be inspected annually.

4.2.3.3.4 – Discovered or Suspected Dischargers

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

4.2.3.4 – Tracing Illicit Discharge Source Procedures

Standard operating procedures for detecting and eliminating illicit discharges have been developed and are found in Appendix G. When an illicit discharge is reported, Public Works personnel investigates on-site and locates the source of the discharge. The source is identified either by visual observation at the report location of the incident (e.g. someone dumping pollutants into storm drain) or by following the storm drain system upstream to locate the source of the pollutant. When necessary opening of manholes, using mobile cameras and field tests are used to trace the source.

4.2.3.5 – Characterize the Nature and/or Threat of the Illicit Discharge

Written procedures for characterizing the nature and/or threat of the illicit discharge are found in Appendix G. A majority of the discharges are known substances (e.g. someone is washing concrete out in the storm drain). Where the substance is unknown, the Stormwater Manager perform a limited analysis to identify the pollutant (typically tests used for dry weather screening). If the Stormwater Manager can't identify the substance or it can't be handled by the City, the Salt Lake County Health Department is called to help identify the substance and perform further analysis.

4.2.3.5.1 – Inspection Documentation

When the source of a non-stormwater discharge is identified and confirmed, the following information is recorded in an inspection report:

- Date of the initial report.
- Date of investigation.
- Date the discharge was observed.
- Location of discharge.
- Method of discovery.
- Date of removal, repair or enforcement action.
- Date and method of removal.

If necessary, analytical monitoring may be completed to identify the potential source(s) and characterize the nature of the illicit discharge by a 3rd party. The decision process for utilizing analytical monitoring will be fully documented in the inspection report.

4.2.3.6 – Ceasing Illicit Discharges

Cottonwood Heights City is proactive in its efforts to cease illicit discharges. When responding to an illicit discharge or spill, Storm Water Enforcement Personnel (typically in conjunction with code enforcement personnel) respond to identify the source and require the violator to stop the discharge following the Cease Illicit Discharge SOP found in Appendix G. In the event where the violator is not present, respondents take appropriate measures to cease the discharge at the source. Once the discharge has ceased, SOPs are followed to begin cleanup activities.

4.2.3.6.1 – *Requiring the cessation of an Illicit Discharge*

Cottonwood Heights will take actions and require immediate cessation of any illicit discharges by the responsible party within the City's boundaries. Reports will describe what actions were taken to comply with the permit requirements and if any requirements were not met. Reports are available upon request from the Stormwater Manager.

4.2.3.6.2 – *Liability*

Cottonwood Heights prohibits illicit discharges within the City's boundaries, per permit UTS000001 does not impose strict liability on Cottonwood Heights.

4.2.3.6.3 – *IDDE Investigation Reports*

All IDDE investigations are thoroughly documented and retained in the files at the office of the Stormwater Manager. The report will describe what actions were taken to comply with the permit requirements and the reason if any requirements were not met. A copy of the Storm Drain Incident Response Report is included in Appendix C.

The city will continue to develop forms, spreadsheets, databases and procedures to track illicit discharges at their costs. This will assist in yearly budgeting and aid in coverage of the entire system by showing which areas have been inspected and how recently. All records will be kept for a minimum of 5 years.

If Cottonwood Heights is unable to meet the performance measures outlined in Sections 4.2.3.5 or 4.2.3.6, Cottonwood Heights will immediately submit to the Director of the DWQ written documentation or rationale describing the circumstances why compliance was not possible.

4.2.3.7 – Illicit Discharge Education and Training

The following sections of this SWMP describe IDDE related education and training programs implemented by Cottonwood Heights:

- 4.2.1.1 – Target Specific Pollutants and Sources
- 4.2.1.2 – General Public Education and Outreach Program
- 4.2.1.3 – Businesses And Commercial Institutions Education Outreach Program
- 4.2.1.4 – Construction Industry Education Program
- 4.2.6.10 – Employee Training

4.2.3.8 – Household Hazardous Waste

Proper household hazardous waste is encouraged through tweets and newsletter ads by referring readers to the Salt Lake County Household Hazardous Waste Program, facility, and earth911.com.

A copy of the tweets and newsletter ads can be found in the office of the Stormwater Manager

4.2.3.9 – Public Hotline

The city maintains an after-hours emergency phone number to central dispatch (801) 840-4000. If a call comes in regarding a complaint associated with the storm drain system, the proper City personnel are notified to investigate the complaint and to follow up with the Salt Lake County Health Department if necessary. In addition, the city maintains a Citizen Dashboard on its website that allows residents to notify the City of any Illicit Discharges.

In the event of an Illicit Discharge, the investigation and finding are documented with the Storm Drain Incident Response Report found in Appendix C.

4.2.3.9.1 – Spill/Dumping Response Procedure

Once the Public Works Department has received notification of a spill, personnel respond to assess the situation. For minor spills of a known substance (e.g. oil, paint, and household chemicals) the responding personnel have a spill kit/absorbents to clean up the spill. In certain cases, a vacuum truck may be dispatched to the spill to contain and remove the spill. If the discharge is large in nature of an unknown substance or highly hazardous, the Salt Lake County Health Department and/or Unified Fire Department will be called in to help with the response and contain the spill/situation. Appendix C contains the spill response flow chart with contact information of appropriate personnel to respond to a spill or illicit discharge. The Spill Response Plans is found in Appendix G. The documents will be updated as necessary.

4.2.3.10 – Program Evaluation and Assessment

The IDDE program is evaluated and assessed annually by the Stormwater Manager. Mapping of the locations and types of illicit discharges are tracked in a Google Map. Tracking is maintained with the Storm Drain Incident Response Report found in Appendix C. These records are kept in the office of the Stormwater Manager. The Google Map is located at:

<https://www.google.com/maps/d/edit?hl=en&hl=en&mid=10IdxYtDmWnn0Pvdfzmi3idPMvW6dJUV&ll=40.63273971925929%2C-111.80690662803954&z=17>

4.2.3.11 – Annual Training of Employees

All Cottonwood Heights City Public Works personnel are trained annually about the IDDE program and their responsibilities within the IDDE program. Training is documented with sign in sheets and a quiz from a video. The quizzes are graded and returned to the personnel. The Cottonwood Heights Parks and Recreation Service Area grounds maintenance employees are trained annually on Illicit Discharges as part of their annual maintenance BMPs training. The Cottonwood Heights Police Department are trained annually on Illicit Discharges as well. Because the full Police department is not able to attend a training at the same time, their IDDE training is sent from the Stormwater Manager to the Assistant Chief of Police and distributed by the Assistant Chief. An acknowledgement letter is signed by each officer in the department acknowledging that they have read through the training and returned to the Stormwater

Manager and kept on file. Office personnel who take calls that may receive a report of an illicit discharge are trained annually on illicit discharges. Summaries are provided in the annual report submitted to the Utah Division of Water Quality.

4.2.3.12 – IDDE Documentation

All documentation will be maintained and available in the office of the Stormwater Manager and available for the Director of the DWQ when requested.

Illicit Discharge Detection and Elimination (IDDE) Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
IDDE-1	Stormwater System Map	Update the system map to reflect 100% of the updates or changes.	Regularly update the GIS map as changes occur to storm drain systems in order to ensure that the map is complete and accurate at any given time.	4.2.3.1	Ongoing
IDDE-2	IDDE Enforcement	Ensure SOPs are followed for 100% of the enforcement actions issued to illegal discharge violators.	Follow up on 100% of the illicit and/or illegal discharges reported to the City and ensure that compliance has been achieved.	4.2.3.2	Ongoing
IDDE-3	Screen and assess “High Priority” IDDE Areas	Screen and assess at least 100% of “High Priority” IDDE areas annually	Based on the IDDE “High Priority” area map, screen and assess at least 100% of the outfalls and other areas shown on the map during the permit period. Assess 100% of “High Priority” areas annually. Report findings and impose sanctions as necessary for any compliance measures.	4.2.3.3	Annually Beginning 2017. Annually 2020 with permit renewal changes.
IDDE-4	Dry Weather Screening	Screen 100% of all outfalls during permit period.	Dry weather screen and document findings of at least 100% of outfalls during the term of the permit.	4.2.3.3	2/26/2020
IDDE-5	IDDE Reports	Respond to 100% of Illicit Discharge reports.	All reports of Illicit Discharge will be responded to and documented thoroughly.	4.2.3.9	Ongoing
IDDE-6	IDDE Training	Train 100% of applicable City Employees and contracted parties on an	Ensure that Public Works, Police, office Staff and Cottonwood Heights Parks and Recreation employees receive training annually about the	4.2.3.11	Annually

		annual basis about the IDDE program.	IDDE program, it's functions and available BMPs.		
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4.2.4 – Construction Site Storm Water Runoff Control

This section of the SWMP addresses water quality concerns for construction sites with a land disturbance of greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre. This applies to public and private projects.

The BMPs described in this section of the SWMP include the development of a construction site program designed to reduce pollutants in storm water runoff from construction activities.

4.2.4.1 – Erosion and Sediment Control Practices

All projects are required to have a sediment and erosion control plan per Cottonwood Heights City Municipal Code under Title 17. Compliance enforcement measures are stated in the Municipal Code under Chapter 17.34. All construction projects disturbing greater than or equal to one acre and construction projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are required to comply with the UPDES Storm Water General Permits for Construction Activities by developing a SWPPP and obtaining an NOI.

4.2.4.1.1 – *Require a SWPPP for Construction Projects*

All projects greater than or equal to one acre in size are required to submit to Cottonwood Heights City a stormwater pollution prevention plan for review and approval prior to the commencement of work upon the property which is subject of the plan per Cottonwood Heights City Municipal Code 17.25.020. Enforcement measures are stated in the Municipal Code under Chapter 17.34. Templates provided on the DWQ website are required to be used for approval.

4.2.4.1.2 – *Private Property Access for Inspections*

The City's Manager, building official, engineer, and their designees having proper credentials and identification, shall be permitted to enter at all reasonable times in, or upon, any private or public property for the purpose of inspecting and investigating conditions and practices which may be in violation of the grading and erosion control component of a storm water pollution prevention plan or otherwise in violation of Chapter 17.26 of the City's Municipal Code.

4.2.4.1.3 – *UPDES Storm Water Permit Requirements*

As part of the building permit review process, proof of a Notice of Intent from the State is required before the permit will be issued. This applies to all sites greater than or equal to one acre, including projects that are part of a larger common plan or development or sale which collectively disturbs land greater than or equal to one acre. After the permit is obtained, the permit expiration is verified by monthly inspections per section 4.2.4.4.1.

4.2.4.2 – Enforcement Strategy

An adequate enforcement program is essential to the success of this program. Enforcement actions serve to deter infractions by other companies, as well as by the company in violation. Enforcement actions outlined by the City of Cottonwood Heights Title 17 may include verbal and written warnings, notice of violations, stop work orders, correction of the problem by the City at the developer's expense, fines, and issuance of a class C misdemeanor. Per City of Cottonwood Heights Code Title 17.26.050 no certificate of occupancy shall be issued by the City until the City has confirmed the applicant's compliance.

The first opportunity of enforcement is through the site plan review process. At this stage, it can be ensured that the approved SWPPP contains the required BMPs. During the pre-construction meeting with the contractor, the SWPPP is discussed in a stormwater training to ensure that appropriate plans are in place to install appropriate BMPs. Finally, through municipal site inspections, it can be verified that approved BMPs are in place and properly functioning. Where deficiencies exist, enforcement SOPs can be followed to bring a deficiency in to compliance.

4.2.4.2.1 – Construction BMP Enforcement

During the pre-construction meeting, SWPPP requirements and construction BMPs are discussed to ensure compliance with requirements. On-site inspections by qualified Cottonwood Heights Public Works Personnel are completed to ensure BMPs are properly installed, maintained and functioning properly. If a violation of the SWPPP occurs, or any other storm water quality protection issue is apparent on site during the inspection, the qualified City Public Works Personnel has the authority to issue a warning or stop work order. If the violation is not corrected Cottonwood Heights Code Enforcement has the authority to issue an administrative citation or notice of violation depending on severity of the violation to bring the construction site into compliance with the appropriate BMPs. The violator has the option to appeal a criminal citation through a bench trial with a judge. The Escalating Enforcement SOP found in Appendix G is followed.

4.2.4.2.2 – Documentation of all Enforcement Actions

Copies of all enforcement documents issued by Public Works Personnel are maintained in the office of the Stormwater Manager and on the City's network drive. Criminal citations issued by Cottonwood Heights Code Enforcement are available through the Cottonwood Heights Police Department by request. Citation Numbers are documented by Public Works Personnel for reference with the Police Department to retrieve police records.

4.2.4.3 – SWPPP Requirements

SWPPP review is completed with a checklist that is available in Appendix D. Projects disturbing greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are required to submit a SWPPP. The Community and Economic Development Department notifies the Public Works Department when a building permit is applied for. Developers and contractors are directed to use the State's SWPPP templates to ensure their project is in compliance. The Public Works Staff verify whether or not the construction is part of a common plan of development and requires a SWPPP for those lots.

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

4.2.4.3.1 – Pre-Construction Meeting

A pre-construction meeting is required for all sites over one acre which includes a review of the site design, planned operations, BMPs that will be utilized during the construction phase, BMPs to be used to manage runoff created after development, as well as the Cottonwood Heights' enforcement policies. During the pre-construction meeting a stormwater discussion is had with the owner/operator to ensure their understanding of what is expected to be accomplished before, during and after construction and the City's enforcement policies.

4.2.4.3.2 – Potential Water Quality Impacts Consideration

Priority construction sites are determined using the following factors:

- Soil erosion potential;
- Site slope;
- Project size and type;
- Sensitivity of receiving waterbodies;
- Proximity to receiving waterbodies; and,
- Non-storm water discharges and past record of non-compliance by the operators of the construction site.

A combination on any individual or all of the above-mentioned factors can be used to determine if a site will be determined to be "High Priority".

4.2.4.4 – Construction Site Inspection Program

During the construction phase, site inspections are completed to ensure approved BMPs are installed, maintained and functioning properly on site to prevent construction storm water runoff from entering into the MS4. The Storm Water Inspection Procedures are located in Appendix G. When violations occur, the Escalating Enforcement Procedures SOP Procedures SOP located in Appendix G is followed to impose sanctions against the violation and bring the site in to compliance.

Monthly site inspections are the responsibility of Cottonwood Heights "qualified personnel" as outlined in section 4.2.4.4.1.

4.2.4.4.1 – New Construction Site Inspections

All sites greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre are inspected by Cottonwood Heights qualified personnel monthly using the Department of Environmental Quality's Construction Stormwater Inspection Form. The "qualified personnel" will have at least one of the following certifications:

- Utah Registered Storm Water Inspector (RSI)
- Certified Professional in Erosion and Sediment Control (CPSEC)
- 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)

4.2.4.4.2 – Inspections Before, During and After Construction

Cottonwood Heights City personnel will inspect all projects, private or public, prior to land disturbance, during construction (as required in Part 4.2.4.4.1) and following active construction. The State SWPPP Compliance Inspection Form is used for SWPPP inspections. A copy of this form is located in Appendix D.

Once the site is stabilized, Cottonwood Heights Personnel verifies with the Owner or Operator that construction is complete. The Owner or Operator files for the Notice of Termination (NOT) with the State and lets the Public Works Personnel know that it has been filed. Public Works Personnel verify that temporary BMPs have been removed and permanent BMPs are in place and verify the NOT in the EPA's Central Data Exchange. Cottonwood Heights includes a bond item for "Erosion Control" with projects. This item is allowed to be released from the bond only after the NOT is completed. This procedure is part of the contractor training during the pre-construction meeting.

4.2.4.4.3 – Priority Construction Site Inspections

Priority construction sites described in part 4.2.4.3.4 will be inspected every two weeks utilizing the DEQ's Construction Storm Water Inspection Form.

4.2.4.4.4 – Electronic Site Inspection Tools

Any electronic site inspection tool to be implemented will demonstrate to the Director of the DWQ that the tool meets the requirements and will not be used for more than one half of on site MS4 inspections at a construction site.

4.2.4.4.5 – Site Inspection Follow Up

Site inspectors will follow up on issues discovered during the inspection. During the follow up inspection, pictures are taken for corrective action documentation. Where corrective actions were not completed, inspectors will continue to use the Enforcement Procedures as necessary until compliance is achieved. All enforcement actions will be documented.

4.2.4.5 – Staff Training

All staff members with responsibilities related to construction activities and plan review will receive regular training to implement the construction storm water program. Inspectors with qualifications outlined in section 4.2.4.3.2 will maintain at least one of the certifications to ensure permit compliance with conducting inspections. Training records will be maintained per Part 4.2.5.6. Additional training details are included in Part 4.2.1.5.

4.2.4.6 – Maintaining Records

All project records, including SWPPPs, site plan reviews, inspections and enforcement actions, will be maintained for 5 years or until construction is completed, whichever is greater. Records can be obtained from the Stormwater Manger.

Construction Site Storm Water Runoff Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
CON-1	SWPPP Review	Review 100% of SWPPP submittals for all development types.	Review 100% of SWPPP submittals for all projects greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre.	4.2.4.1	Ongoing
CON-2	Enforcement Strategy	Document and Track enforcement actions.	Document all enforcement actions by tracking all verbal and written warnings, stop work orders, notice of violations & Criminal Citations	4.2.4.2	Ongoing
CON-3	Pre-Construction Meeting	Require a Pre-construction meeting that includes a review of the project and planned BMPs for the site.	All projects greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre have a pre-construction meeting to discuss the impacts of the project on storm water quality. Contractor training is required within one calendar year.	4.2.4.3	Ongoing
CON-4	Construction Site Inspections	Complete construction site inspections for 100% of projects.	All construction projects greater than or equal to one acre or part of a larger common plan of development are inspected at least monthly to ensure compliance of requirements and proper stormwater quality protection	4.2.4.4	Monthly
CON-5	"Priority" Construction site inspections	Inspect 100% of "Priority" construction sites every 2 weeks	All "Priority" construction projects, as identified to meet requirements of the Permit are inspected twice a month to ensure compliance	4.2.4.4	Bi-monthly

			of requirements and proper storm water quality protection.		
CON-6	Staff Training	Maintain Certifications	Provide training and certification of the Stormwater Manager to ensure RSI and CISEC certifications are maintained	4.2.4.5	2017

4.2.5 – Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)

Cottonwood Heights City is continuing to develop a long-term stormwater management program. Cottonwood Heights requires new developments and redevelopment sites greater than or equal to one acre to develop and record a long-term stormwater management agreement with the Salt Lake County Recorder. Prior to issuance of a building permit, a site plan review process evaluates storm water controls proposed for the site.

Cottonwood Heights is in the process of adopting standards to promote the pre-development hydrology for new developments or improve the hydrology of redeveloped sites and reduce the volume of storm water discharges.

4.2.5.1 – Post-construction Controls

Cottonwood Heights requires new development/redevelopment sites to follow the City’s Guidance Document for Stormwater Management when developing/redeveloping a site within the City’s jurisdiction. The guidance document outlines controls and provides common SOPs to minimize impacts to water quality. Plans are reviewed and are required to address anticipated pollutants through selection of BMPS.

4.2.5.1.1 – Non-Structural BMPs

The City’s Municipal Code Title 19 – Zoning requires site plan approval for all developments on any property with any slopes in excess of 30%. The ordinance also requires a maximum allowable discharge of .01 cubic feet per second per developed acre within a sensitive lands overlay zone.

4.2.5.1.2 – Retention Requirement

As of July 1, 2020, all new development and redevelopment projects in Cottonwood Heights that disturb land greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre will manage rainfall on-site, and prevent 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. Redevelopment projects that fall under the above mentioned criteria and increases the impervious surface by greater than 10%, will 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.

The objective must be accomplished by the use of practices that are designed, constructed, and maintained to infiltrate, evapotranspire and/or harvest and reuse rainwater.

4.2.5.1.3 – Low Impact Development approach

Cottonwood Heights requires in the development review process the evaluation of a LID approach for all projects subject to the requirements in 4.2.5.1.2.

The following the LID practices have been accepted to be used by Cottonwood Heights:

- **Bioswales**
- **Vegetated Strips**
- **Infiltration Basins and Trenches**
- **Dry Wells**
- **Underground Infiltration Galleries**
- **Harvesting and Reusing Stormwater**

4.2.5.1.4 – Rainwater Harvesting

Cottonwood Heights will require projects that propose to harvest rainwater to meet the requirements of the Utah Division of Water Rights found on their website at:

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

4.2.5.1.5 – Feasibility

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

Cottonwood Heights requires documentation be provided using the State of Utah’s Storm Water Quality report found in the DWQ’s “A guide to Low Impact Development within Utah” Appendix B “Storm Water Quality Report – Template” located at:

<https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf>.

4.2.5.2 – Long-Term Enforcement Strategy

A site plan review is required as part of the process to receive a building permit from Cottonwood Heights City. During the site plan review, it can be verified that the development includes long-term stormwater protection measures as required. Site inspections are completed during the construction phase, which ensure that proposed long-term stormwater protection measures are installed and perform their function as they are designed. Stormwater infrastructure is bonded with the City to ensure that they are installed as designed.

Cottonwood Heights City Municipal Code 17.28.090 authorizes the City to require a cash bond, letter of credit, or escrow account to guarantee the construction or maintenance of any improvements required or permitted to be constructed.

Cottonwood Heights is in the process of updating the Title 17 ordinance to requiring post-construction plan and agreement.

4.2.5.2.1 – Sanctions for Violations

Steps to impose sanctions against violations of the Cottonwood Heights City Municipal Code are outlined in the Escalating Enforcement Procedures located in Appendix G. These steps range from verbal warnings to criminal penalties and or other legal remedies to bring a violation into compliance. Recalcitrant violators who continue to refuse compliance will be imposed higher escalating sanctions, fees and/or other legal remedies until compliance is achieved.

4.2.5.2.2 – BMP Selection

The Long-Term Stormwater Management Program will require BMPs to be installed in new developments. These requirements are intended to protect water quality by installing BMPs which reduce targeted pollutants for the proposed use. Redevelopment projects will be required to install BMPs which will reduce the amount of pollutants the site currently contributes to the storm water system.

Developers and owners are be required to submit documentation about their proposed BMPs, which must meet the pollutant removal expected from the proposed BMP; and the technical basis which supports performance claims. The Storm Water Quality Report Template found in the DWQ's "A Guide to Low Impact Development within Utah" found in Appendix E is used for this documentation. The City's Guidance Document for Stormwater Management requires that any water quality treatment systems remove 80% of the new annual TSS based on the 125-micron particle size and remove all oils and floatables from storm water. Approved verification must come from either Washington State TAPE program or New Jersey CAT programs.

The Evaluation from for Post Construction Controls found in Appendix E is used for site inspections and enforcement of post-construction storm water control measures.

4.2.5.2.3 – Post Construction Access

Cottonwood Heights Municipal code provides access for the City to Inspect stormwater control measures on private properties to ensure adequate maintenance is being performed. The long term stormwater management plan and agreement requires that the owner provides the City with annual inspection records and certification that structural controls are operating as designed. Where maintenance and corrective actions have been neglected by the property owner/operator, the City is allowed by ordinance to perform maintenance/repairs and recoup the costs.

The City's Title 17 Ordinance is in the process of being updated add additional provisions to allow for inspections of stormwater controls on private property.

4.2.5.2.4 – Permanent Structural BMP inspection

Cottonwood Heights requires that permanent structural BMPs be inspected by qualified Public Works staff during their installation. As part of the bond release process, it is verified that the structural BMPs were constructed as designed.

4.2.5.2.5 – Post Construction Inspections

Through a long-term stormwater maintenance plan and agreement, inspections of post construction storm water controls are performed by the owner/operator every other year at a minimum. Records are sent to the City as outlined in each agreement. If it is suspected that adequate maintenance is not being performed, Cottonwood Heights increases the inspection frequency on a case by case basis as needed. The Evaluation from for Post Construction Controls is utilized for the City's inspections found in Appendix E.

4.2.5.3 – Plan Review

Prior to developing or redeveloping a site, the Cottonwood Heights Community & Economic Development Department or the Staff Engineer provides a Stormwater Guidance Document to the developer and/or the owner containing standards and requirements which must be met prior to construction.

The City Engineer or his/her designee reviews the submitted site plans and applications prior to issuance of a permit. This review includes verifying that required stormwater controls or management practices are included in the design. A copy of the Guidance Document for Stormwater Management is included in Appendix E.

4.2.5.3.1 – Consideration of Water Quality Impacts

Cottonwood Heights uses the Storm Water Quality Report Template found in Appendix E to document the review process for consideration of water quality impacts. The inspection and bond release process ensures that projects are built as designed through the construction process.

4.2.5.3.2 – LID Implementation

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

4.2.5.4 – Inventory

Cottonwood Heights maintains an inventory of sites with a spreadsheet that have a long term stormwater management agreement. This applies to sites that are 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 stormwater systems on public and private properties are inventoried in the City's GIS Storm Drain Inventory Map found in Appendix A

4.2.5.4.1 – Inventory Information

Cottonwood Heights' inventory includes information on each project which includes the name, project address, owners name with contact information and the start date.

The long term maintenance plan and agreement details the description of storm water control measures, maintenance requirements, and inspection information.

The inventory is maintained on the City’s network drive.

4.2.5.4.2 – Inventory updates

Cottonwood Heights updates the inventory information where changes occur in property ownership or control measures based on the inspections conducted per part 4.2.5.2.5.

4.2.5.5 – Training

Cottonwood Heights provides training for its staff who are involved with post-construction storm water management through the annual APWA Conference and Storm Water Expo, USWAC and other training opportunities. New hires or employees who become involved with post-construction storm water management will be trained internally within 60 days of hire and annually thereafter.

Long-term Stormwater Management Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
LTM-1	Parking Lot Devices	100% of projects have oil/water separator installed in parking lots	New developments, and parking lot expansions or redevelopments are required to install an oil/water separator type device in all parking lot areas for projects one acre or greater in size, or part of a larger common plan of development.	4.2.5.1	Ongoing
LTM-2	Long-Term Program	Develop and implement long-term program	As part of the new permit requirements, Cottonwood heights City will develop and implement a new Long-Term Stormwater Management Program to meet the requirements of this minimum control measure. Part of the new program will include modifications to the Cottonwood Heights Municipal Code	4.2.5.1	Ongoing
LTM-3	SWPPP Review	Review 100% of SWPPP submittals for all developments	Review 100% of SWPPP submittals for all projects greater than or equal to one acre or part of a larger common plan of development	4.2.5.4	Ongoing

LTM-4	BMP Inspection during Construction	Inspect 100% of long-term structural control BMPs	During installation, complete an inspection of all permanent structural control BMPs to ensure they are installed properly.	4.2.5.5	Ongoing
LTM-5	RSI Certification	Maintain RSI certification for Cottonwood Heights City Stormwater Personnel	Provide training opportunities to maintain the RSI/CISEC certification for all Cottonwood Heights City Stormwater Personnel.	4.2.5.6	Ongoing

4.2.6 – Pollution Prevention and Good Housekeeping for Municipal Operations

The following section describes various components of the O&M Program for all City-owned or operated facilities. Responsibilities are described within this section for activities of the municipal operations of Cottonwood Heights.

4.2.6.1 – City Owned or Operated Facilities and Storm Water Controls

See Appendix F for a list of all City-owned or operated facilities and parks. The Public Works Site is the only facility that has been identified as a “High Priority” facility.

4.2.6.2 – Inventory Assessment

In the late summer of 2016, Cottonwood Heights City began performing it’s own operations. The City owned parks and open spaces are maintained by Cottonwood Heights Parks and Recreation Service Area. The position of a Stormwater Manager was filled in the winter of 2016. The City-owned facilities and parks were assessed in the summer of 2017 and a summary can be found in Appendix F.

Below is a list of each site and assessment:

Municipal Center:

The initial assessment was done on December 7, 2016 taking into consideration the storm drainage conveyance system (impervious surface and storm drain pipes), de-icing procedures, landscaping operations, and trash/garbage containment.

Landscaping is done in house by the Public Works Staff. These activities include:

- Mowing grass
- Fertilizing grass
- Weeding

There is trash dumpster located in the center of the parking lot that has its own containment area.

The only other known potential pollutants are fluids from vehicles that could leak on to the impervious asphalt parking lot and flow to the on-site storm drain system. There is an oil water separator located at the north detention basin.

Public Works Site:

The latest assessment was done in December of 2017 taking in to consideration the current site conditions:

The salt storage building (completed spring of 2017), shop (completed spring of 2017), street sweepings containment (completed spring of 2017) and truck wash rack (completed fall of 2017)

Storm drains have been installed on the Access road to the site and around the west and south side of the salt storage building.

The north-east section of impervious surface drains to the access road. The south-east section drains to an inlet on the south side of the salt storage/shop building

Cottonwood Heights City has approved Ice Slicer, Ice Kicker, and Morton salt for winter plowing/de-icing operations.

The shop is operated as a dry shop. Spills are cleaned with absorbents and dry spills are swept up.

The street sweepings containment is a retention pond that is periodically pumped to the sanitary sewer on an as needed basis.

Trucks are washed/cleaned of salt at the truck wash rack. The area has been designed to have surface flows that drain to the sanitary sewer system to not impact storm water quality. Winter 2016-2017, trucks were washed in the neighboring UDOT truck washout area that also drained to the sanitary sewer.

The following is a list of known potential pollutants used/contained at this site:

- Diesel Exhaust Fluid (DEF)
- Mineral Spirits
- Antifreeze
- Transmission Fluid
- Gadus (Grease)
- Winter windshield washer Fluid
- Diesel Engine Oil
- MACK Hydraulic Oil
- MACK Motor Oil
- Gasoline
- Chain Saw Lubricant
- 2 cycle engine oil
- Trash/garbage

Other potential pollutants at the site are typical equipment fluids found in the Public Works fleet (e.g. acid in batteries, diesel fuel, hydraulic fluid, def).

Organic matter can be found in the form of tree trimmings and street sweepings in the containment area set for the purpose of storing these materials. This area has been constructed as a retention area. In the event that water gets within 1' of overflow conditions, the water is pumped to the sanitary sewer.

Mountview Park, Berry Hill Park & Golden Hills Park:

Operations at this site have been contracted out to Cottonwood Heights Parks and Recreation (This is a separate entity from Cottonwood Heights City). A dual bioretention pond has been installed by the city that utilizes drainage and sediment to filter pollutants from roadway and parking lot runoff.

4.2.6.3 – “High Priority” Sites

The Public Works Site has been identified as a high priority site based on the proximity to Big Cottonwood Creek, the amount of pervious/impervious surface at the site and urban pollutants stored at the site. Control Measures and BMPs are monitored through monthly inspections as outlined in section 4.2.6.5.1

4.2.6.4 – SWPPP for “High Priority” Facilities

The Public Works site has been identified as a “High Priority” Facility. Any additional facilities that the City takes ownership of in the future will be assessed and determined if they will be identified as “High Priority.” In the event that a Facility is identified as “High Priority”, a site specific SWPPP will be developed and tailored for that facility in accordance with this section of the Jordan Valley Municipalities Permit.

A SWPPP has been developed for the Cottonwood Heights Public Works Facility and is updated as needed. The SWPPP identifies potential sources of pollution that are detrimental to water quality and refers to the SOPs outlined in this document to prevent the discharge of those pollutants to ensure compliance with the terms and conditions of the Jordan Valley Municipalities Permit.

The SWPPP is tailored to the Public Works Facility for the operations that are carried out there. The SWPPP includes the responsible parties for developing and implementing the plan, inventory of exposed materials and potential pollutant sources as well as spill prevention and response procedures.

Included with the SWPPP are site maps with the following information:

- Fixed fueling operations;
- Vehicle and equipment maintenance and cleaning areas;
- Loading/unloading areas;
- Materials or waste storage/disposal areas;
- Liquid storage tanks;
- Equipment Operating areas;
- Location of the visual storm water monitoring point;
- Locations of each storm water inlet and outfalls with unique identification for each outfall and approximated outline of the drainage basins to each outfall;
- Locations of non-stormwater discharges;
- Locations of sources of run-on to the site from adjacent properties.

A copy of the SWPPP can be found in Appendix F.

4.2.6.5 – “High Priority” Facility Inspections

The “high priority” Public Works Site identified in Part 4.2.6.3 the this SWMP was identified because of the higher potential risk of pollutants contaminating the storm drain system due to the nature of the work performed and the materials stored at the site. Monthly visual inspections are completed to verify that no pollutants are visibly entering the storm drain system. Semi-annual comprehensive and annual visual inspections are also completed to ensure that proper SOPs are followed and that no pollutants are contaminating storm water quality. Inspection forms document the condition of the facility and corrective actions that are required for compliance if necessary.

4.2.6.5.1 – *Monthly Visual Inspections*

Monthly visual inspections are performed at the Public Works Site. Monthly inspections are completed by the Stormwater Manager or the Public Works Superintendent’s designee in the event of his absence. A copy of the corrective action log used for the inspections is included in Appendix F. Deficiencies and corrective actions are documented with the Corrective Action Log and turned in to the Public Works Superintendent. A copy of the logs is kept in the office of the Stormwater Manager. A copy of the Corrective Action Log can be found in Appendix F.

4.2.6.5.2 – *Semi-Annual Comprehensive Inspections*

Semi-Annual comprehensive inspections are performed at the Public Works Site. The Stormwater Manager conducts these inspections. Procedures include paying attention to pollutant generating areas and storm water controls found on site. The inspection report is reviewed with the Public Works Superintendent. Deficiencies and corrective actions being completed will be confirmed for all corrective actions required. A copy of the SOP for Semi-Annual Comprehensive Inspections is included in Appendix G. The inspection form can be found in Appendix F.

4.2.6.5.3 – *Annual Visual Observations of Storm Water Discharges*

In conjunction with the Semi-Annual Comprehensive Inspection completed by the Stormwater Manager, and where feasible, storm water discharges will be observed. This is attempted in the April inspection. Where weather conditions prevent the observations during frozen and dry conditions, attempts will be made to complete at least 1 observation annually during the wet seasons.

Observations of stormwater discharges will be noted on the quarterly comprehensive inspection form, including deficiencies and recommended corrective actions. A copy of the SOP for Quarterly Comprehensive Inspections, including visual observations is included in Appendix G. The inspection form can be found in Appendix F.

4.2.6.6 – Facility-Specific SOPs

Cottonwood Heights City currently owns and maintains the Cottonwood Heights Municipal Center and the Cottonwood Heights Public Works Site. The maintenance of Mountview Park, Berry Hill Park, and Golden Hills Park has been contracted out to Cottonwood Heights Parks and Recreation. Annual training is done with the grounds maintenance crews provided by the City’s Stormwater Manager. Cottonwood Heights City owns 13 open spaces that are maintained by Cottonwood Heights Parks and Recreation. Sites that have a potential to substantially impact storm water quality follow operations and SOPs which prevent negative impacts to the storm water system.

The Public Works Site that has been identified in part 4.2.6.3 of this SWMP as “high priority” has established facility-specific SOPs contained within this document. New and redeveloped facilities will consider LID techniques to improve storm water quality. SOPs can be found in Appendix G.

4.2.6.6.1 – SOPs Addressing Water Quality

SOPs found in Appendix G can be found for:

- 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, trash containers;
- Sweeping roads and parking lots;
- Proper application , storage, and disposal of fertilizer, pesticides and herbicides;
- Lawn maintenance and landscaping activities including proper disposal of clippings and vegetation;
- Proper disposal of pet waste;
- Vehicle maintenance and repair activities including the use of drip pans and absorbents from leaking vehicles;
- Vehicle equipment storage;
- Vehicle fueling;
- Road and parking lot maintenance;
- Plowing/de-icing;
- Right-of-way maintenance;
- Butlerville Days; and
- Inspection, cleaning, and repair of storm water conveyance and structural storm water controls.

4.2.6.6.2 – Maintenance SOPs

Parking lot sweeping occurs for the Municipal Center and Public Works Site facilities at a minimum of once per year and on an as needed basis. The sweeping of City owned Roadways can be found in Appendix G.

Sweeping activities are documented with the use of GPS tracking and records are kept by the Public Works Stormwater Manager. Weekly logs are kept by the Stormwater Manager at the Public Works Site. Digital GPS records have begun to be kept in the winter of 2017. GPS software tracks the street sweeper at approximately 2 minute intervals.

Storm Drains system maintenance is done on an as needed basis. Catch basins are inspected by the Public Works crews when storm drain grates are cleaned throughout the city. This is typically done prior to rain storms to prevent localized flooding. The City does not currently have a method to clean the storm drain pipes currently. In the event that a pipe needs to be cleaned, Cottonwood Heights City hires another party to have the storm drain pipes cleaned. The City may allow the third party to dump the contents of the vacuum truck at the public works site in the street sweepings retention area.

4.2.6.6.3 – Disposal Methods of Waste and Wastewater

All waste collected by the street sweeper is contained in a retention area at the Public Works Site. The material is loaded on to trucks and disposed of at a local landfill. Records of dump tickets are kept in the office of the Stormwater Manager. Wastewater is evaporated from the retention area as much as possible. In the event that the water level is within 1 foot of discharging from the retention area, the wastewater is pumped to a sanitary sewer manhole adjacent to the retention area.

4.2.6.6.4 – Discharge of Wash Waters

All city-owned vehicles and equipment are maintained by 3rd parties. Any maintenance is done either in the shop at the Public Works Site (covered and protected from rain) or is taken to the 3rd party's location for repair or maintenance. The shop at the public works site does not have any floor drains and is operated as a dry shop.

Chemicals and pollutants are stored properly indoors and do not pose a threat to the storm drain system. If there are any vehicles which leak, they are either parked inside the maintenance building, or outside in the parking lot with containment measures in place to collect and/or absorb the leaking material under the vehicle is fixed and no longer leaks. The Public Works Shop and Site Maintenance Procedures are followed to prevent pollutants from entering the storm drain system and are found in Appendix G.

Multiple departments or divisions have different vehicle washing standards. When reference is made to the Vehicle Wash Bay at the Public Works Site, it refers to the outdoor wash facility that is designed to drain all of the wash waters to the sanitary sewer. All city staff may wash city owned vehicles and equipment at any of the following locations:

- Public Works Site in the Vehicle Wash Bay
- At a Commercial Car Wash

The Public Works Site has a vehicle wash bay that drains to the sanitary sewer system.

The only fueling area (owned by the State of Utah) located in Cottonwood Heights is located in the Access Road for Cottonwood Heights Public Works Site & UDOT's Maintenance Yard. A spill kit containing absorbents is located here provided and maintained by UDOT. Vehicles may also be fueled at commercial gas stations.

Removal of excess snow from roadways is not anticipated, if it were required to be done, the Excess Snow Disposal SOP can be found in Appendix G.

4.2.6.6.5 – Spill Prevention Plan

The spill prevention plan can be found in Appendix G. When necessary Cottonwood Heights Coordinates with the local Fire Department for Spills and Hazmat.

4.2.6.6.6 – Floor Drain Inventory

The Public Works site does not have any floor drains. The Cottonwood Heights Municipal Center floor drains are connected to the sanitary sewer and were inspected by Cottonwood Improvement District during their installation.

4.2.6.7 – Third Party Standards/Expectations

Cottonwood Heights coordinates with Cottonwood Heights Parks and Recreation service area for the areas mentioned in section 4.2.6.4.3 to maintain these areas. SOPs can be found in Appendix G for the activities and the services are outlined in the interlocal agreement found in Appendix F which are the same as used for Cottonwood Heights. The standards of the activities are held to the same expectations as Cottonwood Heights City. Periodic site visits are conducted to ensure that operations are conducted according the SOPs.

4.2.6.8 – Water Quality Impacts of New Structural Controls

The Stormwater Manager and City Engineer or his/her designee will assess the existing flood management structural controls during the permit coverage to determine if changes or additions can be made to improve water quality. Findings and recommendations will be reported on the Structural Assessment Form found in Appendix F.

As additional retrofit opportunities present themselves Cottonwood Heights will continue to assess additional structural controls to determine whether changes or additions can be made to improve water quality.

4.2.6.9 – Retrofitting Existing Developed sites

Cottonwood Heights had it's City Hall completed in 2016 and the Public Works salt shed completed in 2017. The public works site is the top ranking site for retrofitting due to the proximity to Big Cottonwood Creek. The public works site is in the planning phase and will incorporate LID and/or green infrastructure as required by the permit when it is built.

Mountview park was retrofitted previously

As funding becomes available, Cottonwood Heights will retrofit existing City owned facilities to incorporate controls that infiltrate, evapotranspire or harvest and use storm water discharges.

Cottonwood Heights will continue to assess future sites such as the Public Works facility to incorporate LID into the design of the site.

4.2.6.10 – Employee Training

Public Works Department personnel are trained annually their impact on storm water quality as it relates to their responsibilities. New hires are trained within 60 days and annually with the rest of the public works staff. Cottonwood Heights Recreation Service Area employees that are involved in maintenance activities for city parks which may have an impact on storm water quality are trained annually. This training may include a variety of storm water quality topics, SOPs, proper policies or any other topics which may relate to their job responsibilities and stormwater quality protection. Please refer to Part 4.2.1.5 for additional details about employee training. All training is provided and documented, records are stored in the office of the Stormwater Manager.

Pollution Prevention and Good Housekeeping Program Measurable Goals					
	Activity/BMP	Measurable Goal	Description	Permit Section	Execution Date
PPGH-1	Floor Drains	Identify 100% of Floor Drains	Floor drains located in city-owned facilities will	4.2.6.4.1	Ongoing

			be identified, inventoried and will confirm that floor drains connect to the Sanitary Sewer.		
PPGH-2	Storm Drain Mapping	Map 100% of storm drains on City-owned facilities	All storm drains located on the city-owned facilities have been mapped and included in the GIS system.	4.2.6.4.1	Ongoing
PPGH-3	Street Sweeping	Sweep 100% of streets at least once annually.	All possible City-owned and maintained roadways allowing street sweeper access will be swept at least once annually.	4.2.6.4.5	Annually
PPGH-4	Catch Basin Cleaning	100% of inspected catch basins cleaned annually	All catch basins that are inspected when the grate is cleaned to be cleaned out if 50% of pipe has accumulated debris.	4.2.6.4.6	Annually
PPGH-5	Monthly Visual Inspections	Complete 100% of weekly visual inspections	100% of weekly visual inspections for “high priority” Public Works Site to be completed.	4.2.6.6.1	Monthly
PPGH-6	Semi-Annual Comprehensive Inspections	Complete 100% of Quarterly Comprehensive Inspections	100% of quarterly comprehensive inspections of the “high priority” Public Works Site.	4.2.6.6.2	Quarterly
PPGH-7	Annual Stormwater Discharge Observations	Document 100% of Annual Storm Water Discharge Observations	Quarterly stormwater discharges observed at the “high priority” Public Works Site will be documented and implement any corrective actions recommended.	4.2.6.6.3	Quarterly
PPGH-8	Existing Structural Control Assessment	Assess 100% of city-owned structural controls	All existing flood management structural controls owned by Cottonwood Heights will be assessed. Any recommended changes or additions will be documented. Implementation will be completed as funding availability.	4.2.6.8	Ongoing

PPGH-9	Project Evaluation Checklist	Develop and implement a project evaluation checklist	Develop and implement a project evaluation checklist that will be used on all public construction projects. The checklist will include consideration of LID techniques and any impacts to storm water quality.	4.2.6.8	Ongoing
PPGH-10	Employee Training	Train 100% of employees	Provide training for all employees whose job responsibilities involve storm water quality impacts within 60 days of hire and annually thereafter.	4.2.6.9	Annually

4.4 – Sharing Responsibility

4.4.1 – Reliance on Other Entities

Cottonwood Heights shares the responsibility of Minimum Control Measures 1 & 2 with Salt Lake County outlined in an interlocal agreement found in Appendix B.

4.5 – Reviewing and Updating Storm Water Management Programs

4.5.1 – Annual Review

Cottonwood Heights’ SWMP is reviewed on an annual basis after the end of the fiscal year between July and December by the Stormwater Manager. Any suggested modifications are discussed with the Public Works Director prior to approval.

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

4.5.2 – Program Updates

Storm Water Management Program updates will be made as needed in accordance with updated requirements.

4.5.2.1 – Additions to Programs

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

4.5.2.2 – Replacing Program Details

When ineffective or unfeasible BMPs are replaced by alternative BMPs, a description of our evaluation will be documented and submitted to the Director of the DWQ for approval.

4.5.2.3 – Replacing Ineffective or Unfeasible BMPs

Cottonwood Heights may replace an ineffective or unfeasible BMP during the permit period. If this is done, it will be clearly outlined and submitted to the Director of the DWQ for approval.

4.5.2.3.1 – 4.5.2.3.3 – BMP Reporting

An evaluation of replacing a BMP will include:

- An explanation of why the BMP is ineffective or unfeasible.
- Expected effectiveness of replacement BMP.
- Why the replacement BMP will achieve the goal of the ineffective BMP.

4.5.3 – Documentation of Changes

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

4.5.4 – Approval of Change Requests

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

4.5.5 – Stormwater Management Program Updates Required by the DWQ

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

- Addressing impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
- Include more stringent requirements necessary to comply with new Federal regulatory requirements; or
- Include such other conditions deemed necessary by the Director of the DWQ to comply with the goal and requirements of the Clean Water Act.

5.3 – Analytical Monitoring

Cottonwood Heights is a Phase II co-Permittee and is not required to perform analytical monitoring.

5.4 – Non-analytical Monitoring

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

5.5 – Record Keeping

5.5.1 – Maintain SWMP

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

5.5.2 – Supplementary Document Updates

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

5.5.3 – Division Modifications

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

5.5.4 – Document Retention

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

5.5.5 – Public Availability

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

5.6 – Reporting

5.6.1 – Annual Report

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

5.6.2 – Submission of the Annual Report

Cottonwood Heights will submit annual reports to the DWQ using the report form provided on the DWQ's website at: https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/docs/2009/07Jul/MS4_UT_09_annual_report_form.pdf.

5.6.3 – Report Certification

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

5.6.4 – Report Submission

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

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

5.7 – Legal Authority

Through the Cottonwood Heights City Municipal Code, Cottonwood Heights has ensured appropriate legal authority to:

- Control the contribution of pollutants to the MS4.
- Prohibit illicit and non-stormwater discharges.
- Control the discharge of spills, dumping or disposal of non-stormwater materials.
- Control through interagency contributions in Cottonwood Heights City jurisdiction.
- Require compliance to meet measures.
- Conduct inspection, surveillance, and monitoring activities to ensure compliance

6.0– Standard Permit Conditions

Cottonwood Heights City will comply with the standard permit conditions outlined in part 6.0

6.8 – Signatory Requirements

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

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

6.9 – Availability of Reports

This management plan, reports and appendices will be available on the City's website as well as the office of the Stormwater Manager for the life of the plan.