

CLEARFIELD CITY STORM WATER MANAGEMENT PLAN 2026

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Clearfield City Public Works

CLEARFIELD CITY ENGINEERING DEPARTMENT

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CHAPTER 1: INTRODUCTION

LEGAL FOUNDATION

The Clean Water Act, originally enacted in 1972, embodies the legal requirement for protecting beneficial uses in waters of the state. The US Environmental Protection Agency (USEPA) was created as the federal government agency tasked to carry out the mandate of protecting the nation's natural environment. The USEPA initially focused its efforts on point source discharges of pollutants, primarily wastewater from industrial and municipal treatment facilities.

More recently, diffuse sources of pollutants (often referred to as "nonpoint sources" to distinguish them from point source) have been recognized in many areas as major sources. Although urban runoff is diffuse in nature, it is directed through outfall points and therefore is classified as a point source. As a result, USEPA has recently begun to regulate urban stormwater discharges as point sources by requiring these municipalities to obtain National Pollutant Discharge Elimination System (NPDES) permits.

The storm water from Clearfield City is eventually received into the Great Salt Lake, a Water of the United States. Furthermore, Clearfield City has been designated as a Small Municipal Separate Storm Sewer System (MS4) as defined in 40 CFR 122. Small MS4s are subject to the permitting process of the Clean Water Act's National Pollutant Discharge Elimination System (NPDES).

The State of Utah Department of Environmental Quality is responsible to oversee the EPA NPDES Phase I and Phase II storm water regulations and issue Utah Pollutant Discharge Elimination System (UPDES) permits in the State of Utah. The Utah Administrative Code Title R317 – Environmental Quality, Water Quality sets forth the requirements and procedures needed for compliance with state law. Utah Code Title R317-8-3.9 specifically lists the requirements for municipalities to obtain a UPDES permit from the State of Utah. The program's main objective is to minimize pollution of waterways in urban areas.

The Phase II permit required the community to prepare a SWMP which summarized the Best Management Practices (BMPs) to be implemented in the six minimum control measures to fulfill the goal of reducing or eliminating pollution from storm water.

The UPDES permit is issued in compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended. This SWMP is intended to meet the requirements of the current MS4 permit for Clearfield City.

STORM WATER MANAGEMENT PROGRAM

The purpose of the Storm Water Management Plan (SWMP) is to revise, implement, and enforce a plan designed to reduce the discharge of pollutants from the Municipal Separate Storm Sewer (MS4), protect water quality, and satisfy the appropriate water quality requirements of the Utah Water Quality Act. The development and implementation of the SWMP is to fulfill requirements under the State of Utah Small MS4 General UPDES Permit No. UTR090000 (hereafter referred to as the General Permit) in accordance with Section 402(p)(3)(B) of the Federal Clean Water Act, and the State of Utah Storm Water Regulations (UAC R317-8-3.9)

A Storm Water Management Program should:

- Reduce the discharge of pollutants to the "maximum extent practicable" (MEP).
- Protect water quality.
- Satisfy the appropriate water quality requirements of the Clean Water Act; and
- Be phased in over a five-year period.

Storm water management programs must include:

- Best Management Practices (BMPs) for each of the six minimum control measures.
    - Public Education and Outreach
    - Public Participation/Involvement
    - Illicit Discharge Detection and Elimination
    - Construction Site Runoff Control
    - Post-Construction Runoff Control
    - Pollution Prevention/Good Housekeeping
- Measurable goals for each minimum control measure (i.e., narrative, or numeric standards used to gauge program effectiveness).
- Estimated months and years in which actions to implement each measure will be undertaken, including interim milestones and frequency; and
- The person or persons responsible for implementing or coordinating the storm water program.

CLEARFIELD CITY CHARACTERISTICS

GENERAL INFORMATION – The Clearfield City Storm Drain System falls under the Public Works Department for the City. The Public Works Director can be contacted at the following address and phone number:

Public Works Maintenance and Operations Center
497 South Main Street
Clearfield, Utah 84015
(801) 525 – 4430

Some general information for Clearfield City follows:

Population:	32,118 (Census.gov)
Size:	7.5 sq. miles
Geographic Description:	Elevation 4,500'

Receiving Waters:	Most of Clearfield drains into pipes and ditches, which empty into the Great Salt Lake.
Annual Precipitation:	16.22" (weather-and-climate.com)
Type of Community:	A small city that is nearing build-out
Latitude:	41"06' degrees N
Longitude:	112"01' degrees W

SWMP COORDINATION

Agency: Clearfield City Public Works, Engineering Department

Contacts: Austin White, MS4 Manager – (801)525-4423

Braden Felix, City Engineer/ Deputy Director - (801)525-4401

Plan Management: Clearfield City is a local government governed by the Mayor and City Council. The Mayor and City Council are responsible for budgeting and policy decisions. The City Manager is responsible for the day-to-day operations of the City under the direction of the Mayor.

Current Legal Authority to Control Storm Water Discharge:

Ordinance: Storm sewer utility regulations, Title 8 Section 4
Storm Drainage Title 9 Section 5
Site Plan Review Standards Title 11 Chapter 5
Subdivision Development Title 12

Standards: Standard Specifications and Plans, Dated October 2014

The Clearfield storm water system consists of curb and gutter, inlet boxes, piping, and a few typical open channel sections, swales, and canals. There are a few detention basins that exist within the system. Most of the streets use curb and gutter to collect storm water runoff. The city is served by a sanitary sewer system that is treated at the North Davis Sewer District. All new developments are required to connect to the public sanitary sewer system.

HISTORY OF CLEARFIELD CITY

Clearfield, in northern Davis County, is bordered by Hill Air Force Base and the Wasatch Mountains on the east, and by Syracuse, West Point, and Great Salt Lake on the west. Clearfield was once known as "Sand ridge." There was little available water, and the land was thought to be unproductive. The name was later changed to Clearfield from the suggestion of a teacher, who got the idea as she looked out over the attractive open surroundings.

Clearfield was settled in 1877, starting with a dugout with a thatched roof of sagebrush covered with dirt. After the completion of the East Canyon Dam in 1884, water was supplied by the Davis and Weber counties canal. This brought more people to the area to live and to grow crops. Most settled in the area that is now Syracuse.

In 1869 the Utah Central Railroad came through Clearfield. In 1905 the Bamberger Electric, another railroad, took passengers between Ogden and Salt Lake City, stopping in Clearfield. By 1940 alfalfa fields and forage crops were abundant and Clearfield was a peaceful farming community. However, the addition of defense installations in the area changed the scene. The efforts of the Ogden Chamber of Commerce helped bring Hill Field to Utah. The construction of the Air Force base began in 1940 and the facility eventually stretched along the eastern border of Clearfield. The base has provided many jobs for civilians and is one of Utah's major employers. On the southwestern side of Clearfield, the U.S. Navy installed the Clearfield Naval Supply Depot. Clearfield was considered a prime location for the depot because of its relative security from enemy attack, nearby air transportation at Hill Air Force Base, and the proximity of railroads and highways. The dry climate was ideal for storage, and there was a good supply of manpower. The depot was phased out by 1962. The facility did not stay empty long; private firms soon began moving into the large warehouse buildings. The area became known as the Freeport Center and today is a major western hub for manufacturing, warehousing, and distribution.

Clearfield is an active community as part of the greater Wasatch Front community. Residents are still employed in farming, defense, and manufacturing, as well as in running local restaurants and businesses. The building of Interstate 15 has made it convenient for residents to commute to Ogden and Salt Lake City for work as well as cultural and higher education needs.

LOCAL WATER QUALITY CONCERNS

The water quality within the city of Clearfield is relatively good. None of the streams or waterways has been identified as protected under Section 303(d) of the Clean Water Act. The hope and intent of this Strom Water Management program (SWMP) is to maintain that status and possibly even improve the current water quality. The storm water in Clearfield City drains into a few locations, which finally empty into the Great Salt Lake. City outfalls consist of large pipelines discharging into west Layton, Syracuse, and the county-wide drainage that traverses through West Point. Agreements are in place with both Layton and Syracuse to accept a defined amount of Clearfield's storm water. Like most communities along the Wasatch Front, some of the biggest concerns involve sediment loads (coming primarily from disturbed sites), trash, oils and grease coming from the roadways and improper disposal and application of household chemicals and waste materials. One concern unique to Clearfield City is a possible chemical spill at the Freeport Center.

The downtown area in Clearfield has been well established for many years and contains several businesses and commercial sites. Clearfield's SWMP has been geared toward improving the city's current practices and better education of the public about the impact they can have on water quality within the community

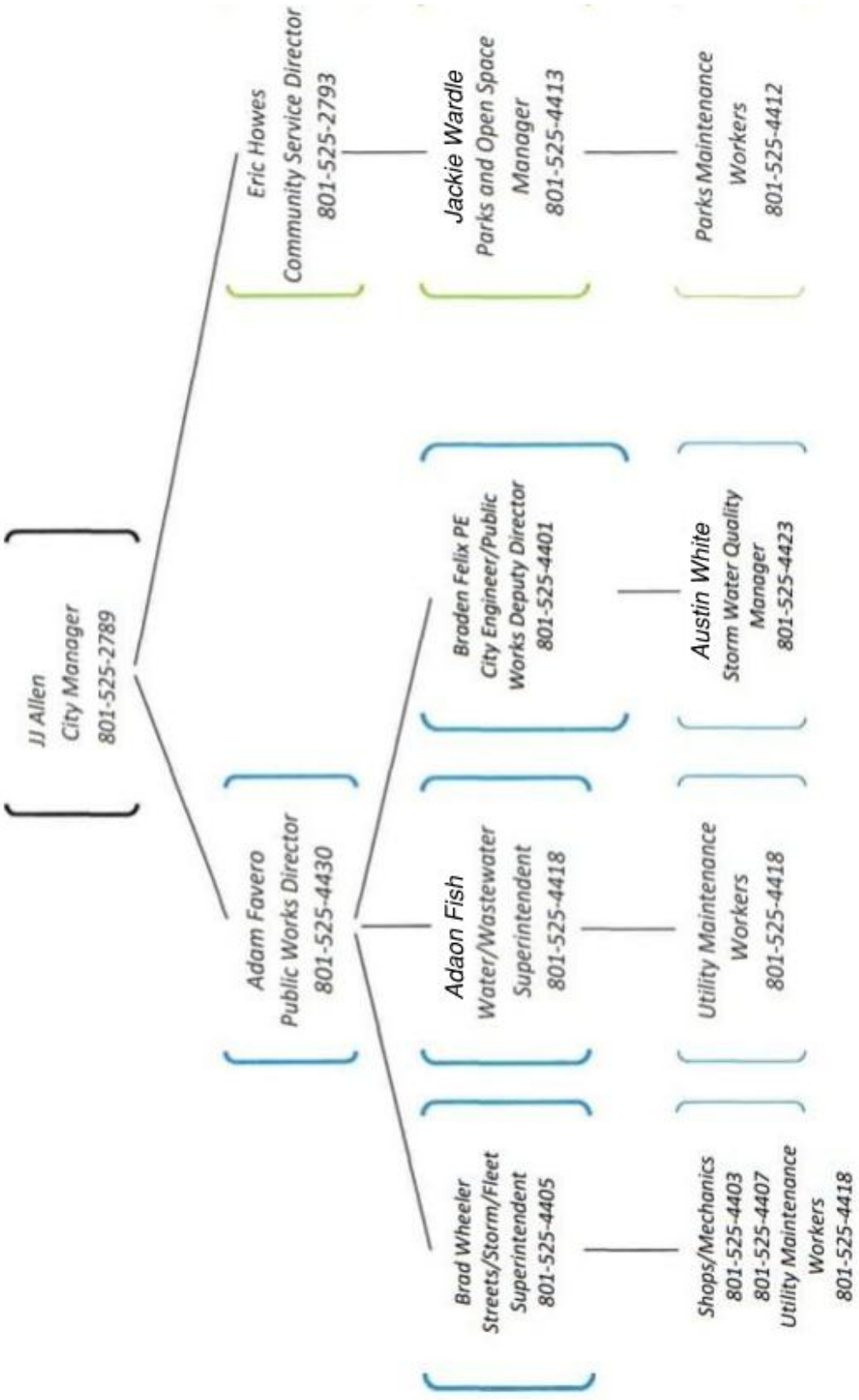
ONGOING DOCUMENTATION PROCESS

With this revised SWMP our program has been restructured. The SWMP itself has been reorganized to make it more of a working document with multiple appendices to help the city do a better job in record keeping and documenting our activities. Much of the documentation is or will be included in Appendix D. As part of this update, the city has reviewed existing BMPs and measurable goals and assessed them for their effectiveness and contribution in helping us achieve our desired results. The State's updated permit and this evaluation provided the foundation for this update. We have tried to build off the positive things that have been accomplished and renewed our commitment to improve in areas where

our program has been lacking. We feel the revised program is more focused on the current needs of the city.

Our plan is to document our activities and to keep better track of what is happening within our community. This updated SWMP includes many new forms and reports to help us in these documentation efforts. Report forms, logs, evaluation forms and backup information are spread throughout the applicable appendices.

Storm Water Management Plan Organizational Chart



CITY ORGANIZATION

City Manager

- Liaison between staff and City Council
- General coordination of the Storm Water Pollution Prevention Program

City Engineer/ Public Works Deputy Director

- Liaison between staff and City Council
- General coordination of the Storm Water Pollution Prevention Program
- Updating SWMP

Community Service Director

- Liaison with CIM Administration and City Council
- General coordination of the Storm Water Pollution Prevention Program

Storm Water Quality Manager

- Oversee Storm Water Program specifics and works with department heads
- Responsible for shared facilities and general work areas including:
- Storm drain system maintenance/cleaning
- General BMP maintenance
- Annual storm water report
- Updating SWMP/SWPPP
- Coordination with Public Works Director
- Tracking and documentation of activities and actions
- Storm Drain mapping
- Storm Water Inspector I Reviewer

Water Department Superintendent

- Water maintenance work area
- Training water personnel
- Chemical storage in work area
- Water equipment operation
- Annual water report

Streets Department Superintendent

- Street maintenance work area
- Street equipment operation
- Training streets dept. personnel
- Snow plowing program
- Street sweeping program
- Salt and materials storage stockpile areas
- Training fleet I City personnel

Parks and Open Space Manager

- Parks dept. maintenance work area
- Pesticide, Herbicide, and Fertilizer (PHF) program
- Training parks personnel
- Chemical and fertilizer storage in work area
- Parks department equipment operation

Fleet / Master Mechanics

- Equipment maintenance for Parks dept.
- Equipment maintenance for Streets dept.
- Equipment maintenance for Water dept.

- Equipment maintenance for Police/Fire
- Fleet dept. maintenance work area
- Chemicals, fluids, and oils in work area, waste oils/fluids
- Metal fabrication area

CHAPTER 2: MCM 1 PUBLIC EDUCATION AND OUTREACH STRATEGY



ABOUT

The Public Education and Outreach program addresses increasing public and professional awareness of water quality concerns and BMPs that may be implemented with respect to protection of the storm water within Clearfield City. These education and outreach training programs will introduce the UPDES program and focus on known contaminant sources and control of these sources.

An informed and knowledgeable community is crucial to the success of a storm water management program since it helps to ensure the following:

- **Greater support** for the program as the public gains a greater understanding of the reasons why it is necessary and important. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement the program.
- **Greater compliance** with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.

Three main actions areas are important for successful implementation of a public education and outreach program:

- **Forming Partnerships** - Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure's requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from non-governmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.
- **Using Educational Materials and Strategies** - Operators of regulated small MS4s may use storm water educational information provided by their State, EPA Region, or environmental, public interest, or trade organizations instead of developing their own materials. Operators should strive to make their materials and activities relevant to local situations and issues and incorporate a variety of strategies to ensure maximum coverage. Some examples include brochures or fact sheets, web sites, stickers, refrigerator magnets, posters, educational materials for community and school groups, educational programs for school-age children and storm drain stenciling.
- **Reaching Diverse Audiences** - The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities. Directing materials or outreach programs toward specific groups of commercial, industrial, and institutional entities likely to have significant storm water impacts is also recommended. For example, information could be provided to auto garages on the effects of dumping used oil into storm drains.

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should reflect the needs and characteristics of the operator and the area served by its small MS4. Furthermore, they should be chosen using an integrated approach that fully addresses the requirements and intent of the

minimum control measure. Finally, they should allow the MS4 to make improvements to its program over each 5-year permit term by providing data on program successes and shortfalls. For example, an MS4 could encourage “do-it yourselfers” to recycle used motor oil by establishing and advertising a municipal drop-off center. The MS4 could measure progress toward this goal by tracking the amount of motor oil collected and correlating those data to the timing of public education efforts and other advertisements to see if their message is being received.

GOALS

The following is a summary table listing each minimum performance measure, activities or products, measurable goals, how the documentation will be kept, target pollutant and audience, and responsible party as called for in the General Permit. The summary table is provided to meet the General Permit requirement 4.2.1.7.

PUBLIC EDUCATION AND OUTREACH			
TARGET AUDIENCE	1) Residents 2) Institutions, and Commercial and Industrial Facilities 3) Developers and Contractors 4) City Staff (MS4-Owned or Operated Facilities)		
TARGET POLLUTANTS	1) E Coli 2) Pet Waste 3) Sediment 4) Grass 5) Oil 6) Fertilizer	7) Trash 8) Construction Site Waste 9) Septic Waste 10) Hydrocarbons 11) Automotive Fluids 12) Chlorinated Swimming Pool Water	13) Wash Water 14) Household Hazardous Waste 15) Illicit Discharges and Spills 16) Landscaping Materials 17) Fuels 18) Non-Emergency Firefighting

Minimum Performance Measure 4.2.1.1 – Target specific pollutants and pollutant sources that impact or have the potential to impact the beneficial uses of receiving waters. Provide information which describes the potential impacts from storm water discharges. Provide methods for avoiding, minimizing, reducing, and/or eliminating the adverse impacts of storm water discharges. Provide actions individuals can take to improve water quality including participation in local environmental stewardship activities, based on land uses and target audiences found within the community.

Minimum Performance measure 4.2.1.2 – Provide and document information given to the public of the Permittee's prohibitions against, and the water quality impacts associated with illicit discharges and improper disposal of waste. Provide information to the public on maintenance of septic systems; effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site infiltration of storm water; effects of automotive work and car washing on water quality; proper disposal of swimming pool water; and proper management of pet waste.

Minimum Performance Measure 4.2.1.3 – Provide and document information given to businesses and institutions annually of the Permittee's prohibitions against and the water quality impacts associated with illicit discharges and improper disposal of waste. Provide information to businesses and institutions on effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site infiltration of storm water; building and equipment maintenance (proper management of waste water); use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to ground water) proper storage of materials (emphasize pollution prevention) proper management of waste materials and dumpsters (cover and pollution prevention) and proper management of parking lot surfaces (sweeping).			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Student Commercial Contest	**Permit Citation 4.2.1.1** To educate audiences about impacts from storm water discharge. Participate in coalition High School Student Commercial Contest	Continue to support Commercial Contest	**Description:** The Davis County Coalition facilitates public awareness of storm water management by publicizing BMP collectively. **Selection:** Clearfield City's participation strengthens the coalition resources. **Target Pollutants:** This BMP targets pollution common to households: Fertilizers, landscape and yard maintenance, debris garage and automotive chemicals. **Target Audience:** Residents and Businesses. **Effectiveness:** Information given in Student created videos educate raise awareness. **Documentation:** Copy of coalition annual budget and statement for city financial support. **Staff:** County Coalition, Clearfield City Public Works Storm Water Manager. **Funding:** Storm Water Enterprise Fund.
Davis County Storm Water Coalition Website	**4.2.1.1, 4.2.1.2, 4.2.1.3** **Provide resources and education for MS4's, businesses, residents, and contractors for storm water pollution prevention.**	Track website visits. Advertise through sharing website link with public, contractors, city staff, and others.	**Description:** Davis County Stormwater Coalition implemented a new Coalition website to publish and make publicly available educational resources for storm water pollution prevention. **Selection:** Clearfield City's participation strengthens the coalition resources, information on the website is available to all residents, businesses and contractors working in the city. **Target Pollutants:** Information on the website includes educational pamphlets that address septic systems, fueling stations, landscaping activities, mobile cleaners, pools and spas, and automotive industry. **Target Audience:** Residents, businesses, contractors, city staff **Effectiveness:** Information provided raises awareness of storm water pollution. It is designed to be a quick resource for education and provide awareness for illicit discharge detection and elimination. **Documentation:** Link to coalition website, coalition budget showing city's financial support. **Staff:** County coalition, Clearfield City Public Works Storm Water Manager. **Funding:** Storm Water Enterprise Fund.
4th Grade Students Classroom	**4.2.1.1** Educate 4th grade students in ways to avoid, minimize, and	Continue supporting coalition with training for 4th	**Description**: The Davis County Coalition annually contracts a teacher to present educational training on storm water to 4th grade students. The coalition also participates in a Water Fair annually where 4th grade students are given instructions on proper storm water management.

Training and Water Fair	reduce impacts of storm water pollutants and discharge.	grade students by paying into the Davis County Coalition.	**Selection**: Clearfield City's participation strengthens the coalition resources, some of the 4th grade students are city residents. **Target Pollutants**: Fertilizers, landscape and yard maintenance, debris, garage, and automotive chemicals. **Target Audience**: Residents and 4th grade students. **Effectiveness:** Obtain and review teacher evaluations, coalition counts number of attendees at Water Fair. **Documentation**: Copy of coalition annual budget and statement for city financial support. **Staff**: County Coalition, and Clearfield's Public Works personnel. **Funding**: Storm Water enterprise fund.
Public information: city website, and storm water handouts located at City Hall and City Library	**4.2.1.2 & 4.2.1.3** Inform target audience on prohibitions against illicit discharges and improper disposal of waste. Provide contact phone numbers on city website, for public information on effects of outdoor activities and impact to water quality.	Include SWM information on city website. Publish information on the website twice yearly. Provide Davis County Coalition educational pamphlets. Hand out to public and businesses.	**Description**: Include storm water management information on city website. Publish article in the city newsletter twice per year. Continue participation with Davis County Coalition for development of educational pamphlets for targeted audiences and pollutants. **Selection**: Effective use of this media can reach a large audience. **Target Pollutants**: Outdoor activities, such as lawn care; benefits of on-site infiltration of improper disposal of waste materials and dumpster maintenance; use of salt or another deicing mat. **Target Audience**: Residents, commercial facilities, institutions and MS4-owned or operated facilities. **Effectiveness**: Provide selected information for different target audiences. **Documentation**: Copy of trainings for public articles and pamphlets to be kept in file. Staff: Public Works Storm Water Manager and city IT staff. **Funding**: Storm Water enterprise fund.

Minimum Performance Measure 4.2.1.4 – Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMPs for reducing adverse impacts from storm water runoff from development sites.

Minimum Performance Measure 4.2.1.5 – Provide and document information and training given to employees of Permittee-owned or operated facilities concerning the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. The permittee must at a minimum consider the following topics: equipment inspection to ensure timely maintenance; proper storage of industrial materials (emphasize pollution prevention); proper management and disposal of wastes; proper management of dumpsters; minimization of use of salt and other de-icing materials (cover/prevent runoff to mS4 and ground water contamination); benefits of appropriate on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).

Minimum Performance Measure 4.2.1.6 – Provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable to learn about Low Impact Development (LID) practices, green infrastructure practices, and to communicate the specific requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Developer / Contractor information packet for construction sites. Train contractors on new requirements for LID program.	**4.2.1.4, 4.2.1.6** Assemble packet of information on city requirements for storm water management for developers and contractors.	Provide information to all potential developers and contractors in plan reviews, pre- construction meetings.	**Description**: Assemble packets of information on storm water management, SWPPP, BMP's, LID city requirements and regulations that developers and contractors must read and sign in agreement of compliance. **Selection**: Inform contractor and developers of new state and city requirements to ensure sufficient water quality **Target Pollutants**: Illicit discharge, waste materials, sediments. **Target Audience**: Developers and contractors, and city planning and development review staff. **Effectiveness**: Packet to be given to all developers and contractors and signed for every new development. **Documentation**: Signature page of packet from contractor to be filed in city files for project **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water enterprise fund.
Training for all City employees, on updated general permit rules and regulations.	**4.2.1.5** Information provided to target audience on city operations of storm water to improve water quality.	Training occurs twice per year, once every six months. Training for new City employees within a month of hire date.	**Description**: Information is provided to target audience on prohibitions against illicit discharges and improper disposal of waste including equipment inspection, benefits of appropriate on-site infiltration of storm water, minimization of use of deicing materials, proper storage of industrial materials, proper management of waste materials and dumpsters. **Selection**: Train City employees on storm water management and proper and improper operations and train all City employees on new updates in state permit with LID, GMP's, IDDE. **Target Pollutants**: Sediment, grass, oil, fertilizer, trash, construction waste, automotive fluids, wastewater, illicit discharges and spills and fuels. **Target Audience**: City employees: Public Works, Community Services, Police Dept., Community Development. **Effectiveness**: An effective program is dependent on an informed and participating staff. **Documentation**: Keep record of employees trained, training meeting dates, attendants, and information given. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund.
EM, prioritize targeted sources, distribute educational materials.	**4.2.1.5** Address the reduction of water quality impacts with nitrogen	Work with Davis County Coalition to determine and target sources,	**Description**: Nitrogen and phosphorus reduction. The permittees must specifically address the reduction of water quality impacts associated with nitrogen and phosphorus; this is completed by working with the Davis County Coalition to get results. **Selection**: Evaluate, identify, target, and provide outreach. **Target Pollutants**: Nitrogen and phosphorus.

	and phosphorus in discharges from MS4.	residential, industrial, or commercial that have potential to contribute nitrogen and phosphorus to the waters.	**Target Audience**: Residential, industrial, agricultural, and commercial. **Effectiveness**: The behaviors of concern, and actions that the target source can take to reduce nitrogen and phosphorus. **Documentation**: List of materials to be handed out. Work with coalition to document results. **Staff**: Public Works Director, Storm Water Manager. **Funding**: Storm Water enterprise fund, Davis County Coalition.
LID training on new state requirements	**4.2.1.6** Training on LID, green infrastructure, and post construction BMP's.	Train all MS4 employees, engineers, developers, planning staff and other parties as applicable to review and learn about the updated LID practices. See Appendix A LID Development Handbook for details.	**Description**: Conduct a meeting with city engineers, development, and planning staff to review the LID. Discuss what has been done in the past and define any upcoming measures. **Selection**: To inform city staff of LID requirements of the updated permit and discuss future development opportunities for LID use in the city. **Target Pollutants**: Sediment, trash, and landscaping materials. **Target Audience**: All MS4 employees, and MS4 consultant engineers. **Effectiveness**: Introduce new LID concept and implement the new LID requirements in the city. **Documentation**: Keep record of training meeting date, attendants and information discussed. Retain in file. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund.
Minimum Performance Measure 4.2.1.7 – The Permittee must identify methods used to evaluate the effectiveness of the educational messages and overall education program. Methods to evaluate effectiveness of the program must be tied to a defined goal of the program and overall objective of changes in behavior and knowledge **Minimum Performance Measure 4.2.1.8 –** The Permittee must include written documentation or rationale as to why particular BMPs (Activities/Products) were chosen for its public education and outreach program. Note: Each activity or product has associated Best Management Practices (BMPs) that can be referenced as needed and are listed in Appendix I.			
Determine effectiveness of coalition programs and "Council Night Out - Meet the Public."	**4.2.1.7** Evaluate the effectiveness of the public education and outreach programs.	Participate in the evaluation of the Coalitions, public and contractor	**Description**: Work with Davis County Coalition to determine methods for evaluation of effectiveness of classroom presentation. (4th grade classes, Davis County sponsored training.) Meet with the public four nights out of the year for "Council Night Out - Meet the Public." **Selection**: Determine effectiveness of training and improve information presented. **Target Pollutants**: All pollutants. **Target Audience**: Residents, commercial, industrial, construction, MS4 employees.

		training education program. Also meet with the public for the "Council Night Out - Meet the Public" program four nights a year.	**Effectiveness**: Documented rational included in the SWMP. **Documentation**: Minutes of coalition meetings retained in file. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund.
Document BMP choices for public education.	**4.2.1.8** Review BMPs for public education and document why the selected BMP's where chosen.	Include an explanation in the SWMP with an on-going documentation process.	**Description**: Document why certain BMP's were chosen for public education over others. **Selection**: Evaluate best BMP to use for the public education program. Target Pollutants: All pollutants. **Target Audience**: All audiences. **Effectiveness**: Documented rational selection of BMP's in SWMP. **Documentation**: Decision making process to be written and filed. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund and Davis County Coalition.

CHAPTER 3: MCM 2 PUBLIC INVOLVMENT / PARTICIPATION



ABOUT

The public can provide valuable input and assistance to a regulated small City's municipal storm water management program and should be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a storm water management program because it allows for:

- **Broader public support** since citizens who participate in the development and decision-making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation
- **Shorter implementation schedules** due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers
- **A broader base of expertise and economic benefits** since the community can be a valuable, and free, intellectual resource.

Operators of regulated small MS4s should include the public in developing, implementing, updating, and reviewing their storm water management programs. The public participation program should make every effort to reach out and engage all economic and ethnic groups. There are challenges associated with public involvement. Nevertheless, these challenges can be addressed through an aggressive and inclusive program. Challenges and example practices that can help ensure successful participation are discussed below.

The best way to handle common notification and recruitment challenges is to know the audience and think creatively about how to gain its attention and interest. Traditional methods of soliciting public input are not always successful in generating interest, and subsequent involvement, in all sectors of the community. For example, municipalities often rely solely on advertising in local newspapers to announce public meetings and other opportunities for public involvement. Since there may be large sectors of the population who do not read the local press, the audience reached may be limited. Therefore, alternative advertising methods should be used whenever possible, including announcements in neighborhood newsletters.

In addition, advertising and soliciting help should be targeted at specific population sectors. The goal is to involve a diverse cross-section of people who can offer a multitude of concerns, ideas, and connections during the program development process.

There are a variety of practices that could be incorporated into a public participation and involvement program, such as:

- Public meetings/citizen panels allow citizens to discuss various viewpoints and provide input concerning appropriate storm water management policies and BMPs.
- Storm drain stenciling is an important and simple activity that concerned citizens, especially students, can do.
- Community clean-ups along local waterways, beaches, and around storm drains.

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, greatly depend on

the needs and characteristics of the operator and the area served by the small MS4. Furthermore, they should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure.

For example, a City could identify a certain section of town has an incident of used motor oil dumping. The area also has numerous automotive businesses including small repair shops, large auto dealerships, gas stations, and body shops. The City could organize a public meeting to not only educate residents about storm water issues and permit requirements, but also to ask for input regarding possible dumping areas and to determine if the community needs an oil recycling facility or some other way to safely dispose of used motor oil. In this way, the City might better understand who the target audience is for illegal dumping control while implementing a valuable service for the community

GOALS

The following is a summary table listing each minimum performance measure, activities or products, measurable goals, how documentation will be kept, target pollutant and audience, and responsible party as called for in the General Permit.

<table>
<tr><th colspan="5">PUBLIC INVOLVMENT / PARTICIPATION</th></tr>
<tr><td>TARGET AUDIENCE</td><td></td><td></td><td colspan="2">1) Residents
2) Institutions, and Commercial and Industrial Facilities
3) Trade Associations</td><td>4) Environmental Groups
5) Homeowners Associations
6) Educational Organizations</td></tr>
<tr><td>TARGET POLLUTANTS</td><td></td><td></td><td>1) E Coli
2) Pet Waste
3) Sediment
4) Grass
5) Oil
6) Fertilizer</td><td>7) Trash
8) Construction Site Waste
9) Septic Waste
10) Hydrocarbons
11) Automotive Fluids
12) Chlorinated Swimming Pool Water</td><td>13) Wash Water
14) Household Hazardous Waste
15) Illicit Discharges and Spills
16) Landscaping Materials
17) Fuels
18) Non-Emergency Firefighting</td></tr>
<tr><td colspan="6">Minimum Performance Measure 4.2.2.1 – Permittees shall adopt a program or policy directive to create opportunities for the public to provide input during the decision-making processes involving the development, implementation, and update of the SWMP document including development and adoption of all required ordinances or regulatory mechanisms.

Minimum Performance measure 4.2.2.2 – Renewal Permittees shall make the revised SWMP document available to the public for review and input within 120 days from the effective date of this Permit

Minimum Performance Measure 4.2.2.3 – A current version of the SWMP document shall remain available for public review and input for the life of the Permit. If the Permittee maintains a website, the latest version of the SWMP document shall be posted on the website to allow the public to review and provide input

Minimum Performance Measure 4.2.2.4 – The Permittee must at a minimum comply with State and Local public notice requirements when implementing a public involvement/participation program.</td></tr>
</table>

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Program for public input	**4.2.2.1** Have a program or policy in place that allows for the public to provide input.	City council to hold a public hearing for SWMP updates. Provide 14-day period for public comment and review.	**Description**: Develop and implement policy for public to review and give input on SWMP. City council to hold a public hearing and provide 14-day advanced notification to public before action to be taken by the city council. **Selection**: Provide the public with the opportunity to review SWMP. Have contact information in SWMP for public input. **Target Pollutants**: All pollutants. **Target Audience**: General public, institutions, industrial and commercial facilities. **Effectiveness**: Public involvement in city storm water management program. **Documentation**: City council meeting minutes, copy retained in Storm Water Manager's files. **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water enterprise fund.
Provide draft copy of SWMP for public review	**4.2.2.2** Have SWMP document available for public review and input within 120 days from the effective date of the updated permit.	Have copy of SWMP available at City Recorder's office 14 days before city council public hearing.	**Description**: Provide a hard copy of the draft SWMP for public review at the office of the City Recorder 14 days before the city council public hearing. Have contact information in SWMP for public input. **Selection**: Provide SWMP on city website. Keep current information available to the public as updates to the SWMP are made. Have contact information in SWMP for public input. **Target Pollutants**: All pollutants. **Target Audience**: General public, institutions, industrial and commercial facilities. **Effectiveness**: SWMP available for public review at least 14 days before public hearing. **Documentation**: Memorandum to the file with statement of SWMP delivered to the City Recorder. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund.
Post SWMP on city website within 120 days from the effective date of updated permit.	**4.2.2.3** Have SWMP document available to the public on city's website, 120 days from effective date of the updated general permit.	SWMP posted on city website and updated as needed and will remain on the website for the entire term for public to review and provide input for the life	**Description**: Post SWMP on city website. Keep current information available to the public as updates to the SWMP are made, have contact information in SWMP for public input. **Selection**: Provide access to SWMP by the public. **Target Pollutants**: All pollutants. **Target Audience**: General public, institutions, industrial and commercial facilities. **Effectiveness**: SWMP available to the public. **Documentation**: Print copy of website page reference of SWMP and file with storm water records annually. **Staff**: Public Works Storm Water Manager. **Funding**: Storm Water enterprise fund.

		of the state permit 4.4	

CHAPTER 4: MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION



ABOUT

Federal regulations define an illicit discharge as "any discharge to an MS4 that is not composed entirely of storm water" with some exceptions. According to the General Permit these exceptions include the following:

- WATER LINE FLUSHING
- LANDSCAPE IRRIGARTION
- DIVERTED STREAM FLOWS
- RISING GROUND WATERS
- UNCONTAMINATED GROUND WATER INFILTRATION
- FOUNTAIN DRAINS
- IRRIGATION WATER
- FLOWS FROM RIPARIAN HABITATS AND WETLANDS
- RESIDUAL STREET WASH WATER
- DISCHARGES/FLOWS FROM EMERGENCY FIREFIGHTINGACTIVITY
- SPRINGS
- WATER FROM CRAWL SPACE PUMPS
- FOOTING DRAINS
- LAWN WATERING RUNOFF
- UNCONTAMINATED PUMPED GROUND WATER
- AIR CONDITIONING CONDENSATE
- INDIVIDUAL RESIDENTIAL CAR WASHING
- DECHLORINATED SWIMMING POOL DISCHARGES
- DECHLORINATED WATER RESERVOIR DISCHARGES
- DISCHARGES FROM POTABLE WATER SOURCES

Other discharges that are not composed entirely of storm water are considered illicit discharges because MS4s are not designed to accept, process, or discharge such non-storm water wastes.

Discharges from MS4s can include wastes and wastewater from non-storm water sources. Illicit discharges enter the system through either direct connection (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

Recognizing the adverse effects illicit discharges can have on receiving waters, permitted MS4s are required to develop, implement, and enforce an illicit discharge detection and elimination program. This program must include the following:

- A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls
- Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State or local law) on non-storm water discharges into the MS4, and appropriate enforcement procedures and actions.

- A plan to detect and address non-storm water discharges, including illegal dumping, into the MS4
- The education of public employees, businesses, and the public about the hazards associated with illegal discharges and improper disposal of waste
- The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

The objective of the illicit discharge detection and elimination minimum control measure is to have regulated small MS4 operators gain a thorough awareness of their systems. This awareness allows them to determine the types and sources of illicit discharges entering their system; and establish the legal, technical, and educational means needed to eliminate these discharges. Permittees could meet these objectives in a variety of ways depending on their individual needs and abilities, but some general guidance for each requirement is provided below.

A storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the waterbodies these flows may be affecting. It is also recommended that all existing information on outfall locations be collected and shown on the map.

Some permittees may have limited authority under State or local law to establish and enforce an ordinance or other regulatory mechanism prohibiting illicit discharges. In such a case, the permittee is encouraged to obtain the necessary authority, if possible.

The plan to detect and address illicit discharges is the central component of this minimum control measure. The plan is dependent upon several factors, including the permittee's available resources, size of staff, and degree and character of its illicit discharges. As guidance only, the four steps of a recommended plan are outlined below:

1. **Locate Problem Areas** - It is recommended that priority areas be identified for detailed screening of the system based on the likelihood of illicit connections (e.g., areas with older sanitary sewer lines). Methods that can locate problem areas include visual screening; water sampling from manholes and outfalls during dry weather; the use of infrared and thermal photography, cross-training field staff to detect illicit discharges, and public complaints.
2. **Find the Source** - Once a problem area or discharge is found, additional efforts usually are necessary to determine the source of the problem. Methods that can find the source of the illicit discharge include tracing the discharge upstream in the storm sewer and using video to inspect the storm sewers.
3. **Remove/Correct Illicit Connections** - Once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action.
4. **Document Actions Taken** - As a final step, all actions taken under the plan should be documented. This illustrates that progress is being made to eliminate illicit connections and discharges. Documented actions should be included in annual reports and include information such as: the number of outfalls screened; any complaints received and corrected; the number of discharges and the quantities of flow eliminated.

Studies have shown that one of the most-cost effective and efficient techniques that can be employed to identify and correct inappropriate discharges is to use the citizens of a community to report suspicious activities. Public education and labeling of outfalls and other storm drain infrastructure is an important element of establishing a successful citizen hotline. Outreach to public employees, businesses, property owners, the public, and elected officials regarding ways to detect and eliminate illicit discharges is an integral part of this minimum measure.

Suggested educational outreach efforts include:

- Developing informative brochures, and guidance for specific audiences (e.g., carpet cleaning businesses) and school curricula
- Designing a program to publicize and facilitate public reporting of illicit discharges
- Coordinating volunteers for locating, and visually inspecting, outfalls or to stencil storm drains
- Initiating recycling programs, or provide information on locations, for commonly dumped wastes, such as motor oil, antifreeze, and pesticides

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should reflect the needs and characteristics of the operator and the area served by its small MS4. Furthermore, they should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure.

For example, an MS4 could establish a measurable goal of responding to all complaints received by the citizen complaint hotline within 24 hours to minimize water quality impacts or recurrent dumping. A complaint tracking system could be used to log response and enforcement activity.

The educational outreach measurable goals for this minimum control measure could be combined with the measurable goals for the Public Education and Outreach minimum control measure.

GOALS

The General Permit states that "All Permittees shall revise as necessary, implement, and enforce an IDDE program to systematically find and eliminate sources of non-storm water discharges from the MS4 and to implement defined procedures to prevent illicit connections and discharges according to the minimum performance measures listed below." The IDDE program must be described in writing, incorporated as part of the Permittee's SWMP document, and contain the elements detailed in this part of the Permit. The following is a summary table listing each minimum performance measure, activities, or products, measurable goals, how documentation will be kept, and responsible party to meet the requirements of the General Permit.

<table>
<tr><th colspan="4">ILLICIT DISCHARGE DETECTION AND ELIMINATION</th></tr>
<tr><td colspan="4">Minimum Performance Measure 4.2.3.1 - Maintain a current storm sewer system map of the MS4, showing the location of all municipal storm sewer outfalls with the names and location of all State waters that receive discharges from those outfalls, storm drainpipe and other storm water conveyance structures within the MS4</td></tr>
<tr><th>Activity/Product</th><th>Implementation</th><th>Measurable Goals</th><th>Description and Support Information</th></tr>
<tr><td>Maintain a storm water system map of the MS4.</td><td>4.2.3.1
Continue to update storm water system map of the MS4 with location of all outfalls.</td><td>Continue updating storm water system map of the MS4 with names and location of all outfalls.</td><td>Description: Clearfield City maintains a map which is regularly updated with development. Knowing the locations of storm water systems is the first step in protecting it from pollution sources.
Selection: A complete map has been maintained since 2003 for the purpose of managing development. It has been included into this SWMP to satisfy this BMP.
Target Pollutants: N/A
Target Audience: City staff, City Engineer and Storm Water Manager.
Staff: Storm Water Manager.
Funding: Storm Water enterprise fund.</td></tr>
<tr><td colspan="4">Minimum Performance Measure 4.2.3.2 – Effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges to the MS4, including spills, illicit connections, illegal dumping, and sanitary sewer overflows ("SSOs") into the storm sewer system, require removal of such discharges consistent with Part 4.2.3.6. of this Permit and implement appropriate enforcement procedures and actions. The Permittee must have a variety of enforcement options to apply escalating enforcement procedures as necessary for the severity of violation and/or the recalcitrance of the violator. Exceptions are discharges pursuant to a separate UPDES Permit (other than the UPDES Permit for discharges from the MS4) and non-storm water discharges listed in Part 1.2.2.2. An SSO is a discharge of untreated sanitary wastewater. SSOs are illegal and must be eliminated. All SSOs must be reported to the Division of Water Quality and to the Permittee's local wastewater treatment plant.</td></tr>
</table>

Minimum Performance Measure 4.2.3.2.1 - The IDDE program must have adequate legal authority to detect, investigate, eliminate, and enforce against non-storm water discharges, including illegal dumping, into the MS4. Adequate legal authority consists of an effective ordinance, by-law, or other regulatory mechanism. The documented IDDE program that is included in the Permittee's SWMP must include a reference or citation of the authority the Permittee will use to implement all aspects of the IDDE program.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Update new ordinances prohibiting discharge of non-storm water into the storm water system. Publicly list and maintain a hotline number for public to report spills and other illicit discharges.	**4.2.3.2/ 4.2.3.8/ 4.2.3.9 / 4.2.3.10** Enforcement ability for storm water rules.	Review and update the ordinance to conform with new permit, and ongoing training of (SOPs). Identification, investigation, to all field staff termination, cleanup, and reporting of illicit discharges, i.e.: spills, improper disposal, and illicit connections to the MS4. Put the HHW address and phone # on the city website.	**Description**: Enforce an IDDE program to systematically find and eliminate sources of non-storm water discharges including spills, illicit connections, illegal dumping and SSOs. Publicly list and publicize a hotline or other local phone number for public reporting of spills or other illicit discharges. Keep a written record of all calls received. Create incident response flow chart and provide training annually. 4.2.3.8/ 4.2.3.9 / 4.2.3.10 **Selection**: Ordinances existed prior to the development of UPDES permit requirements. They are still in place as of 2003 and available for use to support enforcement. **Target Pollutants**: Fertilizers, landscape and yard maintenance, debris, garage and automotive chemicals, all pollutants. **Target Audience**: Residential, contractors, developers, and city council. **Staff**: City Engineer and Storm Water Manager. **Funding**: Storm Water enterprise fund.

Minimum Performance Measure 4.2.3.3 – Implement a written plan to detect and address non-storm water discharges to the MS4, including spills, illicit connections, sanitary sewer overflows and illegal dumping. The plan shall include:

Minimum Performance Measure 4.2.3.3.1 – Develop and implement written systematic procedures for locating and listing the following priority areas likely to have illicit discharges (if applicable to the jurisdiction):

- Areas with older infrastructure that are more likely to have illicit connections.
- Industrial, commercial, or mixed-use areas.
- Areas with a history of past illicit discharges.
- Areas with a history of illegal dumping.
- Areas with onsite sewage disposal systems; Areas with older sewer lines or with a history of sewer overflows or cross-connections.
- Areas upstream of sensitive waterbodies.
- Other areas the Permittee determines to be likely to have illicit discharges.

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

Minimum Performance Measure 4.2.3.3.2 – Field inspections of areas considered priority areas as identified in Part 4.2.3.3.1. Compliance shall be achieved by inspecting each priority area annually at a minimum. All field assessment activities shall utilize an inspection form to document findings.
Minimum Performance Measure 4.2.3.3.3 – Dry weather screening activities for verifying outfall locations and detecting illicit discharges to receiving water. All outfalls shall be inspected at least once during the 5-year Permit term. Dry weather screening activities shall utilize an inspection form to document findings.
Minimum Performance Measure 4.2.3.3.4 – Notify DEQ if Permittee discovers or suspects that a discharger may need a separate UPDES permit (industrial, dewatering, etc.).

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Continue to improve on implementing procedures for program evaluation and assessment to meet the rules of the updated general permit for priority areas.	**4.2.3.10 / 4.2.3.3.2** Have a database for mapping and tracking spills or illicit discharges identified, and inspections conducted. List priority areas for IDDE, map them and inspect annually.	Update mapping and spreadsheets for tracking illicit discharges, spills, improper disposals, and illicit connections. Also list priority areas.	**Description**: The mapping allows the tracking number and types of spills and illicit discharges throughout the city. This helps locate repeat offenders for improper disposals, illicit connections and helps with identifying priority areas. **Selection**: This will help pinpoint trouble areas in the city. **Target Pollutants**: All pollutants, fertilizers, landscape and yard maintenance, debris, garage, and automotive chemicals. **Target Audience**: Residential, industrial, and local businesses that have potential sources for illicit discharge. **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water enterprise fund.
Detection of illicit discharges program. Identify problem areas.	**4.2.3.3.3** Dry storm water sampling program at least once every 5 years. Outfalls need to be inspected annually.	Do dry weather screening of 30% all outfalls each year. Document all sampling. Update and have SOP in place and training.	**Description**: This involves sampling outfalls during dry weather. It can also include investigating discharges reported through employees, public notification, or other means. **Selection**: This program is used to find pollution sources and to track trends. **Target Pollutants**: All pollutants, fertilizers. Landscape and yard maintenance, debris, garage, and automotive chemicals. **Target Audience**: All audiences. **Staff**: Storm Water Manager. **Funding**: Storm Water enterprise fund.

Minimum Performance Measure 4.2.3.4 – Implement standard operating procedures (SOPs) or similar type of documents for tracing the source of an illicit discharge, including visual inspections, and when necessary, opening manholes, using mobile cameras, using field tests of selected chemical parameters as indicators of discharge sources, collecting, and analyzing water samples for the purpose of determining sanctions or penalties, and/or other detailed inspection procedures.
Minimum Performance Measure 4.2.3.5 – Implement standard operating procedures (SOPs) or similar type of documents for characterizing the nature of, and the potential public or environmental threat posed by, any illicit discharges found by or reported to the Permittee by the hotline or other telephone number described in 4.2.3.9. These procedures shall include detailed instructions for evaluating how the discharge shall be

immediately contained and steps to be taken for containment of the discharge. Compliance with this provision will be achieved by initiating an investigation immediately upon being alerted of a potential illicit discharge.

Minimum Performance Measure 4.2.3.5.1 – When the source of a non-storm water discharge is identified and confirmed, the Permittee must record the following information in an inspection report: the date the Permittee became aware of the non-storm water discharge, the date the Permittee initiated an investigation of the discharge, the date the discharge was observed, the location of the discharge, a description of the discharge, the method of discovery, date of removal, repair, or enforcement action; date, and method of removal verification. Analytical monitoring may be necessary to aid in the identification of potential sources of an illicit discharge and to characterize the nature of the illicit discharge. The decision process for utilizing analytical monitoring must be fully documented in the inspection report.

Minimum Performance Measure 4.2.3.6 –Implement standard operating procedures (SOPs) or similar type of documents for ceasing the illicit discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for removing the source of the discharge or otherwise eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated. Illicit discharges to the MS4 are prohibited and any such discharges violate this Permit and remain in violation until they are eliminated. Upon detection, the Permittee shall require immediate cessation of improper disposal practices upon confirmation of responsible parties in accordance with its enforceable legal authorities established pursuant to Part 4.2.3.2.1of this Permit

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Continue with standard operating procedures for tracing the source of illicit discharge to meet the updated general permit rules.	**4.2.3.5.1 / 4.2.3.4** Track down sources of illicit discharges and spills.	Work with Davis County Coalition to purchase a portable unit to test for pH, DO, conductivity, and temperature for finding and testing illicit discharges.	**Description**: Look at the need for purchasing the portable unit for testing if there is a need. Have SOP implemented for tracking and testing illicit discharges? **Selection**: This portable testing unit test for pH, DO, Conductivity, and temperature to help find illicit discharges. **Target Pollutants**: All pollutants, fertilizers, landscape and yard maintenance, debris, garage, and automotive chemicals. **Target Audience**: Residential, industrial, and local business that have potential sources for illicit discharge. **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water enterprise fund and Davis County Coalition.

Minimum Performance Measure 4.2.3.7 - Minimum Performance Measure 4.2.3.7 – Permittees shall inform public employees, businesses, and the public of hazards associated with illicit discharges and improper disposal of waste

Minimum Performance Measure 4.2.3.8 – Permittees shall promote or provide services for the collection of household hazardous waste

Minimum Performance Measure 4.2.3.9 – Permittees shall publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. A written record shall be kept of all calls received, all follow-up actions taken, and any feedback received from public education efforts.

Minimum Performance Measure 4.2.3.9.1 - The Permittee must develop a written spill/dumping response procedure, and a flow chart for internal use, that shows the procedures for responding to public referrals of illicit discharges, the various responsible agencies, and their contacts, and who would be involved in illicit discharge incidence response, even if it is a different entity other than the Permittee. The procedure and list must be

incorporated as part of the IDDE program and incorporated into the Permittee's SWMP document. The list must be maintained and updated as changes occur **Minimum Performance Measure 4.2.3.10 –** Permittees shall adopt and implement procedures for program evaluation and assessment which includes maintaining a database for mapping, tracking of the number and type of spills or illicit discharges identified; and inspections conducted. **Minimum Performance Measure 4.2.3.11 –** Permittees shall, at a minimum, annually train employees about the IDDE program including identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections. Permittees shall provide training to all field staff that as part of their normal job responsibilities might encounter or otherwise observe an illicit discharge or illicit connection to the MS4. Permittees shall also train office personnel who might receive initial reports of illicit discharges. Training shall include how to identify a spill, an improper disposal, or an illicit connection to the MS4 and proper procedures for reporting the illicit discharge			
Continue to inform public employees, businesses, and public of hazards associated with illicit discharges and improper disposal of waste.	**4.2.3.7/ 4.2.3.8** Continue to educate all audiences about impacts from illicit discharges and improper disposal of waste.	To educate all audiences, notify public of recycling locations, as of 2003 City Shops are on state website for disposing (recycling) of oil.	**Description**: Continue to have public education and outreach to meet updated permit requirements. Encourage used oils and anti-freeze recycling. (Used oil products - City Shops / used anti-freeze recycling - Landfill). Information and phone numbers on city web page. **Selection**: Training includes TV ads, websites, newsletters, flyers, schools, 4th grade education programs, etc. **Target Pollutants**: All pollutants, fertilizers, landscape and yard maintenance, debris, garage, and automotive chemicals. **Target Audience**: All audiences. **Staff**: Public employees, Public Works Director, Storm Water Manager and Davis County Coalition. **Funding**: Storm Water enterprise fund.
Ensure that all city staff receive training on the new updates for IDDE program. This also includes new hires within first month of hire.	**4.2.3.11** Continue to train city employees on the IDDE requirements in the general permit.	Review and update the ordinance to conform with updated permit for training of IDDE program for all city employees including new hires on, identification, investigation, termination, cleanup, and reporting of illicit discharges i.e.: spills,	**Description**: Continue to enforce and partner with Davis County Health Dept. on IDDE program to systematically find and respond to calls (Davis County Health Resolution, Appendix - C) and eliminate sources of non-storm water discharges including spill, illicit connections, and illegal dumping. Train all employees on new requirements in updated permit on IDDE. Publicly list and publicize a hotline or other local phone number for public reporting of spills or other illicit discharges. Keep a written record of all calls received, create incident response flow chart, and provide training annually to all city employees. **Selection**: Ongoing training of city staff annually on general permit and updates for IDDE program. **Target Pollutants**: Fertilizers, landscape and yard maintenance, debris, garage, and automotive chemicals. All pollutants. **Target Audience**: Contractors, developers, City Council, staff, City Engineer and Storm Water Manager.

		improper disposal, and illicit connections to the MS4. Document all training as required in permit.	**Staff**: Public Works Director, Storm Water Manager and Davis County Health Dept. **Funding**: Storm Water enterprise fund.

CHAPTER 4: MCM 3 ILLICIT

GOALS

CHAPTER 5: MCM 4 CONSTRUCTION SITE RUNOFF CONTROL STRATEGY



ABOUT

Polluted storm water runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and streams. Pollutants of concern are; sediment, solid and sanitary wastes, oil and grease, concrete truck washout, construction chemicals, and constructions debris. Of the pollutants listed, sediment is usually the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to surrounding waters. For example, excess sediment can quickly fill rivers and lakes, requiring dredging and destroying aquatic habitats.

An operator of a regulated small MS4 is required to develop, implement, and enforce a program to reduce pollutants in storm water runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. The small MS4 operator is required to:

- Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites
- Have procedures for site plan review of construction plans that consider potential water quality impacts
- Have procedures for site inspection and enforcement of control measures
- Have sanctions to ensure compliance (established in the ordinance or other regulatory mechanism)
- Establish procedures for the receipt and consideration of information submitted by the public
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Suggested BMPs (i.e., the program actions/activities) and measurable goals

Further explanation and guidance for each component of a regulated small MS4's construction program is provided below:

1. **Regulatory Mechanism** - Through the development of an ordinance or other regulatory mechanism, the small MS4 operator must establish a construction program that controls polluted runoff from construction sites with a land disturbance of greater than or equal to one acre.
2. **Site Plan Review** - The small MS4 operator must include in its construction program requirements for the implementation of appropriate BMPs on construction sites to control erosion and sediment and other waste at the site. To determine if a construction site follows such provisions, the small MS4 operator should review the site plans submitted by the construction site operator before ground is broken. Site plan review aids in compliance and enforcement efforts since it alerts the small MS4 operator early in the process to the planned use or non-use of proper BMPs and provides a way to track new construction activities. The tracking of sites is useful not only for the small MS4 operator's recordkeeping and reporting purposes, which are required under their UPDES storm water permit, but also for members of the public interested in ensuring that the sites comply.

3. **Inspections and Penalties** - Once construction commences, BMPs should be in place and the small MS4 operator's enforcement activities should begin. To ensure that the BMPs are properly installed, the small MS4 operator is required to develop procedures for site inspection and enforcement of control measures to deter infractions. Procedures could include steps to identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, and the characteristics of soils and receiving water quality. Inspections give the MS4 operator an opportunity to provide additional guidance and education, issue warnings, or assess penalties. A website has been developed to use as a tool for builders and developers (www.cicacenter.org). Inspectors can use the Web site to find plain language explanations of the major environmental laws affecting the construction industry as well as guidance that can be distributed developers and construction site operators. To conserve staff resources, one possible option for small MS4 operators is to have inspections performed by the same inspector that visits the sites to check compliance with health and safety building codes.

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should reflect the needs and characteristics of the operator and the area served by its small MS4. Furthermore, they should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure.

Measurable Goals Guidance for Phase II MS4s has been developed that is designed to help program managers comply with the requirement to develop measurable goals. The guidance presents an approach for MS4 operators to develop measurable goals as part of their storm water management plan. For example, an MS4 program goal might be to educate at least 80 percent of all construction site operators and contractors about proper selection, installation, inspection, and maintenance of BMPs by the end of the permit term, which will help to ensure compliance with erosion and sediment control requirements. This goal could be tracked by documenting attendance at local, State, or Federal training programs. Attendance can be encouraged by decreasing permitting fees for those contractors who have been trained and provide proof of attendance when applying for permits.

GOALS

The General Permit states that "All Permittees shall revise as necessary, implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale according to the minimum performance measures listed below. Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements." The following is a summary table listing each minimum performance measure, activities or products, measurable goals, how documentation will be kept, and responsible party to meet the requirements of the General Permit.

CONSTURCTION SITE RUNOFF CONTROL STRATEGY

Minimum Performance Measure 4.2.4.1 – Revise as necessary and enforce an ordinance or other regulatory mechanism that requires the use of erosion and sediment control practices at construction sites. The ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the technical requirements set forth in the UPDES Storm Water General Permit for Construction Activities, UTRC00000, and UPDES General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects, UTRH00000, which both can be found at http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm. The ordinance or other regulatory mechanism shall include sanctions to ensure compliance. The ordinance or other regulatory mechanism shall apply, at a minimum, to construction projects disturbing greater than or equal to one acre and to construction projects of less than one acre that are part of a larger common plan of development or sale. Existing local requirements to apply storm water controls at smaller sites shall be retained.

Minimum Performance Measure 4.2.4.1.1 – The ordinance or other regulatory mechanism shall, at a minimum, require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality, reduce the discharge of pollutants, and control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality. The SWPPP requirements must be, at a minimum, equivalent with the SWPPP requirement set forth in the UPDES General Permit for Discharges from Construction Activities, UTRC00000, or UPDES General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects, UTRH00000.

Minimum Performance Measure 4.2.4.1.2 – Permittee shall ensure construction operators obtain and maintain coverage under the current UPDES Storm Water General Permits for Construction Activities for the duration of the project. Coverage can be obtained by completing an NOI as well as renewed at: https://secure.utah.gov/account/log-in.html.

Minimum Performance Measure 4.2.4.1.3 – The ordinance shall include a provision for access by qualified personnel to inspect construction storm water BMPs on private properties that discharge to the MS4

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Continue to train and	**4.2.4.1 / 4.2.4.1.2** Development standards require	Require a SWPPP for every construction site over one acre or part	**Description**: Storm water pollution prevention for construction sites. Hotline number to be posted at construction sites larger than one acre or part of a common plan of development, permitted construction activates, land disturbance permits (development and building

raise awareness for contractors and developers, on what is expected for all construction sites within the city's MS4.	compliance land disturbance permit and SWPPP facilitates compliance. The ordinance shall include a provision for access by Storm Water Manager to inspect construction storm water BMPs on private properties that discharge to MS4.	of CPD. Train developers and construction applicants. Update and enforce ordinances to meet state requirements. Post hotline phone number and local phone number for public to report storm water violations on construction sites.	permits and related projects). City APWA contract projects. City service contracts. Public right of way encroachments permits. **Selection**: This will provide training for work permitted in Clearfield City. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors and developers. **Staff**: Public Works Director, Storm Water Manager, and city staff. Funding: Storm Water enterprise fund.
Minimum Performance Measure 4.2.4.2 – Develop a written enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism which shall include: **Minimum Performance Measure 4.2.4.2.1 –** Standard operating procedures (SOPs) or similar type of documents that include specific processes and sanctions to minimize the occurrence of, and obtain compliance from violators which shall include appropriate, escalating enforcement procedures and actions. **Minimum Performance Measure 4.2.4.2.2 –** Documentation and tracking of all enforcement actions.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Develop a written strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism.	**4.2.4.2 / 4.2.4.2.1 / 4.2.4.2.2** Ordinance requires compliance, permits and checklist.	4.2.4.4/ 4.5 Update ordinance to include escalating enforcement provisions. Incorporate checklist into City standards and enforce ordinance to meet state requirements.	**Description**: Ordinance requires compliance with Clearfield City standards, specifications, and plans. Standards to be followed are checklist that guide applicants through the city development approval and construction process. **Selection**: The standards also facilitate the filing of a Land Disturbance Permit to better control construction activities. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors and developers. **Staff**: Public Works Director, Storm Water Manager, and city staff. Funding: Storm Water enterprise fund. Attachment 4.1 requirements and checklist for land development.
Minimum Performance Measure 4.2.4.3 – Develop and implement SOPs or similar type of documents for pre-construction Storm Water Pollution Prevention Plan (SWPPP) review and keep records for, at a minimum, all construction sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, to ensure plans are complete and in compliance with State and Local regulations. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer. Prior to construction, the Permittee shall:			

Minimum Performance Measure 4.2.4.3.1 – Conduct a pre-construction SWPPP review which includes a review of the site design, the planned operations at the construction site, planned BMPs during the construction phase, and the planned BMPs to be used to manage runoff created after development.
Minimum Performance Measure 4.2.4.3.2 – Incorporate into the SWPPP review procedures the consideration of potential water quality impacts and procedures for preconstruction review which shall include the use of a checklist.
Minimum Performance Measure 4.2.4.3.3 – Identify priority construction sites considering the following factors at a minimum: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving waterbodies; and non-storm water discharges and past record of non-compliance by the operators of the construction site

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Zoning and Ordinance Development	**4.2.4.3.1 / 4.2.4.3.2** Update and incorporate into the SWMP. Review procedures for an evaluation of opportunities for use of Low Impact Development (LID) and green infrastructure and when the opportunity exists, encourage such BMP's to be incorporated into the site design.	Develop a policy and adopt into city ordinance for Low Impact Development practices on all projects - private and municipal.	**Description**: Conduct a pre-construction SWPPP review which includes a review of the site design, the planned operations at the construction site, planned BMP's during the construction phase, and the planned BMP's to be used to manage runoff created after development. **Selection**: This will provide training for work permitted in Clearfield City. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors and developers. **Staff**: Public Works Director, Storm Water Manager and MS4 staff. **Funding**: Storm Water enterprise fund.
Landscape and Irrigation Plan and Erosion Control Plan	**4.2.4.3.3** Identify priority construction sites considering the following factors at a minimum. See description: 4.2.4.4.3 Conduct bi-weekly inspections on high priority construction sites.	Develop a priority area map showing areas within the city where additional protection may be desired or required from updated state permit. Inspect high priority sites bi-weekly.	**Description**: Priority sites factors are 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. Inspections will be conducted bi-weekly and documented. **Selection**: The selection of priority sites will be at city's discretion and documented. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors and developers. **Staff**: Public Works Director, Storm Water Manager and MS4 staff. **Funding**: Storm Water enterprise fund.

Minimum Performance Measure 4.2.4.4 – All Permittees shall develop and implement SOPs or similar type of documents for construction site inspection and enforcement of construction storm water pollution control measures. The procedures must clearly define who is responsible for site inspections as well as who has authority to implement enforcement procedures. The Permittee must have the authority to the extent authorized by law to impose sanctions to ensure compliance with the local program. These procedures and regulatory authorities must be written and documented in the SWMP. The construction site storm water runoff control inspection program must provide:

Minimum Performance Measure 4.2.4.4.1 – Inspections of all new construction sites with a land disturbance of greater than or equal to one acre, including projects less than one Page 38 of 59 Updated June 2016 acre that are part of a larger common plan of development or sale at least monthly by qualified personnel using the Construction Storm Water Inspection Form (Checklist) found on the Division's website at http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm. The checklist can also be found in Appendix D.

Minimum Performance Measure 4.2.4.4.2 – The Permittee must inspect all phases of construction: prior to land disturbance, during active construction, and following active construction. The Permittee must include in its SWMP document a procedure for being notified by construction operators/owners of their completion of active construction so that verification of final stabilization and removal of all temporary control measures may be conducted.

Minimum Performance Measure 4.2.4.4.3 – Inspections by the MS4 of priority construction sites defined in Part 7.36 must be conducted at least biweekly using the Construction Storm Water Inspection Form (Checklist) found on the Division's website at http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm. The checklist can also be found in Appendix D.

Minimum Performance Measure 4.2.4.4.4 – Based on -site inspection findings, the permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the permittee's enforcement strategy. These follow-up and enforcement actions must be tracked and documented.

Minimum Performance Measure 4.2.4.4.5 – Permittee shall publicly provide and publicize a hotline for public reporting of storm water related issues on construction sites. Records of violations, enforcement actions, and corrective actions taken shall be tracked and documented.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Continue to train and raise awareness for contractors and developers, on what is expected for all construction sites within the city's MS4.	**4.2.4.4.5** Post hotline phone number at entrances of construction sites in a SWPPP.	1. Establish hotline. 2. Require on-site notice to include phone number	**Description**: Storm water pollution prevention for construction sites. Hotline number to be posted at construction sites larger than one acre or part of a common plan of development, permitted construction activates, land disturbance permits (development and building permits and related projects). City APWA contract projects. City service contracts. Public right of way encroachments permits. **Selection**: This will provide training for work permitted in Clearfield City. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors and developers. **Staff**: Public Works Director, Storm Water Manager, and city staff. **Funding**: Storm Water enterprise fund.

Minimum Performance Measure 4.2.4.5 – The Permittee must ensure that all staff whose primary job duties are related to implementing the construction storm water program, including permitting, plan review, construction site inspections, and enforcement, are trained annually to conduct these activities. New hires shall be trained immediately, then annually thereafter. The training can be conducted by the MS4, or outside

training can be attended. Such training must extend to third-party inspectors and plan reviewers as well. The training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Certification and Inspector Training and Employee Training	**4.2.4.5** Update training and provide training to MS4 staff and 3rd party designers.	Update city policy to require all SWPPP inspectors to be RSI certified within six months.	**Description**: The permittee must ensure that all staff whose primary job duties are related to implementing the construction storm water program including permitting, plan review, construction site inspections and enforcement, are annually trained to conduct these activates. **Selection**: To comply with the updated state permit. Training must extend to third party inspectors and plan reviewers as well as with all new hires. All training records to be kept. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors, developers and MS4 staff. **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water enterprise fund.
Minimum Performance Measure 4.2.4.6 – All Permittees shall adopt and implement a procedure to maintain records of all projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. Permittees shall keep records which include but are not limited to, site plan reviews, SWPPPs, inspections and enforcement actions including verbal warnings, stop work orders, warning letters, notices of violation, and other enforcement records. Permittees shall keep records of these projects for five years or until construction is completed, whichever is longer.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Erosion Control Plan	4.2.4.6 Update and maintain records of all projects under SWPPP.	Update and have records in place to be compliant with state permit.	**Description**: Maintain records of all projects greater than one acre, including projects less than one acre that is part of a common plan of development or sale. Keep records that include site plan reviews, SWPPP's, inspections, and all enforcement actions. Must keep all records for five years or until construction is completed. **Selection**: Projects under a SWPPP and need to maintain records. **Target Pollutants**: Sediment, construction site debris, hydrocarbons. **Target Audience**: Contractors, developers and MS4 staff. **Staff**: Public Works Director, Storm Water Manager and MS4 staff. **Funding**: Storm Water enterprise fund.

CHAPTER 6: MCM 5 LONG-TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORM WATER MANAGEMENT STRATEGY)



ABOUT

Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving waterbodies. Studies indicate that prior planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of postconstruction runoff impact occurs by increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces (e.g., parking lots, driveways, and rooftops) interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

Requirements

An operator of a regulated small MS4 is required to revise as necessary, implement, and enforce a program to address post-construction storm water runoff to their MS4 from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre or that are part of a common plan of development. The small MS4 operator is required to:

- Develop and implement strategies which include a combination of structural and/or nonstructural best management practices (BMPs);
- Have an ordinance or other regulatory mechanism requiring the implementation of postconstruction runoff controls to the extent allowable under State or local law, including the evaluation of Low Impact Development (LID) and on-site retainage of the 90th percentile rainfall event;
- Develop and define specific hydrologic method(s) for calculating runoff volumes and rates to ensure consistent sizing of structural BMPs in their jurisdiction;
- Ensure adequate long-term operation and maintenance of controls; and
- Determine the appropriate best management practices and measurable goals for this minimum control measure.

The storm water requirements apply to “redevelopment” projects that alter the “footprint” of an existing site or building in such a way that there is a disturbance of equal to or greater than 1 acre of land. Redevelopment projects do not include such activities as exterior remodeling. Because redevelopment projects may have site constraints not found on new development sites, the requirements provide flexibility for implementing post-construction controls on redevelopment sites.

BMPs

Structural and non-structural BMPs can be used to satisfy the requirements of the postconstruction control measure. It is important to recognize that many BMPs are climate-specific and not all BMPs can be used in every geographic area. Because the requirements of this measure are closely tied to the requirements of the construction site runoff control minimum measure it is recommended that small MS4 operators develop and implement these two measures in tandem.

- **Non-Structural BMPs**
  - **Planning Procedures**. Runoff problems can be addressed efficiently with sound planning procedures. Local master plans, comprehensive plans, and zoning ordinances can promote improved water quality in many ways, such as guiding the growth of a community away from sensitive areas to areas that can support it without compromising water quality.
  - **Site-Based BMPs**. These BMPs can include buffer strip and riparian zone preservation, minimization of disturbance and imperviousness, and maximization of open space.
- **Structural BMPs**
  - **Storm Water Detention BMPs**. detention BMPs control storm water by gathering runoff in wet ponds, dry basins, or multi-chamber catch basins and slowly releasing it to receiving waters or drainage systems. These practices can be designed to both control storm water volume and settle out particulates for pollutant removal.
  - **Infiltration BMPs**. Infiltration BMPs are designed to facilitate the percolation of runoff through the soil to ground water, and, thereby, result in reduced storm water runoff quantity and reduced mobilization of pollutants. Examples include infiltration basins/trenches, retention basins, dry wells, and porous pavement.
  - **Vegetative BMPs**. Vegetative BMPs are landscaping features that, with optimal design and good soil conditions, remove pollutants, and facilitate percolation of runoff, thereby maintaining natural site hydrology, promoting healthier habitats, and increasing aesthetic appeal. Examples include grassy swales, filter strips, artificial wetlands, and rain gardens

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should reflect needs and characteristics of the operator and the area served by its small MS4. Furthermore, the measurable goals should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure. For example, an MS4 program goal might be to reduce by 30 percent the road surface areas directly connected to storm sewer systems (using traditional curb and gutter infrastructure) in new developments and redevelopment areas over the course of the first permit term. Using “softer” storm water conveyance approaches, such as grassy swales, will increase infiltration and decrease the volume and velocity of runoff leaving development sites. Progress toward the goal could be measured by tracking the linear feet of curb and gutter not installed in development projects that historically would have been used.

GOALS

The General Permit states that "All Permittees shall revise as necessary, implement and enforce a program to address postconstruction storm water runoff to the MS4 from new development and redevelopment construction sites disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, according to the minimum performance measures listed below. The objective of this control measure is for the hydrology associated with new development to mirror the pre-development hydrology of the previously undeveloped site or to improve the hydrology of a redeveloped site and reduce the discharge of storm water. The water quality considerations of this minimum control measure do not replace or substitute for water quantity or flood management requirements implemented on the local level for new developments. The water quality controls may be incorporated into the design of structures intended for flow control; or water quality control may be achieved with separate control measures. The program must apply to private and public development sites, including roads." The following is a summary table listing each minimum performance measure, activities, or products, measurable goals, how documentation will be kept, and responsible party to meet the requirements of the General Permit

Minimum Performance Measure 4.2.5.1 – Develop and adopt an ordinance or other regulatory mechanism that requires long-term post-construction storm water controls at new development and redevelopment sites. The ordinance or other regulatory mechanism shall apply, at a minimum, to new development and redevelopment sites that discharge to the MS4 and that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. The ordinance or other regulatory mechanism shall, at a minimum, be equivalent with the technical requirements set forth in the UPDES Storm Water General Permit for Construction Activities, UTRC00000 which can be found at http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm. Existing local requirements to apply storm water controls at smaller sites shall be retained. The ordinance or other regulatory mechanism shall require BMP selection, design, installation, operation, and maintenance standards necessary to protect water quality and reduce the discharge of pollutants to the MS4.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Development and adoption of ordinance requiring post construction runoff control on new and existing sites for new LID requirements.	**4.2.5.1 / 4.2.5.3.1 / 4.2.5.3.2** Establish an ordinance to conform with the new permit requirements for LID.	Create an ordinance for adoption that conforms with the updated permit. Adopt any revised standards.	**Description**: Ordinance development. Adopt new LID standards into the city ordinance to comply with updated state permit, by Sept. 1, 2016. New LID handbook in Appendix-E. **Selection**: Staff development for compliance with updated permit. **Target Pollutants**: All pollutants. **Target Audience**: Contractors, developers and MS4 staff. **Effectiveness**: Adoption of ordinance by Sept 2016. **Staff**: Public Works Director, Storm Water Manager and MS4 staff. **Funding**: Storm Water budget.

Minimum Performance Measure 4.2.5.2 – Implement an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism. Procedures for enforcement of BMPs include:
Minimum Performance Measure 4.2.5.2.1 – Procedures that include specific processes and sanctions to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators which shall include appropriate, escalating enforcement procedures and actions.

Minimum Performance Measure 4.2.5.2.2 – Documentation on how the requirements of the ordinance or other regulatory mechanism will protect water quality and reduce the discharge of pollutants to the MS4. Documentation shall include:

- How long-term storm water BMPs were selected.
- The pollutant removal expected from the selected BMPs; and
- The technical basis which supports the performance claims for the selected BMPs.

Activity/Product	Implementation	Measurable Goals	Description and Support Information

Minimum Performance Measure 4.2.5.3 – The Permittee's new development/redevelopment program must have requirements or standards to ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality.

Minimum Performance Measure 4.2.5.3.1 – The Permittee's new development/redevelopment program should include non-structural BMPs such as requirements and standards to minimize development in areas susceptible to erosion and sediment loss; to minimize the disturbance of native soils and vegetation; to preserve areas in the municipality that provide important water quality benefits; to implement measures for flood control; and to protect the integrity of natural resources and sensitive areas.

Minimum Performance Measure 4.2.5.3.2 – For new development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, the program shall include a process which requires evaluation of a Low Impact Development (LID) approach which encourages the implementation of structural BMPs, where practicable, that infiltrate, evapotranspiration or harvest and use storm water from the site to protect water quality. Structural controls may include green infrastructure practices such as rainwater harvesting, rain gardens, permeable pavement, and vegetated swales. If an LID approach cannot be utilized, the Permittee must document an explanation of the reasons preventing this approach and the rationale for the chose alternative controls on a case-by-case basis for each project.

Minimum Performance Measure 4.2.5.3.3 – The Permittee must develop a plan to retrofit existing developed sites that are adversely impacting water quality. The retrofit plan must be developed to emphasize controls that infiltrate, evapotranspiration or harvest and use storm water discharges. The plan must include a ranking of control measures to determine those best suited for retrofitting as well as those that could later be considered for retrofitting. The Permittee must include the following when developing the criteria for the retrofit plan:

- Proximity to waterbody
- Status of waterbody to improve impaired waterbodies and protect unimpaired waterbodies
- Hydrologic condition of the receiving waterbody
- Proximity to sensitive ecosystem or protected area
- Any upcoming sites that could be further enhanced by retrofitting storm water controls

Minimum Performance Measure 4.2.5.3.4 – Each Permittee shall develop and define specific hydrologic method or methods for calculating runoff volumes and flow rates to ensure consistent sizing of structural BMPs in their jurisdiction and to facilitate plan review. New development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale must manage rainfall on-site, and prevent the off-site discharge of the Page 46 of 59 Updated June 2016 precipitation from

all rainfall events less than or equal to the 90th percentile rainfall event. This objective must be accomplished using practices that are designed, constructed, and maintained to infiltrate, evapotranspiration and/or harvest and reuse rainwater. The 90th percentile rainfall event is the event whose precipitation total is greater than or equal to 90 percent of all storm events over a given period of record. If meeting this retention standard is technically infeasible, a rationale shall be provided on a case-by-case basis for the use of alternative design criteria. The project must document and quantify that infiltration, evapotranspiration and rainwater harvesting have been used to the maximum extent technically feasible and that full employment of these control are infeasible due to site constraints.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
The permittee must develop a plan to retrofit existing sites that have a negative impact on storm water. They must also define hydrologic methods for calculating volumes.	**4.2.5.3.3/ 4.2.5.3.4** Storm Water Master Plan and Capital Improvement Plan to include water quality. Review existing standards to ensure compliance with the updated permit. Update design standards for on- site retainage, for the 90th percentile rainfall event.	See development of these standards and implementation. LID BMP structural and nonstructural.	**Description**: Development of requirements for existing and future sites. **Selection**: City staff and permittees to develop and implement these requirements. **Target Pollutants**: All pollutants. **Target Audience**: Contractors, developers and MS4 staff. **Effectiveness**: Implementation of standards. **Staff**: Public Works Director, Storm Water Manager, city staff and permittees. **Funding**: Storm Water budget and permittees.

Minimum Performance Measure 4.2.5.4 – All Permittees shall adopt and implement procedures for site plan review which incorporate consideration of water quality impacts. The procedures shall apply through the life of the project from conceptual design to project closeout. Prior to construction, Permittees shall:

Minimum Performance Measure 4.2.5.4.1 – Review post-construction plans for, at a minimum, all new development and redevelopment sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, to ensure that the plans include long-term storm water management measures that meet the requirements of this minimum control measure.

Minimum Performance Measure 4.2.5.4.2 – Permittees shall provide developers and contractors with preferred design specifications to treat storm water more effectively for different development types such as industrial parks, commercial strip malls, retail gasoline outlets, restaurants, parking lots, automotive service facilities, street and road construction, and projects located in, adjacent to, or discharging to environmentally sensitive areas.

Minimum Performance Measure 4.2.5.4.3 – Permittees shall keep a representative copy of information that is provided to design professionals; and if information is distributed to many design professionals at once, the dates of the mailings and lists of recipients

Activity/Product	Implementation	Measurable Goals	Description and Support Information

Review SWPPP's. Permittees shall have design specifications for all types of development and inspected during installation.	**4.2.5.4.1 / 4.2.5.4.2** Review of Storm Water Pollution Prevention Plans (SWPPP). Permittees shall provide design specifications for more effective ways to treat storm water.	Review SWPPP's. Review submitted design specifications for long-term controls are implemented.	**Description**: Review of SWPPP and design specification for developments and to require that permanent structural BMPs be inspected at least once during install by inspector and verified upon completion to ensure BMP's were constructed as designed. **Selection**: SWPPP and development plans. **Target Pollutants**: All pollutants. **Target Audience**: City staff, permittees, and developers. **Effectiveness**: Ability to identify sensitive areas. **Staff**: City staff, permittee's, developers. **Funding**: Storm Water budget and permittees.
Maintenance and inspection copies and logs.	**4.2.5.4.3** Permittee shall keep representative copies of information provided to design professionals and a mailing list of those recipients.	Keep logs for revision information and any supplemental information given to contractors, developers, design professionals and log and date of each one.	**Description**: Development of logs to track information. **Selection**: Inspection copies, logs, "documentation." **Target Pollutants**: All pollutants. **Target Audience**: All audiences required to keep documentation. **Effectiveness**: Completion of required documentation. **Staff**: Storm Water Manager and permittees. **Funding**: Storm Water enterprise fund.
Infrastructure Planning and Landscape and Irrigation Plan	**4.2.5.4** Set up procedures for site plan review to evaluate water impacts for the life of the project. Will review process annually to make sure, the city is in compliance with the updated state permit.	Add to our site plan. Review process to evaluate water quality impacts that are applied from start to finish on a project.	**Description**: Requires procedures for site plan review that evaluate water quality impacts and that are applied through the life of the project from conceptual design to project closeout. **Selection**: City staff and permittees to implement these requirements for compliance with the updated state permit. **Target Pollutants**: All pollutants. **Target Audience**: MS4 staff, developers, and contractors. **Staff**: Public Works Director, Storm Water Manager, planning and zoning departments, all other MS4 staff involved in plan reviews / projects. **Funding**: Storm Water budget.
Minimum Performance Measure 4.2.5.5 – All Permittees shall adopt and implement SOPs or similar type of documents for site inspection and enforcement of post-construction storm water control measures. These procedures must ensure adequate ongoing long-term operation and maintenance of approved storm water control measures.			

Minimum Performance Measure 4.2.5.5.1 – The ordinance or other regulatory mechanism shall include provisions for both construction-phase and post-construction access for Permittees to inspect storm water control measures on private properties that discharge to the MS4 to ensure that adequate maintenance is being performed. The ordinance or other regulatory mechanism may, in lieu of requiring g that the Permittee's staff inspect and maintain storm water controls on private property, instead require private property owner/operators or qualified third parties to conduct maintenance and provide annual certification that adequate maintenance has been performed and the structural controls are operating as designed to protect water quality. In this case, the Permittee must require a maintenance agreement addressing maintenance requirements for any control measures installed on site. The agreement must allow the Permittee to conduct oversight inspections of the storm water control measures and account for transfer of responsibility in leases and/or deeds. The agreement must also allow the Permittee to perform necessary maintenance or corrective actions neglected by the property owner/operator, and bill or recoup costs from the property owner/operator as needed.

Minimum Performance Measure 4.2.5.5.2 – Permanent structural BMPs shall be inspected at least once during installation by qualified personnel. Upon completion, the Permittee must verify that long-term BMPs were constructed as designed.

Minimum Performance Measure 4.2.5.5.3 – Inspections and any necessary maintenance must be conducted annually by either the Permittee or through a maintenance agreement, the property owner/operator. On sites where the property owner/operator is conducting maintenance, the Permittee shall inspect those storm water control measures at least once every five years, or more frequently as determined by the Permittee to verify and ensure that adequate maintenance is being performed. The Permittee must document its findings in an inspection report which includes the following:

- Inspection date.
- Name and signature of inspector.
- Project location
- Current ownership information
- A description of the condition of the storm water control measure including the quality of vegetation and soils; inlet and outlet channels and structures; catch basins; spillways; weirs, and other control structures; and sediment and debris accumulation in storage as well as in and around inlet and outlet structures.
- Specific maintenance issues or violations found that need to be corrected by the property owner or operator along with deadlines and reinspection dates

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Implementation of SOP's. Annual certification of maintenance and structural controls.	**4.2.5.5/ 4.2.5.5.11 / 4.2.5.5.3** All permittees shall adopt and implement SOPs for site inspections and enforcement. Require all private owners /	Review and customize inspection form for post construction control measures. Draft a maintenance agreement. Adopt a template for the maintenance	**Description**: Development of SOP's, agreements, inspection form for annual inspection. **Selection**: Quarterly required inspection on at least 20% of private facilities. **Target Pollutants**: All pollutants. **Target Audience**: MS4 staff and permittees. Effectiveness: Agreements and other documents in place. **Staff**: MS4 staff, Storm Water Inspector, and permittees. **Funding**: Storm Water budget and permittees.

	operators to provide annual certification of maintenance of structural controls. Require a maintenance agreement if necessary for any other control measures on site.	agreement. Inspections must be conducted annually to ensure compliance.	

Minimum Performance Measure 4.2.5.6 – Permittees shall provide annual training for all staff involved in post-construction storm water management, planning and review, and inspections and enforcement. New hires shall be trained upon hire and before commencing storm water related duties. Training shall be provided or made available for staff in the fundamentals of long-term storm water management using structural and non-structural control methods. The training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.

Minimum Performance Measure 4.2.5.7 – The Permittee must maintain an inventory of all post-construction structural storm water control measures installed and implemented at new development and redeveloped sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. This inventory shall include both public and private sector sites located within the Permittee's service area.

Minimum Performance Measure 4.2.5.7.1 – Each entry to the inventory must include basic information on each project, such as project's name, owner's name and contact information, location, start/end date, etc. In addition, inventory entries must include the following for each project:

- Short description of each storm water control measure (type, number, design, or performance specifications).
- Short description of maintenance requirements (frequency of required maintenance and inspections); and
- Inspection information (date, findings, follow up activities, prioritization of follow-up activities, compliance status).

Minimum Performance Measure 4.2.5.7.2 – Based on inspections conducted pursuant to Part 4.2.5.5., the Permittee must update the inventory as appropriate where changes occur in property ownership or the specific control measures implemented at the site.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Staff training for staff involved with post construction inspection and enforcement and maintenance of post construction BMP's.	**4.2.5.6/ 4.2.5.7** Permittees shall provide training for all staff involved and responsible for post construction inspections and enforcement. They shall also be trained in ways to maintain an inventory of the post construction BMP's.	Schedule and conduct training on post construction SWM for appropriate personnel. Update and inventory BMP's annually.	**Description**: Ongoing staff training of post construction BMP's inspections and enforcement be trained on an annual basis, new hires to be trained immediately upon hire. **Selection**: All staff involved with inspection and enforcement. **Target Pollutants**: All pollutants. **Target Audience**: Permittees and others with staff requiring training. **Effectiveness**: Ongoing training to be scheduled and conducted. **Staff**: All involved with monitoring post construction activities. **Funding**: Storm Water budget and permittees.

CHAPTER 7: MCM 6 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS STRATEGY



ABOUT

The Pollution Prevention/Good Housekeeping for municipal operations minimum control measure is a key element of the small MS4 storm water management program. This measure requires the small MS4 operator to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

While this measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations, it also can result in a cost savings for the small MS4 operator, since proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

Recognizing the benefits of pollution prevention practices, the rule requires an operator of a regulated small MS4 to:

- Develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system
- Include employee training on how to incorporate pollution prevention/good housekeeping practices into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. To minimize duplication of effort and conserve resources, the MS4 operator can use training materials that are available from the EPA, the State, or County Storm Water Coalitions
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

The intent of this control measure is to ensure that existing municipal, State or Federal operations are performed in ways that will minimize contamination of storm water discharges. The small MS4 operator to consider the following components when developing their program for this measure:

- **Maintenance activities**, maintenance schedules, and long-term inspection procedures for structural and non-structural controls to reduce floatable and other pollutants discharged from the separate storm sewers
- **Controls for reducing or eliminating the discharge of pollutants** from areas such as roads and parking lots, maintenance, and storage yards (including salt/sand storage and snow disposal areas), and waste transfer stations. These controls could include programs that promote recycling (to reduce litter), minimize pesticide use, and ensure the proper disposal of animal waste
- **Procedures for the proper disposal of waste** removed from separate storm sewer systems and areas listed in the bullet above, including dredge spoil, accumulated sediments, floatable, and other debris
- **Ways to ensure that new flood management projects assess the impacts on water quality** and examine existing projects for incorporation of additional water quality protection devices or practices. EPA encourages coordination with flood control managers for the purpose of identifying and addressing environmental impacts from such projects

The effective performance of this control measure hinges on the proper maintenance of the BMPs used, particularly for the first two bullets above. For example, structural controls, such as grates on outfalls to capture floatable, typically need regular cleaning, while non-structural controls, such as training materials and recycling programs, need periodic updating.

Measurable goals, which are required for each minimum control measure, are meant to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should consider the needs and characteristics of the operator and the area served by its small MS4. The measurable goals should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure. For example, an MS4 program goal might be to incorporate the use of road salt alternatives for highway deicing and reduce traditional road salt use by 50 percent in the first year of the permit term.

GOALS

The General Permit states that "All Permittees shall implement a program for Permittee-owned or operated facilities, operations and structural storm water controls that includes standard operating procedures (SOPs), pollution prevention BMPs, storm water pollution prevention plans or similar type of documents, and a training component that have the goal of preventing or reducing the runoff of pollutants to the MS4 and Waters of the State. All components of the program shall be included in the SWMP document and must identify the department (and where appropriate, the specific staff) responsible for performing each activity described in this section. The Permittee must develop an inventory of all such Permittee-owned or operated facilities. The Permittee must review this inventory annually and update as necessary."

Minimum Performance Measure 4.2.6.1 – Permitees shall develop and keep current a written inventory of Permittee-owned or operated facilities and storm water controls that may include but is not limited to: Composting facilities Equipment storage and maintenance facilities; Fuel farms; Hazardous waste disposal facilities; Hazardous waste handling and transfer facilities ; Incinerators; Landfills; Landscape maintenance on municipal property; Materials storage yards; Pesticide storage facilities; Public buildings, including libraries, police stations, fire stations, municipal; buildings, and similar Permittee-owned or operated buildings; Public parking lots; Public golf courses; Public swimming pools; Public works yards; Recycling facilities; Salt storage facilities; Solid waste handling and transfer facilities; Street repair and maintenance sites; Vehicle storage and maintenance yards; and Permittee-owned and/or maintained structural storm water controls. Facilities covered under the General UPDES Permit for Storm Water Discharges Associated with Industrial Activities do not need to develop an O & M program but must instead maintain the Storm Water Pollution Prevention Plan (SWPPP) required by that permit.

Minimum Performance Measure 4.2.6.2 – All Permittees shall assess the written inventory of Permittee-owned or operated facilities, operations and storm water controls identified in Part 4.2.6.1. for their potential to discharge to storm water the following typical urban pollutants: sediment, nutrients, metals, hydrocarbons (e.g., benzene, toluene, ethylbenzene, and xylene), pesticides, chlorides, and trash. Other pollutants may be associated with, but not generated directly from, the municipally owned or operated facilities, such as bacteria, chlorine, organic matter, etc. Therefore, the Permittee must determine additional pollutants associated with its facilities that could be found in storm water discharges. A description of the assessment process and findings must be included in the SWMP document.

Minimum Performance Measure 4.2.6.3 – Based on the assessment required in Part 4.2.6.2., the Permittee must identify as "high-priority" those facilities or operations that have a high potential to generate storm water pollutants. Among the factors that must be considered in giving a facility a high priority ranking is the number of urban pollutants stored at the site, the identification of improperly stored materials, activities that must be per

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Submit an updated SWMP document to comply with the updated state permit.	**4.2.6 / 4.2.6.1** Identify the department. Develop and keep a written inventory and map of	Complete organizational chart and define responsibilities for departments. Continue	**Description**: Updated the SWMP document for the updated state permit. **Selection**: Identify post construction requirements. **Target Pollutants**: All pollutants. **Target Audience**: MS4 staff, developers, and contractors. **Effectiveness**: Development and implementation of updated plan. **Staff**: MS4 staff and permittees.

	permittee owned and operated facilities.	listing of MS4 owned / operated facilities.	**Funding**: Storm Water budget.
Initial assessment of high priority facilities	**4.2.6.2 / 4.2.6.1** Initially assess the inventory of permittee owned or operated facilities for their potential for discharge to the storm water required by 4.2.6.2 and mentioned in 4.2.6.1 above.	Complete assessment and identify "high priority" facilities.	**Description**: Identification of high priority facilities and put on site map, to comply with permit. See document "Identification of MS4 High-Priority Facilities" for criteria to select high priority facilities in the city. **Selection**: Have selection process and identify high priority facilities. **Target Pollutants**: All pollutants. **Target Audience**: MS4 staff, and permittees. **Effectiveness**: To have all facilities identified. **Staff**: MS4 staff and permittees. **Funding**: Storm Water budget.
Minimum Performance Measure 4.2.6.4 – Permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) or similar type document for each "high priority" Permittee-owned or operated facility. The SWPPP shall identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with activity from the facility. The SWPPP shall describe and ensure the implementation of standard operating practices (SOPs) that are to be used to reduce the pollutants in storm water discharges associated with activity at the facility and to ensure compliance with the terms and conditions of this Permit. This document shall be tailored and retained at all "high priority" facility locations. The SWPPP shall include a site map showing the information listed in paragraph 4.2.6.4.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Continually update of SOP's and have SWPPP document for high priority sites.	**4.2.6.4 / 4.2.6.3** Develop site specific SOP's and documents related to facilities mentioned in 4.2.6.3. Include a site map and SWPPP document.	Review and make changes as needed to update SOP's and high priority sites. Current SOPs can be found in the SOPs document.	**Description**: Ongoing development of SOP's and SWPPP document for high priority sites within 180 days to stay in compliance with the updated state permit. **Selection**: Select and develop specific SOP's that pertain to facilities. **Target Pollutants**: Specific to the site. **Target Audience**: MS4 staff and permittees. **Effectiveness**: To be recognized as implemented. **Staff**: MS4 staff and permittees. **Funding**: Storm Water budget.
Minimum Performance Measure 4.2.6.5 – The following inspections shall be conducted at "high priority" Permittee-owned or operated facilities: **Minimum Performance Measure 4.2.6.5.1 –** Weekly visual inspections: The Permittee must perform weekly visual inspections of "high priority" facilities in accordance with the developed SOPs to minimize the potential for pollutant discharge. The Permittee must look for evidence of spills and immediately clean them up to prevent contact with precipitation or runoff. The weekly inspections must be tracked in a log for every facility and records kept with the SWMP document. The inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies. **Minimum Performance Measure 4.2.6.5.2 -** Quarterly comprehensive inspections: At least once per quarter, a comprehensive inspection of "high priority" facilities, including all storm water controls, must be performed, with specific attention paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant-generating areas. The quarterly inspection results must			

be documented, and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. An inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

Minimum Performance Measure 4.2.6.5.3 - Quarterly visual observation of storm water discharges: At least once per quarter, the Permittee must visually observe the quality of the storm water discharges from the "high priority" facilities (unless climate conditions preclude doing so, in which case the Permittee must attempt to evaluate the discharges four times during the wet season). Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied to prevent discharge to the storm drain system. Visual observations must be documented, and records kept with the SWMP document. This inspection must be done in accordance with the developed SOPs. The inspection report must also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Quarterly inspections "Comprehensive."	**4.2.6.5.2** Quarterly inspections must be performed, including all storm water controls on high priority facilities.	Continue quarterly inspection forms and logs. Conduct quarterly comprehensive inspections.	**Description**: Updated permit required quarterly inspections on high priority facilities. **Selection**: Comprehensive inspections of each site, to follow the permit. **Target Pollutants**: All pollutants. **Target Audience**: Permittees. **Effectiveness**: Maintain compliance coordinate with weekly reports. **Staff**: Storm Water Manager, MS4 staff, and permittees. **Funding**: Storm Water budget.
Quarterly inspections "Visual."	**4.2.6.5.3** Conduct visual observation at least once per quarter to verify the quality of storm water discharge at "high priority" facilities.	Conduct quarterly visual inspections of storm water discharge at "high priority" facilities.	**Description**: Permit required inspections to comply with updated state permit. **Selection**: Visual inspections of each site. **Target Pollutants**: All pollutants. **Target Audience**: Permittees. **Effectiveness**: Maintain compliance and coordinate with weekly inspections. **Staff**: Storm Water Manager, MS4 staff, and permittees. **Funding**: Storm Water budget.

Minimum Performance Measure 4.2.6.6 – Each "high priority" facility identified in Part 4.2.6.3. must develop facility-specific standard operating procedures (SOPs) or similar type of documents. The SOPs shall include BMPs that, when applied to the municipal operation, facility or storm water control will protect water quality and reduce the discharge of pollutants to the MS4. Low impact development (LID) techniques should be considered for all new and redeveloped Permittee-owned or operated facilities. The SOPs shall include appropriate pollution prevention and good housekeeping procedures for all the following types of facilities and/or activities listed below:

Minimum Performance Measure 4.2.6.6.1 – Buildings and facilities: The O & M program shall address but is not limited to: Permittee-owned or operated offices, police and fire stations, pools, parking garages, and other Permittee-owned or operated buildings or utilities. The SOPs must address the use, storage and disposal of chemicals and ensure through employee training, that those responsible for handling these products understand and implement the SOPs. All Permittee-owned or operated facilities must develop and ensure that spill prevention plans are in place, if applicable, and coordinate with the local fire department as necessary. The SOPs must address dumpsters and other waste management which includes, but is not limited to, cleaning, washing, painting and other maintenance activities. The O & M program must include schedules and SOPs

for sweeping parking lots and keeping the area surrounding the facilities clean to minimize runoff of pollutants. Within 180 days of receiving coverage from this Permit, all Permittees must maintain an inventory of all floor drains inside all Permittee-owned or operated buildings. The inventory must be kept current. The Permittee must ensure that all floor drains discharge to appropriate locations. Within 180 days of receiving coverage from this Permit, all Permittees must develop an inventory including a map of all storm drains located on the property of all Permittee-owned or operated buildings and facilities. The Permittee must ensure that only storm water is allowed into these drains and that the appropriate BMPs are in place to minimize pollutants from entering the MS4.

Minimum Performance Measure 4.2.6.6.2 – Material storage areas, heavy equipment storage areas and maintenance areas. Permittees shall develop and implement SOPs to protect water quality at each of these facilities owned or operated by the Permittee and not covered under the General UPDES Permit for Storm Water Discharges Associated with Industrial Activities.

Minimum Performance Measure 4.2.6.6.3 – Parks and open space. The O & M program shall address, but is not limited to: SOPs for the proper application, storage, and disposal of fertilizer, pesticides, and herbicides including minimizing the use of these products and using only in accordance with manufacturer's instruction; sediment and erosion control; evaluation of lawn maintenance and landscaping activities to ensure practices are protective of water quality such as, proper disposal of lawn clippings and vegetation, and use of alternative landscaping materials such as drought tolerant plants. The SOPs must address the management of trash containers at parks and other open spaces which include scheduled cleanings and establishing enough containers, and for placing signage in areas concerning the proper disposal of pet wastes. The SOPs must also address the proper cleaning of maintenance equipment, building exterior, trash containers and the disposal of the associated waste and wastewater. Permittees shall implement park and open space maintenance pollution prevention/good housekeeping practices at all park areas, and other open spaces owned or operated by the Permittee.

Minimum Performance Measure 4.2.6.6.4 – Vehicle and Equipment. The O & M program shall address, but it not limited to: SOPs that address vehicle maintenance and repair activities that occur on Permittee-owned or operated vehicles. BMPs should include using drip pans and absorbents under or around leaky vehicles and equipment or storing indoors where feasible. Fueling areas for Permittee-owned or operated vehicles shall be evaluated. If possible, place fueling areas under cover to minimize exposure. The O & M program shall include SOPs to ensure that vehicle wash waters are not discharged to the MS4 or surface waters. This Permit strictly prohibits such discharges.

Minimum Performance Measure 4.2.6.6.5 – Roads, highways, and parking lots. The O & M program shall address, but it not limited to: SOPs and schedule for sweeping streets and Permittee-owned or operated parking lots and any other BMPs designed to reduce road and parking lot debris and other pollutants from entering the MS4; road and parking lot maintenance, including pothole repair, pavement marking, sealing and repaving; cold weather operations, including plowing, sanding, and application of deicing compounds and maintenance of snow disposal areas; right-of-way maintenance, including mowing, herbicide and pesticide application; and municipally-sponsored events such as large outdoor festivals, parades or street fairs. The Permittee must ensure that areas used for snow disposal will not result in discharges to receiving waters.

Minimum Performance Measure 4.2.6.6.6 – Storm water collection and conveyance system. The O & M program shall address but is not limited to: SOPs and schedule for the regular inspection, cleaning, and repair of catch basins, storm water conveyance pipes, ditches and irrigation canals, culverts, structural storm water controls, and structural runoff treatment and/or flow control facilities. Permittees shall implement catch basin cleaning, storm water system maintenance, scheduled structural BMP inspections and maintenance, and pollution prevention/good housekeeping practices. Permittees should prioritize storm sewer system maintenance, with the highest priority areas being maintained at the greatest

frequency. Priorities should be driven by water quality concerns, the condition of the receiving water, the amount and type of material that typically accumulates in an area, or other location-specific factors. All Permittee-owned or operated storm water structural BMPs including but not limited to, swales, retention/detention basins or other structures must be inspected annually to ensure that they are properly maintained to reduce the discharge of pollutants into receiving waters. Permittees shall ensure and document Page 55 of 59 Updated June 2016 proper disposal methods of all waste and wastewater removed from the storm water conveyance system. These disposal methods apply to, but are not limited to, street sweeping and catch basin cleaning. Materials removed from the MS4 should be dewatered in a contained, impervious area and discharged to the local sanitary sewer (with approval of local authorities) where feasible. The solid material will need to be stored and disposed of properly to avoid discharge to Waters of the State during a storm event. Any other treatment and disposal measures must be reviewed and approved by the Division. Some materials removed from storm drains and open channels may require special handling and disposal and may not be authorized to be disposed of in a landfill.

Minimum Performance Measure 4.2.6.6.7 – Other facilities and operations. Permittees shall identify any facilities and operations not listed above that would reasonably be expected to discharge contaminated runoff, and revise as necessary, implement, and document the appropriate BMPs to protect water quality from discharges from these sites in the O&M program.

Activity/Product	Implementation	Measurable Goals	Description and Support Information
Weekly visual inspections.	**4.2.6.6.1** Conduct weekly visual inspections of high priority facilities in accordance with the developed SOPs to minimize the potential of pollutant discharge.	Develop a weekly inspection form and log format for high priority facilities and conduct weekly inspections.	**Description**: Weekly inspections as required by the permit. **Selection**: Conduct as required. **Target Pollutants**: All pollutants. **Target Audience**: Permittees. **Effectiveness**: Reduce pollutants and identify source. **Staff**: Storm Water Manager, MS4 staff, and permittee. **Funding**: Storm Water budget.
Material storage dewatering onto an impervious surface.	**4.2.6.6.6** Proper management and disposal of waste and wastewater removed from MS4.	Construct an impervious / contained area at the city shops for dewatering, street sweepings, catch basin cleanouts, water leaks, spoil piles, etc..	**Description**: The materials removed from the MS4 shall be dewatered in a contained, impervious area, discharges cannot be made onto the ground as underground waters are waters of the State. **Selection**: MS4/ facility storage / spoil areas. **Target Pollutants**: All pollutants. **Target Audience**: Facility employees. **Effectiveness**: Provide training for all MS4 staff. **Staff**: Storm Water Manager, Public Works Director, and MS4 staff. **Funding**: Storm Water budget.
SOPs	**4.2.6.6.6** SOP is updated to protect water quality from polluted storm water conveyances.	Prioritize storm drain system maintenance based upon water quality concerns.	**Description**: SOP for all city-owned storm water collection and conveyance system SOP includes routine **Selection**: MS4 **Target Pollutants**: All pollutants. **Target Audience**: City staff.

			Effectiveness: Employees and new hires. **Documentation**: Documentation of removed pollutants. **Staff**: Public Works Director and Storm Water Manager. **Funding**: Storm Water budget.
Minimum Performance Measure 4.2.6.7 – If a Permittee contracts with a third-party to conduct municipal maintenance or allows private developments to conduct their own maintenance, the contractor shall be held to the same standards as the Permittee. This expectation must be defined in contracts between the Permittee and its contractors or the contractors of private developments. The Permittee shall be responsible for ensuring, through contractually required documentation or periodic site visits that contractors are using appropriate storm water controls and following the standard operating procedures, storm water control measures, and good housekeeping practices of the Permittee.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Minimum Performance Measure 4.2.6.8 – The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the MS4. This process must include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while still meeting project objectives. A description of this process must be included in the SWMP document. **Minimum Performance Measure 4.2.6.8.1** – Existing flood management structural controls must be assessed to determine whether changes or additions should be made to improve water quality. A description of this process and determinations should be included in the SWMP document.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Assessment of water quality structural controls.	**4.2.6.8** Permittee development of process to assess the impacts of the design of structural management controls that may discharge to the MS4.	Draft a policy and process to assess water quality impacts on all new flood control projects. Get approval of policy.	**Description**: Development of procedure to assess structural controls. **Selection**: acceptable devices for structural controls. **Target Pollutants**: All pollutants, site specific. **Target Audience**: Permittee and the permit site. **Effectiveness**: Will be successful on implementation. **Staff**: MS4 staff and permittee and operator. **Funding**: Storm Water budget.
Assess existing structural controls.	**4.2.6.8.1** Existing structural controls need to be assessed to determine whether changes should or could be made to improve water quality.	See "Goals" in section 5 as part of the retrofit program.	**Description**: Assessment of existing control devices, to improve water quality. **Selection**: Visual and functional development to assess existing devices to follow the updated state permit. **Target Pollutants**: All pollutants that are listed in the permit. **Target Audience**: Permittee and site operator. **Effectiveness**: Will be successful on implementation. **Staff**: MS4 and Storm Water Manager. **Funding**: Storm Water budget.

Minimum Performance Measure 4.2.6.9 – Construction Projects. Public construction projects shall comply with the requirements applied to private projects. All construction projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, owned or operated by the Permittee are required to be covered under the General UPDES Permit for Storm Water Discharges Associated with Construction Activities.			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Minimum Performance Measure 4.2.6.10 – The Permittee shall ensure that all employees, contracted staff, and other responsible entities that have primary construction, operation, or maintenance job functions that are likely to impact storm water quality receive annual training. The Permittee shall identify target individuals to participate in the training sessions and ensure that all such employees receive training upon being hired and annually thereafter, at a minimum. Training shall address the importance of protecting water quality, the requirements of this Permit, operation and maintenance requirements, inspection procedures, ways to perform their job activities to prevent or minimize impacts to water quality, SOPs and SWPPPs for the various Permittee-owned or operated facilities and procedures for reporting water quality concerns, including potential illicit discharges. Training records must be kept and shall include dates, activities or course descriptions, and names and positions of staff in attendance. Follow-up training shall be provided as needed to address changes in procedures, methods, or staffing			
Activity/Product	**Implementation**	**Measurable Goals**	**Description and Support Information**
Employee training.	**4.2.6.10** The city will provide training for all employees with job functions are likely to impact storm water quality. New employees to be trained immediately upon hire, then annually thereafter.	Revise training. Conduct on-going training according to the employee's schedule. This is to include new hires.	**Description**: Training all employees, contracted staff and other responsible entities that can impact storm water **Selection**: MS4 staff / all employees. **Target Pollutants**: All pollutants. **Target Audience**: MS4 staff, all employees. **Effectiveness**: Employees / new hires, contracted staff and other responsible entities will be trained. **Staff**: Storm Water Manager, Public Works Director, MS4 staff, and all new hires. **Funding**: Storm Water budget.

REFRENCES

- "U.S. Census Bureau QuickFacts: Clearfield City, Utah." *Census Bureau QuickFacts*, 2019, www.census.gov/quickfacts/clearfieldcityutah.

- "Average Monthly Rainfall and Snow in Clearfield (Utah), United States of America (Inches)." *World Weather & Climate Information*, 2019, weather-and-climate.com/average-monthly-precipitation-Rainfall-inches,clearfield-utah-us,United-States-of-America.

APPENDIX A – PUBLIC EDUCATION AND OUTREACH REFRENCES AND DOCUMENTS

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PUBLIC EDUCATION AND OUTREACH

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2026

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DAVIS COUNTY STORMWATER COALITION

MONTHLY MEETING MINUTES AND ATTENDANCE

DAVIS COUNTY STORM WATER COALITION
2026-2027 FY Budget/Format Calculated Using Population

Member	Total Population	Percent of Total Budget	School Program			Media	Water Fair	Training	Public Outreach	Total Cost
			Materials		Teacher					
			Swag	Booklets				Contribution Divided Equally		
Davis County	3,511	0.9%	$40	$35	$131	$67	$76	$1,016	$10	**$1,374**
Bountiful	44,481	12.0%	$505	$441	$1,659	$844	$962	$1,016	$120	**$5,546**
Centerville	16,502	4.5%	$187	$163	$616	$314	$357	$1,016	$45	**$2,696**
Clearfield	34,062	9.2%	$387	$338	$1,271	$647	$737	$1,016	$92	**$4,487**
Clinton	23,538	6.4%	$267	$233	$878	$447	$509	$1,016	$64	**$3,413**
Farmington	25,660	6.9%	$291	$254	$957	$487	$555	$1,016	$69	**$3,629**
Fruit Heights	5,971	1.6%	$68	$59	$223	$113	$129	$1,016	$16	**$1,624**
Kaysville	32,761	8.9%	$372	$325	$1,222	$622	$709	$1,016	$89	**$4,355**
Layton	82,601	22.3%	$938	$818	$3,081	$1,568	$1,786	$1,016	$223	**$9,430**
North S.L.	22,537	6.1%	$256	$223	$841	$427	$487	$1,016	$61	**$3,310**
South Weber	8,124	2.2%	$92	$81	$303	$154	$176	$1,016	$22	**$1,844**
Sunset	5,372	1.5%	$61	$53	$200	$102	$116	$1,016	$15	**$1,563**
Syracuse	35,561	9.6%	$404	$352	$1,327	$675	$769	$1,016	$96	**$4,638**
West Bountiful	5,888	1.6%	$67	$58	$220	$111	$127	$1,016	$16	**$1,614**
West Point	11,892	3.2%	$135	$118	$444	$226	$257	$1,016	$32	**$2,227**
Woods Cross	11,487	3.1%	$131	$114	$428	$219	$249	$1,016	$31	**$2,188**
23/24 FY TOT										
Non Contributing Members										
U-Dot										
Hill AF Base										
TOTAL	**369,948**	**100%**	**$4,201**	**$3,665**	**$13,800**	**$7,022**	**$8,000**	**$16,248**	**$1,001**	**$53,937**

	Curtis Randall	Kaysville City	(801) 807-9222	crandall@kaysvillecity.com	
	Danny Rhondes	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
	Darel Webb	Syracuse City	801.837.6777	dwebb@syracuseut.com	
	David Williams	Clinton City	801.725.3762	dwilliams@clintoncity.com	
	Dayton Newel	Clearfield City	(801) 525-4423	dayton.newell@~~clearfieldcity.org~~	Clearfield City Ut. gov
	Greg Seegmiller	JUB	801.547.0393	gseegmiller@jub.com	
	Jason Fielding	Davis County	801.444.2230	jfielding@co.davis.ut.us	
	Jens Jorgensen	Farmington City	(801) 939-9286	jorgensen@farmington.utah.gov	
	Jason Boulton	North Salt Lake	(801) 381-7509	~~jason@nslcity.org~~	Jason b@NSLCITY.GOV
	Jason Monroe	Sunset City	801.614.0014	jmonroe@sunset-ut.com	
	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	jwyan@clinton.utah.gov
	Josh Pharr	Jacobs	678-863-9645	~~josh.pharr@jacobs.com~~	josh.pharr@jacobs.com
	Josh Steed	Layton City		jsteed@laytoncity.org	
	Kenneth Achter	Davis County	(801) 444-2230	kachter@codavis.ut.us	
	Kasey Jensen	Clinton City	801.941.1903	kjensen@clintoncity.com	
	Kathryn Lukes	Syracuse City	(801) 825-7235	klukes@syracuseut.com	
	Kris Nilson	West Bountiful City		knilsen@wbcity.org	

	Logan Barker	Kaysville City	801.726.9492	lbarker@kaysvillecity.com	
	Mark Johnson	South Weber City	(435) 770-6098	mjohnson@southwebercity.com	
	Mark Larsen	South Weber City	(801)479-3177	mlarsen@southwebercity.com	
	Matt Robertson	Jones & Associates	(801) 644-6680	mattr@jonescivil.com	
	Mike	Fruit Heights City			
	Mike Calarino	Layton City	801-726-0214	mcalarino@laytoncity.org	
NM	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	Nick Moss
	Paul Ottoson	North Salt lake	801.335.8723	paulo@nslcity.com	
	Phyllis Mayhew	Jacobs	385-229-5229	phyllis.mayhew@jacobs.com	
	Read Bangerter	Bountiful City	(801) 298-6125	rbangerter@bountifulutah.gov	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
	Robert Whiteley	Syracuse City	801.614.9682	rwhiteley@syracuseut.com	
	Sam Christiansen	Woods Cross City		schristiansen@woodscross.gov	
	Seth Anderson	Woods Cross City	801-725-4152	sethanderson@woodscross.gov	
	Stephen Jackson	Layton City	(801) 336-3700	sjackson@laytoncity.org	
	Steve Maughan	West Bountiful City	(801) 292-4486	smaughan@wbcity.org	

	Steven Fuhr	Layton City	801-336-3707	sfuhr@laytoncity.org	
	Sparky Taylor	Woods Cross City	801.209.9056	mtaylor@woodscross.com	
	Ted Parry	Fruit Heights City	801.927.7039	tperry@fruitheightscity.com	
TC	**Todd Christensen**	Bountiful City	801.298.6125	toddc@bountifulutah.gov	Todd Christensen
	Tim Thurman	Accena Group	(801) 403-0707	tim@accenagroup.com	
	Zac Burk	Jones & Associates	435.730.5000	zacb@jonescivil.com	
	James Strong	JUB Engineers	8015894780	Jstron@jub.com	
	Jeremy Udink	Clinton City	8016280056	jeremyudink@hotmail.com	
DH	Drew Howard	West Bountiful City	8016982280	drew.howard@centervilleutah.gov	Drew Howard
KC	Kedric Capron	Davis County Health Dept.	8015255112	kcapron@co.davis.ut.us	* Did not get USWAC email
	Kelsey York	DWQ	3852602760	kcyork@utah.gov	
	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	
SB	Stephanie Buglione	Davis County Public Works		sbuglione@co.davis.ut.us	
	Zane Adams	West Point City		zadams@westpointutah.gov	
TN	Trevor Nelson	UDOT	4357202124	trevornelson@utah.gov	Trevor Nelson Need USWAC agenda
DJ	Dylan Jensen	Fruit Heights City	8012002639	djensen@fruitheightscity.com	
SC	Skyler Crawford	Fruit Heights City	3855287278	scrawford@fruitheightscity.com	

	Brad Schaff	Layton City		bschaff@laytoncity.org	
SDS	Soren Simonsen	Jordan River Commission	8017061055	soren@jordanrivercommission.gov	
	Beau Fullmer	Sunset City	8016950575	Bfullmer@sunsetut.gov	
	Paul Ackerson	Layton City		packerson@laytoncity.org	
	Garret Grow	Farmington City	3858674559	ggrow@farmington.utah.gov	

Please ADD ☆

Mike Holt Accena 385-445-1861 mholt@accenagroup.com

Emily Bishop-Valles UDAF 385-620-9043 ebishop@utah.gov

Seth Anderson Woods Cross City 801-725-4152 Sethanderson@woodscross.org

Date 2/11/26

Davis County Storm Water Coalition

INT	NAME	ENTITY	PHONE NUMBER	EMAIL ADDRESS	
	Adam Wright	Davis County	(801) 444-2230	awright@co.davis.ut.us	
	Amanda Cross	Kaysville City	(801) 821-8499	across@kaysvillecity.com	
	Andrew Stokes	Davis County Health Dept.	(801) 525-5116	astokes@co.davis.ut.us	
	Angela Jones	Davis County Health Dept.	(801) 525-5115	ajones@co.davis.ut.us	
	Anthony Stone	WestPoint	(801) 928-6307	astone@westpointcity.com	
BA	**Blake Anderson**	West Bountiful City	801.381.1869	banderson@wbcity.org	Blake Anderson
	Braden Felix	Clearfield City		braden.felix@clearfieldcity.org	
	Brad Cherrington	Erosion Control Services	(801) 554-9632	office@erosioncontrolservices.net	
	Brandon Tremelling	Jones & Associates	(435) 592-9671	brandont@jonescivil.com	
	Bren Edwards	UDOT	(801) 309-5206	brenedwards@utah.gov	
	Brent White	Farmington City	385-271-5565	brwhite@farmington.utah.gov	
	Bruce Martin	Accena Group	801-615-2930	bruce.martin@stormwaterplan.com	
	Boyd Davis	West Point	801.776.0970	bdavis@westpointcity.org	
	Cameron Woodbury	Centerville City		cwoodbury@centervilleut.com	
	Corey Wilson	South Weber City	801-529-2620	cwilson@southwebercity.com	

	Curtis Randall	Kaysville City	(801) 807-9222	crandall@kaysvillecity.com	
	Danny Rhondes	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
DW	**Darel Webb**	Syracuse City	801.837.6777	dwebb@syracuseut.com	Darel Webb
	David Williams	Clinton City	801.725.3762	dwilliams@clintoncity.com	
	Dayton Newel	Clearfield City	(801) 525-4423	dayton.newell@clearfieldcity.org	
	Greg Seegmiller	JUB	801.547.0393	gseegmiller@jub.com	
	Jason Fielding	Davis County	801.444.2230	jfielding@co.davis.ut.us	
	Jens Jorgensen	Farmington City	(801) 939-9286	jorgensen@farmington.utah.gov	
	Jason Boulton	North Salt Lake	(801) 381-7509	jason@nslcity.org	
	Jason Monroe	Sunset City	801.614.0014	jmonroe@sunset-ut.com	
JW	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	
JP	Josh Pharr	Jacobs	678-863-9645	josh.pharr@jacobs.com	W. Jd PE
Remove	Josh Steed	Layton City		jsteed@laytoncity.org	
	Kenneth Achter	Davis County	(801) 444-2230	kachter@codavis.ut.us	
	Kasey Jensen	Clinton City	801.941.1903	kjensen@clintoncity.com	
	Kathryn Lukes	Syracuse City	(801) 825-7235	klukes@syracuseut.com	
	Kris Nilson	West Bountiful City		knilsen@wbcity.org	

	Logan Barker	Kaysville City	801.726.9492	lbarker@kaysvillecity.com	
	Mark Johnson	South Weber City	(435) 770-6098	mjohnson@southwebercity.com	
	Mark Larsen	South Weber City	(801)479-3177	mlarsen@southwebercity.com	
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Remove →	Mike Calarino	Layton City	801-726-0214	mcalarino@laytoncity.org	
NM	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	
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	Read Bangerter	Bountiful City	(801) 298-6125	rbangerter@bountifulutah.gov	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
	Robert Whiteley	Syracuse City	801.614.9682	rwhiteley@syracuseut.com	
	Sam Christiansen	Woods Cross City		schristiansen@woodscross.gov	
SA	Seth Anderson	Woods Cross City	801-725-4152	sethanderson@woodscross.gov	
Remove →	Stephen Jackson	Layton City	(801) 336-3700	sjackson@laytoncity.org	
	Steve Maughan	West Bountiful City	(801) 292-4486	smaughan@wbcity.org	

Remove →	**Steven Fuhr**	Layton City	801-336-3707	sfuhr@laytoncity.org	
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	Ted Parry	Fruit Heights City	801.927.7039	tperry@fruitheightscity.com	
TC	**Todd Christensen**	Bountiful City	801.298.6125	toddc@bountifulutah.gov	Todd Christensen
	Tim Thurman	Accena Group	(801) 403-0707	tim@accenagroup.com	
	Zac Burk	Jones & Associates	435.730.5000	zacb@jonescivil.com	
	James Strong	JUB Engineers	8015894780	Jstron@jub.com	
	Jeremy Udink	Clinton City	8016280056	jeremyudink@hotmail.com	
	Drew Howard	West Bountiful City	8016982280	drew.howard@centervilleutah.gov	
KC	Kedric Capron	Davis County Health Dept.	8015255112	kcapron@co.davis.ut.us	
	Kelsey York	DWQ	3852602760	kcyork@utah.gov	
	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	
	Stephanie Buglione	Davis County Public Works		sbuglione@co.davis.ut.us	
	Zane Adams	West Point City		zadams@westpointutah.gov	
TN	Trevor Nelson	UDOT	4357202124	trevornelson@utah.gov	
	Dylan Jensen	Fruit Heights City	8012002639	djensen@fruitheightscity.com	
	Skyler Crawford	Fruit Heights City	3855287278	scrawford@fruitheightscity.com	

BS	Brad Schaff	Layton City	801 336 3700	bschaff@laytoncity.org	Bradley Schaff
SDS	Soren Simonsen	Jordan River Commission	8017061055	soren@jordanrivercommission.gov	
	Beau Fullmer	Sunset City	8016950575	Bfullmer@sunsetut.gov	
GG	Garret Grow	Farmington City	3858674559	ggrow@farmington.utah.gov	

Seth Anderson — Woods Cross — 8017254152 — Sethanderson@woodscross.gov
Tayton Bennett — Farmington — 801 674 5018 — tbennett@farmington.utah.gov

Davis COUNTY HEALTH DEPARTMENT

Physical: 22 S State Street, Clearfield, UT 84015
Mailing: PO Box 618, Farmington, UT 84025
daviscountyutah.gov/health

Stormwater Coalition Report

February 11, 2026

Health Department Agenda Item:

Incident Reports January 14 - February 10, 2026

Incidents:

1. January 15, 2026 | Clearfield | Rancho Markets (26-00014)

   A complaint was received that raw sewage was flowing out of a sewer manhole located behind Rancho Markets and entering the storm drain. Edward Parker visited the site and found a contractor was in the process of unblocking the drain that caused the discharge. Mr. Parker could see the trail of wastewater at the south west side of the property where it had entered the storm drain. There was still visible waste material on the concrete and some residual moisture/wastewater from the spill. Notice of Violation (NOV) to be administered to Rancho Markets.

2. January 20, 2026 | Centerville | 725 N 1000 W (26-00015)

   Cameron Woodbury, Centerville City Stormwater, notified the department of a structure fire at Bartile Roof Tiles that occurred on January 19, 2026. It was reported that materials from the firefighting activities had entered the storm drain system. No enforcement action to be taken at this time.

3. January 24, 2026 | South Weber (USFS) | Weber River; UTM 424473, 4554194 (26-00022)

   The department received a DEQ Spill Report stating, "Caller reported that he saw six battery packs in the water of the Weber River. The battery packs were described as about the size of those used for an RC car and were likely lithium ion. Caller stated he could remove the battery packs from the river but requested

assistance for disposal." Edward Parker met the complainant on site on January 29, 2026. The complainant showed Mr. Parker the location of the batteries. They reported that they had removed about 40-50 batteries and gave them to the Davis County Sheriff on 1/25/2026. They reported that there were 20 to 30 batteries left in the water that they could not access. At the time of investigation, the river was frozen over at the location. The batteries are reported to be in an area that is roughly 5 to 6 feet deep. Mr. Parker was unable to access or view the batteries at this time. Edward Parker contacted Samantha Heusser of DWQ via email. Ms. Heusser reported that they were aware of the incident, and reported that spill technician Katie Garth of DWQ will be contacting Mr. Parker. Katie Garth will meet Edward Parker on 2/11/26, at the complaint site to retrieve the batteries.

4. February 4, 2026 | Centerville | Extreme Auto Services (26-00023)

The department received a DEQ Spill Report stating, "in October 2025 a 400 gallon oil tank without a lid released oil onto a concrete pad that then impacted soil. The complainant stated that the company put a plywood top on the tank, but that it is still leaking." Danna Lansing, with DCHD, visited Extreme Auto Services to investigate the complaint. Danna spoke with Colton, an employee on shift at the time of the investigation. They are located on a concrete pad. The smaller tank has secondary containment, while the larger tank does not. The larger tank has a plywood board covering the opening. A small amount of oil could be seen on the pavement and led towards the unpaved ground. Colton stated that the spill Danna observed occurred when employees emptied the used oil into the container. The employees placed absorbent litter onto the spill to clean it. Colton stated that the tanks are emptied weekly by Tri-State, and that the tanks are not full when they are emptied. Notice to be administered to Extreme Auto Services.

5. February 4, 2026 | Layton (HFB) | Hill Air Force Base (26-00024)

The department received a DEQ Spill Report stating, "The caller is reporting that sewage from a contractor trailer had been leaking from the trailer's storage tank between 1/31/2026 and 2/4/2026. The sewage is contained on the asphalt and in the storm drain. An environmental company is vacuuming the storm drains and asphalt." Danna Lansing, with DCHD, spoke to Justin Beard, with Hill AFB, on the phone. Mr. Beard stated that the spill was cleaned by 9PM last night (2/4/2026). The sewage was vacuumed up and the storm drain was cleaned and neutralized.

Meeting Minutes

UtWAC Updates
Seth Anderson

Presentation on O&M Plans - a tool that can be used as a template
CPD Permit changes - a few changes reviewed
SMALL MS4 Permit renewal this year
will need to submit sump after Permit renewal.
Don't worry about NOI for now; they're trying to figure it out

Davis Health Dept
Kedrick Capron

Clearfield sewer MH backed up into area behind bldg
Will issue NOV

1/20 Centerville Structure fire @ business.
Fire Fighting fluids/foam discharged

1/24 S. Weber report from DEQ witness saw six battery packs - Davis Health meeting today w/ DEQ

2/4 Centerville Extreme Auto. Container of oil reported as leaking, but was spilled. No storm Drain impacted. 'Notice' will be given

2/4 Hill AFB Sewage from contractor trailer leaking. Contained & cleaned up.

Water Fair
Danny Rhodes

21-22 (Tu-We) April is water fair.
Sign up sheet will go out soon. Coalition will have 2 booths. Working to get presenters
Jason can help w/ lunches

Price went up about double from last year: total about $2200

Other options to consider would be helpful

Jordan River Foundation may be able to help using about $1000 from grant funding

Meeting Minutes Continued...

SWAG - L
Danny & Darel

Darel/Danny provided link for ordering SWAG of stuff to use for water Fair & teacher program. We'll need to order stuff soon for water Fair. We want to get pricing on printouts of crossword. We could consider slap bracelets, pencils Dripswag in Layton is possible vendor

Danny will get info out to consider

Interlocal Agreement
Danny Rhodes

It looks like not much will need to really change except for dates (effective / termination) We will need to get everyone to take to their governing body for approval.

Roundtable

Question from Drew. He's looking for ideas to meet 4.2.2 Public involvement & participation. He's considering organizing an event.

Woods Cross sets up booth at Public Safety
Ogden City had an Adopt A Stream program & Adopt a Storm Drain program
Let Drew know if you have any further info.

Jordan River Commission is linking classroom education w/ field trip AND w/ a Day of Service activity.

HB 489 - is being considered at legislature could restrict what could be required for retention & detention

UFSMA may do Spring Jordan River / SD Sewer Dist. event.
Registration is closed for contractor training. It's full.
Next Tuesday at 7:00 am

meeting minutes cont.

Dawn

Dawn has been talking w/ person from April Stoker Cache Co. looking for ideas for their coalition. She was impressed w/ how much Davis Coalition does.

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daviscountyutah.gov/health

Stormwater Coalition Report

May 13, 2026

Health Department Agenda Item:

Incident Reports April 7 - May 12, 2026

Incidents:

1. April 13, 2026 | Kaysville | Holmes Creek (26-00105)

   DEQ Report #20270 received stating, “Severe bank erosion is observed along Holmes Creek in Kaysville, Utah. Approximately 1300 cubic feet of material has eroded from the stream banks cutting into a pasture area where farm equipment including a cart has reportedly fallen into the creek." Danna Lansing visited the site of concern to assess the water quality. The water appeared clear with no turbidity and no visible oil sheen. Danna spoke with Katie Garth, with DWQ. Katie stated that the property tenant is working with Davis County Public Works and the Army Corp to correct the erosion. Katie also stated the tenant will ensure the cart is removed from the water. Eric Mullen, Davis County Public Works, will inform the Health Department when the project is completed.

2. April 15, 2026 | West Bountiful | 1425 N 1100 W (26-00109)

   DEQ Report #20277 received stating, “The caller is reporting a release of diesel, onto the ground, from an out of order 400 gallon two axle tanker trailer that is used for storage. The caller states the cause of the leak is due to improper welding of the tanker. The caller states that the release has been ongoing since July, 2019. Caller states that about 5 gallons of diesel release from the tanker trailer per month. The caller states the SRP uses the tanker for storage and not transport.” Danna Lansing spoke on the phone with the Fire Marshal, Cole Fessler. Cole stated that the Davis County Sheriff's Office was at the complaint address over the weekend and found dynamite and blasting caps. The South Davis Metro Fire Department was called in to assess the fire risk. It was also found that approximately 2500 gallons of diesel was being stored in a roll-off trailer. Envirocare was called in to pump out the diesel. Cole stated the roll-off trailer is not the tank described in the complaint and that there are more tanks and trailers that could be storing diesel. The Sheriff's Office and Fire Department will be evacuating the area and

detonating the explosives. Afterwards, Cole stated that he would coordinate with Danna a time to go onsite and investigate the diesel spills and soil contamination.

3. April 24, 2026 | Farmington | Farmington Creek (26-00118)

DEQ Report #20294 received stating, "The owner of 180 W 600 N called to report disturbance to the creek that runs into their property, and resulting potential contamination of downstream wetlands from sediment and construction-related contaminants. A contractor working on the property upstream (northeast) is reportedly digging up the creek and changing the water flow. The work began last week. The water originates from Farmington Creek as it crosses southwest under N Hidden Hollow (road), is diverted through a headgate southwest to run parallel to Farmington Creek, and passes through the property under construction and then the caller's property; it then flows south to the pond in Lagoon, back into Farmington Creek, and eventually to Farmington Bay. The contractor reportedly stated that he had contacted Davis County to inquire about permit requirements. He did not receive a response and proceeded with the work without a permit. He had originally stated that the creek would not be disturbed. The property owner / caller requests to be contacted about the legality of the contractor's actions." Brent White, Farmington City, was contacted and he was already aware of the complaint. Mr. White told Kedric that he was working with Kelsee York on the complaint and that he would share any documentation he had with the Health Department.

4. May 8, 2026 | Fruit Heights | 1450 E Green Rd (26-00133)

A complaint was received from the public stating that a resident has 3, 55 gallon drums of diesel in their backyard. The drums are in good condition and are not leaking. However, the resident is siphoning the diesel into fuel tanks with a hose and it is contaminating the ground. The complainant states that this has been going on for over a year and is concerned because the home is next to Bair Creek. The complaint is under active investigation.

5. May 8, 2026 | Clearfield | 1016 S 550 E (26-00134)

A complaint was received from the public stating that a neighbor has been repeatedly dumping used motor oil on the side of a garage. The complaint is under active investigation.

6. May 8, 2026 | Clearfield | (TBD)

DEQ Report #20323 received stating, “The caller reported that a neighbor has been repeatedly dumping used motor oil on the side of a garage. This is an ongoing issue. The caller stated they had a confrontation with the neighbor regarding the dumping,

during which the neighbor (the responsible party) was informed that a formal report would be filed. The complaint is under active investigation.

7. May 12, 2026 | Kaysville | (TBD)

   DEQ Report #20332 received stating, “Kaysville Public Works reported that an unknown blue material, possibly a dye or paint, has infiltrated Kays Creek. The amount of the contaminant is unknown at this time. The Davis County Health Department and Kaysville Public Works are on-site working on the cleanup and gathering more information.” The complaint is under active investigation.

Davis COUNTY HEALTH DEPARTMENT

Physical: 22 S State Street, Clearfield, UT 84015
Mailing: PO Box 618, Farmington, UT 84025
daviscountyutah.gov/health

Stormwater Coalition Report

March 11, 2026

Health Department Agenda Item:

Incident Reports February 11 - March 10, 2026

Incidents:

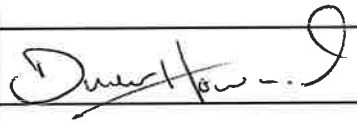
1. March 3, 2026 | Farmington | Foxglove Shopping Center (TBD)

   Farmington City found cooking oil entering Shepard Creek behind the Foxglove Shopping Center at the Southeast corner. It appears that the oil was poured into a storm grate in the open parking lot behind the Chang's Chopstix Restaurant.

Date 3/11/2026

Davis County Storm Water Coalition

INT	NAME	ENTITY	PHONE NUMBER	EMAIL ADDRESS	
	Adam Wright	Davis County	(801) 444-2230	awright@co.davis.ut.us	
	Amanda Cross	Kaysville City	(801) 821-8499	across@kaysvillecity.com	
	Andrew Stokes	Davis County Health Dept.	(801) 525-5116	astokes@co.davis.ut.us	
	Angela Jones	Davis County Health Dept.	(801) 525-5115	ajones@co.davis.ut.us	
	Anthony Stone	WestPoint	(801) 928-6307	astone@westpointcity.com	
BF	Beau Fullmer	Sunset City	8016950575	Bfullmer@sunsetut.gov	B F
	Blake Anderson	West Bountiful City	801.381.1869	banderson@wbcity.org	
	Boyd Davis	West Point	801.776.0970	bdavis@westpointcity.org	
	Brad Cherrington	Erosion Control Services	(801) 554-9632	office@erosioncontrolservices.net	
BS	Brad Schaff	Layton City		bschaff@laytoncity.org	Brad Schaff
	Braden Felix	Clearfield City		braden.felix@clearfieldcity.org	
	Brandon Tremelling	Jones & Associates	(435) 592-9671	brandont@jonescivil.com	
	Bren Edwards	UDOT	(801) 309-5206	brenedwards@utah.gov	
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	Cameron Woodbury	Centerville City		cwoodbury@centervilleut.com	
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	Curtis Randall	Kaysville City	(801) 807-9222	crandall@kaysvillecity.com	
	Dan England	CEC Engineering	385-3135482	dane@cec-engineers.com	
	Danny Rhondes	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
	Darel Webb	Syracuse City	801.837.6777	dwebb@syracuseut.com	
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	Greg Seegmiller	JUB	801.547.0393	gseegmiller@jub.com	
	James Strong	JUB Engineers	8015894780	Jstron@jub.com	
	Jason Boulton	North Salt Lake	(801) 381-7509	jason@nslcity.org	
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	Jens Jorgensen	Farmington City	(801) 939-9286	jorgensen@farmington.utah.gov	
	Jeremy Udink	Clinton City	8016280056	jeremyudink@hotmail.com	
JW	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	
	Josh Pharr	Jacobs	678-863-9645	josh.pharr@jacobs.com	
KJ	**Kasey Jensen**	Clinton City	801.941.1903	kjensen@clintoncity.com	
	Kathryn Lukes	Syracuse City	(801) 825-7235	klukes@syracuseut.com	
KC	Kedric Capron	Davis County Health Dept.	8015255112	kcapron@co.davis.ut.us	
	Kelsey York	DWQ	3852602760	kcyork@utah.gov	
	Kenneth Achter	Davis County	(801) 444-2230	kachter@codavis.ut.us	
	Kris ~~Nilson~~ Nilsen	West Bountiful City		knilsen@wbcity.org	
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	Mark Larsen	South Weber City	(801)479-3177	mlarsen@southwebercity.com	
	Matt Robertson	Jones & Associates	(801) 644-6680	mattr@jonescivil.com	
	Mike	Fruit Heights City			
NM	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	
PT	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	

	Phyllis Mayhew	Jacobs	385-229-5229	phyllis.mayhew@jacobs.com	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
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	Skyler Crawford	Fruit Heights City	3855287278	scrawford@fruitheightscity.com	
SDS	Soren Simonsen	Jordan River Commission	8017061055	soren@jordanrivercommission.gov	
SB	Stephanie Buglione	Davis County Public Works		sbuglione@co.davis.ut.us	
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	Zane Adams	West Point City		zadams@westpointutah.gov	

Mike Holt Accenn 385-445-1861 mholt@accenagroup.com

Jason Trusillo Sunset City 801-941-9355 JTrusillo@sunsetut.gov

DCSWC Meeting Notes

Danny Rhodes: Welcome

Kedric Capron: Reported on one incident for the month of February in Farmington City. Frying oil entered storm water from a restaurant.

USWAC: Drew Howard mentioned presenters and their topics. Paul raised awareness to Jeanne's reminder to ensure that you are using the latest SWPPP Inspection Forms available on the DWQ site. Soren spoke to HB489 not passing at legislature this year, but it is likely to come back around next year, giving us 1 year to help educate about the importance of LIDs like Retention Ponds. Greg Seegmiller spoke to the bad science behind those who may not understand retention referring to as little as 1% of the shed and stormwater making its way to the Great Salt Lake.

MS4 Contractor Training Debrief: Greg Seegmiller: Full attendance this year. For future, Jeanne Riley has access to a database for our reference to help with outreach for promoting and reaching out specifically to contractors for the event going forward. 22 Contractors in attendance and 140 MS4's. Subcommittee members are open to suggestions for improvements next year.

Water Fair: Drew and Kasey: Presenters are on the calendar. Jordan River Commission would like to have a booth this year in one of the buildings for both days. WSP cost for the venue increased almost $1000.00 this year. Budgets will likely need to be adjusted again to account for rise in costs. Danny Rhodes is working with Adam Wright to attempt to lower costs for the event to ensure its existence in years to come. SWAG needs to be decided on and ordered asap. Danny or Seth will send out emails to members with swag options one more time. Darrel to place order.

Website: How often should site be updated? Can we link a Facebook account to the site? What other content would members like to see added?

Danny Rhodes: Interlocal Agreement is almost ready for send out to members for final review and signatures. Remember that his document must go through vetted process of all City Councils to be officially adopted for the next 5 years.

Danny Rhodes: Shout out to Kaysville City from Rita Stevenson. A young man took her lesson to heart and was captured on photo cleaning off an inlet filter in his neighborhood.

Round Table: May 14th Social and Lunch for Flood Plain Managers at South Davis Sewer District sponsored by UFSMA. Members free, nonmembers are $10. Urban Watershed Workshop scheduled for April 14th this year at the same location in Layton. RSVP now. Soren Sorenson spoke to Grant money from Northrup Grumman to sponsor educational

events for kids, especially on the ‘Day of Service 9/11’, combined with Jordan River Commission ‘Get to the River’ event. Soren asked if Davis County has a Chamber of Commerce available and if anyone has contact information that they are willing to share. Soren spoke to continuing their efforts to raise awareness to watershed quality and protection.

Aug 12, 2026 MINUTES / NOTES

- USWAC UPDATES
  - ATTEND USWAC! GOOD RESOURCE
  - NOV's FOR Escalating ENFORCEMENT

- DCHD UPDATES
  - 8 INCIDENTS · REFER TO REPORT
  - KEORIC VALIDATED CONTACTS W/ DCHD FOR ANNUAL REPORT: REPORT DISTRIBUTION.

- TREVOR to SEND INSPECTION REQUESTS FOR PONDS. Compliance Co.

- APWA REIMBURSEMENT SCHEDULE APWA ~~AUG~~ 18-19

- KELSEE · ANNUAL REPORT OCT 1
  · NOI NOV 9
  · APWA RESOURCES PROVIDED
  · CREATING SUBCOMMITTEE MS4's.

- COREY WILSON: GOING TO STORMCON

> KELSEE NEEDS VOLUNTEERS BY NEXT MONTH FOR SUBCOMMITTEE TO DEVELOP RESOURCE FOR EXPEDITE OVERSITE INSPECTION VIOLATIONS AND STANDARDIZE LANGUAGE. MEMBERS TO MEET MONTHLY.

- TED PARRY · RETIRING. CONGRATS.

Davis COUNTY HEALTH DEPARTMENT

Physical: 22 S State Street, Clearfield, UT 84015
Mailing: PO Box 618, Farmington, UT 84025
daviscountyutah.gov/health

Stormwater Coalition Report

April 8, 2026

Health Department Agenda Item:

Incident Reports March 11 - April 7, 2026

Incidents:

1. March 11, 2026 | Kaysville | 1122 Sportsplex Dr (26-00047)

   A report was received from Logan Barker, Kaysville City, stating that a trash compactor at Parallon was leaking hydraulic fluid into the storm drain system. The hydraulic fluid reportedly discharged into a trench drain and traveled 60' down pipe into the parking lot catch basin and no further. Spill was contained by Kaysville City and Envirocare completed the necessary remediation.

2. March 24, 2026 | Farmington (UDOT) | Farmington Bay (26-00081)

   DEQ Spill Report #20226 was received stating that "Caller reported there are 2 500-gallon totes leaking to the soils near the Farmington Bay Wildlife Management Area. Information from Davis County indicates the property is owned by UDOT Region 1. Caller stated there were a total of 20 totes stored on the property. The totes were labelled EPS-50-Overlay B epoxy/polyurethane co-polymer. Caller was concerned that the totes are within the wetlands area and the aquatic toxicity of the material released. Caller provided the attached photos to the UDEQ". Bren Edwards, UDOT, informed Randy Olson, DCHD, that he had investigated the leaking tanks and had found that they had been left on the property by a contractor who had previously worked on the South Davis Highway project. All totes and affected soil have been removed and remediated.

3. March 25, 2026 | HAFB | 7860 Arsenal Rd (26-00082)

   DEQ Spill Report #20233 was received stating that "the caller reported that an underground storage tank was being removed, and when it was set down, a metal tab got torn. this caused about (50-60) gallons of an unknown residual oil to release onto soil. no waterways or storm drains were affected". Kedric Capron spoke with Justin

Beard, Hill AFB. Mr. Beard stated that when a 10,000 gallon underground storage tank was being moved, the tank was punctured and residual heating oil in the tank released onto the soil. It was estimated that 50 gallons of residual heating oil was released. Absorbent materials were used and all affected soil and materials were disposed of.

4. March 26, 2026 | North Salt Lake | Big West Oil (26-00097)

DEQ Spill Report #20234 was received stating that "the caller is reporting a leak in an oily water sewer line. A sheen on a puddle was discovered at the beginning of March. Once the sheen was discovered the pipe was shutoff and excavation began to determine the reason for the sheen. The facility discovered the leak in the pipe on March 25th and spoke with Ethan Upton in DWMRC. The area is being remediated. The pipe contained wash water from an oil pad."

5. March 26, 2026 | North Salt Lake | Tunnel Springs Park (26-00098)

DEQ Spill Report #20238 was received stating that "Caller reported during a morning walk around Tunnel Springs Park in North salt Lake that a pump truck just east of the park made its way through a locked gate and started depositing a black sludge like material upon the ground. The caller has witnessed 2 separate dumping activities resulting in a sludge pond to be formed that is roughly 20x20 yards."

6. March 28, 2026 | North Salt Lake | Village Station Apartments (26-00099)

DEQ Spill Report #20240 was received stating that "Caller stated that a employee of Moon's Mobile Oil Changes has been working on multiple vehicles over the course of a couple weeks in the parking lot between the village station apartments. Caller stated that the employee was dumping used motor oil off of the left side of the road." Kedric Capron visited the complaint site. Upon investigation, Kedric did not see any evidence of Moon's Mobile Oil Changes or oil being dumped into the street.

7. April 6, 2026 | Fruit Heights | Somerset Place Condominiums (26-00092)

A complaint was received reporting that a tenant at Somerset Place Condominiums was washing their vehicle in a carport and allowing cleaners and wash water to discharge into the storm drain.

Meeting Minutes

USWAC Updates
Seth Anderson

Kelsie gave presentation about submitting NOI
Deadline will be June 11th 2026 (will be available May 12th)

Small MS4s will need to update SWMP & submit electronically by Nov 9th

Review & Update SOPs
If you use templates, make sure to customize them (they're available as a resource)

Discussion about oversight inspections - changing to one inspection / year if they pass 2 inspections

Draft Permit is in Public Comment Period until Apr 30th

Health Dept.
Kedric Capron

March 11 Kaysville Trash compactor @ business leaking into SD Contained. Enviroclare cleaned up

March 24 Farmington. Totes of road sealant left them from highway project. All cleaned up.

March 25 Hill AFB Removing Underground Tank ~50 gal heating oil leaked on soil. All cleaned up

March 26 NSL Big West leak on water over pipe - oil sheen seen. Area remediated

March 26 NSL Tunnel Springs Park - Truck depositing sludge on ground. Just a complaint Was actually silt (not sludge) being dried.

March 28 NSL Apartments oil moons oil changes Dumping used oil off side of road. Not confirmed (County could not see any evidence)

Foot Heights @ Condos Tenant washing vehicle in Carport. Davis Co followed up.

DWQ
Kelsee York

Jason asked about who can sign NOI's for city.
Elected Officers can sign (Elected Public Works official)

Water Fair
Danny Rhodes

Coming up in 2 weeks
Final Count: 19 schools, well split into numbered groups to make it work
We have slap bracelets & handouts &
We'll get bottled H_2O
Layton City should have projectors & easles
Kaysville
Brent will pick up curtains from Diamond
Presenters are locked in
Well have 2 erosion control trailers
DC will bring excavator
W. Bountiful will bring skid steere
Syracuse can bring camera truck & vac truck
Jason helping w/ food

We think doors will open @ 8:00 am

Urban Watershed
Danny

Is next Monday, @ WSU Davis Campus
There is still some space available for registrations
Have CEU credits

Interlocal Agreement
Danny Rhodes

Some late comments came in:
May need terms for withdrawal per Utah Code
We may do an amendment later
But just keep it as is for now.

Go with latest version that Danny sent out.
Current Interlocal Agreement expires May 11th +120 days.

Kelsee is okay w/ Agreement
We will need to submit w/ SWMP Update
Preferred: Send Kelsee email w/ link to website having SWMP

Treasurer
Danny Rhodes

Transfer completed from Bountiful to Layton City
Amount was just over $141,000

We now have an opportunity to figure out other things we could do w/ advertising, etc.

Roundtable

Kelsee - NOIs needed and they will get it into NeT MS4
Will need to be signed by Principal officer or Highest elected official

May 12th is when option to renew will be available
Look for "RENEW #"
Any time by June 11th to have signed/certified will not be considered late.

MS4 Permit is open for Public Comment until Apr 30.

About Oversight Inspections
There will be more flexibility in determining what are "priority"
"Priority" sites will need to be
Other sites, IF having adequate compliance history then can use 1/yr inspections during construction (still would have Zone pre-con and Zone post-const).

Adequate Compliance History means 2 consecutive inspections w/out warnings or other enforcements, and no complaints.

USWAC will revise SOP Templates related to this

SWPPP Review checklists came out last month, some things like Fugitive Dust requirements (can't be enforced by storm water program.) were to exactly match permit requirements — and nothing more.

Brent Edvard has now moved on as State's spill Coordinator. Trevor Nelson got promotion. Trevor's old position will be open

Emily Tulsi from ADS will do a presentation next month, about separators, controls, and other stuff

Jordan River Watershed Commission is doing several activities this summer - mostly targeting elementary school ages. Helping connect education opportunities w/ service. Soren has many resources

Date 3/11/2026

Davis County Storm Water Coalition

INT	NAME	ENTITY	PHONE NUMBER	EMAIL ADDRESS	
	Adam Wright	Davis County	(801) 444-2230	awright@co.davis.ut.us	
	Amanda Cross	Kaysville City	(801) 821-8499	across@kaysvillecity.com	
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DR	**Danny Rhondes**	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
DW	**Darel Webb**	Syracuse City	801.837.6777	dwebb@syracuseut.com	
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DN	**Dayton Newel**	Clearfield City	(801) 525-4423	dayton.newell@clearfieldcity.org	
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JD Jason Trujillo Sunset City JTrujillo@sunsetut.gov

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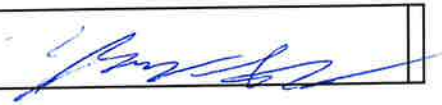
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	Jason Fielding	Davis County	801.444.2230	jfielding@co.davis.ut.us	
	Jason Monroe	Sunset City	801.614.0014	jmonroe@sunset-ut.com	

	Jens Jorgensen	Farmington City	(801) 939-9286	jorgensen@farmington.utah.gov	
	Jeremy Udink	Clinton City	8016280056	jeremyudink@hotmail.com	
	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	
	Josh Pharr	Jacobs	678-863-9645	josh.pharr@jacobs.com	W. Jl PL
	Kasey Jensen	Clinton City	801.941.1903	kjensen@clintoncity.com	
	Kathryn Lukes	Syracuse City	(801) 825-7235	klukes@syracuseut.com	
	Kedric Capron	Davis County Health Dept.	8015255112	kcapron@co.davis.ut.us	
	Kelsey York	DWQ	3852602760	kcyork@utah.gov	
	Kenneth Achter	Davis County	(801) 444-2230	kachter@codavis.ut.us	
	Kris Nilsen	West Bountiful City	801 292 4486	knilsen@wbcity.org	Kris Nilsen
	Logan Barker	Kaysville City	801.726.9492	lbarker@kaysvillecity.com	
	Mark Johnson	South Weber City	(435) 770-6098	mjohnson@southwebercity.com	
	Mark Larsen	South Weber City	(801)479-3177	mlarsen@southwebercity.com	
	Matt Robertson	Jones & Associates	(801) 644-6680	mattr@jonescivil.com	
	Mike	Fruit Heights City			
	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	
	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	

	Phyllis Mayhew	Jacobs	385-229-5229	phyllis.mayhew@jacobs.com	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
	Read Bangerter	Bountiful City	(801) 298-6125	rbangerter@bountifulutah.gov	
	Robert Whiteley	Syracuse City	801.614.9682	rwhiteley@syracuseut.com	
	Sam Christiansen	Woods Cross City		schristiansen@woodscross.gov	
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	Steve Maughan	West Bountiful City	(801) 292-4486	smaughan@wbcity.org	
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	Ted Parry	Fruit Heights City	801.927.7039	tperry@fruitheightscity.com	
	Tim Thurman	Accena Group	(801) 403-0707	tim@accenagroup.com	
	Todd Freeman	CEC Engineering		toddf@cec-engineers.com	
TC	**Todd Christensen**	Bountiful City	801.298.6125	toddc@bountifulutah.gov	
	Trevor Nelson	UDOT	4357202124	trevornelson@utah.gov	
	Zac Burk	Jones & Associates	435.730.5000	zacb@jonescivil.com	

	Zane Adams	West Point City		zadams@westpointutah.gov	

Meeting Minutes

USWAC Updates
Seth

Kelsee gave update on renewal MS4 permit
There will be bi-annual reporting
SWMP updates will be due Nov 9th (180 days from 5/12)
Renewal Application NOI is also due by same
There are 2 requirements to renew
1) Updated SWMP meeting renewal permit terms
2) Link to your website
Make sure you read the permit

RSW Class in September - sign up w/ LTAP
APWA Conf: August 18-19

Hydrodynamic Separators Presentation
Emily Tulsky

Discussed infiltration/LID feasibility
Pretreatment
Hydrodynamic Separator (HDS) benefits
separates solids & floatables
more volume/storage capacity for sediment & floatables
Can have HDS inlets
There is performance verification for HDS
- NJ DEP
- WA Ecology
4' Structure cost ≈ 15K

Water Fair Debrief
Danny Rhodes

Erosion Trailer is getting in state of disrepair (usu)
Have backup plan for bad weather
Keep in mind that our water fair is good public education opportunity
Feedback - waiting on written feedback; verbal feedback was all positive

UFSMA Event Tomorrow 11:30 - 1:30
Gregg Seegmiller

show up if you didn't register and want to come

Coalition Budget
Danny Rhodes

Budget was handed out
Discussion about activities & costs
- We could help sponsor urban watershed event
- we have not been spending on media as much as we did in years past

We could do additional activities for fall or something
We could do more SWAG, etc
Think of things to bring back ideas next month.

Rita is on board for another year of teaching

Training - UFSMA in Logan this year
APWA in August this year
Storm Con - Minneapolis in August 25-27

Treasurer: Layton City this year
Invoices go to Danny for approval
Will need W-9 for new payees

Roundtable

Interlocal Agreement is ready to go
Take to your city councils for approvals
Send signature sheet to Danny

Farmington doing Fair for emergency prep Sept 17
@ Davis Co Sports Park
Drew asked about logos on shirts & hats, etc

Meeting Minutes

USWAC Update
Drew Howard

Presentation on education curriculum that Jordan Watershed Council has been building
Free access to material: loveyourwatershed.org
Material is adaptable for many groups
Soren Simonsen or Rachel have more info

Annual Reports due Oct 1
SWMPs need to be updated & included w/ NOI application due Nov 9, 2026

UFSMA is open for registration Sept 28 - Oct 2

RSW Class Sept 22 - Register on UTAP website (in person)

Davis Health Dept Update
Kedric Cannon

- 8/11 Concrete washout - Elite Construction
  Overfilled bin, discharged to inlet box
- 8/15 Bountiful DEQ report of chemical dumping
  No evidence found. Checked pH, etc.
  Dept of Ag took soil samples - inconclusive
  Owner claims no chemical stored @ residence
- 8/22 Clinton Truck spilled fluid - about 10 gal
  Was cleaned up

StormCon Report
Corey Wilson

Minnesota: many projects funded by 3M
- where PFOS was developed
10,000 lakes

Interlocal Agreements
Seth Anderson

There are still a few members from whom we still need signed agreement. Please get in soon.

MS4 Annual Reports
Kelsee York

Due Oct 1st Submit via NeT website
Recommend not to wait until last minute
Remember signatory needs to be set up in NeT
Must include link to updated SWMP (on your website)
Jordan River Watershed Council can share information about their outreach to those who drain to Jordan River (NSL, Woods Cross, Bountiful, & Centerville)

Teacher Program
Seth Anderson

15,870 is new contract amount
Will be split into 3 payments
Current schedule has been printed
If

UCWAC
Seth Anderson
Remember to attend UCWAC in person if you can

UFSMA
Seth Anderson / Greg Seegmiller
For those sponsored by Coalition this year you will need to request reimbursement - send to Seth
Greg S. & Drew H. will be doing presentation

Roundtable

There are spots available on committee to plan the combined Coalition training in Feb..

Next year planning a bigger outreach to contractors also planning to do a survey

Roundtable Cont

UDOT may be resolving out regarding reports/ certifications for pond maintenance
Contact Trevor Nelson w/ any questions.
Kelsee looking to help w/ inspections & Consistency
One focus is to help standardize language for construction inspection reports.

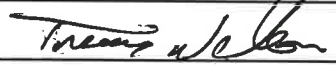
Date 9/9/2026

Davis County Storm Water Coalition

INT	NAME	ENTITY	PHONE NUMBER	EMAIL ADDRESS	
	Adam Wright	Davis County	(801) 444-2230	awright@co.davis.ut.us	
	Amanda Cross	Kaysville City	(801) 821-8499	across@kaysvillecity.com	
	Andrew Stokes	Davis County Health Dept.	(801) 525-5116	astokes@co.davis.ut.us	
	Angela Jones	Davis County Health Dept.	(801) 525-5115	ajones@co.davis.ut.us	
	Anthony Stone	WestPoint	(801) 928-6307	astone@westpointcity.com	
	Beau Fullmer	Sunset City	8016950575	Bfullmer@sunsetut.gov	BF
✓	**Blake Anderson**	West Bountiful City	801.381.1869	banderson@wbcity.org	BA
	Boyd Davis	West Point	801.776.0970	bdavis@westpointcity.org	
	Brad Cherrington	Erosion Control Services	(801) 554-9632	office@erosioncontrolservices.net	
	Brad Schaff	Layton City		bschaff@laytoncity.org	
	Braden Felix	Clearfield City		braden.felix@clearfieldcity.org	
	Brandon Tremelling	Jones & Associates	(435) 592-9671	brandont@jonescivil.com	
	Bren Edwards	UDOT	(801) 309-5206	brenedwards@utah.gov	
	Brent White	Farmington City	385-271-5565	brwhite@farmington.utah.gov	
	Bruce Martin	Accena Group	801-615-2930	bruce.martin@stormwaterplan.com	

	Cameron Woodbury	Centerville City		cwoodbury@centervilleut.com	
	Corey Wilson	South Weber City	801-529-2620	cwilson@southwebercity.com	
	Curtis Randall	Kaysville City	(801) 807-9222	crandall@kaysvillecity.com	
	Dan England	CEC Engineering	385-3135482	dane@cec-engineers.com	
	Danny Rhondes	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
	Darel Webb	Syracuse City	801.837.6777	dwebb@syracuseut.com	
	David Williams	Clinton City	801.725.3762	dwilliams@clintoncity.com	
	Dayton Newel	Clearfield City	(801) 525-4423	dayton.newell@clearfieldcity.org	
	Drew Howard	~~West Bountiful City~~ CENTERVILLE CITY	8016982280	drew.howard@centervilleutah.gov	
	Dylan Jensen	Fruit Heights City	8012002639	djensen@fruitheightscity.com	
	Emily Tulsky	Contech Engineered Solutions LLC	385-266-6180	emily.tulsky@conteches.com	
	Garret Grow	Farmington City	3858674559	ggrow@farmington.utah.gov	
	Greg Seegmiller	JUB	801.547.0393	gseegmiller@jub.com	
	James Strong	JUB Engineers	8015894780	Jstron@jub.com	
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JW	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	
JPP	Josh Pharr	Jacobs	678-863-9645	josh.pharr@jacobs.com	
	Kasey Jensen	Clinton City	801.941.1903	kjensen@clintoncity.com	
	Kathryn Lukes	Syracuse City	(801) 825-7235	klukes@syracuseut.com	
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KY	Kelsey York	DWQ	3852602760	kcyork@utah.gov	
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	Mark Larsen	South Weber City	(801)479-3177	mlarsen@southwebercity.com	
	Matt Robertson	Jones & Associates	(801) 644-6680	mattr@jonescivil.com	
	Mike	Fruit Heights City			
NM	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	
	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	

	Phyllis Mayhew	Jacobs	385-229-5229	phyllis.mayhew@jacobs.com	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
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	Sam Christiansen	Woods Cross City		schristiansen@woodscross.gov	
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	Tim Thurman	Accena Group	(801) 403-0707	tim@accenagroup.com	
	Todd Freeman	CEC Engineering		toddf@cec-engineers.com	
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TN	Trevor Nelson	UDOT	4357202124	trevornelson@utah.gov	
	Zac Burk	Jones & Associates	435.730.5000	zacb@jonescivil.com	

	Zane Adams	West Point City		zadams@westpointutah.gov	

Khaydence Khuffaker Layton City 8013363700 kkhuffaker@laytoncity.org

Jason Trujillo Sunset City 801-941-9355 JTrujillo@sunsetut.gov

LT Lauren Terry UDOT 504-722-1201 lterry@utah.gov Lauren Terry

Blake Anderson West Bountiful City (801) 381-1869

banderson@wbcityut.gov

Davis COUNTY HEALTH DEPARTMENT

Physical: 22 S State Street, Clearfield, UT 84015
Mailing: PO Box 618, Farmington, UT 84025
daviscountyutah.gov/health

Stormwater Coalition Report

September 9, 2026

Health Department Agenda Item:

Incident Reports August 11 - September 8, 2026

Incidents:

1. August 11, 2026 | Centerville | 720 S 700 E (26-00244)

   Centerville City reported a concrete washout from work done at a residence. Danna Lansing investigated the site and discovered that the tray had been replaced with an empty tray, but there was concrete residual in the gutter and storm drain. Drew Howard spoke with the responsible party, Elite Construction, who was unaware of the concrete washout. Danna later received an email from Drew Howard stating that the gutter along the street and the residual concrete from the inlet box of the storm drain had been cleaned by Sunrise Elite Construction. Drew visited the site and verified the cleanup. Notice of Violation to be administered to Sunrise Elite Construction.

2. August 15, 2026 | Bountiful | 2185 Orchard Pine Loop (26-00257)

   DEQ spill report received stating: "Caller reports her neighbor dumping chemicals from his truck and three small tanks into his yard and the street for two hours. Neighbor runs a lawn care business, caller reports that he has received an NOV in the past. Caller reports strong chemical odor, had also called Poison Control. Caller reports nearby storm drains in the street as well." Jonnathan Rodriguez and Kedric Capron investigated the incident. They did not observe residue of any substance in the gutter and did not detect any odors in the area. They tested the storm drain down stream for pH levels and the pH was neutral (7). Mr. Rodriguez and Mr. Capron contacted the owner of the property where the alleged discharge occurred. They spoke with Tim Cobbley with Clearviews Pressure Washing. Tim stated that he was aware of the event that occurred on Friday, August 14th. Tim stated that as he was filling up the 65 gallon tank on his truck with water, he noticed that the tank was damaged and leaking. Tim claimed that the fluid that was leaking was water only and the tanks did not contain any sort of chemical.

Mr. Rodriguez and Mr. Capron educated Tim of the impacts of stormwater pollution and reminded him to ensure that chemicals do not reach storm drains.

3. August 27, 2026 | Clinton | 1248 N 2430 W (26-00277)

John Wyan notified Kedric Capron of an incident that occurred the night of August 27, 2026. The complainant reported to Clinton City that a truck had spilled what was believed to be around 10 gallons of diesel fuel onto the ground. It is believed that no contaminants entered the storm drain system. Clinton City responded the following morning, August 28, at approximately 11:00 AM. The contaminated area had been swept and cleaned up using absorbent material. Kedric Capron visited the site of the spill. Clinton City and Kedric agreed that the area had been adequately cleaned.

Meeting Minutes

USWAC Updates
Drew Howard

Kelsee & Jeanne presented on coming changes
Remember NOI Deadline Nov 9th
Kelsee does review signatures
Kelsee will be checking links to website
State discussed grant funding
Updates to LID manual is coming
Updates to Permits is coming
They have posted an Annual Review Checklist on website - under resources

DWQ is creating new database for permitting
- getting away from CDX
motivation is they're not getting enough support from CDX.
- It will take years to implement

The OSG grant has a lot of money for water quality "Overflow Stormwater Grant" projects
If population < 10,000, match is 0% minimum
otherwise match is 20%

No Health Dept. Update (no Rep attending)

Presentation of Award
Rachel

Jordan River Commission presented award to Rita Stevenson for her contributions to education about watersheds & conservation
Many words of appreciated were shared about Rita's influence

UFSMA Debrief
Greg Seegmiller

Presentations were excellent; There was a stormwater track
Held in Logan
Drew & Brent presented on MCM1. Drew has a survey of teachers

Drew & Brent participated at Emergency Prep fair & spoke with estimated > 2000 people

Meeting Minutes Continued

New Check Request Form
Seth Anderson

A new form was made for reimbursement. Please use it
It was emailed out.

SWMP Update & NOI Submittal
Seth Anderson & Kelsee York

Kelsee will allow submittals by end of day Nov 9th
SWMP updates should be just a link.
Make sure it works.
Kelsee will check. Make sure appropriate person signs SWMP: principal officer or highest ranked elected official

Delegated person cannot sign NOI, but delegated person can sign Annual Reports

If submitted late, get it in ASAP close to deadline
Kelsee might allow a short grace period.

Coalition meeting in December?

Consider & discuss next month
Next month's meeting will be on 18th (rather than 11th)

Roundtable

Combined Contractor Training being planned for Feb 16th
Simon Sorenson will be keynote speaker
Kelsee will be speaking on resources for new SW Managers
Greg may need help with having contractors
show installation (proper) of silt fence & select BMPs)
and 'why' for each BMP is discussed
He's looking for someone to shepherd the suppliers
Danny may be able to help w/ that
We have exp # of attendees at 200

Meeting Minutes Continued

Roundtable Continued

Kelsee mentioned MS4 permit will be modified
Abundance Accelerator came through, motivating changes

- Linking Utah code better
- One timeframe for updating is changing from 180 days to 90 days
- Removing 60 day training window with prior to them doing their job

Stakeholder draft coming out by 1st of November

There is a Mtn States conference in SLC Nov 3-4

Todd asked about interest in re-visiting nutrient reduction several were interested.
Possibly creating a sub-committee
Kelsee mentioned possibly looping in Christine

Danny gave scenario and asked whether CPD?

Still regulate under IDDE program
Kelsee requested not to call local-only regulations non-threshold sites "SWPPP"
Could be called Erosion Control or something else

Darel mentioned updating attendance sheet

AND send in signed Interlocal Agreement
if you have not already

Date 10/14/2026

Davis County Storm Water Coalition

INT	NAME	ENTITY	PHONE NUMBER	EMAIL ADDRESS	
	Adam Wright	Davis County	(801) 444-2230	awright@co.davis.ut.us	
	Amanda Cross	Kaysville City	(801) 821-8499	across@kaysvillecity.com	
	Andrew Stokes	Davis County Health Dept.	(801) 525-5116	astokes@co.davis.ut.us	
	Angela Jones	Davis County Health Dept.	(801) 525-5115	ajones@co.davis.ut.us	
Remove	~~Anthony Stone~~	~~WestPoint~~	~~(801) 928-6307~~	~~astone@westpointcity.com~~	No longer works here.
	Beau Fullmer	Sunset City	8016950575	Bfullmer@sunsetut.gov	BF
	Blake Anderson	West Bountiful City	801.381.1869	banderson@wbcity.org	
	Boyd Davis	West Point	801.776.0970	bdavis@westpointcity.org	
	Brad Cherrington	Erosion Control Services	(801) 554-9632	office@erosioncontrolservices.net	
	Brad Schaff	Layton City		bschaff@laytoncity.org	
	Braden Felix	Clearfield City		braden.felix@clearfieldcity.org	
	Brandon Tremelling	Jones & Associates	(435) 592-9671	brandont@jonescivil.com	
	Bren Edwards	UDOT	(801) 309-5206	brenedwards@utah.gov	
BW	Brent White	Farmington City	385-271-5565	brwhite@farmington.utah.gov	
	Bruce Martin	Accena Group	801-615-2930	bruce.martin@stormwaterplan.com	

	Cameron Woodbury	Centerville City		cwoodbury@centervilleut.com	
	Corey Wilson	South Weber City	801-529-2620	cwilson@southwebercity.com	
	Curtis Randall	Kaysville City	(801) 807-9222	crandall@kaysvillecity.com	
	Dan England	CEC Engineering	385-3135482	dane@cec-engineers.com	
	Danny Rhondes	Woods Cross City	(801)292-4421	drhodes@woodscross.gov	
	Darel Webb	Syracuse City	801.837.6777	dwebb@syracuseut.com	Good
	David Williams	Clinton City	801.725.3762	dwilliams@clintoncity.com	
	~~**Dayton Newel**~~	~~Clearfield City~~	~~(801) 525-4423~~	~~dayton.newell@clearfieldcity.org~~	
	Drew Howard	West Bountiful City	8016982280	drew.howard@centervilleutah.gov	
	Dylan Jensen	Fruit Heights City	8012002639	djensen@fruitheightscity.com	
	Emily Tulsky	Contech Engineered Solutions LLC	385-266-6180	emily.tulsky@conteches.com	
	Garret Grow	Farmington City	3858674559	ggrow@farmington.utah.gov	
	Greg Seegmiller	JUB	801.547.0393	gseegmiller@jub.com	
	James Strong	JUB Engineers	8015894780	Jstron@jub.com	
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	Phyllis Mayhew	Jacobs	385-229-5229	phyllis.mayhew@jacobs.com	
	Randy Judd	Hill AFB	(801) 777-1866	randall.judd.1@us.af.mil	
	Randy Olson	Davis County Health Dept.	(801) 525-5128	rolson@co.davis.ut.us	
	Read Bangerter	Bountiful City	(801) 298-6125	rbangerter@bountifulutah.gov	
	Robert Whiteley	Syracuse City	801.614.9682	rwhiteley@syracuseut.com	
	Sam Christiansen	Woods Cross City		schristiansen@woodscross.gov	
SA	Seth Anderson	Woods Cross City	801-725-4152	sethanderson@woodscross.gov	
	Skyler Crawford	Fruit Heights City	3855287278	scrawford@fruitheightscity.com	
	Soren Simonsen	Jordan River Commission	8017061055	soren@jordanrivercommission.gov	
	Stephanie Buglione	Davis County Public Works	734748 9099	sbuglione@co.davis.ut.us	
	Steve Maughan	West Bountiful City	(801) 292-4486	smaughan@wbcity.org	
	Tayton Bennett	Farmington City	801-674-5018	tbennett@farmington.utah.gov	
	~~Ted Parry~~	~~Fruit Heights City~~	~~801.927.7039~~	~~tperry@fruitheightscity.com~~	RETIRED
	Tim Thurman	Accena Group	(801) 403-0707	tim@accenagroup.com	
	Todd Freeman	CEC Engineering		toddf@cec-engineers.com	
TC	**Todd Christensen**	Bountiful City	801.298.6125	toddc@bountifulutah.gov	
TN	Trevor Nelson	UDOT	4357202124	trevornelson@utah.gov	
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	~~Jens Jorgensen~~	~~Farmington City~~	~~(801) 939-9286~~	~~jorgensen@farmington.utah.gov~~	
	Jeremy Udink	Clinton City	8016280056	jeremyudink@hotmail.com	Remove
JW	John Wyan	Clinton City	801-941-0341	jwyan@clintoncity.com	
REMOVE	Josh Pharr	Jacobs	678-863-9645	josh.pharr@jacobs.com	REMOVE
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	Kenneth Achter	Davis County	(801) 444-2230	kachter@codavis.ut.us	
	~~Kris Nilson~~ Kris Nilsen	West Bountiful City	801 292 4486	knilsen@~~wbcity.org~~ wbcityut.gov	KN
	Logan Barker	Kaysville City	801.726.9492	lbarker@kaysvillecity.com	
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	~~Mike~~	~~Fruit Heights City~~			
NM	Nick Moss	Kaysville City	801.807.9224	nmoss@kaysvillecity.com	
	Paul Taylor	Consultant	4357254701	paultaylor2895@msn.com	

	Zane Adams	West Point City	801-940-8154	zadams@westpointutah.gov	

LT	Lauren Terry	UDOT	504 7221201	lterry@utah.gov	Lauren Terry
	Khaydence Hufftaker	Layton City	801-336-3700	khufftaker@laytoncity.org	K Hufftaker
	Rita Stevenson		801-336-8780	rss4boys@gmail.com	RS
	Rachel Lyn	Jordan River Commission	801 831-1437	rachel@jordanrivercommission.gov	Rachel Lyn
	Braden Felix	Clearfield City	801-525-4401	braden.felix@clearfieldcityut.gov	
	Dylan Jensen	Fruit Heights City	801-200-2639	djensen@fruitheights.gov	

ANNUAL BUDGET AND STATEMENT FOR CITY FINANCIAL SUPPORT

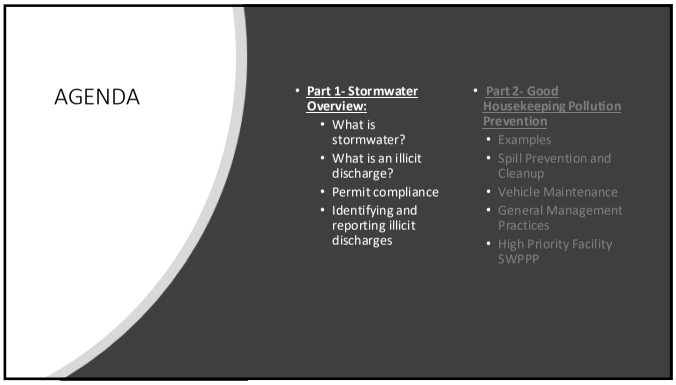
COALITION PUBLIC OUTREACH EFFORTS

CLEARFIELD CITY PUBLIC EDUCATION AND OUTREACH EFFORTS

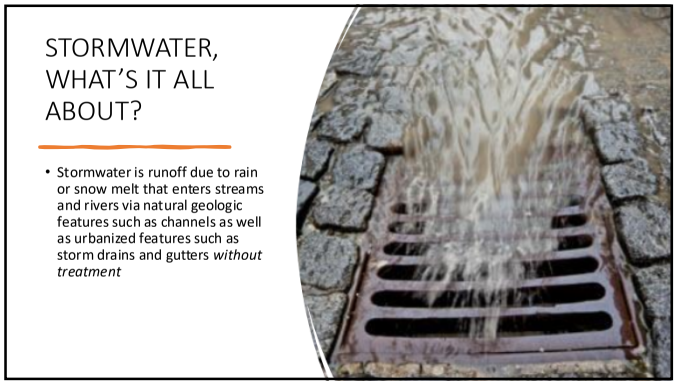
TRAINING DOCUMENTATION


City of Clearfield
STORMWATER MANAGEMENT TRAINING FOR
GOOD HOUSEKEEPING POLLUTION PREVENTION

1


AGENDA
Part 1- Stormwater Overview:
What is stormwater?
What is an illicit discharge?
Permit compliance
Identifying and reporting illicit discharges
Part 2- Good Housekeeping Pollution Prevention
Examples
Spill Prevention and Cleanup
Vehicle Maintenance
General Management Practices
High Priority Facility SWPPP

2


STORMWATER, WHAT'S IT ALL ABOUT?
Stormwater is runoff due to rain or snow melt that enters streams and rivers via natural geologic features such as channels as well as urbanized features such as storm drains and gutters *without treatment*

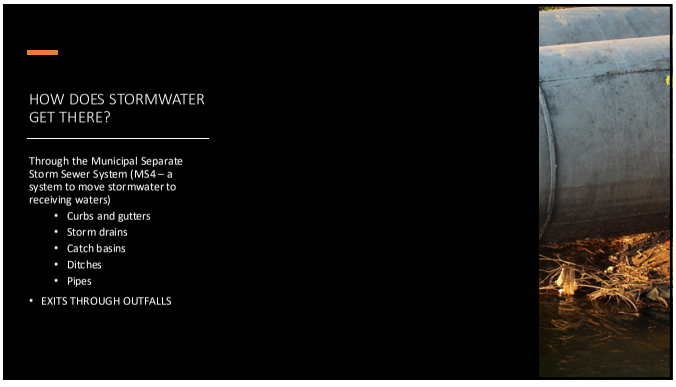
3


WHERE DOES STORMWATER GO?
RETENTION BASINS
RIVERS
STREAMS
LAKES
BASEMENTS

4


WHERE DOES YOUR STORMWATER GO?
ULTIMATLEY, THE GREAT SALT LAKE

5


HOW DOES STORMWATER GET THERE?
Through the Municipal Separate Storm Sewer System (MS4 – a system to move stormwater to receiving waters)
Curbs and gutters
Storm drains
Catch basins
Ditches
Pipes
EXITS THROUGH OUTFALLS

6

WHY IS STORMWATER QUALITY IMPORTANT?

Polluted stormwater negatively impacts

- Human health and safety
- Wildlife and habitat
- Recreation and tourism
- Land preservation



7

STORMWATER REGULATIONS

Stormwater compliance falls under Section 402 of the Clean Water Act and is administered by the EPA/

EPA delegates authority to the Utah DEQ

Utah DEQ issues Small MS4 General Permits

Six minimum control measures are a part of the permit

One of them is Illicit Discharge Detection and Elimination (IDDE)

- Requires a program to find a eliminate sources of non-stormwater discharge
- SOPs, Plans, Procedures
- Utah DEQ Small MS4 Permit Fact Sheet https://documents.deq.utah.gov/water-quality/facilities/general-storm-water-permit-common-plan/DWQ-2021-008108.pdf

8

WHAT IS AN ILLICIT DISCHARGE

- Any discharge to the MS4 not composed entirely of stormwater, except for allowed or separately permitted discharges
  - Also includes:
    - Illegal dumping and littering
    - Illicit connections: A physical connection of a non-stormwater source to the storm drain system





9

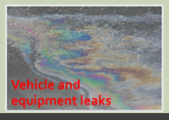
COMMON EXAMPLES OF ILLICIT DISCHARGES













10

SOME TYPES OF DISCHARGES ARE ALLOWABLE… BUT THEY STILL MUST BE POLLUTANT FREE

Water line flushing	Landscape irrigation	Diverted stream flows	Rising ground waters	Uncontaminated groundwater infiltration	Uncontaminated pumped groundwater
Discharge from the potable sources	Fountain drains	Air conditioning condensate	Irrigation water	Springs	Water from crawl space pumps
Footing drains	Lawn watering	Individual residential car washing	Non-commercial, charity car washes	Discharge from riparian habitats and wetlands	Street wash water
		Discharges of flow from fire-fighting activities	Building washing without added cleaning products		

11



RECOGNIZING POTENTIAL ILLICIT DISCHARGES

- Flow in the gutter or at an outfall without a rain event
- Unusual water characteristics (color, odor, bubbles, solids, etc.)
- Visual observation of discharge / disposal
- Pavement staining

12

ILLICIT DISCHARGES: WHAT TO REPORT?



- Chemical dumping
- Information on malfunctioning septic systems
- Leaking or blocked stormwater systems
- Dry weather discharges that may contain pollutant
- Silt and sediment runoff from poorly controlled construction sites
- *ANYTHING ELSE THAT DOESN'T LOOK LIKE NORMAL RAIN RUNOFF!*

13

HOW TO REPORT ILLICIT DISCHARGES

- If a potential illicit discharge is spotted:
  - Identify key information (location, discharge characteristics, obvious sources)
  - Take a picture if possible
  - Notify code enforcement or stormwater manager by phone or submit a work order
    - Stormwater Manager – Dayton Newell 801-525-4423
    - Code Enforcement – Ben Allen 801-525-2845

14

AGENDA

- Part 1- Stormwater Overview:
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- **Part 2- Good Housekeeping Pollution Prevention**
  - Examples
  - Spill Prevention and Cleanup
  - Vehicle Maintenance
  - General Management Practices
  - High Priority Facility SWPPP

15

GOOD HOUSEKEEPING POLLUTION PREVENTION

- Municipalities conduct activities each day that pose a threat to storm water quality
- Municipally-owned facilities are required to maintain pollution prevention measures and practices.
- MS4s are required to train municipal employees annually



16

EXAMPLE

SALT SHED

DO:
- Stockpile
- Push back into shed
- Apply as needed

DO NOT:
- Expose salt to storm water
- Use water to clean up the salt
- Over-apply the salt



17

MORE EXAMPLES





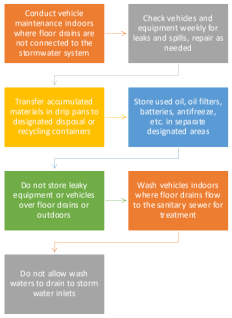
18

SPILL PREVENTION AND CLEANUP

- Clean up spilled fluids immediately
- Remove yourself from harm and contact others to assist with spill cleanup
- Refer to Safety Data Sheets (SDS)
- Place absorbent material or spill barrier around spilled material to prevent the flow of materials to a floor drain
- Cease cleanup operations and contact outside assistance if spill becomes hazardous to employees.
- Do not allow spills to flow offsite
- Do not hose spilled materials down with water (dilute, dilute, dilute)
- Position spill kits and spill absorbent materials in close proximity to fueling areas and other high-risk areas.
- Label all spill kit containers and materials.
- Do not place used materials back into spill kit

19

VEHICLE MAINTENANCE



20

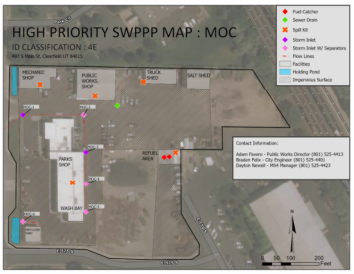
GENERAL MANAGEMENT PRACTICES

- Pick up litter
- Keep floors clean
- Inspect and clean floor drains
- Follow directions on chemical labels
- Record and document illegal dumping and illicit discharges, correct as necessary
- Do not allow debris to migrate into waterways
- Do not dispose of floor cleaning wash water to the storm sewer system
- Do not allow debris and spilled oils to enter storm sewer system

21

HIGH PRIORITY FACILITY SWPPP

- Public Works MOC



22

VIDEO

https://www.youtube.com/watch?v=XGpwGiYNfX4

23

QUESTIONS OR COMMENTS?

Any questions or concerns contact:

Dayton Newell
Dayton.Newell@Clearfieldcity.org
(801) 525-4423
OR
(360) 789-2638



24

City of Clearfield

STORMWATER MANAGEMENT TRAINING FOR

ILLICIT DISCHARGE DETECTION AND ELIMINATION

1

AGENDA

- **Part 1- Stormwater Overview:**
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- **Part 2- IDDE Program**
  - IDDE Program Elements
  - IDDE Investigation
  - Dry weather screening
  - Wet weather monitoring
  - General information

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WHERE DOES STORMWATER GO?

- RETENTION BASINS
- RIVERS
- STREAMS
- LAKES
- BASEMENTS



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WHERE DOES YOUR STORMWATER GO?

ULTIMATLEY, THE GREAT SALT LAKE

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HOW DOES STORMWATER GET THERE?

Through the Municipal Separate Storm Sewer System (MS4 – a system to move stormwater to receiving waters)

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- Stormwater compliance falls under Section 402 of the Clean Water Act and is administered by the EPA/
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- Six minimum control measures are a part of the permit
- One of them is Illicit Discharge Detection and Elimination (IDDE)
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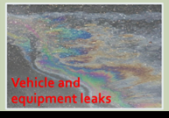
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    - Dayton.Newell@Clearfieldcity.org

14

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  - IDDE Program Elements
  - IDDE Investigation
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  - Wet weather monitoring
  - General information

15

WHAT IS THE IDDE PROGRAM?

- IDDE is just one program element described in the Stormwater Management Program (SWMP)
- Illicit discharge detection and elimination is a comprehensive program that assists the city in detecting, identifying, isolating, regulating, and eliminating illicit discharges



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ILLICIT DISCHARGE INVESTIGATION METHODS

- Above ground tracking – track discharge upstream until you locate the source
- Below ground tracking – review maps, GIS, as-builts, etc.
  - Manhole inspections
  - Dye testing
  - Smoke testing
  - CCTV



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ILLICIT DISCHARGE INVESTIGATION

- Initiate source tracking
- Indicate the potential source
- Use information from the field analysis to help identify the suspected source



18

TRACKING ILLICIT DISCHARGE CONNECTIONS

- Source related
  - Periodic in nature, time of day, one-time discharges
- Program related
  - Mapping, limited resources, task prioritization
- Infrastructure related
  - Access, complexity of system, multi-sources



19

ILLICIT DISCHARGE ELIMINATION

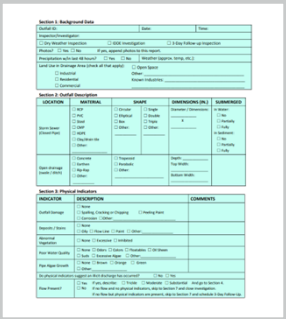
- The city will conduct dry and wet weather screenings (see SOPs)
- 1 outfall and 4 screening locations
- Wet weather monitoring, 4 times per year
- Dry weather screening
  - Completed during dry periods at least 72 hours after a rain event



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IDDE INVESTIGATION / INSPECTION FORM

- It is up to you to properly document and file any illicit discharges
- The illicit discharge will be traced back to the source and eliminated
- The form is easy to fill out



21

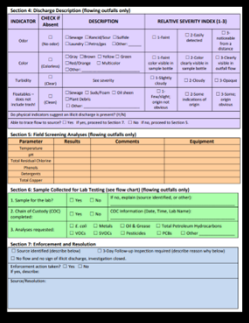
DRY WEATHER SCREENING

- City will inspect a third of all outfalls annually
- Illicit discharges found will be followed upstream immediately
- Investigate potential facility discharge and re-inspect to ensure no additional discharge is present
- Follow IDDE Investigation Form and SOP



22

- Record all background data associated with the sampling event
- Document known details
- Document samples collected
- Describe any actions taken to enforce ID



23

WET WEATHER MONITORING

- Follow IDDE Investigation Form and Outfall Inspection SOP



24

QUALITATIVE SCREENING

- Collect samples in a clear, clean container.
- Characterize sample:
  - Color
  - Odor
  - Turbidity
  - Floatable
  - Sediment
  - Oil sheen
- Measure flow rate and conduct field screening analysis (when / if appropriate.
- Analytes
  - Temperature
  - pH
  - Phenols
  - Copper
  - Chlorine
  - Detergents
  - Organic substances

25

UNPERMITED DISCHARGES

Identify construction sites operating without CGP Coverage

City will cross-reference the list of business / active developments with the epa central data exchange



26

RECORDKEEPING AND DOCUMENTATION



- The city will keep all records for a minimum of 3 years, including:
  - Reports
  - Inspection records
  - Enforcement actions
  - Follow-up documentation
- Why?
  - Each year an annual report must be prepared
  - Annual report contains numeric narrative descriptions of MS4 activities including:
    - Number of inspections
    - Results of enforcement measures
    - Number of operators educated
    - Names and locations of potential non-filers

27

ILLICIT DISCHARGE ENFORCMENT

- The city has legal authority to fully implement the SWMP including the right to prohibit illicit discharges to the MS4, conduct inspections, and carry out necessary enforcement procedures
- The city applies the following enforcement measures:
  - A verbal warning
  - Written warning
  - Notice of violation (NOV)
  - Criminal penalties (if compliance is not met)



28

SAMPLE FIELD EQUIPMENT AND PPE LIST

- Camera
- Clipboard
- Field Sheets
- First Aid Kit
- Flashlight
- Gas Monitor
- Two-Way Radios
- Map of System
- Pens and Markers
- Sledgehammer
- Spray Paint
- Rubber / Latex Gloves
- Manhole Hook
- GPS
- Measuring Tape
- Crowbar
- Mirror
- Reflective Vests

29

HEALTH AND SAFETY CONCERNS

- If evidence of a health or safety issue exists… **STOP** the inspection.
- Notify the fire department and your supervisor.



30

QUESTIONS OR COMMENTS?

Any questions or concerns contact:

Dayton Newell
Dayton.Newell@Clearfieldcity.org
(801) 525-4423
OR
(360) 789-2638



31

Public Works In-House Training Program

Sign-in Sheet

Topic: IDDE and Good Housekeeping Controls

Date: 3/5/2024

Name	Initial	Position
Adaon Fish	AF	Utilities Foreman
Skyler Phelps	SP	utilities worker
Jay Schumer	JS	mechanic
Dan Ross	DR	Utility maintenance
Jacob Petersen	JP	Utility Maintenance
Hunter Meldrum	HM	Utility Maintenance
Francisco Gonzalez	FG	Utility Maintenance
Kaden Monroe	KM	Utility maintenance
Brad Wheeler	BW	Superintendent
Thad Layton	ZTC	Streets foreman
KENNY ENGLAND	KE	SUPERINTENDENT
Braden Felix	BF	City Engineer
Jake Peterson	JP	Public Works inspector

DR Danny Rhodes<drhodes@woodscross.gov>

Reply Reply all Forward

To: ajones@co.davis.ut.us; Ashlee Burst <aburst@syracuseut.gov>; astone@westpointcity.com; awright@co.davis.ut.us; banderson@wbcity.org; bdavis@westpointcity.org; Bfullmer@sunsetut.gov; Braden Felix; +56 others Tue 4/28/2026 3:12 PM

All,

I wanted to give a quick shout out and say thank you to everyone for another great Water Fair. Davis County Storm Water Coalition has been holding this event for the better part of 2 decades! I believe that through our hard work and striving to educate the young minds in our areas, we have made a great impact on the water quality in Davis County.

This year we had to opportunity to present our messages to 19 Davis County Schools, which included almost 1700 5th graders. We are seeing a tremendous increase in contribution from our Coalition Members year after year and I applaud you all for that.

We should hopefully be seeing the results from the Water Fair survey that the teachers will be submitting. With those results we can better plan for next year and hopefully improve on an already awesome event.

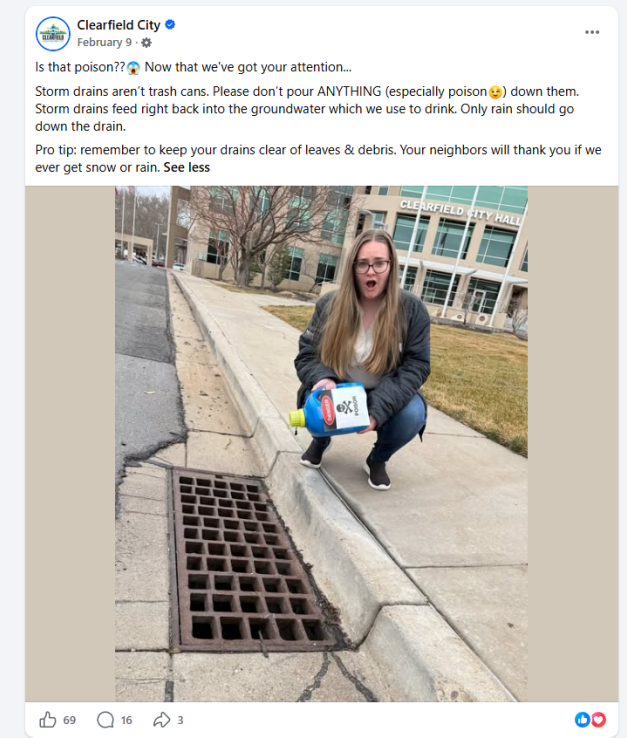
Again, thanks to you all for your contributions to the Water Fair this year.

Danny Rhodes
Public Works Operations Manager
O: 801-292-4421 Ext. 5012
C: 385-955-8218

Woods Cross City
Public Works

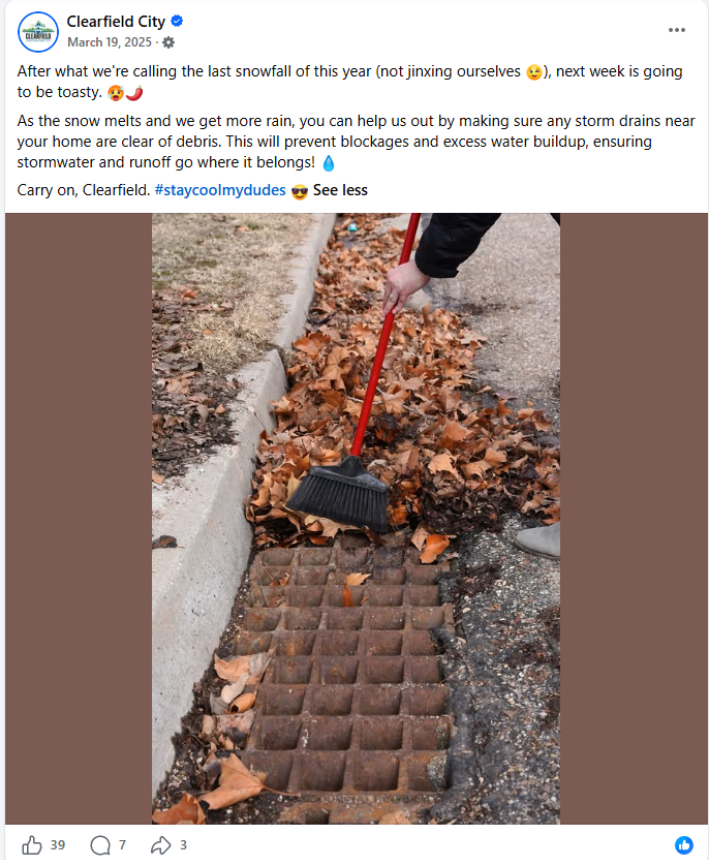
EDUCATIONAL OUTREACH

SOCIAL MEDIA OUTREACH









PUBLIC INVOLVMENT / PARTICIPATION

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2021

CITY COUNCIL MEETING MINUTES ON STORMWATER

CITY WEBSITE STORMWATER INFORMATION

https://clearfield.city/public-works/storm-water-department/

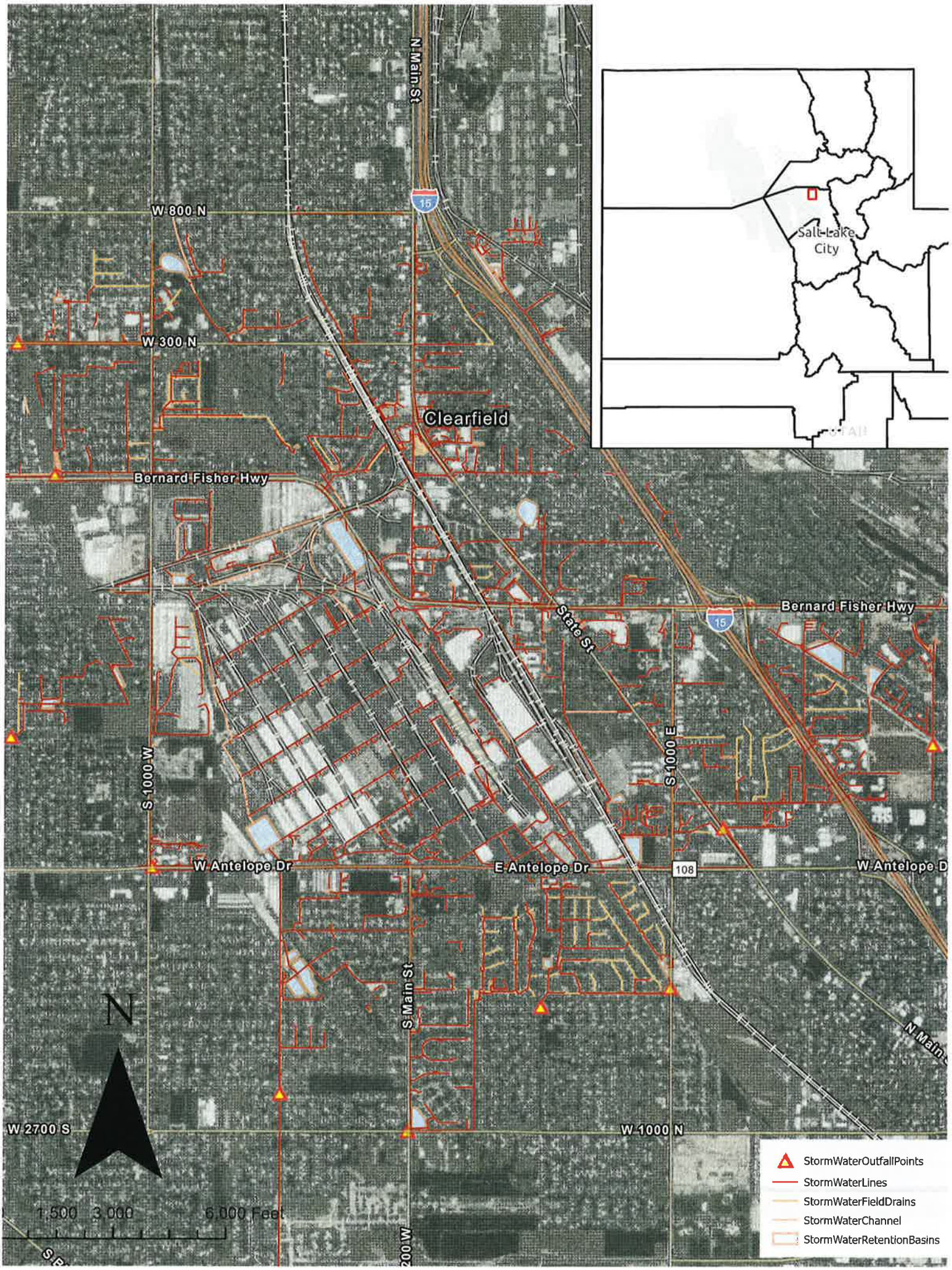
APPENDIX C

ILLICIT DISCHARGE DETECTION AND ELIMINATION

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2026

MAP OF STORMWATER SYSTEM


N Main St
W 800 N
W 300 N
Clearfield
Bernard Fisher Hwy
State St
Bernard Fisher Hwy
S 1000 W
S 1000 E
W Antelope Dr
E Antelope Dr
W Antelope D
108
S Main St
N Main
W 2700 S
W 1000 N
N
1,500 3,000 6,000 Feet
Salt Lake City
UTAH
StormWaterOutfallPoints
StormWaterLines
StormWaterFieldDrains
StormWaterChannel
StormWaterRetentionBasins

SOPS, TRAINING, AND INFORMATION FOR IDDE

IDDE: Call-in Inspections

Preparation:

1. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.

Process:

1. Use the Incident Tracking Sheet to collect the appropriate information from the caller. Then, transfer the Incident Tracking Sheet to the proper authority (i.e., department head, storm water specialist, construction inspector, code enforcement officer, or other assigned personnel) . . .
2. Promptly investigate reported incidents.
3. If an illicit discharge of unknown source is confirmed, follow the procedure of SOP IDDE Tracing Illicit Discharges.
4. If an illicit discharge known source is confirmed, follow the procedure of SOP IDDE - Removing Illicit Discharges.

Clean up:

1. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

Documentation:

1. File all completed forms (i.e., incident tracking, catch basins cleaning, storm drain cleaning.
2. Document any further action taken.
3. Review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

IDDE: Enforcement Actions

Preparation:

1. Identify point source of illicit discharge, person(s)/party responsible for discharge, and document time of discharge.

2. Review the violation guidelines in Title 9 Chapter 3 Section 16 (9-3-16):

> *A. Whenever the city finds that a person has violated a prohibition or failed to comply with a requirement of this chapter, the city will order compliance by written notice of violation to the responsible person. Such notice may require without limitation:*
>
> *1. The performance of monitoring, analyses, and reporting.*
>
> *2. The elimination of illicit connections or discharges.*
>
> *3. That violating discharges, practices, or operations shall cease and desist.*
>
> *4. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property.*
>
> *5. Payment to cover administrative, remediation, monitoring, analyses, and reporting costs.*
>
> *6. The implementation of source control or treatment BMPs.*
>
> *B. The city may waive the notice requirements set forth in this section and immediately proceed with criminal and/or civil action against the violator if: 1) the violator has committed the same violation in the past, or 2) the violation, in the opinion of the city, creates a serious risk to persons, the environment or property, or 3) the city deems the violation to constitute an emergency. (Ord. 2008-16, 12-9-2008)*

3. Determine if the person(s)/party responsible for the illicit discharge have damage the municipal storm water system as explained in Ordinance Title 9 Chapter 3 Section 17 (9-3-17).

Any person who damages any portion of the stormwater system shall be responsible for repairing the damages. The damages shall be repaired by a licensed contractor bonded to work in the city and shall be repaired in accordance with the city's construction standards and specifications. It is unlawful to remove or alter any portion of the stormwater system without permission from the director.

4. Determine if they have opened any manhole lids during the discharge (reference Ordinance Title 9 Chapter 3 Section 18):

It shall be unlawful to open any stormwater manhole or other stormwater fixture (such as grates, lids, or inlets) without permission from the director.

Process:

1. Call the appropriate authority (i.e., department head, storm water specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.
2. Assess the general area of the illicit discharge to see if you can identify its source.
3. Whenever possible, take photographs of the suspected illicit discharge.
4. Responding storm water department personnel or code enforcement officer issue warnings, violations, and/or penalties according to the guidelines in Ordinance Title 9 Chapter 3 Section 19:

A. The violation of any provision of this chapter is a class B misdemeanor. Each day that a violation occurs shall constitute a separate offense.

B. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages and is required to make repairs and/or replace any materials, the cost of repair and/or replacement shall be borne by the violating party and shall be in addition to any criminal or civil fines and/or penalties.

C. Violations of this chapter may also be subject to prosecutions, fines, and penalties from the state of Utah and the United States environmental protection agency.

Documentation:

1. File all completed forms (i.e., Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).
2. Update the IDDE Map on the public works GIS (or submit it to the MS4 Manager to be updated).
3. Document any further action taken.

IDDE: Opportunistic Illicit Discharge Observation

Preparation:

3. Be alert for potential illicit discharges to the municipal storm water system while going about normal work activities.

Process:

2. Call the appropriate authority (i.e., department head, storm water specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.
3. Assess the general area of the illicit discharge to see if you can identify its source.
4. Whenever possible, take photographs of the suspected illicit discharge.
5. Responding storm water department personnel or code enforcement officer will complete the following:
    a. Use the IDDE Incident Tracking Sheet to document observations.
    b. Obtain sample for visual observation and complete an Outfall Inspection Form, if applicable.
    c. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.

Clean-up:

1. Clean catch basin, clean stom1 drain, or initiate spill response, as needed. Follow relevant SOPs.

Documentation:

3. File all completed forms (i.e., Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).
2. Document any further action taken.

IDDE: Outfall Inspections

Preparation:

1. Know the past and present weather conditions. Conduct inspections during dry weather periods.
2. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).
3. Obtain maps showing outfall locations and identifiers.
4. Obtain outfall description and observations from previous inspections, so the outfall can be accurately identified, and observations compared.

Process:

1. Perform an inspection of each outfall at least once per year. Whenever, possible use the same personnel for consistency in observations.
2. Identify each outfall with a consistent and unique identifier. For example, "Howard Slough-#13". Use maps and previous inspection reports to confirm the outfall identity and location.
3. If dry weather flow is present at the outfall, then document and evaluate the discharge by completing the following steps:
4. Collect field samples for visual observations in a clean, clear container and in a manner that avoids stirring up sediment that might distort the observation.
5. Characterize and record observations on basic sensory and physical indicators (e.g., outfall condition, flow, odor, color, oil sheen) on the Outfall Inspection Form.
6. Compare observations to previous inspections.
    a. If the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (groundwater, intermittent stream, etc.)
    b. If an illicit discharge (such as raw sewage, petroleum products, paint, etc.) is encountered or suspected, follow the procedure of SOP IDDE - Tracing illicit Discharges.

Cleanup:

1. As necessary

Documentation:

1. File completed outfall inspection forms.
2. Update maps if new outfalls are observed and inspected

IDDE - Removing Illicit Discharges

Preparation:

1. Obtain available property ownership information for the source of the illicit discharge.

Process:

1. Determine who is financially responsible; and follow associated procedures as given below.
    a. Private Property Owner:
        i. Contact Owner
        ii. Issue Notice of Violation for violations of the municipal ordinance
        iii. Determine schedule for removal.
    b. For Municipal Facility:
        i. Notify appropriate municipal authority or department head
        ii. Schedule removal
        iii. Remove illicit connection.
2. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.
3. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.
4. Repair/ correct cause of discharge if municipality is responsible.
5. Seek technical assistance from the office of Water Quality.
6. Work through the appropriate municipal authority or department head.

Clean up:

1. If done by Health Department or Utah Department
2. Confirm illicit discharge is removed or eliminated by follow-up inspection.

Documentation:

1. Maintain records of notice of violation and penalties.
2. Document repairs, corrections, and any other actions required.

IDDE - Tracing Illicit Discharges

Preparation:

1. Review / consider information collected when illicit discharge was initially identified and document using Incident Tracking Form or Outfall Inspection Form.
2. Obtain storm drain mapping for the area of the reported illicit discharge.
3. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

Process:

1. Survey the general area/surrounding properties to identify potential sources of the illicit discharge as a first step.
2. Trace illicit discharges using visual inspections of upstream points as a second step. Use available mapping to identify tributary pipes, catch basins, etc.
3. If the source of the illicit discharge cannot be determined by a survey of the area or observation of the storm drain system, then consider the following additional steps:
    a. Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
    b. Smoke test or televise the storm drain system to trace high priority; difficult to detect illicit discharges.
    c. Dye test individual discharge points within suspected buildings.
    d. Consider collecting bacterial samples of flowing discharges to confirm/ refute illicit discharge.
4. If the source is located, follow SOP IDDE - Removing illicit Discharges.
5. If the source cannot be found, add the location to a future inspection program.

Clean up:

1. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.

Documentation:

1. Document tracing results for future reference.

City of Clearfield

STORMWATER MANAGEMENT TRAINING FOR:

ILLICIT DISCHARGE DETECTION AND ELIMINATION

1

AGENDA

- **Part 1- Stormwater Overview:**
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- Part 2- IDDE Program
  - IDDE Program Elements
  - IDDE Investigation
  - Dry weather screening
  - Wet weather monitoring
  - General information

2



STORMWATER, WHAT'S IT ALL ABOUT?

- Stormwater is runoff due to rain or snow melt that enters streams and rivers via natural geologic features such as channels as well as urbanized features such as storm drains and gutters *without treatment*

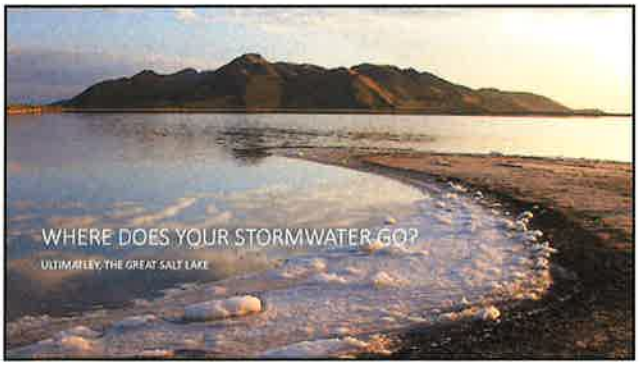
3

WHERE DOES STORMWATER GO?

- RETENTION BASINS
- RIVERS
- STREAMS
- LAKES
- BASEMENTS



4



5

HOW DOES STORMWATER GET THERE?

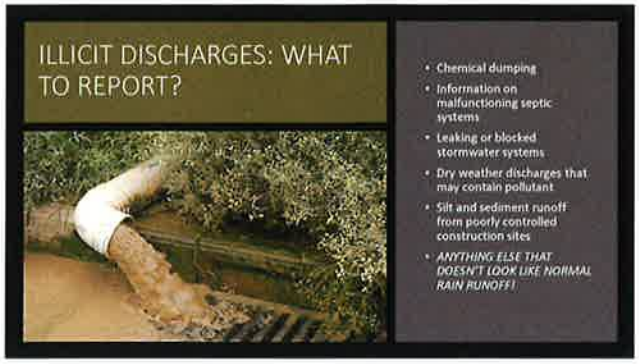
Through the Municipal Separate Storm Sewer System (MS4 – a system to move stormwater to receiving waters)

- Curbs and gutters
- Storm drains
- Catch basins
- Ditches
- Pipes

- EXITS THROUGH OUTFALLS



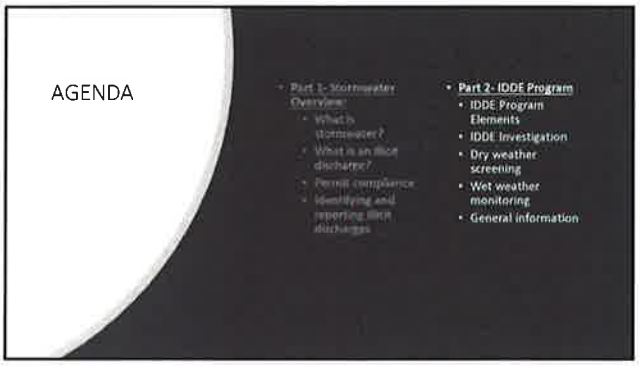
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13



14



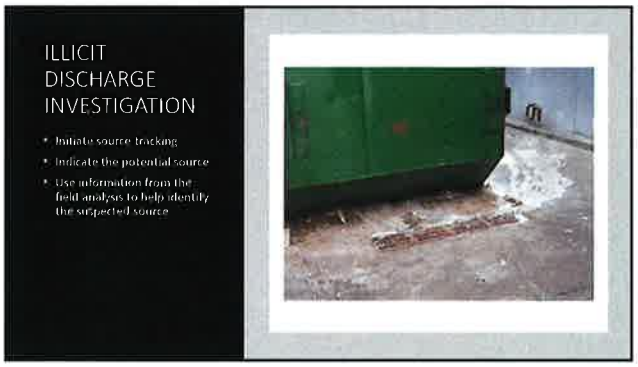
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17



18

QUALITATIVE SCREENING

- Collect samples in a clear, clean container.
- Characterize sample:
  - Color
  - Odor
  - Turbidity
  - Floatable
  - Sediment
  - Oil sheen
- Measure flow rate and conduct field screening analysis (when / if appropriate).
- Analytes
  - Temperature
  - pH
  - Phenols
  - Copper
  - Chlorine
  - Detergents
  - Organic substances

25

UNPERMITED DISCHARGES

Identify construction sites operating without CGP Coverage

City will cross-reference the list of business / active developments with the epa central data exchange



26

RECORDKEEPING AND DOCUMENTATION



- The city will keep all records for a minimum of 3 years, including:
  - Reports
  - Inspection records
  - Enforcement actions
  - Follow-up documentation
- Why?
  - Each year an annual report must be prepared
  - Annual report contains numeric narrative descriptions of MS4 activities including:
    - Number of inspections
    - Results of enforcement measures
    - Number of operators educated
    - Names and locations of potential non-filers

27

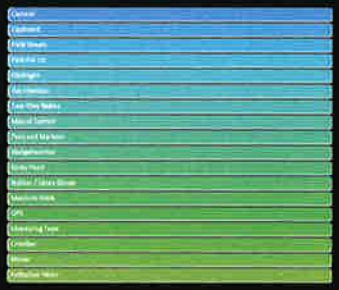
ILLICIT DISCHARGE ENFORCMENT

- The city has legal authority to fully implement the SWMP including the right to prohibit illicit discharges to the MS4, conduct inspections, and carry out necessary enforcement procedures.
- The city applies the following enforcement measures:
  - A verbal warning
  - Written warning
  - Notice of violation (NOV)
  - Criminal penalties (if compliance is not met)



28

SAMPLE FIELD EQUIPMENT AND PPE LIST



29

HEALTH AND SAFETY CONCERNS

- If evidence of a health or safety issue exists... **STOP** the inspection.
- Notify the fire department and your supervisor.



30

Public Works Department
497 South Main Clearfield City, UT 84015
Phone: 801-525-4419

DRY WEATHER SCREENING AND VISUAL STORM WATER DISCHARGE EXAMINATION REPORT

Date of Examination: _____ Permit No. UTR: _____

Outfall Location or ID Number: _____

Nature of Discharge (i.e., runoff, land drain, irrigation, or snowmelt): _____

Type of Monitoring:

Dry Weather Screening Date of Last Rainfall Event: _____	Wet Weather Screening (Quarterly Min.) Rainfall Event Date of Rainfall Event: _____ Time of Event: _____ Precipitation: _____ Unable to collected sample due to adverse conditions or inadequate runoff.

Visual Quality of Storm Water Discharge (Circle Response)

At Time of Sampling:

Color: Clear Brown Green Rust

Other: _____

Odor: Yes / No

Clarity: _____

After One Hour of Settling:

Settled Solids: Yes / No

Suspended Solids: Yes / No

Oil Sheen: Yes / No

Foam: Yes / No

Other Obvious Indicators of Storm Water Pollution:

_____

_____

Probable Sources of any Observed Storm Water Contamination:

_____

_____

Name of Examiner: _____ Title: _____

Signature: _____ Date: _____

INFORMATION ON CITY WEBSITE FOR DISPOSING OF HAZARDOUS MATERIALS AND RECYCLING OIL

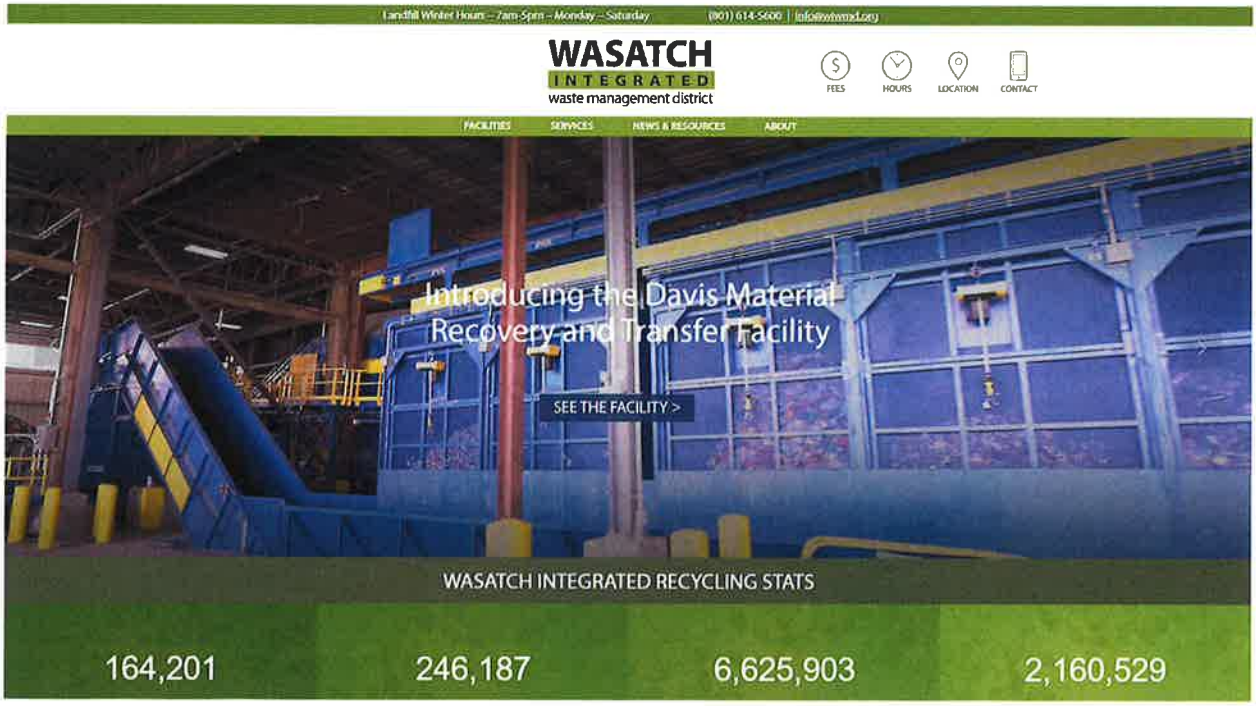
HAZARDOUS MATERIALS

When dealing with hazardous materials, please contact us at:

Hazardous Material Team (North Davis Fire Department)
911
Storm Water Quality Manager, at 801-525-4419, or email Dayton.Newell@clearfieldcity.org

HOUSEHOLD HAZARDOUS WASTE DISPOSAL INFORMATION





APPENDIX D

CONSTRUCTION SITE RUNOFF CONTROL STRATEGY

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2026

ORDINANCES, INSPECTIONS, AND SOPS

9-4-4: STORMWATER POLLUTION PREVENTION PLAN:

A. Required Information: The stormwater pollution prevention plan (the "plan") shall contain the following information:

1. Site Description: A site description (including a map with spot elevations and contour lines) which includes a description of the nature and location of the construction activity, a description of the intended sequence of major activities which will disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities, and infrastructure installation, etc.), and estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities;

2. Control Description: A description of the proposed measures and controls that will be implemented during construction activity and/or while the site is not stable. The plan must clearly describe the times during the construction process that the measures will be implemented for each major activity identified pursuant to subsection A1 of this section. The plan shall also state the name and phone number of the person or entity responsible for implementation of each control measure.

B. Goals And Criteria: The proposed measures and controls described in the plan shall be designed to meet the following goals and criteria:

1. Prevent Or Minimize Discharge: The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris and other construction related pollutants from the construction site by stormwater runoff into the storm drainage system.

2. Prevent Or Minimize Construction Debris: The proposed measures and controls shall be designed to prevent or minimize, to the maximum extent practicable, the deposit, discharge, tracking by construction vehicles, or dropping of mud, sediment, debris or other potential pollutants onto public streets and rights of way. Any such discharge shall be cleaned up and removed immediately upon notification to the permittee or when it otherwise comes to the attention of the permittee. At a minimum, the deposit or discharge shall be cleaned and removed at the end of the work shift in which the deposit occurred, or at the end of the workday, whichever comes first.

3. BMPs: The proposed measures and controls shall consist of best management practices (BMPs) available at the time that the plan is submitted. BMPs may include, but shall not be limited to, temporary silt or sediment fences, sediment traps and detention ponds, gravel construction entrances and wash down pads to reduce or eliminate off site tracking, straw bale sediment barriers, establishment of temporary grasses and permanent vegetative cover, use of straw mulch as a temporary ground cover, erosion control blankets, temporary interceptor dikes and swales, storm drain inlet protection, check dams, pipe slope drain, rock outlet protection, reinforced soil retaining systems, gabions.

4. Stabilization: The proposed measures and controls shall be designed to preserve existing vegetation, where possible. Disturbed portions of the site shall be stabilized. Stabilization practices may include temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Use of imperious surfaces for stabilization should be avoided. Stabilization measures shall be initiated as soon as practicable in disturbed portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after the construction activity in that portion of the site that has temporarily or permanently ceased, except under the following circumstances:

a. If the initiation of stabilization measures by the fourteenth day after construction activity temporarily or permanently ceases is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable; or

b. If construction activity on a portion of the site is temporarily ceased, and earth disturbing will resume within twenty one (21) days, temporary stabilization measures need not be initiated on that portion of the site.

5. Minimize Risk Of Discharge Of Other Materials: The proposed measures and controls shall be employed to minimize the risk of discharge of construction related pollutants (such as paint, thinners, solvents and other chemicals) from the construction site. Such measures may include implementation of storage to minimize exposure of the material to stormwater as well as spill prevention and response. (Ord. 2008-16, 12-9-2008)

9-4-7: REVOCATION OR SUSPENSION OF STORMWATER CONSTRUCTION ACTIVITY PERMIT:

A. Revocation Or Suspension: A stormwater construction activity permit may be revoked or suspended by the city upon the occurrence of any one of the following events:

1. Failure of a permittee to comply with the plan or any condition of the permit; or

2. Failure of a permittee to comply with any provision of this chapter or any other applicable law, ordinance, rule or regulation related to stormwater; or

3. A determination by the city that the erosion and sediment measures implemented by a permittee pursuant to the plan are inadequate to prevent or minimize, to the maximum extent practicable, the discharge of sediment, debris or other pollutants from the construction site by stormwater.

B. Notice: The city shall mail to the permittee a written notice of noncompliance before revoking or suspending a permit. The notice shall state the location and nature of the noncompliance and shall also specify what action is required for the permittee to avoid suspension of the permit. The notice shall allow the permittee a reasonable time to take the necessary corrective action to avoid revocation or suspension of the permit which time, in the absence of exceptional circumstances, shall not be less than ten (10) nor more than thirty (30) days. The notice shall be mailed to the address listed for the permittee in the application. If the permittee fails to correct the problems identified in the notice during the time specified in the notice, the city may suspend or revoke the permit by mailing or delivering written notice of the suspension or revocation to the permittee. The permittee may appeal a suspension or revocation of the permit pursuant to the appeal procedure set forth in section 9-4-10 of this chapter.

C. Exceptional Circumstances: For purposes of this section, exceptional circumstances include, but are not limited to, situations which involve a risk of injury to persons, damage to storm drain facilities, or damage to other property or the environment. The city may take any steps the city deems necessary to alleviate any such exceptional circumstances as defined above, and may bill the owner, developer, or contractor responsible for creating the exceptional circumstances for the cost of alleviating said circumstances.

D. Stop Work Order: A stop work order may be issued upon the revocation or suspension of a permit, or upon the discovery of work being conducted without a required permit. The stop work order may be issued by inspectors in the public works department or building inspectors. No construction activity may be commenced or continued on any site for which a permit has been revoked or suspended until the permit has been reinstated or reissued.

E. Reinstatement: A stormwater construction activity permit may be reinstated or reissued upon compliance with all provisions of this chapter and all permit conditions or in the case of a suspension for reasons provided in this section, upon the filing of an amended stormwater pollution prevention plan which is designed to correct the deficiencies of the original plan. (Ord. 2008-16, 12-9-2008)

9-4-8: VIOLATIONS AND ENFORCEMENT:

A. The violation of any of the provisions of this chapter shall be a class B misdemeanor; each day that a violation occurs shall constitute a separate offense.

B. Violators of this chapter are also subject to any penalties that may be imposed by the state of Utah, under the authority of the Utah water quality act, title 19, chapter 5 of the Utah code, as amended.

C. In addition to any criminal fines and/or penalties which may be assessed for a violation of this chapter, the city shall have the right to issue a stop work order or to install and/or maintain appropriate erosion and sediment control measures on any site which is required to have such measures in the event that construction activity is commenced or continued without such measures having been installed as required by this chapter. The city shall have the right to have such measures installed or maintained by city personnel or to hire a private contractor to perform such work and the contractor and/or the property owner shall be liable for any and all expenses related to performing such work plus a twenty five percent (25%) penalty charge. The city may assess said charges against the bond posted by the contractor and/or property owner.

D. Violators of this chapter may also be subject to prosecution, fines and penalties from the state of Utah and the United States EPA. (Ord. 2008-16, 12-9-2008)

9-4-9: EXEMPTIONS:

The following activities are exempt from the requirements of this chapter:

SWPPP COMPLIANCE INSPECTION FORM

Project Name: _____ Address: _____ Date _____

Owner: _____ Contractor (Gen/Sub): _____ Start time: _____

Site Contact: _____ Phone: _____ Stop Time: _____

UPDES Permit #: _____ Expiration: _____ Weather: ☐ Sunny ☐ Cloudy ☐ Raining ☐ Snowing Other _____

Date of last rain event: _____ Duration: _____ Approx. Rainfall (in): _____

Inspected By (Print): _____ Local Jurisdiction or County: _____

Reason for Inspection: ☐ Scheduled ☐ Complaint/Tip ☐ Random Receiving Waters: _____

Inspection Code (check):	Inspector Code (check):	Type Code (check):
☐ SW sampling ☐ SW non-sampling	☐ (S) State ☐ (L) Local	☐ 1-Municpal ☐ 2-Industrial ☐ 3-State

SWPPP, EROSION, SEDIMENT AND HOUSEKEEPING BMP's INFORMATION	YES	NO	N/A
1. Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?	☐	☐	☐
2. Are erosion control, sediment control, and good housekeeping BMP's installed on the site as shown in the SWPPP?	☐	☐	☐
3. Has the SWPPP been updated to reflect the current site conditions (modifications dated & initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details & spec's in SWPPP, SWPPP amendment Log, etc.)?	☐	☐	☐
4. Are on-site inspections being performed and recorded by a qualified person on a weekly or biweekly basis, reporting items required by permit? (Inspector name &qualifications, weather, problems/repairs, corrective action, new BMPs, removed BMPs discharges, etc.)	☐	☐	☐
5. Have all corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?	☐	☐	☐
6. Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. perimeter controls, berms, silt fence, upgradient boundary diversion, down gradient boundary sediment control, etc.)	☐	☐	☐
7. Is there evidence of sediment discharge such as mud flows or soil deposits from the construction site in downstream locations?	☐	☐	☐
8. Is there evidence of vehicles tracking soil off the construction site?	☐	☐	☐
9. Is there soil, construction material, landscaping items, or other debris piled on impervious surfaces (roads, drives) that could be washed with SW to a storm drain or water body?	☐	☐	☐
10. Is there a need to repair, maintain, or improve erosion control BMPs (temporary stabilization, erosion blankets, mulch, vegetated strips, rip rap, surface roughening, pipe slope drain, dust control, etc)?	☐	☐	☐
11. Is there a need to repair, maintain, or improve sediment control BMPs (silt fence, check dams, fiber rolls, sediment trap/basin, inlet protection, waddles, straw bails, curb cut-back, etc?	☐	☐	☐
12. Is there a need to repair, maintain, or improve good housekeeping controls (clean track out pad, sweeping, construction materials management, litter/trash control, port-o-potties staked down, fueling areas, concrete wash out area, proper curb ramps, spill prevention, etc)?	☐	☐	☐
13. Are there disturbed areas that have not had construction activities for 14 to 21 days without stabilization? (except snow or frozen ground)?	☐	☐	☐
14. Are there places where BMPs are needed and should be installed or not needed and should be removed?	☐	☐	☐

COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install. Include the date when corrections are made.

_____

_____

_____

Inspector, please list all applicable SEV codes _____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____

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.

Inspector (*Print Name*) _____ Title: _____ Signature: _____ Date: _____

Operator: (*Print Name*) _____ Title: _____ Signature: _____ Date: _____

Public Works
55 South State Street
Clearfield, Utah 84015
Phone: 801-525-4419

Name of Development:
Developer: Phone:
Responsible Contact: Phone:
Submittal Date: Reviewed Date: Reviewed By:
Note: Checklist is derived from the UPDES Storm Water General Permits for Construction Activities.

SWPPP CONTENTS.
At a minimum, the SWPPP must include the information specified in this part and as specified in other parts of this permit.

☐ 7.3.1. Storm Water Team. Identify the personnel (by name or position) that are part of the storm water team, as well as their individual responsibilities, including which members are responsible for conducting inspections.

7.3.2. Nature of Construction Activities. Include the following:

☐ a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;

☐ b. The size of the property (in acres or length in miles if a linear construction site); The SWPPP does not establish the effluent limits that apply to your site's discharges; these limits are established in this permit in Parts 2 and 3. If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to "lock in" the operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

☐ c. The total area expected to be disturbed by the construction activities including on-site and offsite construction support activity areas (to the nearest quarter acre or nearest quarter mile if a linear construction site);

☐ d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.2);

☐ e. A description and projected schedule for the following:
(1) Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
(2) Temporary or permanent cessation of construction activities in each portion of the site;
(3) Temporary or final stabilization of exposed areas for each portion of the site; and
(4) Removal of temporary storm water controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

☐ f. A list and description of all pollutant-generating activities35 on the site. For each pollutant generating activity, include an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels) associated with that activity, which could be discharged in storm water from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to storm water discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;

☐ g. Business days and hours for the project;

Public Works
55 South State Street
Clearfield, Utah 84015
Phone: 801-525-4419

(1) Natural buffers and/or equivalent sediment controls (see Part 2.2.1 and Part 10). You must include the following:
(i) The compliance alternative to be implemented;
The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site. Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.

☐ (ii) If complying with alternative 2, the width of natural buffer retained;

☐ (iii) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;

☐ (iv) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;

☐ (v) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and

☐ (vi) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the state.

☐ (2) Perimeter controls for a "linear construction site" (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in storm water associated with construction activities.
Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3.a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.

☐ (3) Sediment track-out controls (see Parts 2.2.4.b and 2.2.4.c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.

☐ (4) Sediment basins (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.

(5) Treatment chemicals (see Part 2.2.13), you must include the following:

☐ (i) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;

☐ (ii) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;

☐ (iii) If DWQ authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards, or harm to aquatic life;

Clearfield City
we've got it made

Public Works
55 South State Street
Clearfield, Utah 84015
Phone: 801-525-4419

Storm Water Pollution Prevention Plan (SWPPP) SOP

Frequency of Inspection:

The MS4 authority should conduction an SWPPP inspection before ground disturbance for all sites. After start of construction conduct monthly SWPPP inspections for non-priority sites and bi-weekly inspections for priority sites.

To identify priority sites considering the following factors:
- Soil erosion potential: large amounts of water being discharge and sandy soils
- Site slope: Greater than 10%
- Project size and type: > 2 acres, industrial, multifamily, and large commercial
- Sensitivity of receiving waterbodies (impaired or high-quality waters): any site near City wells
- Proximity to receiving waterbodies: Sites near Steed and Mabey Pond.
- Non-storm water discharges and past record of non-compliance by the operators of the construction site.

If a site is identified as a "priority site" label the inspection checklist with the words "PRIORITY SITY: summaries the reason."
Example: PRIOIRYT SITY: due to past non-compliance issues

Inspection Procedure:

Create a project "SWPPP Inspection" folder. This should include:
- Site plan with BPM's shown.
- SWPPP Inspection checklist
- Contact information of responsible parties.

Before inspection, review:
- Project SWPPP
- Past Inspection reports
- Status of the NOI, go to https://cdxnodengn.epa.gov/net-cgp/action/login or https://deq.utah.gov/water-quality/updes-ereporting#ms4general

Onsite inspection:
- Use the "SWPPP Inspection Checklist" to review entire site and check BMP's
- Document violations on the "SWPPP Inspection Checklist" and with pictures
- Record corrective actions on the "SWPPP Inspection Checklist."
- Walk site with responsible party and point out violations. Explain regulations and BMP design but do not design anything for the responsible party.

After inspection:
- Compile checklist and picture from site. Prepare a PDF report of the "SWPPP Inspection Checklist," along with any supporting documentation (i.e., pictures).
- For violations follow enforcement process.

NOT Inspections:
- Ensure all areas are stabilized, work is complete, and temporary BMP's are removed.

CONTRACTOR OUTREACH

Clearfield City

STORM WATER ACTIVITY PERMIT APPLICATION AND AGREEMENT

FOR CONSTRUCTION OF A SUBDIVISION PHASE OR ANY SINGLE DEVELOPMENT ONE ACRE AND LARGER

NAME OF APPLICANT: _____ CONTACT NAME: _____

ADDRESS OF APPLICANT: _____ CITY: _____ ST: ___ ZIP: _____

EMAIL ADDRESS: _____ TELEPHONE NUMBER: _____

JOB LOCATION ADDRESS: _____

TOTAL LAND AREA DISTURBED (ACRES): _____ UPDES PERMIT NO: UTR-_____ EXP. _____

NOTE: FURNISH MAP OR SKETCH SHOWING STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE AVAILABLE ON THE PROJECT SITE DURING THE ENTIRE DURATION OF CONSTRUCTION.

GENERAL INFORMATION

1. A Notice of Intent (NOI) shall be filed with the State Department of Environmental Quality (DEQ)
2. Property corners or disturbance limits must be clearly marked before construction begins. Contractors and/or developers will submit documentation on how long-term BMP's were selected, pollutant removal expected from the BMP and technical basis supporting performance claims.
3. Applicant shall maintain all storm water management control measures according to the UPDES Construction General Permit, SWPPP, and Clearfield City ordinances.
4. Notice of Violation – Pursuant to Title 9, Chapter 4, Section 8 of the Clearfield City Ordinance, failure to comply with the SWPPP requirements, the UPDES Permit, or any City Code may result in a violation. The City will order compliance by a written Notice of Violation to the responsible person. Such notice may be in the form of a citation, or a stop work order.
5. In consideration for the granting of this Permit by the City, the applicant hereby guarantees:
    a. To perform the work applied for in a professional manner and in conformity with ordinances of Clearfield City.
    b. To hold harmless Clearfield City, its officers, agents, and employees from any and all costs, damages and liabilities which may accrue or be claimed to accrue by reason of any work performed under a permit issued pursuant to this application.
6. This permit is not transferable or assignable. Transfer or responsibility may occur only with the filing of another permit. The applicant is responsible for the performance and requirements of the work under this permit.
7. Extensions for excess time must be requested by the applicant prior to the Notice of Termination (NOT).
8. A Notice of Termination (NOT) shall be filed with both Clearfield City and the State DEQ.
9. **VIOLATIONS SHALL BE ASSESSED AFTER THE NOTICE OF TERMINATION (NOT) PER OCCURRENCE OF INCOMPLETE BMP'S.**

CONTACT NAME: _____ SIGNATURE OF APPLICANT: _____

DATE: _____

OFFICIAL CITY USE ONLY

FILING DATE: _____ **RECEIVED BY:** _____ **PRE-CONSTUCTION DATE:** _____

Assigned Permit ID: _____

SWPPP MONITORING AND CONTROL

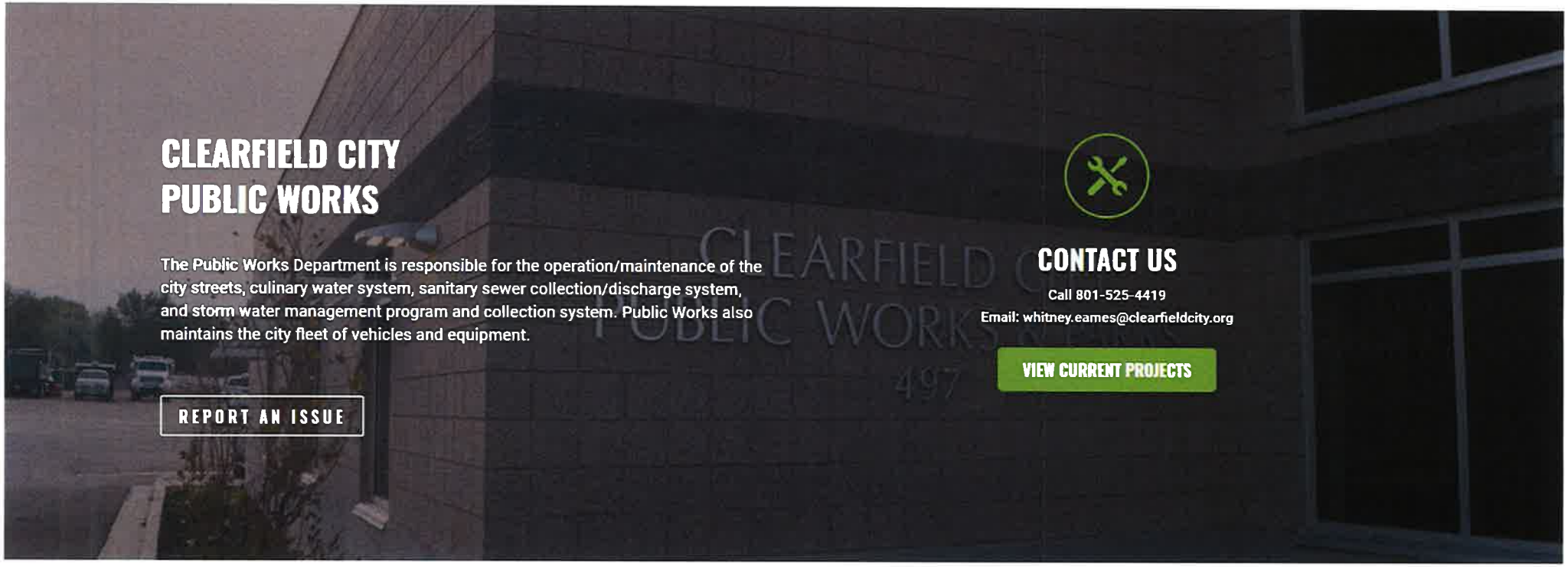
STORMWATER CONSTRUCTION GENERAL PERMIT INFORMATION

https://clearfield.maps.arcgis.com/home/webmap/viewer.html?webmap=801b44324bf94cf99d32388a00c2df42

Project/Site Name	NOI/ES ID	Clearfield Storm Water Activity Permit	Submission Status	Submission Type	Coverage Status	Coverage Type	Certified/ Submitted Date	Effective Date	Contact	Phone Number/ Email	
Lotus Anthem Apartments	UTRC02887	2021-02	Approved	New	Active	General Permit	5/27/2021	5/28/2021	Danielle Roundy - Erosion Control Services	(801) 302-3021 offfice@erosioncontrolservices.net	
The Landing	UTRC02847	2021-03	Approved	New	Active	General Permit	5/21/2021	5/21/2021	Sean O'Brien Joseph Toombs	sean@millcreekhomesutah.com (801) 654-1004	
Lot 2 Alvey	UTRH03487	-	Approved	New	Active	General Permit	7/29/2021	7/29/2021	Zach Lovell	(801) 678-9455 lovellhomes.llc@gmail.com	
Lot 3 Alvey	UTRH03488	-	Approved	New	Active	General Permit	7/29/2021	7/29/2021	Zach Lovell	(801) 678-9455 lovellhomes.llc@gmail.com	
500 West Sewer and Water Line	UTRC03077	2021-11	Approved	New	Active	General Permit	7/1/2021	7/1/2021	Jeff Wardell Erosion Control Services	801-940-1167 jeff@skyviewexcavation.com 801-302-3021 office@erosioncontrolservices.net	
Woods Court Subdivision	-	-	-	-	-	-	-		Kincaid Garrett (Sunrise Construction)	801-200-9871 kincaidgarrett@gmail.com	
Clearfield Park at Antelope	-	-	-	-	-	-	-	-	-	-	
Holiday Oil	-	-	-	-	-	-	-	-	Brent Neel	(801) 973-7002 Brent@holidayoil.com	
Indigo Eight80	UTRC03208	-	Approved	New	Active	General Permit	7/26/2021	7/26/2021	Demo- Lance; Project Manager- Matt Brydenstein	Lance-8018313031 Mat-8018312749	
Two85 Main	-	-	-	-	-	-	-	-	Jared Murphy	(203) 964-7559 jaredmurphy93@gmail.com	
Wilcox Farms	-	-	-	-	-	-	-	-	-	-	2F%2Fapp.compliancego.com%2Fsite%2F31ca174b-d6a8-47a3-885d-38b6382ad18e&data=04%7C01%7Cdayton.newell%40clearfieldcit
Weaver Subdivision	-	-	-	-	-	-	-	-	Scott Cole	(801) 309-0013	
The Hart at City Center	UTRC03034	2021-01	Approved	New	Active	General Permit	6/22/2021	6/23/2021	Travis Young David Adams	385-326-7338 Travis@makersline.com 801-372-1574 Davida@makersline.com	https://app.compliancego.com/site/6f22a52c-8422-45aa-a91a-f8c98b6f0c29
May Fly Rise	UTRC02763	2021-08	Approved	New	Active	General Permit	5/10/2021	5/10/2021	Kincaid Garrett (Sunrise Construction)	801-200-9871 kincaidgarrett@gmail.com	
Clearfield Flex	UTRC02167	2021-09	Approved	New	Active	General Permit	2/24/2021	2/25/2021	Josh Bushman	801-603-6047 Joshb@alcoconstruction.us	
Sandridge Village	UTRC01753	6-30 Asked Colton if he is :	Approved	New	Active	General Permit	12/9/2020	12/9/2020	Colton Tanner	801-430-2314 Colton@kappcompanies.com	devin@henrywalkerhomes.com craig@henrywalkerhomes.com
Lifetime Warehouse Freeport Center	UTRC00806	2021-04	Approved	New	Active	General Permit	7/9/2020	7/9/2020	Bryan Jorgensen	801-648-5483 Bryan.jorgensen@stakerparson.com	
Canterbury Court	UTRC01652	2021-12	Approved	New	Active	General Permit	11/18/2020	11/18/2020	Ed Green	edgontherun@comcast.net (801)544-3829	
Union Townhomes	UTRC01583	Sent 6-30	Approved	New	Active	General Permit	11/4/2020	11/10/2020	Tom Brewer	801-941-4695	
Hillside Estates	UTRC01792	2021-06	Approved	New	Active	General Permit	12/17/2020	12/17/2020	Dean Kreger	Pslonoffice@gmail.com 8019284291	
Legend Towers	UTR396613	2021-05	Approved	Legacy	Expired	General Permit	10/5/2019	10/5/2019	Sam Hansen Ryan Anderson	sam@wrightdevelopment.com 8017737339 RyanA@wrightdevelopment.com 8018609849 (MAIN CONTACT)	
Bravada Apartments	UTRC01150	2021-07	Approved	New	Active	General Permit	8/31/2020	9/1/2020	Jennifer Lamb	Bryce Jennifer@accenagroup.com 8017016188 ieslieh.cch@hotmail.com 8015250681 ext 14	
Hamblin Estates Phase 1	UTRC00836	Sent 6-30	Approved	New	Active	General Permit	7/16/2020	7/16/2020	Doug B. Hamblin	801-725-3782 sdhamblin13@gmail.com db_hamblin@msn.com	
OSD F2 Transportation Renovation	UTRC01834	Sent 6-30	Approved	New	Active	General Permit	12/29/2020	12/29/2020	Ty Lechtenberg	tyl@stoutbc.com	
South Clearfield Elementary Rebuild	UTR397735	2021-10	Approved	Renewal	Active	General Permit	10/27/2020	11/26/2019	Bob Bennion	bbennion@hoganconstruction.com 8019107021 bhorne@hoganconstruction.com 8019517000 or 8019107012	
Clearfield City Plaza Apartments LLC	UTRC00017	Sent 6-30	Approved	New	Expired	General Permit	2/14/2020	3/6/2020	Murri Construction	801-589-3819 murri@comcast.net	

CONSTRUCTION SITE ENFORCEMENT LOG

PROJECT	RESPONSIBLE PARTY	OFFENSE	ESCALATING ENFORCEMENT HISTORY: 1ST LEVEL (30 Days to Complete)	2ND LEVEL (3 Weeks to Complete)	3RD LEVEL (1 Week to Complete)	4TH LEVEL (24 Hrs to Complete)	DATE COMPLETED	DATE VERIFIED	ACTIONS COMPLETED
LIFETIME			GET INSPECTION LOGS FROM BRYAN OR WHOEVER IS INSPECTING THE SITE				4/7/2021		Called Bryan Jargensen, inspection logs will be emailed to Dayton Newell. 4/12/21: Received weekly inspection logs from Bryan
CANTERBURY COURT			POST SWPPP ONSITE.						4/7/21: Called Ed Green, no answer but left voicemail.
			POST IN NEXT 30 DAYS						
HAMBLIN INVESTMENTS INC			NO SITE MAP FOUND						4/7/21: Spoke with Doug, will make sure to update SWPPP information
			NO INSPECTION LOGS FOUND						Send emails to him and son for SWPPP issues.
UNION TOWNHOMES			NO SWPPP PROVIDED						4/7/21: Spoke w/ Tom Brewer, said he will email me SWPPP info as he gets it from Sierra Home Builders, and will get inlet protections.
			NO INLET PROTECTION						
HILLSIDE ESTATES			NO SWPPP ONSITE						
			NO STABILIZED CONTROL						4/7/21: Spoke to Dean Kreger with Psion construction, will get SWPPP posted as soon as permit is pulled, and work on getting compliant. Is available on ComplianceGo
CITY PLAZA			UPDATE NOI						4/7/21: Spoke with Marvin, got email for future correspondence
S. CLEARFIELD ELEMENTARY			TRACK OUT NEEDS REPAIRED/UPDATED						4/7/21: Called Josh Murphy, no answer but left voicemail
			SWPPP NO POSTED ONSITE						
BRAVADA APARTMENTS			QR CODE/ SWPPP FORMS NOT AVAILABLE						
			TRACK OUT NOT IN PLACE						



CLEARFIELD CITY PUBLIC WORKS

The Public Works Department is responsible for the operation/maintenance of the city streets, culinary water system, sanitary sewer collection/discharge system, and storm water management program and collection system. Public Works also maintains the city fleet of vehicles and equipment.

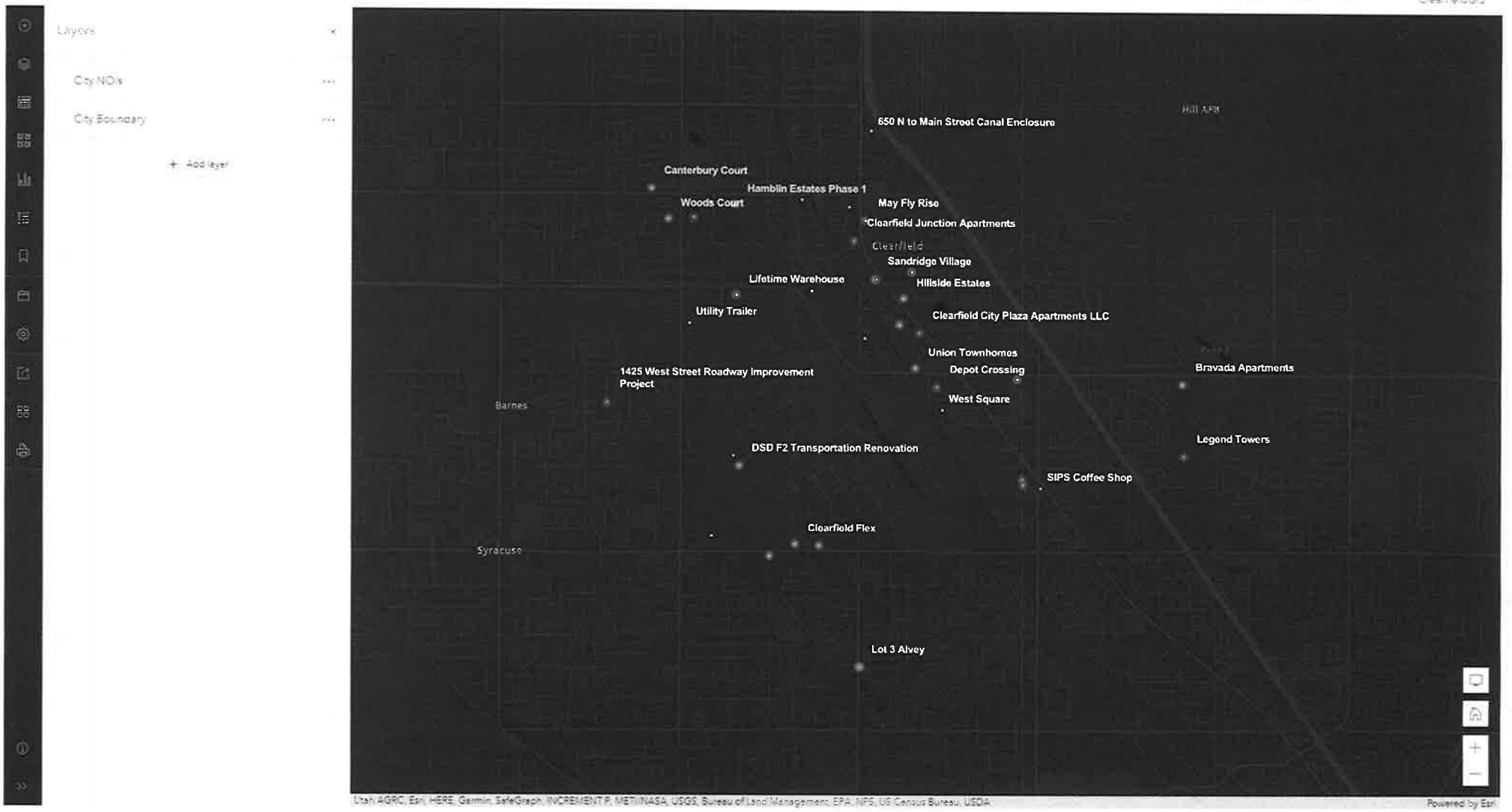
REPORT AN ISSUE

CONTACT US

Call 801-525-4419

Email: whitney.eames@clearfieldcity.org

VIEW CURRENT PROJECTS


NOI and SWPPP Map
Open in Map Viewer Classic
GIS Administrator
ClearfieldGIS
Layers
City NOIs
City Boundary
Add layer
650 N to Main Street Canal Enclosure
Hill AFB
Canterbury Court
Hamblin Estates Phase 1
Woods Court
May Fly Rise
Clearfield Junction Apartments
Clearfield
Sandridge Village
Lifetime Warehouse
Hillside Estates
Utility Trailer
Clearfield City Plaza Apartments LLC
Union Townhomes
1425 West Street Roadway Improvement Project
Depot Crossing
Bravada Apartments
Barnes
West Square
DSD F2 Transportation Renovation
Legend Towers
SIPS Coffee Shop
Clearfield Flex
Syracuse
Lot 3 Alvey
Utah AGRC, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Powered by Esri

APPENDIX E

LONG-TERM STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORMWATER MANAGEMENT STRATEGY)

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2026

TRAINING AND INSPECTIONS

City of Clearfield
STORMWATER MANAGEMENT TRAINING FOR
POST-CONSTRUCTION CONTROLS

1

AGENDA

- Part 1- Stormwater Overview:
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- Part 2- Post Construction Program
  - Best Management Practices
  - Stormwater Control Inventory
  - Site Plan Review Procedures
  - Operation and Maintenance

2



STORMWATER, WHAT'S IT ALL ABOUT?

- Stormwater is runoff due to rain or snow melt that enters streams and rivers via natural geologic features such as channels as well as urbanized features such as storm drains and gutters *without treatment*

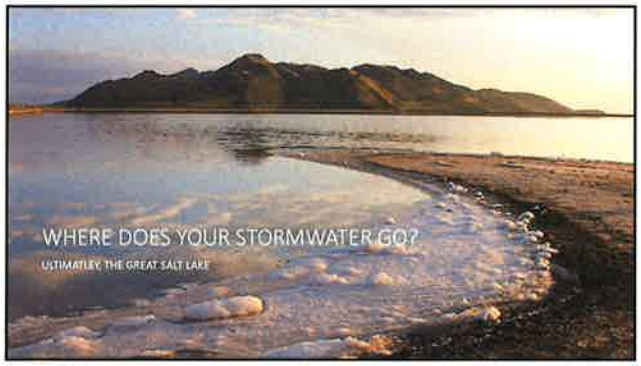
3

WHERE DOES STORMWATER GO?

- RETENTION BASINS
- RIVERS
- STREAMS
- LAKES
- BASEMENTS



4



5

HOW DOES STORMWATER GET THERE?

Through the Municipal Separate Storm Sewer System (MS4 – a system to move stormwater to receiving waters)

- Curbs and gutters
- Storm drains
- Catch basins
- Ditches
- Pipes

- EXITS THROUGH OUTFALLS



6

ILLICIT DISCHARGES: WHAT TO REPORT?



- Chemical dumping
- Information on malfunctioning septic systems
- Leaking or blocked stormwater systems
- Dry weather discharges that may contain pollutant
- Silt and sediment runoff from poorly controlled construction sites
- *ANYTHING ELSE THAT DOESN'T LOOK LIKE NORMAL RAIN RUNOFF!*

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HOW TO REPORT ILLICIT DISCHARGES

- If a potential illicit discharge is spotted:
  - Identify key information (location, discharge characteristics, obvious sources)
  - Take a picture if possible
  - Notify police department, code enforcement, or stormwater manager by phone or submit a work order
    - Stormwater Manager – Dayton Newell 801-525-4125
    - Code Enforcement – Stone Crowton 801-525-2345

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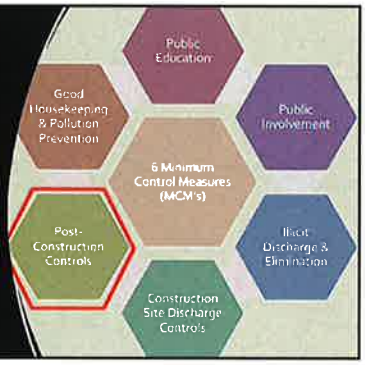
AGENDA

- Part 1- Stormwater Overview:
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- **Part 2- Post Construction Program**
  - Best Management Practices
  - Stormwater Control Inventory
  - Site Plan Review Procedures
  - Operation and Maintenance

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POST-CONSTRUCTION PROGRAM

- The Post-Construction Program is just one element described in the Stormwater Management Plan
- The objectives of this program are to:
  1. Reduce the discharge of pollutants to stormwater runoff
  2. Provide for long term Best Management Practices (BMPs) and inspection programs to improve stormwater quality.



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CITY REQUIRMENTS

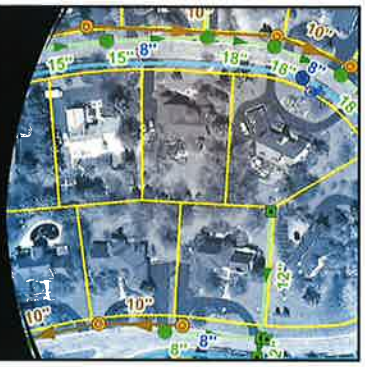
The city's MS4 permit requires the city to implement the following activities pertaining to post-construction sites:

- Develop and maintain a stormwater control inventory
- Inspect post-construction controls
- Describe site plan review procedures
- Verify proper operation and perform maintenance on controls

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STORMWATER CONTROL INVENTORY

- All Post-Construction stormwater control BMPs need to be recorded in GIS
- As-Built plans are submitted by the contractor prior to issuance of the Certificate of Occupancy
- As-Built plans are digitized by the Public Works Department (Jeff Baker)



18


CATCH BASINS
• Remove sediment, trash, and debris near inlet, on the surface, to allow water to flow into catch basins
• Periodically clean-out collected vegetation and debris
• Repair cracks and repair damaged grates

25


WASHES AND WATERWAYS
• Keep washes free of overgrown vegetation, sediment, and trash
• Report illegal dumping
• Perform maintenance as-needed to maintain shape and flow

26


ENFORCEMENT
The city has legal authority to fully implement the SWMP including the right to prohibit illicit discharges to the MS4, conduct inspections, and carry out necessary enforcement procedures
Compliance is achieved through progressveky stricter measures as needed.
For development-related violations, the following enforcement tools may be applied:

27


QUESTIONS OR COMMENTS?

28

LONG-TERM POST-CONSTRUCTION BMPs INSPECTION

Inspector:_____ Date / Time: _____

Project Name: _____

Address: _____

Current Owner: _____

BMPs Inspected:

1._____

2._____

3._____

4._____

BMP: _____

List Deficiencies Observed: _____

Method Used to Correct Deficiencies: _____

Date of Return Inspection: _____

Private Storm Water Inspections Property	Address	Comments	Inspected 2019-2020
Storm Water Detention Basins			
Autumn Ridge Pond 1	25 S 1000 W	No Orifice, a lot of sediment in pipes and catch basin	
Autumn Ridge Pond 2	90 S 525 W	Has a orifice and it is clean	
Briarwood Pond 1	1520 E 925 S		
Briarwood Pond 2	1608 E 925 S		
Barlow Park Pond	2010 S 500 W	Tire in the middle Detention Pond. Rock and dirt in North Box	
Cambridge Court Pond (Small Pond)	1350 W 300 N		
Chelmes Farm Pond	2300 S 1000 East		
Clifford Park Pond	1150 W 750 S		
Jacobsen Park Pond #9	1400 W 1100 South		
Jeep Pond #18	2285 S Main St		
Mountain View Pond (Small Pond)	2425 N University Park Boulevard		
Oakstone Pond (Private Pond)	South End of Clearfield Station		
Steed Pond	620 N 1000 W	Sticks in the outlet	
Small Pond	180 N 500 W		
Weber Pond (Small Pond)	2700 N University Park Boulevard		
Wedgewood Pond	200 S 300 W		
Utility Trailer Pond	1100 S 1000 W		
Pond #2	Antelope Dr and railroad		
Pond #3	Main st and Gordan		
Pond #4	HWY 193 and H Street		
Pond #5 (Union)	500 S Depot St		
Pond #6 (Rose Garden Park)	700 W 375 N		
Pond #8	1350 W 200 S		
Pond #10	(Freeport) 1st and D St.		
Pond #11	(Freeport) L Street and 5th		
Pond #13	2200 S 275 E	Box has a lot of mud, nor orifice	
Pond #14	285 E 2200 S		
Pond #15	1900 S Chelemes Way	Clean and Clear, No orifice	
Pond #16	275 E 1900 S	Plants growing in grade, orifice controls	
Pond #17	Fox Hollow Park (575 E 2050 S)	Detention Pond is on Private property	
Pond #18	2200 S 50 E	Dirt, grass, weeds, Orifice Control	
New			
Park Village Pond	250 N 1125 W		
Autumn Ridge Pond 3	900 W 75 North		
Spring Field Estate	2250 S Main street	Grate has fallen into the catch basin, Board is plugging pipe outlet.	
Chelmes Farm Park	2200 W Demetro Dr		

CONTRACTOR / DEVELOPER OUTREACH



SUPPLEMENTAL DEVELOPMENT GUIDE FOR WATER QUALITY

Part of the Clearfield City Storm Water Management Plan

Guide for Development to Assess Storm Water Quality

CLEARFIELD CITY ENGINEERING DEPARTMENT

Last Updated: August 2021

INTRODUCTION

This Supplemental Guide for Contractors and Developers is part of the Clearfield City Storm Water Management Plan (SWMP), included as Supplemental Development Guide for Water Quality. Developers, Contractors, and Engineers are required to understand the elements of this guide and any updates. Designs, construction methods and recording of plats are affected by the requirements herein. This guide has been adopted by Clearfield City for compliance with the Contractor/Developer Education requirements of State and Federal Storm Water permit law.

Including Water Quality on All Projects

4.2.6.7. The Permittee must develop and implement a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the Permittee or that discharge to the Municipal Separate Storm Sewer System (MS4). This process must include consideration of controls that can be used to minimize the impacts to site water quality and hydrology while meeting project objectives. A description of this process must be included in the SWMP document.

4.2.6.8. Construction Projects. Public construction projects shall comply with the requirements applied to private projects. All construction projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, owned or operated by the Permittee are required to be covered under the General UPDES Permit for Storm Water Discharges Associated with Construction Activities. All public projects approved after the effective date of this Permit shall include construction and postconstruction controls selected and implemented pursuant to the requirements in Parts 4.2.4. and 4.2.5.

Developer / Contractor Required Design Review Questions (not applicable for projects that qualify as a common plan of development)

The following questions must be addressed in the design process and submitted to the City Engineer and / or designee.

1. During conceptual design review meetings – answer the questions –
   a. Is there opportunity to include water quality aspects to this project?
   b. Are there any highly impacted areas?
   c. Are there low-impact development concepts and ideas that might work for this project?
   d. Can we limit directly connected impervious areas (DCIA) on this project?
   e. What could be done to minimize runoff?

The following items will need to be addressed or performed during the review process.

1. Train all employees, contractors and developers on SOP's and BMP's for all projects.

REQUIRMENTS FOR NOTICE OF INTENT

Who Must File a Notice of Intent (NOI) Form? State law UAC R317-8-3.9 prohibits point source discharges of storm water from construction activities to a waterbody(ies) of the State without a Utah Pollutant Discharge Elimination System (UPDES) permit. The operator of a construction activity that has such a storm water discharge must submit an NOI to obtain coverage under the UPDES Storm Water General Permit. If you have questions about whether you need a permit under the UPDES Storm Water program, or if you need information as to whether a particular program is administered by EPA or a State agency, contact the State Storm Water Coordinator at (801) 536-4300

File NOI Form with fee payment(s), at the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870
NOI can also be completed online at:

https://secure.utah.gov/account/log-in.html

Requirements per UPDES Permit No. UTR090000

Section 4.2.4 (Clearfield City) "shall develop, implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale"

Section 4.2.4.1.1 (Clearfield City) "shall, at a minimum, require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality, reduce the discharge of pollutants, and control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality.

NOTE: A template for a SWPPP is available at the following location:

https://documents.deq.utah.gov/water-quality/permits/updes/DWQ-2018-006549.docx

ENFORCMENT

The South Jordan City Engineer or Designee, Stormwater Inspector, and/or Code Enforcement Officer shall enforce provisions of the UPDES permit within their jurisdiction by Municipal Code/ Land Disturbance Permit **including but not limited to; Class A or B Misdemeanor, Stop Work Order with reinstatement fee, and/or fines.**

Note: To view the Clearfield Municipal code visit:

https://codelibrary.amlegal.com/codes/clearfieldut/latest/clearfield_ut/0-0-0-1

reached final stabilization as determined by the UPDES Storm Water General Permit for Construction Activities. The city inspector also checks to see if all temporary BMP'S have been removed.

3. If the conditions have not been met to terminate the permit, the City inspector will issue Corrective Actions needed for completion of the Termination and provide a copy to the permit holders SWPPP coordinator.

4. After all requirements for termination have been met, the city inspector will use the State database to confirm the termination of the permit.

5. Once the State has received confirmation that the site meets all the requirements the NOT is granted.

6. New responsible owner/operator; A Permittee may terminate its coverage under the Permit by Submitting an NOT if another party (or parties) assumes responsibility for all remaining SWPPP requirements. Termination of the Permittee's responsibilities under the SWPPP will not be final until the other party (or parties) submits an NOI.

SPECIAL ENVIRONMENTAL CONSIDERATIONS

DISCHARGES TO WATER QUALITY IMPAIRED WATERS

The MS4 permittee "must determine whether storm water discharge from any part of the MS4 contributes to a 303(d) listed (i.e. impaired) waterbody." (Small MS4 General UPDES Permit 3.1.1.1) The 303(d) list of impaired waterbodies is found at:

https://deq.utah.gov/water-quality/watershed-monitoring-program/approved-tmdls-watershedmanagement-program

THREATENED OR ENDANGERED SPECIES

Where applicable, compliance efforts to this law shall be reflected in the SWMP document. (Small MS4 General UPDES Permit 3.2) The following web sites are helpful in determining the status of any species of interest.

https://wildlife.utah.gov/discover/wildlife-action-plan.html

http://www.fws.gov/endangered/

HISTORIC PROPERTIES

Where applicable, compliance efforts to this law shall be reflected in the SWMP document. (Small MS4 General UPDES Permit 3.2) Web sites include the following, along with possible County and City listings:

https://history.utah.gov/inquire-2/markers-and-monuments/

RAINWATER COLLECTION:

Utah law allows for re-use on site. For larger buildings such as offices and malls this is an impact that could greatly reduce storm drain usage in the area.

- Water Harvesting and Reuse
- Parking Lot and Street Storage
- Dispersal Trench
- Pop-Up Emitter

RIPARIAN BUFFERS:

Applied along a watershed by restricting development along creeks, streams, washes, etc. This keeps the natural flow of water, mitigates erosion and contamination, as well as provides an interconnected habitat for animals, and recreation opportunities.

- Protect Natural Site Functions
- Preserve Natural Corridors
- Aquatic Buffers

GREEN STREET SYSTEM

Includes the different aspects of rain gardens and swales along roads into an incorporated system for retention and filtration of storm water.

- Reduced Clearing and Grading
- Functional Grading
- Locate Impervious Surfaces to Drain to Natural Systems
- Minimize Directly Connected Impervious Areas
- Break Up Flow Directions from Paved Surfaces
- Trail and Path Network
- Narrow Roadways
- Reconfigure Driveways
- Alternative Turnarounds
- Green Parking Lots
- Stormwater Planters
- Urban Forestry
- Alternative Street Layouts
- Eliminate Curb and Gutter

ZONING/ALTERNATIVE DEVELOPMENT CONFIGURATIONS AND STANDARDS

creative zoning and development standards directed towards minimizing disturbances of the natural habitat and hydrology of the area.

- Site Fingerprinting
- Fit Development to Natural Gradient
- Alternative Development Configurations

SIGNATURE PAGE

By signing below the signee acknowledges that he/she has read the Supplemental Development Guide for Water Quality and understands the content herein; and have fulfilled the requirements listed below. Furthermore, the signee acknowledges that they are an approved representative of the developer, and/or contractor, or representative contracted to fulfill such obligations for the development listed below.

Requirements of this Guide:

1. Developer and / or representative has read and understands the content of this guide.
2. Developer has considered LID techniques and submitted the required information on the consideration of such techniques as required in this Guide.
3. Developer agrees to obtain and follow the UPDES permit for construction activities, and South Jordan Construction Standards regarding said permit.

Development: _____

Representative Name/Title: _____

Signature: _____ Date: _____

Public Works Department
497 South Main Clearfield City, UT 84015
Phone: 801-525-4419

Clearfield City Storm Water Maintenance Agreement

This Storm Water Maintenance Agreement ("Agreement") is entered into this _____ day of _____, 20 ___ by and between CLEARFIELD CITY CORP. of Utah (the "City") and _____ (the "Owner").

RECITALS

1. The Owner is the record owner of that certain parcel of land located in Clearfield City, Davis County, State of Utah, which is more particularly described in Exhibit "A", attached hereto and by reference made a part hereof (the "Property").

   The property is also known as:

   Subdivision/Development: _____
   City of Clearfield, State of Utah

2. The municipal separate storm water system (MS4) General Utah Pollutant Discharge Elimination System (UPDES) Permit (4.2.5.5.1) requires the use of Maintenance Agreements between developer (Owner) and the (MS4) for any post construction best management practices (BMP's) or storm water treatment practices (STP).

3. This is a formal agreement between the City and the Owner to guarantee that specific maintenance function is performed in exchange for permission to develop the property and discharge into the City's storm sewer system.

   NOW, THEREFORE, for and in consideration of the promises, covenants and conditions recited herein and other good and valuable consideration the parties covenant and agree as follows:

AGREEMENT

SECTION ONE: INCORPORATION OF RECITALS
All the above and foregoing Recitals are incorporated into and made a part of this Agreement.

SECTION TWO: PERFORMANCE OF ROUTINE MAINTENANCE
The Owner shall provide maintenance for all permanent storm water facilities on the property to ensure that the facilities are and remain in proper working condition in accordance with the UPDES Permit, in accordance with post construction BMP's and in accordance with City ordinances.

LOW IMPACT DEVELOPMENT REQUIREMENTS

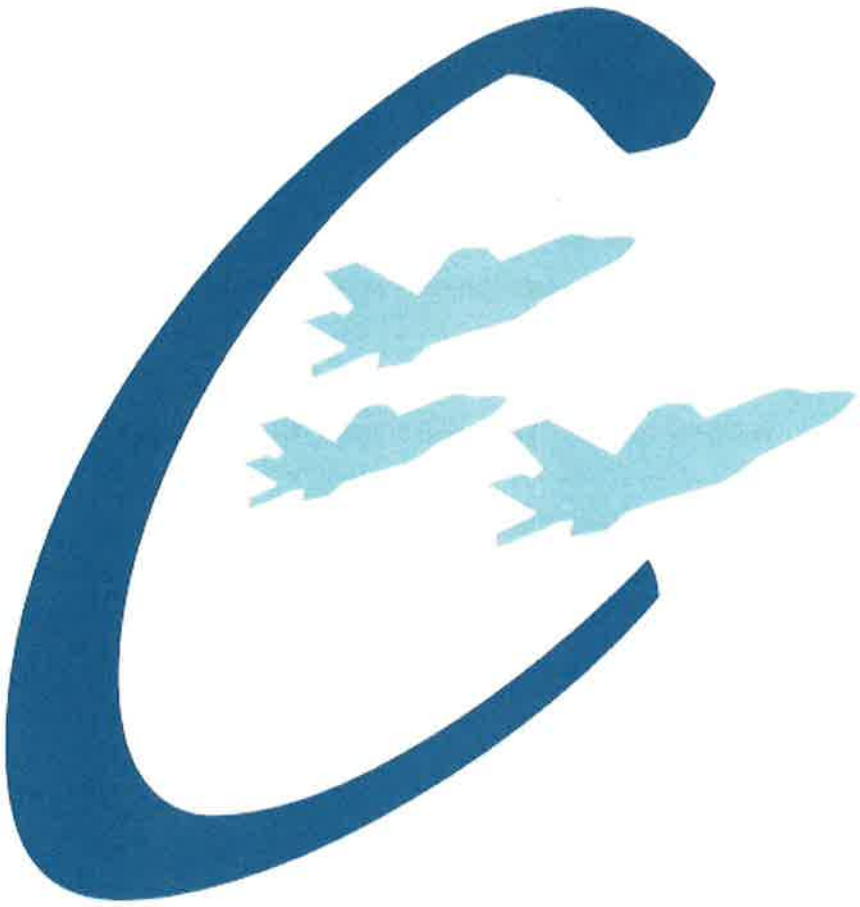
APPENDIX F

GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS

CLEARFIELD CITY STORMWATER MANAGEMENT PLAN

2026

TRAINING MATERIALS



CLEARFIELD CITY STORMWATER TRAINING PROGRAM

Part of the Clearfield City Storm Water Management Plan

Training Program and Requirements for Clearfield City Employees

Clearfield City Engineering Department

Last Updated: 8/9/2021

INTRODUCTION- STORMWATER TRAINING OVERVIEW

Purpose:

Clearfield City and other municipalities in urbanized areas of the United States, that operate a storm drain system, must protect those systems from pollution. Pollution can result from exposure of stormwater run-off or snow melt to materials such as soils, fuels, chemicals, raw materials, fertilizers, pesticides, and other wastes. Residents are targeted through media campaigns, and are asked to do their part to keep stormwater clean. As employees, we need to do our part, and do it better, to set an example for residents to follow. To this end, employee training is an essential element of a continual improvement paradigm.

Regulated entities are issued a stormwater discharge permit by the State of Utah Division of Water Quality (UDWQ) and the United States Environmental Protection Agency (USEPA). These permits all require the development and implementation of an operating and maintenance program to control stormwater pollution. This written program is called the Stormwater Management Plan (SWMP) and this includes 9 major components.

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction site run-off control
5. Post Construction Management or Long-Term Stormwater Management
6. Good Housekeeping and Pollution Prevention
7. Industrial and Commercial Program
8. Water Quality monitoring
9. Administration: Documentation, Reporting and Training

This document describes the Training Program and requirements for Clearfield City Employees.

area, or alternatively the Management Area. These zones shall have the approval of the State of Utah, Division of Drinking Water as described in R309-600.

13. **Dry weather screening**: Is monitoring done in the absence of storm events to discharges representing, as much as possible, the entire storm drainage system for the purpose of obtaining information about illicit connections and improper dumping.
14. **Escalating enforcement procedures**: Refers to a variety of enforcement actions in order to apply as necessary for the severity of the violation and/or the recalcitrance of the violator.
15. **Entity**: Means a governmental body or a public or private organization.
16. **EPA**: Means the United States Environmental Protection Agency.
17. **General Permit**: Means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.
18. **Ground water**: Means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.
19. **High quality waters**: Means any water, where, for a particular pollutant or pollutant parameter, the water quality exceeds that quality necessary to support the existing or designated uses, or which supports an exceptional use.
20. **Illicit connection**: Means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
21. **Illicit discharge**: Means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.
22. **Impaired waters**: Means any segment of surface waters that has been identified by the Division as failing to support classified uses. The Division periodically compiles a list of such waters known as the § 303(d) List.
23. **Large MS4**: Large municipal separate storm sewer system means all municipal separate storm sewers that are located in an incorporated place with a population of 250,000 or more as determined by the current Decennial Census by the Bureau of the Census.
24. **Low Impact Development (LID)**: is an approach to land development (or redevelopment) that works with nature to more closely mimic pre-development hydrologic functions. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements.
25. **MS4**: Is an acronym for "municipal separate storm sewer system".
26. **Maximum Extent Practicable (MEP)**: Is the technology-based discharge standard for Municipal Separate Storm Sewer Systems established by paragraph 402(p)(3)(B)(iii) of the Federal Clean Water Act (CWA), which reads as follows: "Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants

36. **Redevelopment**: Is the replacement or improvement of impervious surfaces on a developed site.
37. **Runoff**: Is water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system. Runoff includes stormwater and water from other sources that travels across the land surface.
38. **SWMP**: Is an acronym for stormwater management program. The SWMP document is the written plan that is used to describe the various control measures and activities the Permittee will undertake to implement the stormwater management plan.
39. **SWPPP**: Is an acronym for stormwater pollution prevention plan.
40. **Small MS4**: Is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all Small MS4s located in "urbanized areas" (UAs) as defined by the Bureau of the Census (unless waived by the UPDES Permitting authority), and on a case-by-case basis those Small MS4's located outside, or UAs that the UPDES Permitting authority designates.
41. **SOP**: Is an acronym for standard operating procedure which is a set of written instructions that document a routine or repetitive activity. For the purpose of this Permit, SOPs should emphasize pollution control measures to protect water quality.
42. **Stormwater**: Means stormwater runoff, snowmelt runoff, and surface runoff and drainage.
43. **Stormwater management plan (SWMP):** Means a set of measurable goals, actions, and activities designed to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable and to protect water quality.
44. **TMDL**: Is an acronym for "Total Maximum Daily Load" and in this Permit refers to a study that:
    a. quantifies the amount of a pollutant in a stream;
    b. identifies the sources of the pollutant; and
    c. recommends regulatory or other actions that may need to be taken in order for the impaired water body to meet water quality standards.
45. **Urbanized area**: Is a land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.
46. **Waters of the State**: Means all streams, lakes, ponds, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private which are contained within, flow through, or border upon this state or any portion thereof, except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife which shall not be considered to be "Waters of the State" under this definition ("UAC" R317-1-1.32).

GENERAL OVERVIEW TRAINING: PUBLIC EDUCATION AND OUTREACH

Who should attend?
Employees who have any direct portion of their job related to compliance with a Stormwater Permit.

Purpose of Training:
The purpose is to give the employees a summary of all nine (9) Stormwater Program Measures, and the importance of stormwater quality. This is intended to help the employee understand how their direct roles and responsibilities fit into the overall program.

Training Summary:
The County MS4 Stormwater Permit is part of the Clean Water Act and is intended to keep stormwater clean. There are nine major training topics to the Permit that will be reviewed by employees. Pre-recorded media, discussions, and examples help familiarize employees with each of the nine elements. A dated agenda and sign in sheet will document employee attendance and material that is covered.

Length of Training Session and Frequency:
This training length will vary in duration. Employees are required to attend this training **annually.**

IDDE (ILLICIT DISCHARGE DETECTION AND ELIMINATION) TRAINING

Who should attend?
Employees who work outdoors, or at varied locations within the County, as part of their normal job responsibilities. Employees who may encounter, or otherwise observe, illegal dumping into storm drains or waterways. Also, any office personnel who may receive calls or complaints regarding Illicit Discharge and Elimination.

Purpose of Training:
This training will educate employees' recognition and response to illicit and illegal situations of dumping and polluting in our storm drains and waterways. This includes: a description of pipes and waterways; who to call; how to respond or help; what to look for; and what items to document.

Training Summary:
Use the 'IDDE Training' PowerPoint for training. The training will include a general review of the storm drain system, and the role of the employees while working or observing potential situations in the field. Pre-recorded media may be used. Quizzes and testing are part of this curricula. In addition, a hotline number and information card will be issued upon successful completion. This card (**Appendix B**) can be taken into the field, along with the associated list of what to observe, and used to determine how to respond to suspicious activity related to stormwater pollution. A dated agenda and sign in sheet will document employee attendance and materials that are covered. Any testing materials will also be collected to serve as a supplement to document successful completion of training.

Length of Training Session and Frequency:
This training length will vary in duration. Employees are required to attend this training **annually.**

POST CONSTRUCTION OR LONG TERM STORMWATER TRAINING

Who should attend?
Employees who work in storm drain design, water quality monitoring, environmental planning, and municipal drainage system design. Employees who work in development plan checking and large scale planning such as flood control facilities and larger watershed plans. Employees who inspect and maintain municipal drainage systems with detention basins.

Purpose of the training?
The training will educate employees in the application of water quality science and application of Low Impact Development (LID) practices. LID practices reduce stormwater runoff with the goal of mimicking the natural ecosystem as it existed prior to developing the land. This training will also review the Best Management Practices that can be used and maintained to achieve the water quality goals of reducing stormwater runoff.

Training Summary:
This training is not offered in-house. The agenda will be governed by the requisite training center. Return materials (agenda, proof of attendance, date, trainer, and subject matter) to the Stormwater Program Manager.

Length of Training Session and Frequency:
The training duration will vary from 1 hr. to a half-day session dependent on the training facility and availability of resources. Employees are required to attend this training **annually**.

INDUSTRIAL AND COMMERCIAL PROGRAM TRAINING

Who should attend?
Employees of Salt Lake County and Health Department, and those who work with industrial and commercial businesses in the licensing, permitting, and inspecting process.

Purpose of the training?
To train staff who need to inspect or screen industrial and commercial businesses for stormwater issues and concerns.

Training Summary:
This training is typically offered internally by Salt Lake County, but may be held through the State of Utah, via the Division of Water Quality (DWQ) Industrial Program coordinator.

Length of Training Session and Frequency:
The duration of the training may vary dependent on the agency who conducts the training. It typically requires one hour to one half-day. Employees are required to take this training **annually**.

TRAINING ADMINISTRATION: DOCUMENTATION AND REPORTING

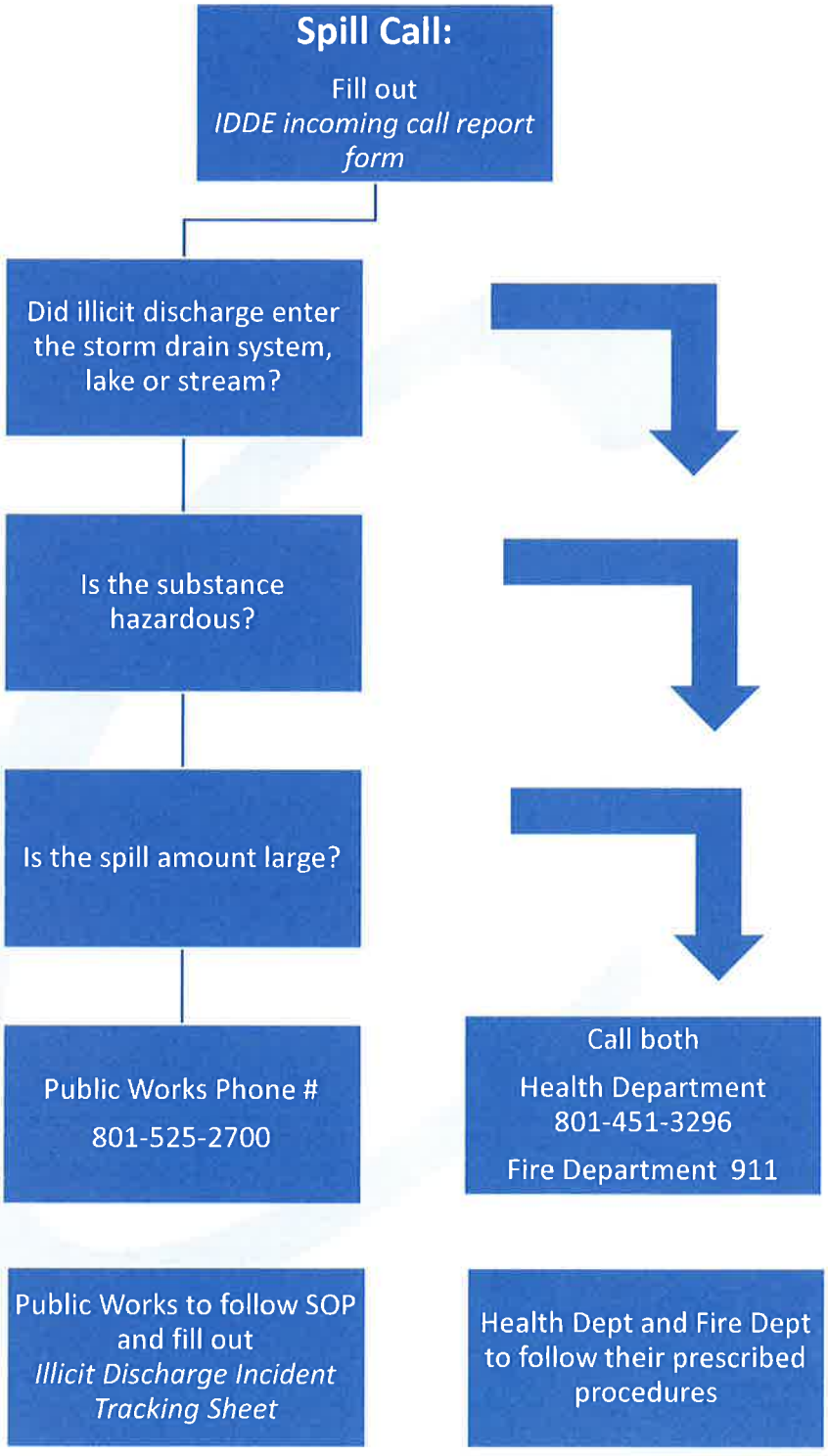
This Training Document only covers the permit requirements specifically listed in this document. Any other related training may also qualify. Yearly training shall be documented.

All documents related to training must include, at a minimum: the employee's name, the training date, the topic or agenda of the training and who conducted the training.

All documentation will be forwarded to and maintained by the Stormwater Program Manager. These records, along with any relevant required materials, shall be retained for the purpose of an audit for a period of no less than five (5) years. At which time, they may be properly destroyed or disposed of.

Leaders in each Department are responsible to ensure that employees are adequately trained. As a general guideline, the topics and description iterated by the preceding sections may be read to determine agency or department relevance. More precise guidelines for training are provided in the training matrix in Appendix C.

The Engineering Department may be available for consultation
and may perform training for General Overview, Good Housekeeping, and IDDE Training. Individual departments are responsible for all other topics iterated by the training guide.


Spill Call:
Fill out
IDDE incoming call report form
Did illicit discharge enter the storm drain system, lake or stream?
Is the substance hazardous?
Is the spill amount large?
Public Works Phone #
801-525-2700
Call both
Health Department
801-451-3296
Fire Department 911
Public Works to follow SOP and fill out
Illicit Discharge Incident Tracking Sheet
Health Dept and Fire Dept to follow their prescribed procedures

City of Clearfield
STORMWATER MANAGEMENT TRAINING FOR
GOOD HOUSEKEEPING POLLUTION PREVENTION

1

AGENDA

- **Part 1- Stormwater Overview:**
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- Part 2- Good Housekeeping Pollution Prevention
  - Examples
  - Spill Prevention and Cleanup
  - Vehicle Maintenance
  - General Management Practices
  - High Priority Facility SWPPP

2

STORMWATER, WHAT'S IT ALL ABOUT?

- Stormwater is runoff due to rain or snow melt that enters streams and rivers via natural geologic features such as channels as well as urbanized features such as storm drains and gutters *without treatment*



3

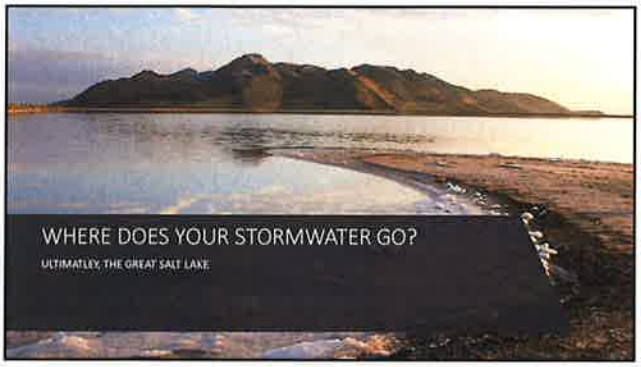




WHERE DOES STORMWATER GO?

- RETENTION BASINS
- RIVERS
- STREAMS
- LAKES
- BASEMENTS

4

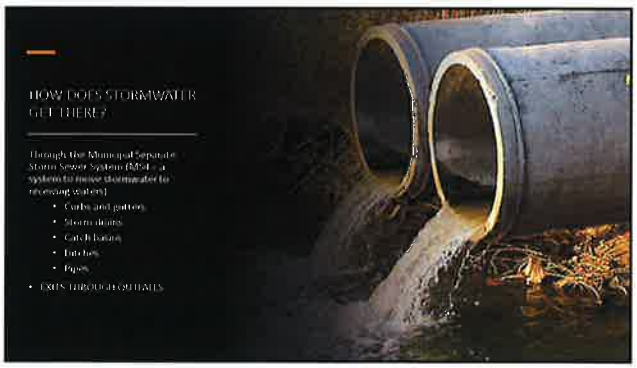


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HOW DOES STORMWATER GET THERE?

Through the Municipal Separate Storm Sewer System (MS4) – a system to move stormwater to receiving waters]

- Curbs and gutters
- Storm drains
- Catch basins
- Inlets
- Pipes
- EXITS THROUGH OUTFALLS



6

ILLICIT DISCHARGES: WHAT TO REPORT?



- Chemical dumping
- Information on malfunctioning septic systems
- Leaking or blocked stormwater systems
- Dry weather discharges that may contain pollutant
- Silt and sediment runoff from poorly controlled construction sites
- *ANYTHING ELSE THAT DOESN'T LOOK LIKE NORMAL RAIN RUNOFF!*

13

HOW TO REPORT ILLICIT DISCHARGES

- If a potential illicit discharge is spotted:
  - Identify key information (location, discharge characteristics, obvious sources)
  - Take a picture if possible
  - Notify police department, code enforcement, or stormwater manager by phone or submit a work order
    - Stormwater Manager – Dayton Newell 801-525-4423
    - Code Enforcement – Shane Crowton 801-525-2845

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AGENDA

- Part 1- Stormwater Overview:
  - What is stormwater?
  - What is an illicit discharge?
  - Permit compliance
  - Identifying and reporting illicit discharges
- **Part 2- Good Housekeeping Pollution Prevention**
  - Examples
  - Spill Prevention and Cleanup
  - Vehicle Maintenance
  - General Management Practices
  - High Priority Facility SWPPP

15

GOOD HOUSEKEEPING POLLUTION PREVENTION

- Municipalities conduct activities each day that pose a threat to storm water quality
- Municipally-owned facilities are required to maintain pollution prevention measures and practices
- MS4s are required to train municipal employees annually



16

EXAMPLE

SALT SHED

DO:
- Stockpile
- Push back into shed
- Apply as needed

DO NOT:
- Expose salt to storm water
- Use water to clean up the salt
- Over-apply the salt



17

MORE EXAMPLES



18

SOP's

CLEARFIELD CITY SOPS

Last updated: August 2021

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Preparation:

1. Conduct regular employee training to reinforce proper housekeeping.
2. Restrict parking in areas to be swept prior to and during sweeping using regulations as necessary.
3. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.

Process:

1. Sweep parking areas, as needed, or as directed by the city's responsible official.
2. Hand sweep sections of gutter if soil and debris accumulate.
3. Pick-up litter as required to keep parking areas clean and orderly.

Clean-up:

1. Dispose of sweepings properly (appropriate solid waste facility).
2. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into a storm drain.
3. Swept materials will not be stored in locations where storm water could transport fines into the storm drain system.

Documentation:

1. Keep accurate logs to track swept parking areas and approximate quantities.
2. Document training of employees.

IDDE: Call-in Inspections

Preparation:

Process:

1. Call the appropriate authority (i.e., department head, storm water specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.
2. Assess the general area of the illicit discharge to see if you can identify its source.
3. Whenever possible, take photographs of the suspected illicit discharge.
4. Responding storm water department personnel or code enforcement officer will complete the following:
    a. Use the IDDE Incident Tracking Sheet to document observations.
    b. Obtain sample for visual observation and complete an Outfall Inspection Form, if applicable.
    c. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.

Clean-up:

1. Clean catch basin, clean stom1 drain, or initiate spill response, as needed. Follow relevant SOPs.

Documentation:

1. File all completed forms (i.e., Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).
2. Document any further action taken.

IDDE: Outfall Inspections

Preparation:

1. Know the past and present weather conditions. Conduct inspections during dry weather periods.
2. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

a. Private Property Owner:
    i. Contact Owner
    ii. Issue Notice of Violation for violations of the municipal ordinance
    iii. Determine schedule for removal.
b. For Municipal Facility:
    i. Notify appropriate municipal authority or department head
    ii. Schedule removal
    iii. Remove illicit connection.

2. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.
3. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.
4. Repair/ correct cause of discharge if municipality is responsible.
5. Seek technical assistance from the office of Water Quality.
6. Work through the appropriate municipal authority or department head.

Clean up:

1. If done by Health Department or Utah Department
2. Confirm illicit discharge is removed or eliminated by follow-up inspection.

Documentation:

1. Maintain records of notice of violation and penalties.
2. Document repairs, corrections, and any other actions required.

IDDE - Tracing Illicit Discharges

Preparation:

1. Review / consider information collected when illicit discharge was initially identified and document using Incident Tracking Form or Outfall Inspection Form.
2. Obtain storm drain mapping for the area of the reported illicit discharge.
3. Gather all necessary equipment including tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).

Process:

Process:

1. Always follow the manufacturer's recommendations for mixing, application, and disposal. ("Read the Label").
2. Do not mix or prepare pesticides for application near storm drains, preferably mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
3. Employ techniques to minimize off-target application (e.g., spray drift, over broadcasting.) of pesticides and fertilizers.

Clean-up:

1. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
2. Triple rinse containers and use rinse water as product. Dispose of unused pesticide as hazardous waste.
3. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label", See SOP: Storage and use of Pesticides and Fertilizer)

Documentation:

Keep copies of MSD sheets for all pesticides, fertilizers and other hazardous products used.
Record fertilizing and pesticide application activities, including date, individual who did the application, amount of product used, and approximate area covered

All Departments - Cleaning Equipment

Preparation:

Review process with all Parks employees

Process:

Wipe off dirt, dust, and fluids with disposable towel
Wash equipment in approved wash station

Clean-up:

Dispose of towels in proper trash receptacle
Sweep floor and dispose of debris.

Clean-up:

Mowers are to be scraped and brushed at shop.
Dry spoils are dry swept and disposed of
Wash equipment in approved wash station

Documentation:

PARKS: OPERATIONS AND MAINTENANCE OF PARKS AND OPEN SPACES

Introduction:

Parks and open space operations and maintenance activities commonly involve the operation of equipment such as mowers and tractors; disposal of waste from mowing, planting, weeding, raking, pruning, and trash collection; application of pesticides, herbicides, and fertilizers; cleaning and maintenance of park amenities such as play equipment, restrooms, and structures; and snow removal. These activities have the potential to generate contaminants such as sediments and toxic chemicals that may be picked up by rainwater, thereby entering the storm drainage system and receiving waters. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees to reduce the discharge of pollutants from the MS4 and to receiving waters because of parks and open space operations and maintenance. If services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

General	▪ Repair damage to landscaped or mulch or vegetated bare areas as soon as possible to prevent erosion. If there are areas of erosion or poor vegetation, repair them as soon as possible, especially if they are within 50 feet of a surface water (e.g., pond, lake, or river). ▪ Remove (sweep or shovel) materials such as soil, mulch, and grass clippings from parking lots, streets, curbs, gutters, sidewalks, and drainage-ways. ▪ Do not clean up any unidentified or possibly hazardous materials found during maintenance; notify a supervisor immediately
Maintenance	▪ Wastewater from power washing signs, structures, or bleachers cannot be discharged into the stormwater system. ▪ When painting park equipment, use a drop cloth and clean up any spills immediately. ▪ Do not leave open containers on the ground where they may accidentally tip over. ▪ Sweep parking lots with a street sweeper and dispose of street sweepings in designated areas (see SOP 16: Streets and Parking Lots). ▪ Never wash debris from parking lots into the storm drain.
Mowing	▪ Remove debris and trash from landscaped areas prior to mowing. ▪ Collect grass clippings and leaves after mowing. Do not blow or wash them into the street, gutter, or storm drains. ▪ Properly recycle or dispose of organic waste after mowing, weeding, and trimming. ▪ Reduce mowing frequencies wherever possible by establishing low/no-mow areas in lesser-used spaces. ▪ Brush off mowers (reels and decks) and tractors over grassy areas or in contained washout areas. ▪ Leave clippings on grassy areas or dispose of them in the trash or by composting. ▪ Do not hose off mowers over paved areas that drain into the MS4 or directly to surface waters. ▪ Follow proper vehicle and equipment maintenance procedures to prevent leaks (see SOP 21: Operations and Maintenance of Municipal Vehicles and Equipment) ▪ Do not allow grease from mowers to fall onto areas where they can be washed into the stormwater system.
Irrigation	▪ Repair broken sprinkler heads as soon as possible. ▪ Only irrigate at a rate that can infiltrate into the soil to limit run-off. ▪ Avoid irrigating close to impervious surfaces such as parking lots and sidewalks.
Landscaping	▪ When establishing new plantings, use alternative landscaping materials, such as drought resistant or native plants to reduce the need for irrigation and extensive application of fertilizers and pesticides. ▪ Follow proper fueling procedures for all equipment to ensure that petroleum products do not enter the stormwater. ▪ Fertilizers, herbicides, and pesticides should be properly used, stored, and handled.
Snow Removal	▪ Store salt or sand for snow removal indoors under a roof or in a covered container and on impervious surfaces. ▪ See SOP: Winter Road Maintenance for more information on proper snow disposal and storage procedures. ▪ Any damage done to vegetated areas caused by plows or deicing materials should be repaired as early as possible in the spring

PARKS: STORAGE AND USE OF PESTICIDES AND FERTILIZER

Introduction:

The use and improper storage of pesticides, herbicides, and fertilizers can contribute to the discharge of nutrients and toxic compounds to the municipal storm drainage system and surface waters. The goal of this Standard Operating Procedure (SOP) is to provide guidance on municipal employees on proper handling and storage of pesticides, herbicides, and fertilizers to prevent the discharge of pollutants from the MS4.

Procedures:

Below are procedures for the storage and use of fertilizers, pesticides, and herbicides by municipal employees. In this section, the term "pesticide" includes products used as herbicides. Refer to SOP: Spill Response and Cleanup and SOP: Hazardous Materials Storage and Handling for information on and handling spills and hazardous materials.

Use and Application of Fertilizers	▪ All fertilizer products manufactured or distributed in the State of Massachusetts must be registered with the Department of Agricultural Resources. ▪ Perform soil testing before choosing a fertilizer. The quantity of available nutrients already present in the soil will determine the type and amount of fertilizer that is recommended. The soil test will also determine the soil pH, humic matter, texture, and exchangeable acidity, which will indicate whether pH adjustment is required for fertilizer to work efficiently. A soil test should be completed at each facility, as soil type can vary widely within a single community. ▪ Soil tests are recommended every 3-4 years for turf and plantings (more frequently for problem or newly planted areas) and every year for soil where phosphorus-containing fertilizers are used. Soil pH tests should be conducted every year for all sites. ▪ When collecting soil samples, take multiple samples for each target area at a four-inch depth; mix the samples together in a container and properly label the sample with property information and site use type. Separately sample areas that have discoloration, abnormal plant growth, or other problems. Take the sample at approximately the same time every year. If the area has been fertilized, wait eight weeks after fertilizing to test the soil to ensure nutrients have been absorbed. ▪ When selecting the optimal type of fertilizer to use on an area, consider the soil test results, type of turf, and type of turf use. Slow-use fertilizer should be used for turf grass. ▪ Calibrate application equipment regularly to ensure proper application and loading rates. ▪ Mix fertilizers using clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate the soil. ▪ Fertilizers should only be applied by properly trained personnel. ▪ Never apply fertilizers in quantities exceeding the manufacturer's instructions. Instead, apply small amounts throughout the growing season. ▪ Time fertilizer application methods for maximum plant uptake, usually in the fall and spring (e.g., between April 15 and October 15). When applying at the beginning and end of planting season, take into consideration the slower uptake rate of fertilizer by plants and adjust the fertilizer application accordingly. ▪ Never apply fertilizer during a drought, when the soil is dry or frozen, when it is raining, or immediately before expected rain. ▪ Fertilizer should be applied when the ground temperature is above 55° F. ▪ Apply fertilizers in amounts appropriate for the type of vegetation to minimize losses to surface water and groundwater. Use the results of the soil test to determine optimal fertilizer timing and application rates. ▪ Where applicable, till fertilizers into the soil rather than dumping or broadcasting (proper application techniques will depend on the type of soil and vegetation). ▪ Do not hose down paved areas after fertilizer application if drainage will enter an engineered storm drain system or drainage ditch. ▪ Limit irrigation after fertilizer application to prevent runoff (approximately ½ inch of water per application for a week following application). ▪ Turn off irrigation systems during periods of adequate rainfall. ▪ Do not over-apply fertilizer in late fall to "use it up" before winter. The effectiveness of fertilizer does not reduce when stored. ▪ If phosphorus fertilizer is used when re-seeding, mix the phosphorus into the root zone. Do not apply directly to the soil surface. ▪ Avoid combined products such as "weed and feed," which do not target specific problems at the appropriate time.

PARKS: Pet Waste

Preparation:

Adopt and enforce ordinances that require pet owners to clean up pet wastes and use leashes in public areas. If public off-leash areas are designated, make sure they are clearly defined. Avoid designating public off-leash areas near streams and water bodies.
Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet waste has been a problem. Provide signs with instructions for proper cleanup and disposal.

Process:

Check parks and trails. For pet waste as needed.
Check public open space for pet waste prior to mowing and watering.
Provide ordinance enforcement as needed.

Clean up:

Remove all pet waste, provide temporary storage in a covered waste container, and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.

Documentation:

Document problem areas for possible increased enforcement and/or public education signs.

Parks - Planting Vegetation (Seeds)

Preparation:

Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
Dial 811 or 1-800-662-4111
Decide on the application rate, method, water source, and ensure adequate materials are on hand.
Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

Process:

Place the seed and any cover using the pre-determined application method (and rate).
Lightly moisten the seed.

Clean-up:

Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.
Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area
Transport spoils to their designated fill or disposal area.

Documentation:

Controlling Erosion and Sediment through Design and Planning	Prevention of erosion and sedimentation is preferable to installing treatment devices. Consistent application and implementation of the following guidelines during the design and review phases can prevent erosion and sedimentation: ▪ Avoid sensitive areas, steep slopes, and highly erodible soils to the maximum extent possible when developing site plans. ▪ Identify potential problem areas before the site plan is finalized and approved. ▪ Plan to use sediment barriers along contour lines, with a focus on areas where short-circuiting (i.e., flow around the barrier) may occur. ▪ Use berms at the top of a steep slopes to divert runoff away from the slope's edge. ▪ Design trapezoidal or parabolic vegetated drainage channels, not triangular. ▪ Use vegetated channels with rip rap check dams, instead of impervious pavement or concrete, to reduce the water velocity of the conveyance system. ▪ Design a check dam or sediment forebay with level spreader at the exit of outfalls to reduce water velocity of the discharge and collect sediment. ▪ Use turf reinforcement matting to stabilize vegetated channels, encourage vegetation establishment, and withstand flow velocities without scouring the base of the channel. ▪ Plan open channels to follow land contours so natural drainage is not disrupted. ▪ Use organic matting for temporary slope stabilization and synthetic matting for permanent stabilization. ▪ Provide a stable channel, flume, or slope drain where it is necessary to carry water down slopes.

Controlling Erosion and Sediment by Proper Maintenance of Permanent BMPs	Many constructions phase BMPs can be integrated into the final site design, but ongoing inspection and maintenance are required to ensure long-term function of any permanent BMP. Refer to SOP 9, "Inspection of Constructed Best Management Practices", for more information. The following guidelines summarize the requirements for long-term maintenance of permanent BMPs. ▪ Responsibility for maintaining erosion and sediment control devices shall be clearly identified. ▪ Erosion and sediment control devices shall be inspected following heavy rainfall events to ensure they are working properly. ▪ Erosion control blankets shall be utilized when seeding slopes. ▪ Vegetated and wooded buffers shall be protected and left undisturbed to the extent possible. ▪ Runoff shall not be diverted into a sensitive area unless this has been specifically approved. ▪ Sedimentation basins shall be cleaned out once sediment reaches 50% of the basin's design capacity. ▪ Snow shall not be plowed into, or stored within, retention basins, rain gardens, or other BMPs. ▪ Easements and service routes shall be maintained, to enable maintenance equipment to access BMPs for regular cleaning.

Handling, Loading, and Unloading	▪ Avoid loading/unloading materials in the rain and/or provide cover. ▪ Retrace areas where materials have been transferred to identify spills. ▪ Time delivery and handling of materials during favorable weather conditions whenever possible (e.g., avoid receiving loads of sand during windy weather). ▪ Inspect containers for material compatibility and structural integrity prior to loading/unloading any raw or waste materials. ▪ Use dry cleanup methods rather than hosing down surfaces.
Material Storage	▪ Confine material storage indoors whenever possible. Plug or disconnect floor drains that lead to the stormwater system. ▪ Confine outdoor material storage to designated areas that are covered, on impervious surfaces, away from high traffic areas, and outside of drainage pathways. ▪ Store containers on pallets or equivalent structures to facilitate leak inspection and to prevent contact with wet floors that can cause corrosion. This technique also reduces incidences of container damage by insects and rodents. ▪ Store materials and waste in materially compatible containment units. ▪ Keep hazardous materials in their original containers. ▪ If materials are not in their original containers, clearly label all storage containers with the name of the chemical, the expiration date, and handling instructions. ▪ Maintain an inventory of all raw and waste materials to identify leakage. Order new materials only when needed. ▪ Provide secondary containment for storage tanks and drums with sufficient volume to store 110 percent of the volume of the material. ▪ Provide sufficient aisle space to allow for routine inspections and access for spill cleanup. ▪ Inspect storage areas for spills or leaks and containment units for corrosion or other failures.
Waste Treatment, Disposal, and Cleanup	▪ Adopt a regular schedule for the pick-up and disposal of waste materials. ▪ Recycle leftover materials whenever possible. ▪ Substitute nonhazardous or less-hazardous materials for hazardous materials whenever possible. ▪ Protect empty containers from exposure to stormwater and dispose of them regularly to avoid contamination from container residues.

All Departments – Operations and Maintenance of Municipal Buildings and Facilities

Introduction:

Municipal buildings and facilities (schools, municipal offices, police and fire stations, municipal pools, parking garages, etc.) often house various chemicals, such as petroleum products and hazardous materials. As a result, these buildings and facilities are potential sources of pollutant discharges to the storm drainage system. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees on the use, storage, and disposal of chemicals and other stormwater pollutants to reduce the discharge of pollutants from the MS4. If services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

Procedures:

Clearfield City will implement the following procedures for municipally owned or operated buildings and facilities to reduce the discharge of pollutants from the MS4:

Handling, Storage, Transfer, and Disposal of Trash and Recyclables: All liquid and solid waste must be disposed of properly. Some of the most common sources of pollution at municipal facilities are a result of littering, improper collection of debris, and improper disposal of solid or liquid waste.	▪ All waste and recycling receptacles must be leak-tight with tight-fitting lids or covers. ▪ Keep lids on dumpsters and containers always closed unless adding or removing material. If using an open-top roll-off dumpster, cover it and tie it down with a tarp unless adding materials. ▪ Place waste or recycling receptacles indoors or under a roof or overhang whenever possible. ▪ Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent run-on and run-off. ▪ Do not locate dumpsters over or adjacent to catch basins. ▪ Prior to transporting waste, trash, or recycling, ensure that containers are not leaking (double bag if needed) and properly secure containers to the vehicle. ▪ Clean and sweep up around outdoor waste containers regularly. Clean up any liquid leaks or spills with dry cleanup methods. ▪ Arrange for waste or recycling to be picked up regularly and disposed of at approved disposal facilities. ▪ Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster or recycling or trash container ▪ Do not wash trash or recycling containers outdoors or in parking lots.

Building Maintenance	▪ When power washing buildings and facilities, ensure that the wash water does not flow into the storm system. Containment or filtering systems should be provided. ▪ Paint and other chemicals should not be applied on the outside of buildings when it is raining or prior to expected rain. ▪ When sanding, painting, power washing, etc., ensure that sites are properly prepared (e.g., use tarps) and cleaned (e.g., use dry cleaning methods) especially if they are near storm drains. Protect catch basins when maintenance work is conducted upgradient of them. ▪ When painting, use a drop cloth and clean up any spills immediately. ▪ Do not leave open containers on the ground where they may accidentally tip over. ▪ Buildings should be routinely inspected for areas of potential leaks. ▪ Do not discharge chlorinated pool water into the stormwater system. Water must be properly dechlorinated and tested before it is discharged. ▪ Streets and parking lots surrounding municipal buildings and facilities should be swept and kept clean to reduce runoff of pollutants and debris to the stormwater system.
Storage of Petroleum Products and Potential Pollutants	▪ Floor drains in storage areas should be disconnected from the stormwater system. ▪ Routinely inspect buildings and facilities for areas of potential leaks. ▪ All municipal buildings and facilities should be periodically inspected to address potential pollutant sources (e.g., leaks).
Spill Prevention Plan	▪ Spill prevention plans such as Spill Prevention Control and Countermeasure (SPCC) Plans should be in place where applicable, based on inventories of material storage and potential pollutants. Coordinate with the local fire department if necessary. ▪ Spill SOPs are outlined in Spill Response and Cleanup
Employee Training	▪ Employees who perform maintenance or other applicable work at municipal buildings and facilities are trained once a year on these procedures and the proper operation of related equipment. ▪ Employees are also trained on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures. ▪ If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

transporters will pick up spill contaminated materials for recycling or disposal. Save the shipping records for at least three years.

iii. Waste oil contaminated industrial wipes and absorptive minerals:
    1. Wring absorbents through a paint filter. If doing so does not generate one drop of oil, the materials are not hazardous.
    2. If absorbents pass the "one drop" test they may be discarded in the trash unless contaminated with another hazardous waste.
        a. It is acceptable to mix the following fluids and handle them as waste oil:
            i. Waste motor oil
            ii. Hydraulic fluid
            iii. Power steering fluid
            iv. Transmission fluid
            v. Brake fluid
            vi. Gear oil
        b. **Do not mix** the following materials with waste oil. Store each separately:
            i. Gasoline
            ii. Antifreeze
            iii. Brake and carburetor cleaners
            iv. Cleaning solvents
            v. Other hazardous wastes
    3. If absorbents do not pass the "one drop" test they should be placed in separate metal containers with tight fitting lids, labeled "Oily Waste Absorbents Only."

- If you need assistance containing and/or cleaning up the spill or preventing it from discharging to a surface water (or an engineered storm drain system), North Davis Fire District. **In the case of an emergency call 911**.
    - NDFD: (801) 525-2850
- Contact the Utah DEQ 24-hour spill reporting notification line, toll-free at **(801)-536-4123**;

Inspection and Cleaning Frequency	▪ Each catch basin should be cleaned and inspected at least annually. ▪ Catch basins near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment) or high-use areas should be inspected and cleaned more frequently if inspection finds excessive sediments or debris loadings. ▪ Catch basins should be cleaned to ensure that they are no more than 50 percent full1 at any time. Establish inspection and maintenance frequencies needed to meet this "50 percent" goal. If a catch basin sump is more than 50 percent full during two consecutive inspections, document the findings, investigate the contributing drainage area for sources of excessive sediment loading, and, if possible, address the contributing sources. If no contributing sources are found, increase the inspection and cleaning frequencies of the sump. ▪ Street sweeping performed on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which they need to be cleaned. Reference SOP: Streets and Parking Lots for information on appropriate street sweeping frequencies. Street sweeping schedules should also be adjusted based on catch basin inspection findings, with more frequent sweepings for areas with higher catch basin loads

Documentation and Reporting	The following information should be documented and included in the municipality's annual report – use the catch basin inspection log provided in the attachments to document the information to include in the report (alternatively, obtain records of volume of debris removed to include in the report): ▪ Metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4 (include in the SWMP and first annual report) ▪ Any action taken in response to excessive sediment or debris loadings ▪ Total number of catch basins ▪ Number of catch basins inspected ▪ Number of catch basins cleaned ▪ Total volume or mass of material removed from catch basins.

STREETS/STORM DRAIN - Catch Basin Cleaning

Preparation:

Clean sediment and trash off grate.
Do visual inspection on outside of grate.
Make sure nothing needs to be replaced.
Do inside visual inspection to see what needs to be cleaned.

Process:

Clean using a high-powered vacuum truck to start sucking out standing water and sediment.
Use a high-pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the vacuum.
After catch basin is clean, send the rotor of the vacuum truck downstream to clean pipe and pull back sediment that might have gotten down stream of pipe.
Move truck downstream of pipe to next catch basin.

Clean-up:

When vacuum truck is full of sediment take it to the designated location to dump all the sediment out of truck into a drying bed.
When it evaporates, clean it up with a backhoe, put it into a dump truck and take it to the landfill.

Documentation:

Keep logs of number of catch basins cleaned.
Record the amount of waste collected.
Keep any notes or comments of any problems.

STREETS/STORM DRAIN - Curb Painting

Preparation:

Calculate the amount of paint required for the job
Use water-based paints if possible.
Determine whether the wastes will be hazardous or not and the required proper disposal of said wastes
Determine locations of storm drain inlets and sewer inlets that may need to be protected
Prepare surfaces to be painted without generating wastewater by sandblasting and/or scraping.
Thoroughly sweep up all sand, blasting, and/or paint scrapings
If paint stripping is needed, use a citrus-based paint remover whenever possible, which is less toxic than chemical strippers
If wastewater will be generated, use curb, dyke, etc. around the activity to collect the filter and collect the debris.

Process:

Paint curb.
Prevent over-spraying of paints and/or excessive sandblasting
Use drip pans and drop clothes in areas of mixing paints and painting
Store latex paint rollers and brushes in airtight bags to be reused later with the same color.
Have available absorbent material and other BMP's ready for an accidental paint spill.

Clean-up:

Paint out brushes and rollers as much as possible. Squeeze excess paint from brushes and rollers back into the containers prior to cleaning them.
Pour excess paint from trays and buckets back into the paint can containers and wipe with cloth or paper towels. Dispose of the towels according to the recommendations on the paint being used.
Rinse water-based paint brushes in the sink after pre-cleaning. Never pour excess paint or wastewater from cleanup of paint in the storm drain.
Cleanup oil-based paints with paint thinner. Never clean oil-based brushes in a sink or over a storm drain. Filter solvents for reuse if possible and/or store in approved drum for recycling.
Dispose of waste collected by placing it in a garbage container. Left-over paint and solvents should be stored for later use (do not place these liquids in the garbage).

Documentation:

Write-up/report of any discharges into storm drain system

STREETS/STORM DRAIN - Ditch Management

Preparation:

Monitor ditches on a regular basis (Suggested interval?).
Maintain access to ditch channels wherever possible.
Contact affected property owners and utility owners.

Process:

Identify areas requiring maintenance
Determine what manpower or equipment will be required.
Identify access and easements to area requiring maintenance.
Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.

Clean-up:

Stabilize all disturbed soils.
Remove all tracking from paved surfaces near maintenance site, if applicable.
Haul all debris or sediment removed from area to approved dumping site.

Documentation:

Keep log of actions performed including date and individuals involved.
Record the number of materials removed or imported.
Keep any notes or comments of any problems.
Use "before" and "after" photographs to document activities as applicable.

STREETS/STORM DRAIN - Slurry Seal

Preparation:

Remove weeds from the roads. Sweep areas where materials are to be applied, and allow to dry, if necessary. Verify that existing pavement has been inspected for detrimental effects of poor drainage. Cover/protect catch basins and manholes.

Process:

Apply materials in a smooth and uniform manner. Slurry material should not run onto adjacent pavement surface, curb and gutter or waterways.

Clean-up:

If loose aggregate is remaining in street or curb, sweep it up.
Ensure that excess emulsion materials are removed from the site and stored for later use in an area or container that is not exposed to the weather.
Remove covers/protection from catch basins and manholes, and valves.

Documentation:

Record location and date on the maintenance database and map

STREETS/STORM DRAIN - Crack Seal

Preparation:

Cover Manholes and catch basins to prevent oil and materials from getting inside the structures or system.
Remove weeds from the road
Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.
Ensure that surface is clean and dry.

Process:

Proper temperature of material should be maintained.
Sufficient material is applied to form the specified configuration.

Clean-up:

Excessive sealant application or spills are removed.
Sweep all loose debris from the pavement and dispose of it in the local landfill.

Documentation:

Record location and date on the maintenance database and map

STREETS/STORM DRAIN - Secondary Road Maintenance

Preparation:

Determine length amount and type of road base or gravel that will be needed.
Determine proper equipment to be used and or any safety hazards.
Design proper drainage: slopes, berms etc.

Process:

Have truck drivers follow a designated route for hauling in the soil (See SOP for transporting Soil and Gravel).
If soil is too dry to achieve compaction, loosen surface material and moisture condition.
Smooth or grade soil with the desired crown or cross-slope.
Compact soil.

Clean-up:

Replace filter fabric with washed rock (if necessary) on monthly maintenance.
Clean up equipment according to the SOP for Cleaning Equipment
Clean up any debris on traveled roads and dispose of it in the landfill.

Documentation:

Fill out daily activity report in logbook or journal. Include Date, time, personnel, and location.

STREETS/STORM DRAIN - Garbage Storage

Preparation:

Locate dumpsters and trash cans with lids in convenient, easily observable areas.
Provide properly labeled recycling bins to reduce the amount of garbage disposed.
Provide training to employees to prevent improper disposal of general trash:

Process:

Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.
Install berms, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
Keep lids closed when not actively filling dumpster.

Clean-up:

Keep areas around dumpsters clean of all garbage.
Have garbage bins emptied as often as needed to keep from overfilling.
Wash out bins or dumpsters as needed to keep odors from becoming a problem. Wash out in properly designated areas only.

Documentation:

STREECTS/STORM DRAIN – Transporting Soil and Gravel

Preparation:

Dry out wet materials before transporting.
Spray down dusty materials to keep from blowing.
Make sure you know and understand the SWPPP requirements for the site you will be working at.
Determine the location that the truck and other equipment will be cleaned afterwards

Process:

Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.
Cover truck bed with a secured tarp before transporting.
Follow the SWPPP requirements for the specific site to/from which the materials are being hauled.
Make sure not to overfill materials when loading trucks.

Clean up:

Use sweeper to clean up any materials tracked out on the roads from site.
Wash out truck and other equipment when needed in properly designated areas.

Documentation:

Keep records of any material that is tracked out of site and what was done to clean it up and how long it took to clean and what the weather conditions were at the time.

VEHICLES – Vehicle, Material, and Equipment Storage

Introduction:

Regular maintenance of both municipal and contracted vehicles and heavy equipment not only prolongs the life of municipal assets but also helps reduce the potential for leaking of fluids associated with normal wear and tear. Potential pollutants include fuels, oil, antifreeze, brake fluid, solvents, and battery acid. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees to help reduce the discharge of pollutants from the MS4 because of leaks from vehicles and equipment. If services are contracted with respect to vehicles and equipment, this SOP should be provided to the contractor. The contract should also specify that the contractor is responsible for compliance with all applicable laws.

Clearfield City has an inventory of all municipal vehicles and equipment and update this inventory annually (refer to the vehicles and equipment inventory)

Procedures

Clearfield City will implement the following procedures for municipally owned and operated vehicles and equipment to reduce the discharge of pollutants from the MS4:

VEICLE AND EQUIPMENT WASHING
Vehicle washing can result in the discharge of nutrients, sediment, petroleum products, and other contaminants to a surface water body or to a stormwater system. The MS4 Permit does not authorize the discharge of municipal vehicle washing byproducts into the MS4.

Heavy Equipment Washing Procedures	▪ Mud and heavy debris removal should occur on impervious surfaces or within a retention area. ▪ Maintain these areas with frequent mechanical removal and proper disposal of waste. ▪ Impervious surfaces with engineered storm drain systems should not discharge directly to a surface water. ▪ Floor drains should be connected to a sanitary sewer or tight tank. Floor drains discharging to adjacent surface waterbodies or engineered storm drain systems should be permanently plugged or otherwise abandoned before any vehicle wash activities are completed. ▪ Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is preferred. ▪ Detergents should not be used in areas where oil/water separators provide pre-treatment of drainage. ▪ Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Follow the procedures in SOP 4: Spill Response and Cleanup.
Engine and Steam Washing Procedures	▪ Do not wash parts outdoors. ▪ Maintain drip pans and smaller containers to contain motor oils, hydraulic lubricants, greases, etc. and to capture and collect spills or noticeable leaks observed during washing activities, to the extent practicable. Follow the procedures in SOP: Spill Response and Cleanup. ▪ Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of a biodegradable, phosphate-free detergent is preferred. ▪ Avoid cleaning with solvents except in dedicated solvent parts washer systems. Make use of pressure washing and steam cleaning. ▪ Recycle clean solutions and rinse water to the extent practicable. ▪ Wash water should discharge to a tight tank or a sanitary sewer via an oil/water separator. Detergents should not be used in areas where oil/water separators provide pre-treatment of drainage.

WATER- Unplanned Waterline Excavation Repair/Replacement

Preparation:

Make sure service trucks have wattles, gravel bags, or other materials for inlet protection.

Process:

Slow the discharge.
Inspect flow path of discharged water
Protect water inlet areas
Follow planned repair procedures.
Haul off spoils of excavation
Consider use of silt filter bags on pumps

Clean-up:

Repair eroded areas as needed
Follow planned repair procedures
Clean up the travel path of trucked excavated material

Documentation:

WATER-Transporting Wet Excavated Materials & Spoils

Preparation:

Utilize truck with containment for material
Determine disposal site of excavated material

Process:

Load and Transport in manner to minimize spillage & tracking of material
Check truck for spillage
Utilize one route of transport

Clean-up:

Clean route of transport to provide cleaning of any spilled material
Wash out equipment truck and other equipment in designated wash area

Documentation:

WATER - Waterline Flushing after Construction/System Disinfection with Discharge to Storm Drain

Preparation:

Determine chlorine content of discharged water and select de-chlorination equipment to be used.
Determine flow path of discharge.

Process:

Protect inlets in flow path
Install de-chlorination equipment
Sweep and clean flow path
Use diffuser to reduce velocities

Clean-up:

Pick up inlet protection
Clean flow paths
Remove equipment from flush point

Documentation:

Residual test of discharged water

WATER - Chemical Handling of transporting and Spill Response

Preparation:

Understand MSDS sheets for handling of product
Determine proper place of handling
Have necessary containment and spill kits at handling place

Process:

Begin transfer process
Discontinue operations if spill levels occur
Disconnect and store handling equipment

Clean-up:

Clean up spills with proper material
Dispose of contaminated material at appropriate facility

Documentation:

Report spills to Davis County or Clearfield City Police or North Davis fire dept.
Work hours- Davis County 801-451-3296
After hours -Davis County 801-451-4151
Clearfield Dispatch 801-525-8806
North Davis fire dept. 801-525-2850 after hours 911
Austin White - Clearfield City 801-525-4423

STREETS/STORM DRAIN – Updating the SWMP

Preparation:

Meet with the Storm Water Committee according to the schedule.
Gather notes and material obtained from Coalition meetings attended throughout the year and review changes made to MCMs.
Discuss and document what BMPs are working well, what is effective, what needs improvement.
Discuss and document what MCMs are working well, what is effective, what needs improvement.
Gather feedback from community comments on the SWMP available on the City homepage.

Process:

Set up a meeting with the Storm Water Committee to discuss ideas to improve the SWMP.
Use resources from the Coalition to make improvements to the SWMP.
Record any significant changes to city ordinances affecting Storm Water in the SWMP
Evaluate the 6 minimum control measures (MCMs)

- Determine results from enacting the MCMs, were measurable goals obtained?
- Determine what BMPs were effective and what need improvement.
- Determine what required resources are needed for each MCM
- Evaluate the schedule for each MCM.
- Determine what can be done to further execute and improve the MCMs
- Add new ideas and processes to obtain goals set forth by the committee to the MCMs

Documentation:

Record all changes made to the SWMP in a separate folder in the Storm Water folder on the Public Works OneDrive. Indicate which records, documents, and/or forms were considered outdated.

IDDE: Enforcement Actions

Preparation:

1. Identify point source of illicit discharge, person(s)/party responsible for discharge, and document time of discharge.

2. Review the violation guidelines in Title 9 Chapter 3 Section 16 (9-3-16):

> *A. Whenever the city finds that a person has violated a prohibition or failed to comply with a requirement of this chapter, the city will order compliance by written notice of violation to the responsible person. Such notice may require without limitation:*
>
> *1. The performance of monitoring, analyses, and reporting.*
> *2. The elimination of illicit connections or discharges.*
> *3. That violating discharges, practices, or operations shall cease and desist.*
> *4. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property.*
> *5. Payment to cover administrative, remediation, monitoring, analyses, and reporting costs.*
> *6. The implementation of source control or treatment BMPs.*
>
> *B. The city may waive the notice requirements set forth in this section and immediately proceed with criminal and/or civil action against the violator if: 1) the violator has committed the same violation in the past, or 2) the violation, in the opinion of the city, creates a serious risk to persons, the environment or property, or 3) the city deems the violation to constitute an emergency. (Ord. 2008-16, 12-9-2008)*

3. Determine if the person(s)/party responsible for the illicit discharge have damage the municipal storm water system as explained in Ordinance Title 9 Chapter 3 Section 17 (9-3-17).

Any person who damages any portion of the stormwater system shall be responsible for repairing the damages. The damages shall be repaired by a licensed contractor bonded to work in the city and shall be repaired in accordance with the city's construction standards and specifications. It is unlawful to remove or alter any portion of the stormwater system without permission from the director.

4. Determine if they have opened any manhole lids during the discharge (reference Ordinance Title 9 Chapter 3 Section 18):

It shall be unlawful to open any stormwater manhole or other stormwater fixture (such as grates, lids, or inlets) without permission from the director.

HIGH PRIORITY FACILITY DOCUMENTS

IDENTIFICATION OF MS4 HIGH-PRIORITY FACILITIES

Part of the Clearfield City Storm Water Management Plan

Identification of Clearfield City's high priority facilities that have high potential of discharging pollutants.

Clearfield City
Engineering
Department

Last Updated: 9/9/2021

1.0 INTRODUCTION

The Utah Pollutant Discharge Elimination System Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) requires Clearfield City to include BMPs to address the requirements of six minimum control measures (MCMs) described in Section II of the General Permit. The MCMs are summarized as:

- MCM 1: Public Education and Outreach on Stormwater Impacts
- MCM 2: Public Involvement and Participation
- MCM 3: Illicit Discharge Detection and Elimination
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post-construction Stormwater Management
- MCM 6: Pollution Prevention/Good Housekeeping for Operations

The permit also includes special conditions for TMDLs. The purpose of the efforts described in this report is to address Section 4.2.6 of the Small MS4 General UPDES Permit that require identification of Clearfield City's high priority facilities that have high potential of discharging pollutants. This requirement is part of MCM 6 and ultimately is intended to determine where a Stormwater Pollution Prevention Plan (SWPPP) will be required for minimizing the discharge of pollutants from stormwater runoff. Tables 3 and 4 in this report, along with the methods and actions described herein, satisfy compliance to Section 4.2.6 of the Small MS4 General UPDES Permit.

2.0 OBJECTIVE

The overall objective of the efforts described in this report is to address Section 4.2.6 of the Small MS4 General UPDES Permit, which requires Clearfield City to achieve the following:

- Identify all high-priority facilities. These high-priority facilities shall include:
    - composting facilities,
    - equipment storage and maintenance facilities,
    - materials storage yards,
    - pesticide storage facilities,
    - public works yards,
    - recycling facilities,
    - salt storage facilities,
    - solid waste handling and transfer facilities,
    - vehicle storage and maintenance yards.
- Identify which of the municipal high-priority facilities have a high potential of discharging pollutants.
- Develop a list of high priority sites that will require a SWPPP per Section 4.2.6.1 of the Small MS4 General UPDES Permit.

handled, and stored throughout both Freeport Centers. Other facilities outside the Freeport Centers are determined high priority depicted in Appendix B, and are mapped in Appendix A.

3.2 SITE REVIEW AND CHARACTERIZATION TO EVALUATE HIGH POLLUTION POTENTIAL

None of the locations are covered under a separate UPDES permit, and therefore site inspections were conducted for each of the high priority locations identified in Appendix A. The purpose of the site inspections was to address Section 4.2.6 of the Small MS4 General UPDES Permit that requires the permittee to identify which of the high-priority locations has a high potential of discharging pollutants. Per Section 4.2.6, an area would be considered to have a high potential of discharging pollutants if the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt, or runoff:

a) Areas where residuals from using, storing, or cleaning machinery or equipment remain and are exposed to stormwater.
b) Materials or residuals on the ground or in stormwater inlets from spills or leaks.
c) Material handling equipment (except adequately maintained vehicles).
d) Materials or products that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (e.g., rock, salt, fill dirt).
e) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants).
f) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers.
g) Waste material except waste in covered, non-leaking containers (e.g., dumpsters).
h) Application or disposal of process wastewater (unless otherwise permitted); or
i) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff. Collect samples from a representative outfall for each identified property.

Characterization of each high priority area was developed based on the field inspections in reference to the materials and activities listed above. Each area is first assigned a high priority area classification, or multiple classifications, consistent with Section 4.2.6 of the Small MS4 General UPDES Permit using identification number(s) as shown in Table 1.

TABLE 1: Classification of high priority locations

I.D.	HIGH PRIORITY AREA CLASSIFICATION
1	EQUIPMENT STORAGE/MAINTENANCE
2	MATERIAL STORAGE
3	PESTICIDE STORAGE FACILITY
4	PUBLIC WORKS YARD
5	RECYCLING FACILITY
6	SALT STORAGE FACILITY
7	SOLID WASTE HANDLING/TRANSFER
8	VEHICLE STORAGE/MAINTENANCE

- A description of the applicable training per Section 4.2.6 of the Small MS4 General UPDES Permit.
- Procedures to conduct an annual comprehensive site compliance evaluation.
- An inspection and maintenance schedule for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP.

A site wide SWPPP will be developed for Clearfield City that incorporates each high potential location and include all the SWPPP components described above. SWPPP development will aim to facilitate effective implementation of inspections with site-specific mapping and inspection forms that identify potential pollutant sources. Upon SWPPP development, the MS4 Manager will be responsible for inspecting each of the locations in Appendix B annually and the inspection documentation maintained for a minimum of 3 years. The SWPPP will be incorporated into Good Housekeeping/Pollution Prevention training required per the Clearfield City MS4 Program Plan.

IDENTIFICATION PROCESS

IDENTIFY HIGH-PRIORITY FACILITIES AS DESCRIBED IN SECTION 4.2.3.3.1

- AREAS WITH OLDER INFRASTRUCTURE WITH INCREASED POTENTIAL FOR ILLICIT CONNECTIONS
- INDUSTRIAL, COMMERCIAL, OR MIXED USE AREAS
- AREAS WITH A HISTORY OF PAST ILLICIT DISCHARGES
- AREAS WITH A HISTORY OF ILLEGAL DUMPING
- AREAS WITH ONSITE SEWAGE DISPOSAL SYSTEMS
- AREAS WITH OLDER SEWER LINES OR A HISTORY OF SEWER OVERFLOWS OR CROSSCONNECTIONS
- AREAS UPSTREAM OF SENSITIVE WATERBODIES
- OTHER AREAS THE PERMITTEE DETERMINES TO HAVE INCREASED POTENTIAL FOR ILLICIT DISCHARGES

PERMITTEE MUST DOCUMENT THE BASIS FOR ITS SELECTION OF EACH PRIORITY AREA AND CREATE A LIST OF ALL PRIORITY AREAS IDENTIFIIED IN THE SYSTEM

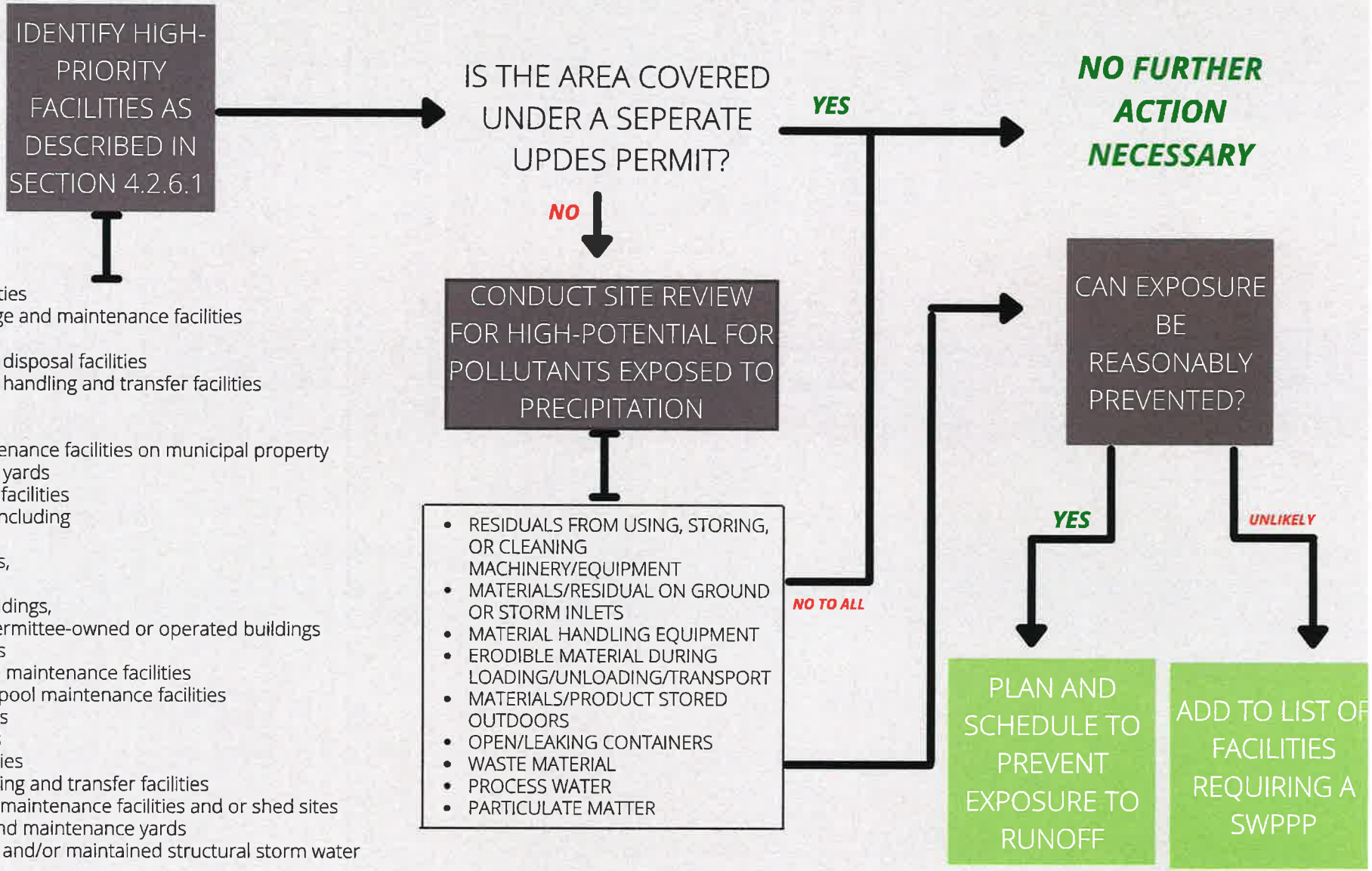
CONDUCT SITE REVIEW FOR HIGH-POTENTIAL FOR POLLUTANTS EXPOSED TO PRECIPITATION

- RESIDUALS FROM USING, STORING, OR CLEANING MACHINERY/EQUIPMENT
- MATERIALS/RESIDUAL ON GROUND OR STORM INLETS
- MATERIAL HANDLING EQUIPMENT
- ERODIBLE MATERIAL DURING LOADING/UNLOADING/TRANSPORT
- MATERIALS/PRODUCT STORED OUTDOORS
- OPEN/LEAKING CONTAINERS
- WASTE MATERIAL
- PROCESS WATER
- PARTICULATE MATTER

ADD FACILITIES TO HIGH PRIORITY FACILITY DOCUMENT FOUND IN ONE DRIVE UNDER: STORMWATER --> SWMP --> POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS CONTROL MEASURE 6

PRIORITY AREA LIST MUST BE UPDATED ANNUALLY TO REFLECT CHANGING PRIORITIES

IDENTIFICATION PROCESS



- Composting facilities
- Equipment storage and maintenance facilities
- Fuel farms
- Hazardous waste disposal facilities
- Hazardous waste handling and transfer facilities
- Incinerators
- Landfills
- Landscape maintenance facilities on municipal property
- Materials storage yards
- Pesticide storage facilities
- Public buildings, including
  - libraries,
  - police stations,
  - fire stations,
  - municipal buildings,
  - and similar Permittee-owned or operated buildings
- Public parking lots
- Public golf course maintenance facilities
- Public swimming pool maintenance facilities
- Public works yards
- Recycling facilities
- Salt storage facilities
- Solid waste handling and transfer facilities
- Street repair and maintenance facilities and or shed sites
- Vehicle storage and maintenance yards
- Permittee-owned and/or maintained structural storm water controls

NON-MUNICIPAL HIGH PRIORITY FACILITIES

BUSINESS / AREA	ADDRESS	DESCRIPTION	POTENTIAL POLLUTANTS
Freeport Center		Older infrastructure, history of sewer backups, history of illicit discharges, industrial/commercial/mixed use area	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets. Erodible material exposed during handling, loading, and transporting. Materials/product stored outdorrs. Open and leaking containers. Waste materials, process water, particulate matter.
Freeport West Center		Older infrastructure, history of sewer backups, history of illicit discharges, industrial/commercial/mixed use area	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets. Erodible material exposed during handling, loading, and transporting. Materials/product stored outdorrs. Open and leaking containers. Waste materials, process water, particulate matter.
Clearfield Recycle	96 W 1700 S	Industrial/commercial area	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets. Erodible material exposed during handling, loading, and transporting. Materials/product stored outdorrs. Open and leaking containers. Waste materials, process water, particulate matter.
Chancelor Gardens	1425 S 1500 E	History of sewer backups	Untreated sewage entering stormdrain system
333 Bruce Street		History of sewer backups	Untreated sewage entering stormdrain system
2300 S and South Main		History of sewer backups	Untreated sewage entering stormdrain system
725 N 1000 W		History of sewer backups	Untreated sewage entering stormdrain system
Clearfield Job Corp	20 W 1700 S	Area with older infrastructure	Leaking infrastructure (sewer, water, storm drain)
Davis School Transportation	1st Street	Commercial area, older infrastructure	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets
Morgan Pavement	625 S Main St	Commercial/industrial area	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets
Jenmar	155 E 550 S	Commercial/industrial area	Residuals from using, storing, cleaning machinery and equipment. Materials/residual on ground or storm inlets
Steves Automotive	975 E 700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
JP's Car Care	1352 E 700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Cutting Edge Auto Care	405 N 1000 W	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Master Mufler and Brake	239 E 200 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
JR's Service Center	196 N Main St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Victors Tires	499 S State St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
C&M Tires	548 N Main St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Redds Shell Quick Lube	490 E 1700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Perks Auto Repair	650 W 1700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Jones Complete Car Care	869 W 1600 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Walts Service	133 N Main St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
DC Auto	321 E 200 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.

SXOR	200 S State St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
El Chamo Auto Repoar	214 S State St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Elmer's Auto Clinic	385 E 450 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Caliver Collision	520 E 700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Kings Auto Repair	1181 State St	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Fowers Point S	1275 S 1000 E	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.
Vera's Auto Repair	325 W 1700 S	Automotive	Residuals from using, storing, cleaning machinery and equipment. Open/leaking containers. Materials/product stored outdoors.



HIGH PRIORITY FACILITIY STORMWATER POLLUTION PREVENTION PLANS

Part of the Clearfield City Storm Water Management Plan

SWPPP Documents for each identified high priority facility in Clearfield City

Clearfield City Engineering Department

Last Updated: 9/30/2021

This SWPPP is designed to address all activities at this facility that have the potential to impact stormwater quality.

1.1 PURPOSE

The purpose of the Stormwater Pollution Prevention Plan ("the Plan") is to establish measures, both structural and nonstructural, for minimizing potential pollution from stormwater runoff. Pollution will be minimized through the following procedures:

- Identifying and eliminating potential pollution sources
- Visual inspecting potential stormwater pollution sources
- Training employees
- Establishing preventive maintenance measures
- Implementing good housekeeping practices
- Establishing a Pollution Prevention Team responsible for implementing and reviewing
- Using structural controls when feasible
- Minimizing erosion

1.2 SITE DESCRIPTION

Clearfield City's Public Works Maintenance Operations Center (MOC) consists of four Departments: Public Works Utilities Department, Public Works Streets Department, Public Works Fleets Department, and the Parks, Open Space, and Cemetery Department. This facility provides services relating to road construction, fleet maintenance, street maintenance, utility maintenance, storm drain maintenance, snow and ice control, and parks maintenance. These services are all provided for Clearfield City.

The facility covers approximately 6.25 acres of land East of S State Street and H Street intersection, the majority of which is paved with asphalt. The facility includes an administration building, parks maintenance shop, parks fertilizer storage shed, fleet maintenance shop, public works streets and utilities shop, truck storage shed, salt storage shed, a refueling center with fuel tanks, temporary debris and waste storage, and parking lots. Various activities require use of materials that are kept onsite, including herbicides, paints, solvents, vehicle fluids, salt, sand, etc. The facility implements and maintains stormwater best management practices (BMPs) that are addressed herein.

For the purposes of this SWPPP, activities that have the potential to impact stormwater quality have been identified and evaluated for implementation of best management practices (BMPs). Stormwater BMP implementation and maintenance is the focus of this SWPPP with the intent to minimize the discharge of stormwater pollutants.

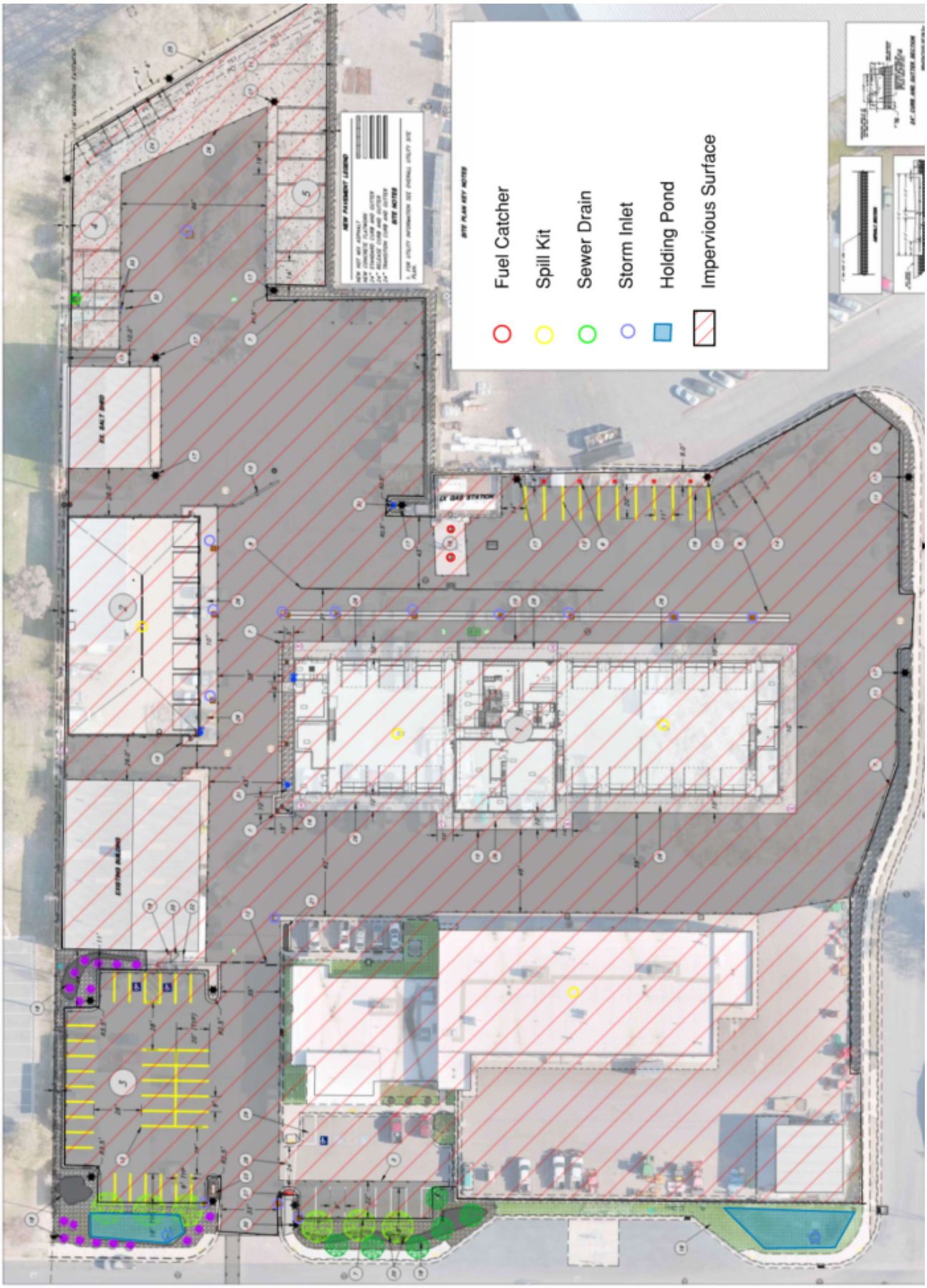
1.3 POLLUTION PREVENTION TEAM

The stormwater pollution prevention team (SWPPT) is responsible for developing the SWPPP and guiding its implementation, maintenance, and revision. The team personnel and responsibilities are provided in Table 3-1.

TABLE 1-1 STORMWATER POLLUTION PREVENTION TEAM

INDIVIDUAL	TITLE
Braden Felix, P.E.	City Engineer / Public Works Deputy Director
Austin White	MS4 Manager

SITE MAP


Fuel Catcher
Spill Kit
Sewer Drain
Storm Inlet
Holding Pond
Impervious Surface

One above ground storage tank is in the mechanic's shop. The AST contains recycled oil and is used for heating purposes. Davis County Health Department inspects the appliance 2-4 times per year.

Totes & Barrels: Various containers containing paint are located at the facility. These are generally kept inside, and routine inspections are conducted. The design of our new yard implements BMPs (spill kits) to mitigate any risk of an illicit discharge.

Parking and Storage Areas: Parking and storage areas are provided for all divisions. Surface drainage is directed to catch basins, which convey runoff into the drainage system. Street sweeping is conducted periodically. Drainage from the detention basin goes to the municipal storm drain system.

Truck Shed (14): The truck shed is used for storage; no maintenance is conducted in this building. The floor drain is a French drain that percolates into the ground.

2.2.4 CHEMICAL USE IN BUILDINGS

Maintenance Shop: Various containers of motor fluids, soap, solvents, cleaners, fertilizers, and oils are stored in the maintenance shop. A floor drain connected to a sand and oil separator is in the shop and is cleaned out 3 to 4 times a year.

Truck Shed: The truck shed is used for storage; no maintenance is conducted in this building. The floor drain is a French drain that percolates into the ground.

Totes & Barrels: Various containers containing paint are located at the facility. These are generally kept inside, and routine inspections are conducted. The design of our new yard implements BMPs (spill kits) to mitigate any risk of an illicit discharge.

Mechanics Shop: Various containers of motor fluids, soap, solvents, cleaners, fertilizers, and oils are stored in the maintenance shop. A floor drain connected to a sand and oil separator is in the shop and is cleaned out 3 to 4 times a year.

2.2.5 CLEANING AND WASTE STORAGE AREAS

Waste Material Storage: Waste materials from street sweeping and vactor truck solids are placed in a contained area with a concrete curb to mitigate storm water runoff. We are currently working with the DWQ to improve the structure to prevent discharge into the groundwater.

Truck and Car Wash Areas: truck and car wash area consist of one bay for washing, with a trench drain that drains into an oil and sand separator that is connected to the sanitary system. The sump is cleaned out monthly. Good housekeeping measures are implemented

TABLE 2-1 POTENTIAL POLLUTANT SOURCES AND CONTROL MEASURES

SITE CLASSIFICATION ID	DESCIPTION	DIVISION	POTENTIAL POLLUTANT	QUANTITY	BMP
6E	Salt Storage	Streets	Salt	Varies	Covered, Good Housekeeping
8A	Fueling Station	Fleet	Fuels, Auto Fluids	Varies	Good Housekeeping
2C	Totes and Barrels	PW and Parks	Water-Based Paint, cleaners, solvents, Fertilizers	Varies	Good Housekeeping

2.5 SAMPLING DATA

Stormwater sampling is not required at this facility. However, per the MS4 permit, visual examination of stormwater coming from the facility is required on an annual basis. Specific precipitation criteria must be met for this monitoring. Refer to Section 5.0 for detailed monitoring requirements.

MEASURES AND CONTROLS

Measures and controls identified herein are general BMPs that serve to minimize stormwater pollution to the maximum extent practicable at this facility. BMPs can be both structural and non-structural measures; all with the intent to reduce stormwater pollution. These BMPs include, good housekeeping, preventive maintenance, spill prevention and response, inspections, and employee training. This section provides a more detailed discussion of stormwater BMPs used at each potential pollutant source at the facility.

3.1 GOOD HOUSEKEEPING

Good housekeeping practices maintain and ensure a clean work environment to reduce the possibility of pollutants entering stormwater runoff. This BMP is used in all areas of the facility. Good housekeeping measures conducted facility wide include:

- Stormwater prevention equipment is regularly inspected, maintained, and cleaned.
- Inside floors are cleaned regularly to maintain a clean work environment.
- Areas with the potential to contaminate stormwater are maintained, properly cared for, and regularly inspected for conditions that might allow pollutants to enter stormwater.
- Any spilled material is immediately cleaned up and disposed of in accordance with regulatory requirements.
- Parking lots, driveways, and outdoor traffic areas are swept regularly to maintain a clean facility

3.2 PREVENTIVE MAINTENANCE

Preventive maintenance provides for the upkeep of the storm drains and conveyance systems and BMPs to minimize the discharge of stormwater pollutants. A preventive maintenance program is implemented and incorporates an inspection program. Personnel responsible for inspections of pollution prevention equipment are trained in spill prevention and response and in measures to minimize stormwater pollution. Pollution prevention equipment is tested, inspected, and maintained as necessary. Deficiencies are reported to the Pollution Prevention Team and addressed based on immediacy.

TABLE 3-1 PREVENTATIVE MAINTENANCE SCHEDULE

STORMWATER MANAGEMENT	INSPECTION SCHEDULE	MAINTENANCE SCHEDULE
Stormwater System	Quarterly	As Needed
Conveyance	Quarterly	As Needed
Catch Basins	Quarterly	As Needed
Detention Pond	Quarterly	As Needed
Manholes Prior to Leaving Property	Quarterly	As Needed

- Good housekeeping practices
- Spill prevention and response procedures (IDDE)
- Material storage and handling practices
- New stormwater regulations or pollution prevention measures

The training program prepares personnel to effectively minimize and/or eliminate pollutants from entering the storm drain system. The goal of the program is to train personnel to prevent contaminants from entering stormwater and to respond safely and effectively. The employees should also understand how to recognize and report potential stormwater contamination situations.

3.6 RECORD KEEPING AND INTERNAL REPORTING PROCEDURES

All applicable records will be kept onsite in the central files. Records including observations, field logs, certifications, and reports will be retained for a minimum of three years. Certification and report signatures will be completed by a responsible employee. All noncompliance issues will be reported to the Pollution Prevention Team as soon as possible and addressed within 30 days.

All records relating to implementation of the SWPPP will be maintained for a minimum of three years. This includes all inspections, monitoring, training, maintenance, and incidents.

3.7 NON-STORMWATER DISCHARGES

Federal law and the UPDES permit prohibit almost all non-stormwater discharges unless specifically permitted under the MS4 permit. Non-stormwater discharges that may occur at the facility and are authorized by the MS4 permit and do not require a special discharge permit include the following:

- Firefighting activities or fire hydrant flushing
- Water line flushing
- Uncontaminated groundwater
- Landscape irrigation
- Potable water
- Uncontaminated water from sumps and secondary containments

3.8 SEDIMENT AND EROSION CONTROL

All areas of the facility are either paved with asphalt or concrete or are maintained as landscaped vegetation. As a result, minimal erosion is expected from the site. If construction activities take place at the facility in the future a UPDES Construction permit will be obtained as per the DWQ requirements, and the following measures may be implemented to help reduce the amount of soil erosion resulting from construction activities:

- Vegetate or revegetate disturbed soil as soon as possible after construction with common vegetative covers such as grass, trees, shrubs, bark, mulch, or straw.
- Implement structural control practices, such as silt fence, straw bale barrier, gravel filter berms, storm drain inlet protection, sediment traps or basins, surface roughening of slopes, or other measures deemed necessary during construction to minimize the potential for soil erosion and sediment runoff.

- Inspections
- Visual observations
- Training
- These measures are considered sufficient to manage stormwater at this facility. The design of sumps or additional controls to control stormwater from the truck wash area is being evaluated and designed.

Implementation of additional BMPs will be evaluated during each annual site inspection as discussed in Section 5.0

COMPREHENSIVE SITE EVALUATION AND INSPECTIONS

Semi-annual site inspections are required for "high priority" facilities such as this one identified in the MS4 permit. The inspections are intended to be comprehensive to identify any problem areas; the SWPPT Leader or designee will perform the inspection. This inspection provides a basis for evaluating the effectiveness of the SWPPP, and should include:

- Inspection of stormwater drainage areas for evidence of or the potential for, pollutants entering the drainage system
- Inspection of equipment needed to implement the SWPPP such as spill response equipment
- Observation of structural measures, secondary containment, catch basins, etc. for proper operation
- Evaluation of the effectiveness of stormwater pollution prevention measures and BMPs
- Revision of the SWPPP to reflect new construction areas, changes in the stormwater drainage system, changes in BMPs, etc.
- Implementation of changes to the drainage system as required
- Identification of any incidents of noncompliance
- Report results of visual observations
- Complete and sign the Inspection Forms

MONITORING

Annual visual monitoring of stormwater quality is conducted during a qualifying storm. This monitoring is intended to identify obvious indicators of stormwater pollution, identify the potential source, and implement appropriate BMPs

5.1 VISUAL MONITORING

For the annual visual monitoring, observations should be conducted within the first 30 minutes of a qualifying storm event or as soon as practical. A qualifying storm event is defined as being greater than 0.1 inches in magnitude that produces runoff and that occurs at least 72 hours from the previously measurable (greater than 0.1-inch rainfall) storm event. The examinations will be conducted on runoff in the manholes prior to leaving the property, and include documenting the color, odor, clarity, settled solids, floating solids, suspended solids, foam, oil sheen, and any other pertinent characteristic

- Training employees
- Establishing preventive maintenance measures
- Implementing good housekeeping practices
- Establishing a Pollution Prevention Team responsible for implementing and reviewing
- Using structural controls when feasible
- Minimizing erosion

1.2 SITE DESCRIPTION

Clearfield City's Aquatic and Fitness Center consists of an indoor lap pool, indoor hot tub, indoor leisure pool, outdoor leisure pool, and an outdoor splash pad. This facility provides services to the public.

The facility covers approximately 1.67 acres of land East of State Street and S.R. 193 intersection, the majority of which is occupied by building space and is paved. The facility includes an indoor fitness center connected to NDJR, an outdoor pool and splash pad area, and some lawn space. Various activities require use of materials that are kept onsite, including chlorine. The facility implements and maintains stormwater best management practices (BMPs) that are addressed herein.

For the purposes of this SWPPP, activities that have the potential to impact stormwater quality have been identified and evaluated for implementation of best management practices (BMPs). Stormwater BMP implementation and maintenance is the focus of this SWPPP with the intent to minimize the discharge of stormwater pollutants.

1.3 POLLUTION PREVENTION TEAM

The stormwater pollution prevention team (SWPPT) is responsible for developing the SWPPP and guiding its implementation, maintenance, and revision. The team personnel and responsibilities are provided in Table 3-1.

TABLE 1-1 STORMWATER POLLUTION PREVENTION TEAM

INDIVIDUAL	TITLE
Braden Felix, P.E.	City Engineer / Public Works Deputy Director
Austin White	MS4 Manager
Jackie Wardle	Parks Manager
Brad Wheeler	Public Works Streets / Fleet Superintendent
Saundra Rushton	Communication Manager

1.4 FACILITY ACTIVITIES

Activities that occur at this facility include those that have the potential to impact stormwater quality. Activities occurring onsite are categorized and presented in Table 3-2. Further details on these activities and control measures implemented are provided in Chapter 3.0.

TABLE 1-2 FACILITY ACTIVITIES

ACTIVITY	DESCTRIPTION	POTENTIAL CONTAIMINANTS/SOURCES
Chemical Storage Areas	Indoor Chemical Room Outdoor Chemical Room	Chlorine, Sodium Hypochlorite, Hydrochloric Acid, Sodium Thiosulfate Pentahydrate, Chlorine

POTENTIAL STORMWATER POLLUTION SOURCES

Potential stormwater pollutant sources include indoor and outdoor storage, maintenance activities and other activities that have the potential to impact stormwater quality. All these areas and activities have the potential to contribute pollutants to stormwater either due to exposure to precipitation or due to connection to the storm drain system. BMPs are necessary at these locations to minimize impacts to stormwater quality. Each source location is described in this section, including implemented stormwater BMPs.

2.1 SITE DRAINAGE

Surface drainage is controlled by a series of gutters, catch basins, and storm drain lines that flow to the West side of the site. From there it flows into UDOT's storm drain system. It is ultimately discharged into the Salt Lake.

2.2 SUMMARY OF POTENTIAL POLLUTANT SOURCES

The sources listed below have the potential to impact stormwater quality. These sources were identified by site visits; locations of each are shown in the site map. Each source is discussed in detail below and summarized in Table 3, including implemented control measures. Implemented control measures include Best Management Practices (BMPs), which are discussed in further detail in Section 4.

2.2.1 MATERIAL TRANSFER ACTIVITIES

The transfer of material occurs throughout the facility. Buildings receive chemicals and cleaning supplies. Some of these materials can be considered hazardous. The risk of an accidental spill or release while transferring hazardous materials is real and measures are taken to eliminate and or contain the risk where possible.

2.2.2 CHEMICAL USE IN BUILDINGS

Main pool deck: Various containers of chemicals, soap, solvents, and cleaners are stored in the facility maintenance closet on the main pool deck. A floor drain connected to a sand and oil separator is on the deck and is cleaned out 2 times a year.

TABLE 2-1 POTENTIAL POLLUTANT SOURCES AND CONTROL MEASURES

SITE ID	DESCIPTION	DIVISION	POTENTIAL POLLUTANT	QUANTITY	BMP
	Chemical Storage	Facilities Maintenance	Sodium Hypochlorite (Bleach)	Two 200 Gallon Tanks 1250 Gallon Tank	Spill Containment Wall Spill Containment Pit
	Chemical Storage	Facilities Maintenance	Hydrochloric Acid	Two 55 Gallon drums	Spill Containment Wall Spill Containment Pit Spill Kit 12 bags of 55-lbs Sodium Bicarbonate

- Areas with the potential to contaminate stormwater are maintained, properly cared for, and regularly inspected for conditions that might allow pollutants to enter stormwater.
- Any spilled material is immediately cleaned up and disposed of in accordance with regulatory requirements.
- Outdoor traffic areas are swept regularly to maintain a clean facility

3.2 PREVENTIVE MAINTENANCE

Preventive maintenance provides for the upkeep of the storm drains and conveyance systems and BMPs to minimize the discharge of stormwater pollutants. A preventive maintenance program is implemented and incorporates an inspection program. Personnel responsible for inspections of pollution prevention equipment are trained in spill prevention and response and in measures to minimize stormwater pollution. Pollution prevention equipment is tested, inspected, and maintained as necessary. Deficiencies are reported to the Pollution Prevention Team and addressed based on immediacy.

TABLE 3-1 PREVENTATIVE MAINTENANCE SCHEDULE

STORMWATER MANAGEMENT	INSPECTION SCHEDULE	MAINTENANCE SCHEDULE
Stormwater System	Quarterly	As Needed
Conveyance	Quarterly	As Needed
Catch Basins	Quarterly	As Needed
Detention Pond	Quarterly	As Needed
Manholes Prior to Leaving Property	Quarterly	As Needed
Oil Sand Separators	Monthly or as Needed	Monthly or as Needed

3.3 SPILL PREVENTION AND RESPONSE PROCEDURES

Spill prevention and response will be in accordance with the Used Oil Spill and Containment Plan document. The Used Oil Spill and Containment Plan is hereby made part of this Plan by reference. In general, if petroleum products or listed hazardous substances are released to the environment more than the amounts identified in 40 CFR 117 and 40 CFR 302, the Stormwater Manager or other designated employee is required to notify the following entities within 24 hours of the release:

- National Response Center: (800) 424-8802
- Utah Division of Water Quality: (801) 538-6146 or 24-hour answering service at (801) 536-4123

A release is defined as including, but not limited to, any spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition, escaping, leaching, or unauthorized disposal of oil or hazardous substance that enters or threatens to enter waters of the State.

3.4 INSPECTIONS

Areas and equipment with the potential to pollute stormwater runoff are visually inspected on a frequent, regular basis. Evaluations are conducted to ensure that measures presented in this Plan are implemented in accordance with the terms of the MS4 permit. Inspections are logged, including the date of the inspection, personnel who performed the inspection, and related observations. Facility

- Water line flushing
- Uncontaminated groundwater
- Landscape irrigation
- Potable water
- Uncontaminated water from sumps and secondary containments

3.8 SEDIMENT AND EROSION CONTROL

All areas of the facility are either paved with asphalt or concrete or are maintained as landscaped vegetation. As a result, minimal erosion is expected from the site. If construction activities take place at the facility in the future a UPDES Construction permit will be obtained as per the DWQ requirements, and the following measures may be implemented to help reduce the amount of soil erosion resulting from construction activities:

- Vegetate or revegetate disturbed soil as soon as possible after construction with common vegetative covers such as grass, trees, shrubs, bark, mulch, or straw.
- Implement structural control practices, such as silt fence, straw bale barrier, gravel filter berms, storm drain inlet protection, sediment traps or basins, surface roughening of slopes, or other measures deemed necessary during construction to minimize the potential for soil erosion and sediment runoff.

3.10 MANAGEMENT OF RUNOFF

Storm drainage for the facility area is conveyed via a series of pipes, catch basins and oil/water separators. The system drains the facility area and routes the flow to the northwest part of the site. The stormwater is conveyed via a pipe to the Jordan River. To summarize, the following BMPs are implemented with the intent to reduce pollutants in the discharge of stormwater from this facility:

- Good housekeeping measures
- Preventative Maintenance
- Covered materials and activities
- Secondary containment
- Inspections
- Visual observations
- Training
- These measures are considered sufficient to manage stormwater at this facility. The design of sumps or additional controls to control stormwater from the truck wash area is being evaluated and designed.

Implementation of additional BMPs will be evaluated during each annual site inspection as discussed in Section 5.0

COMPREHENSIVE SITE EVALUATION AND INSPECTIONS

Semi-annual site inspections are required for "high priority" facilities such as this one identified in the MS4 permit. The inspections are intended to be comprehensive to identify any problem areas; the

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497 South Main Clearfield City, UT 84015
Phone: 801-525-4419

High Priority Facilities

List any of Clearfield City facilities that might be considered a high priority facility in terms of potential storm water pollution. To determine if a facility is a "high priority" used the following criteria and the list of examples below.

Criteria

1. Pollutants stored at the site
2. The identification of improperly stored materials,
3. Potential pollutant-generating activities performed outside (e.g., changing automotive fluids)
4. Proximity: upstream of fresh water and water bodies, including but not limited to streams, canals, rivers, ponds, and lakes,
5. Potential discharge of pollutant(s) of concern to impaired water(s).

Examples

1. Composting facilities
2. Equipment storage and maintenance facilities
3. Fuel farms
4. Hazardous waste disposal facilities
5. Hazardous waste handling and transfer facilities
6. Incinerators
7. Landfills
8. Landscape maintenance facilities on municipal property
9. Materials storage yards
10. Pesticide storage facilities
11. Public buildings, including libraries, police stations, fire stations, municipal buildings, and similar permittee-owned or operated buildings
12. Public parking lots
13. Public golf course maintenance facilities
14. Public swimming pool maintenance facilities
15. Public works yards
16. Recycling facilities
17. Salt storage facilities
18. Solid waste handling and transfer facilities
19. Street repair and maintenance facilities and or shed sites
20. Vehicle storage and maintenance yards
21. Permittee-owned and/or maintained structural storm water controls

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				Annual Visual Observation
Freeport North and South Well		Active well running. Pump to waste outlets, leads to storm drain.	Spill Cleanup Kits, Inlet Protection, Facility Inspections, Retrofit Existing Infrastructure, Cleaning and Maintenance, Inventory of all Floor Drains	Stormwater Manager – Monthly Visual Inspection, Semi Annual Comprehensive Inspection, Annual Visual Observation
Freeport Center	Clearfield	Multiple manufacturing and storage warehouses. Variety of chemicals and other products stored. Active transportation and shipment of materials 24/7. Area is known for Illicit Discharges in the past.	Close coordination with Freeport Facilities Manager, Mitch Cook, on active companies in the Freeport Center. Active inspections of storm drain and sewer for Illicit Discharge Detection. Periodic cleaning of sewer and storm drain. IDDE training to all employees for quick response to spills in the freeport center.	Stormwater Manager – Monthly Visual Inspection, Semi Annual Comprehensive Inspection, Annual Visual Observation
UDOT Highway Shop	700 S. 2000 E.	Utility building for UDOT trucks. Salt and other material is stored on site. Active storm drain inlet on site ties into city system.	Close coordination with facilities manager for UDOT Highway Shop to determine what Illicit discharge risks are present. IDDE Training to all employees for quick response to spills.	Stormwater Manager – Monthly Visual Inspection, Semi Annual Comprehensive Inspection, Annual Visual Observation

= City Owned Facilities

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9.1.3 HIGH-PRIORITY FACILITY IDENTIFICATION & SOPS

Objective: Identification of high-priority facilities with the intent to implement procedures to reduce the discharge of stormwater pollutants at these facilities will serve to minimize stormwater pollutant discharges.

Permit Requirement: Part 4.2.6.3., 4.2.6.4. & 4.2.6.5. - Pollution Prevention & Good Housekeeping for Municipal Operations

Description of Tasks: Clearfield City Public Works Engineering Department will identify high-priority facilities whose potential for discharge of stormwater pollutants warrants additional procedures or measures to reduce or eliminate impacts to stormwater quality.

Identify High-priority Facilities: Facilities identified with the potential to generate stormwater pollutants will be identified as "high priority" facilities**. Consideration will be given to the number of materials stored at each site, improperly stored materials, activities that occur outside, proximity to waterbodies, poor housekeeping practices and the discharge of pollutants to impaired waters.**

Clearfield City has developed a list of identified high priority facilities (see High Priority Facilities document). The list is continuously updated as more facilities are identified.

Inspections of identified high priority facilities will take place in accordance to the guidelines set forth in the documents: "Quarterly Comprehensive Inspection Form", "Quarterly Visual Observation of Storm Water Discharges Inspection Form", and High Priority Weekly Visual Inspection Form".

High-priority Facility SWPPPs: Storm Water Pollution Prevention Plans will be prepared and implemented for each facility. Operation and maintenance procedures will be developed for those facilities identified as high-priority facilities. The SWPPPs will include BMPs with the intent to reduce the discharge of stormwater pollutants and will include consideration for implementing low impact design techniques.

In addition, SOPs have been developed (see SOPS 2021 document) for all other city owned facilities including:

- Buildings and Facilities – SOPs will be developed and implemented for those buildings and facilities that include buildings, pools, parking garages, utilities, etc. The SOPs will address the use, storage and disposal of chemicals and include employee training. Spill prevention control and countermeasure plans (SPCC) will be developed and maintained as necessary. SOPs will address dumpsters and other waste management including cleaning, washing, painting and other maintenance activities. SOPs will also include schedules and procedures for sweeping parking lots. An inventory of all floor drains inside these buildings/facilities and where these drain to, will be developed and kept current. Appropriate stormwater BMPs will be implemented in these buildings/facilities.

INSPECTION FORMS

Quarterly Visual Observation of Storm Water Discharges Inspection Form

(All high priority facilities)

Inspector:_____ Date / Time: _____

Owner / Name: _____
Address: _____

Weather **Conditions: Sunny** D Cloudy O **Raining** O Snowing O Other_____

Site Description:

_____
_____
_____
_____
_____

Description of Storm Water Discharge:

COLOR [Circle the ones that apply):

1. Identification of Color.

Clear *Brown* *Green* *Rust* *Other*_____

CLARITY [Circle the right one):

Totally Opaque *Slightly Translucent* *Translucent* *Nearly Transparent* *Transparent*

HIGH PRIORITY WEEKLY VISUAL INSPECTION FORM

INSPECTOR: _____ Date/Time: _____

FACILITY NAME: _____

ADDRESS: _____

DESCRIPTION OF CONDITION:

_____

_____

_____

EVIDENCE OF SPILLS:

_____

_____

_____

CLEAN-UP ACTIONS REQUIRED:

_____

_____

_____

FOLLOW-UP DATE AND COMMENTS (IF REQUIRED)

_____

_____

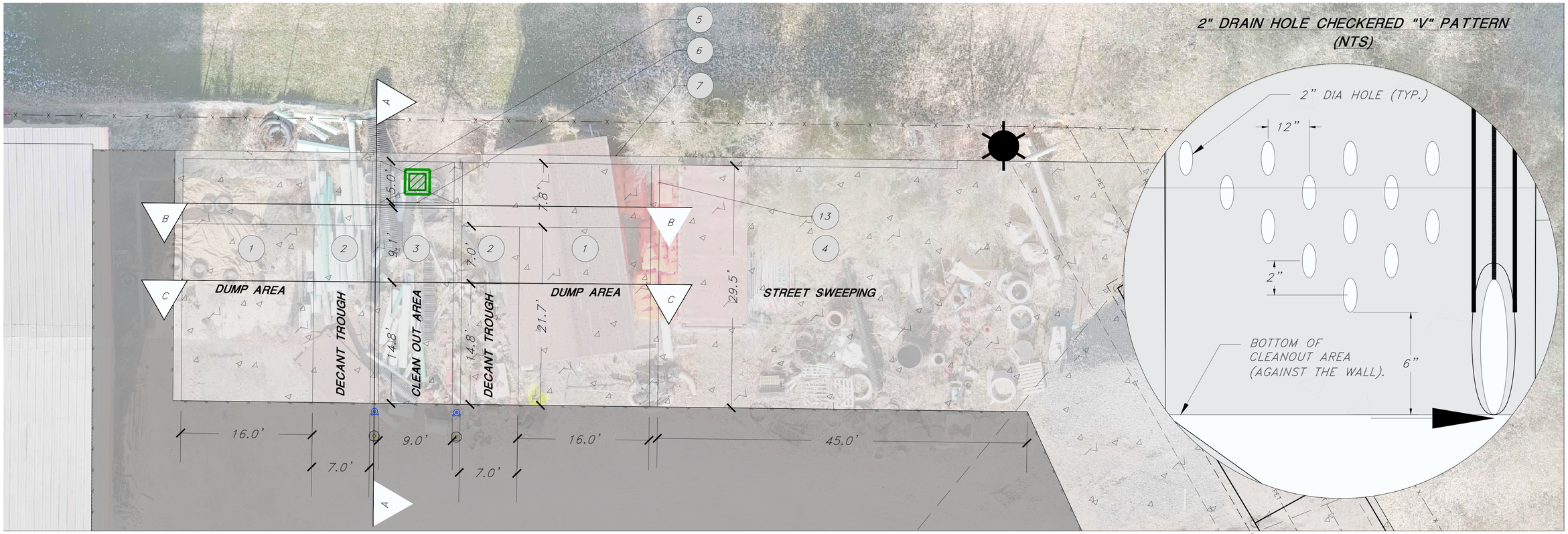
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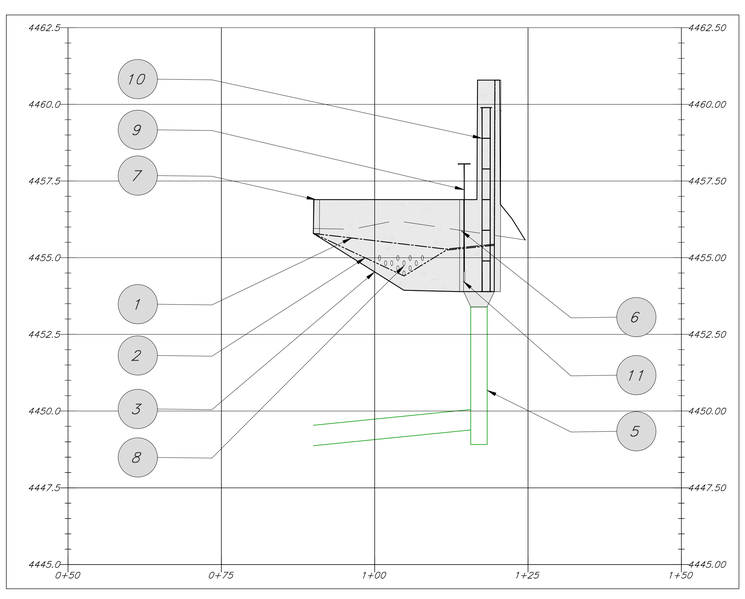
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FLOOR DRAIN INVENTORY

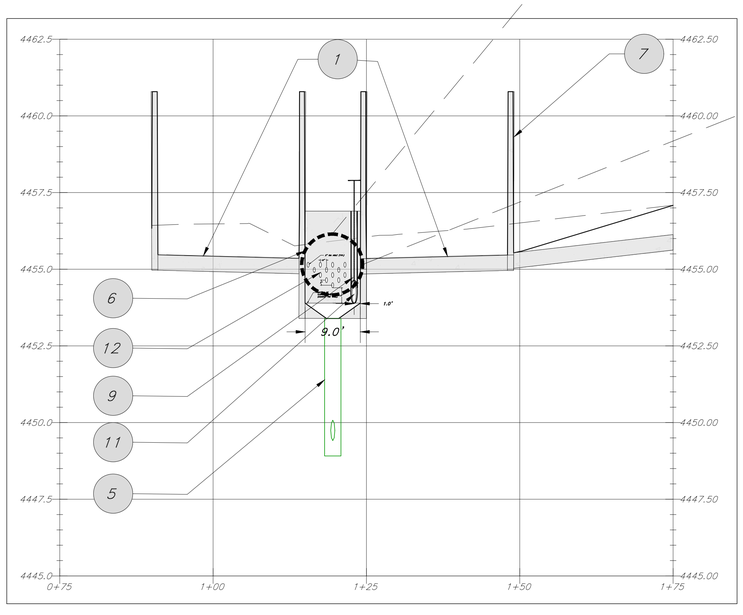
BUILDING	LEVEL	I.D.	DESCRIPTION	OUTLET
CITY BUILDING	1ST	CB-1	Staff restroom in community service area	Sewer
		CB-2	womens public restroom	Sewer
		CB-3	Men's public restroom	Sewer
		CB-4	Janitors closet in men's public restroom	Sewer
		CB-5	Staff restroom in customer service	Sewer
		CB-6	Riser room just off kitchen in PD	Sewer
		CB-7	Men's restroom PD	Sewer
		CB-8	Women's restroom PD	Sewer
		CB-9	Generator room	Sewer
		CB-10	Maintenance room behind elevators	Sewer
	2ND	CB-11	Men's public restroom	Sewer
		CB-12	Women's public restroom	Sewer
		CB-13	Staff men's restroom	Sewer
		CB-14	Staff women's restroom	Sewer
		CB-15	Staff restroom in PD	Sewer
		CB-16	Dispatch restroom	Sewer
		CB-17	P.D. men's restroom	Sewer
		CB-18	P.D. Men's showers 1	Sewer
		CB-19	P.D. Men's showers 2	Sewer
		CB-20	P.D. Women's restroom	Sewer
		CB-21	P.D. Women's showers 1	Sewer
		CB-22	P.D. Women's showers 2	Sewer
		CB-23	Staff men's locker room by Gym 1	Sewer
		CB-24	Staff men's locker room by Gym 2	Sewer
		CB-25	Staff men's locker room by Gym 3	Sewer
		CB-26	Staff women's locker room by gym 1	Sewer
		CB-27	Staff women's locker room by gym 2	Sewer
		CB-28	Staff women's locker room by gym 3	Sewer
		CB-29	Boiler room	Sewer

MUNICIPAL IMPROVEMENT PLANS

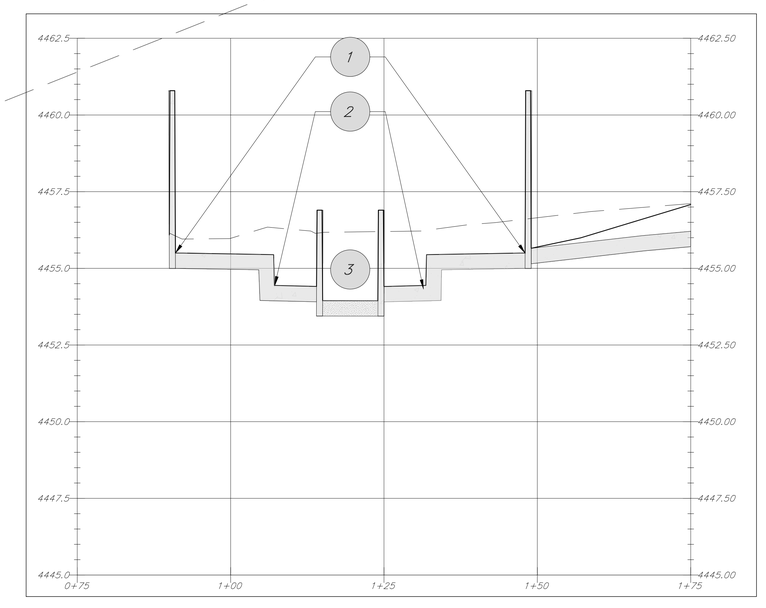




SECTION A - DRAINAGE THROUGH SIDE



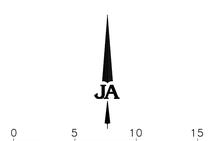
SECTION B - DRAINAGE THROUGH SEPARATION WALL



SECTION C - DECANT ELEVATION CHANGES

KEY NOTES

1. DUMP AREA (MAX SLOPE 2% SEE GRADING PLAN C5.3)
2. DECANT TROUGH AREA (MAX SLOPE 12% SEE GRADING PLAN C5.3) – 12" DROP FROM DUMP AREA.
3. CLEAN OUT AREA (MAX SLOPE AREA 12.5% SEE GRADING PLAN C5.3) – 6" DROP FROM DECANT TROUGH AREA
4. STREET SWEEPING AREA (MAX SLOPE 2%)
5. INSTALL 2'X2' CONCRETE BOX WITH GRATE (SEE UTILITY PLAN FOR RIM AND FLOWLINE ELEVATIONS.)
6. CONSTRUCT 3.0' SEPARATION WALL IN CLEAN OUT AREA. (SEE STRUCTURAL PLANS.)
7. 12" THICK DECANT WALLS & 6" CONCRETE FLOOR SLABS (SEE STRUCTURAL PLANS)
8. DRILL 2" HOLES 12" O.C. IN CHECKERED V PATTERN INSTALLED STARTING AND LOW POINT OF THE FLOOR.
9. INSTALL NEW 8" CIRCULAR SLIDE GATE (FRESNO SERIES 6600 MODEL 101C) ON DRAIN AREA SIDE OF SEPARATION WALL. BOTTOM OF GATE TO MATCH FLOOR ELEVATION = 4453.9. (BLOCK OUT AREA IN FLOOR FOR FRAME). WHEEL TO BE A MIN. OF 2' ABOVE SEPARATION WALL.
10. INSTALL LADDER PER DETAIL SHEET CW9
11. BLOCK OUT OR CORE DRILL 8" OPENING IN BOTTOM OF SEPARATION WALL. (MATCH FLOOR ELEVATION). SLIDE GATE TO COVER HOLE – MOUNTED ON DRAIN AREA SIDE OF SEPARATION WALL.
12. DRILL 2" HOLES 12" O.C. IN CHECKERED V PATTERN INSTALLED 6" ABOVE THE BOTTOM OF THE WALL.
13. BLOCK OUT OR CORE DRILL (8) 6" OPENING IN THE BOTTOM OF THE WALL (MATCH FLOOR ELEVATION) WITH 12" SEPARATION BETWEEN EACH HOLE. FIRST HOLE TO BE LOCATED AT THE LOW POINT OF THE WALL.



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7927 High Point Parkway, Suite 300
Sandy, UT 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkoec.com

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ph. 801.476.9767
www.jonescivil.com

APR 7, 2025

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT

497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

CIVIL CONSTRUCTION DRAWINGS # 4

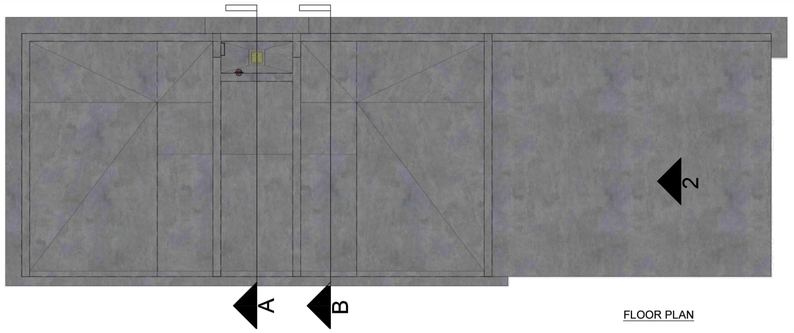
PROJECT NO. ----
DATE: APR 7, 2025

REVISIONS:
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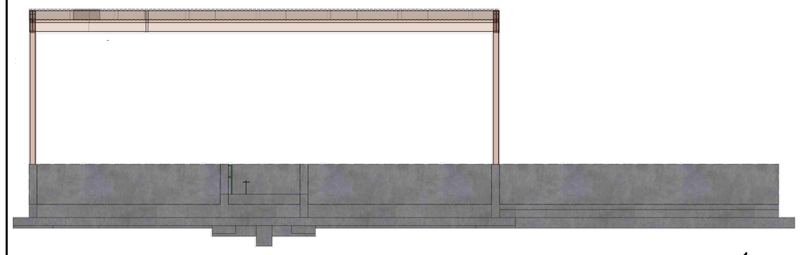
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DECANT FACILITY PLAN

SHEET NUMBER:
C8.0

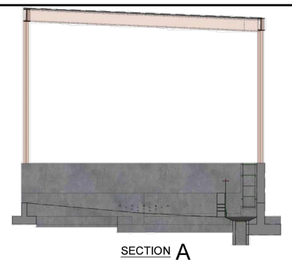
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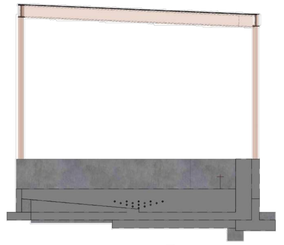
FLOOR PLAN



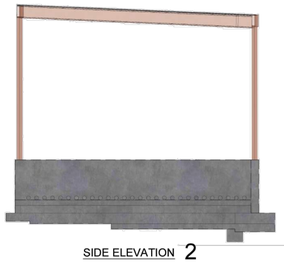
FRONT ELEVATION 1



SECTION A



SECTION B



SIDE ELEVATION 2

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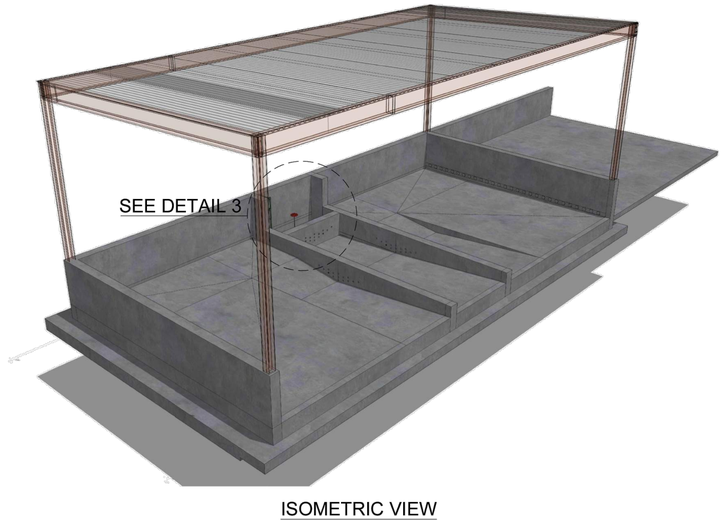
CLEARFIELD CITY CORPORATION
CLEARFIELD MOC

DECANT ELEVATIONS

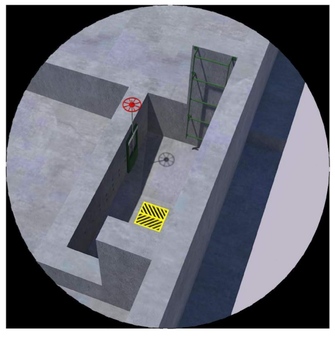
NO.	DATE	APPR.

SCALE: 22"x34" AS SHOWN
11"x17" AS SHOWN
DESIGNED
DRAWN
CHECKED

SHEET:
DC1
OF XX SHEETS



ISOMETRIC VIEW



ENLARGED DETAIL 3

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CLEARFIELD CITY CORPORATION
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DECANT 3D MODEL

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SCALE: 22"x34" AS SHOWN
11"x17" AS SHOWN
DESIGNED
DRAWN
CHECKED

SHEET:
DC2
OF XX SHEETS

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ph. 801.476.9767
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APR 7, 2025

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT:

497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

PROJECT NO. ---
DATE: APR 7, 2025

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SHEET TITLE:
DECANT ELEVATIONS

SHEET NUMBER:
C8.1

CIVIL

CIVIL CONSTRUCTION DRAWINGS # 4

DESIGN CRITERIA

1. GOVERNING BUILDING CODE: 2021 IBC: ASCE 7-16
2. GRAVITY LIVE LOADS USED IN DESIGN:
   A. ROOF SNOW — 30.0 PSF + DRIFT; ELEVATION = 4550 FT (PG=43.0 PSF; PF=30.0 PSF; I=1.0; CE=1.0; CT=1.2)
   B. ROOF DRIFT LOAD — N/A
   C. FLOOR LIVE LOAD — N/A
   D. DECK LIVE LOAD — N/A
3. SEISMIC LOADING: LAT = 41.106; LONG = -112.025
   S.D.C. = "D" (SS=1.23; S1=0.43; FA=1.2; FV=2.5; SDS=0.98; SD1=0.65)
   R = 3.25: I = 1.0; CS = 0.30
   BASE V: SEE STRUCTURAL CALCS (EQUIVALENT LATERAL FORCE PROCEDURE)
4. WIND LOADING:
   VELOCITY = 105 MPH (3 SEC GUST); EXPOSURE = "C"
   MWFRS PNET = 26 PSF; ROOF GROSS UPLIFT = 18 PSF:
5. OCCUPANCY CATEGORY = II
   IMPORTANCE FACTORS: SNOW I = 1.0; SEISMIC I = 1.0.
6. SOIL BEARING PRESSURE: A GEOTECHNICAL REPORT BY CMT DATED MARCH 06, 2023 HAS BEEN PREPARED FOR THIS SITE. BEARING VALUE USED FOR DESIGN = 2000 PSF

GENERAL

ARCHITECTURAL DESIGN AND BUILDING LAYOUT HAS BEEN PROVIDED BY OTHERS. ALL FLOOR AND ELEMENT ELEVATIONS AND PLAN DIMENSIONS ARE PROVIDED BY OTHERS AND ARE NOT PART OF THE STRUCTURAL DESIGN. DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL PLANS ARE PROVIDED FOR CONVENIENT REFERENCE ONLY, THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND DIMENSIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION.

1. CONTRACTOR SHALL COMPARE ALL DIMENSIONS AND CONDITIONS ON DRAWINGS AND AT SITE. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER, THE ARCHITECT AND/OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
2. ALL DETAILS, SECTIONS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SAME CONDITIONS ELSEWHERE.
3. SHORING AND BRACING REQUIREMENTS:
   A. FLOOR AND ROOF STRUCTURES: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE METHOD AND SEQUENCE OF ALL STRUCTURAL ERECTION. HE SHALL PROVIDE TEMPORARY SHORING AND BRACING AS HIS METHOD OF ERECTION REQUIRES TO PROVIDE ADEQUATE VERTICAL AND LATERAL SUPPORT. SHORING AND BRACING SHALL REMAIN IN PLACE AS THE CHOSEN METHOD REQUIRES UNTIL ALL PERMANENT MEMBERS ARE IN PLACE AND ALL FINAL CONNECTIONS ARE COMPLETED, INCLUDING ALL ROOF AND FLOOR ATTACHMENTS. THE BUILDING SHALL NOT BE CONSIDERED STABLE UNTIL ALL CONNECTIONS ARE COMPLETE.
4. THE GENERAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES ANY AND ALL ITEMS THAT ARE TO BE INTEGRATED INTO THE STRUCTURAL SYSTEM. OPENINGS OR PENETRATIONS THROUGH, OR ATTACHMENTS TO THE STRUCTURAL SYSTEM THAT ARE NOT INDICATED ON THESE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER. THE ORDER OF CONSTRUCTION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. IT IS THE CONTRACTOR'S OBLIGATION TO PROVIDE ITEMS NECESSARY FOR HIS CHOSEN PROCEDURE.
5. OBSERVATION VISITS TO THE SITE BY THE ENGINEER OR THEIR REPRESENTATIVES SHALL NOT BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
6. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE.
7. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR, AND OBTAIN THE ARCHITECT'S, THE STRUCTURAL ENGINEER AND THE GOVERNMENT'S WRITTEN APPROVAL, PRIOR TO ANY CHANGES, MODIFICATIONS, OMISSIONS AND/OR SUBSTITUTIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION IN AND AROUND THE JOB SITE AND/OR ADJACENT PROPERTIES.
9. THERMAL OR MOISTURE PROTECTION, FURNISHINGS, DOORS, WINDOWS, EQUIPMENT, MECHANICAL, ELECTRICAL, FINISHES, SIDING, PANELING, VENEERS CONDITIONS AND SITE GRADING ARE NOT PART OF THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER.

FOUNDATION NOTES

1. A GEOTECHNICAL REPORT BY CMT DATED MARCH 06, 2023 HAS BEEN PREPARED FOR THIS SITE. THE CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS WITHIN THIS REPORT. IF FILL MATERIAL OR LOOSE, UNCONSOLIDATED SOILS ARE FOUND DURING EXCAVATIONS THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO PROVIDE RECOMMENDATIONS ON EARTH PREPARATION PRIOR TO FORMING OR POURING FOOTINGS.
2. ALL FOOTINGS SHALL BEAR ON NATIVE UNDISTURBED EARTH OR ON COMPACTED ENGINEERED FILL AT 95% ASTM D-1557. FILL SHALL BE PLACED ON PROOF ROLLED SUITABLE NATIVE EARTH.
3. NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
4. EXTERIOR WALL FOOTINGS SHALL BEAR AT A MINIMUM DEPTH OF 2'-6" BELOW FINISHED EXTERIOR GRADE. CONFIRM FROST DEPTH WITH LOCAL BUILDING DEPARTMENT.
5. ALL INTERIOR BUILDING SLABS ON GRADE SHALL BE PLACED UPON A 4" LAYER OF COMPACTED CLEAN CRUSHED GRAVEL ON PREPARED SUB-BASE.

CONCRETE NOTES

1. PERFORM ALL CONCRETE WORK IN ACCORDANCE WITH IBC 2021, ACI 318-19 AND ACI 301
2. ALL CONCRETE SHALL BE STONE AGGREGATE AND HAVE A MINIMUM COMPRESSIVE STRENGTH AS SHOWN ON FOUNDATION MATERIAL SPECIFICATION SCHEDULE. ALL CONCRETE SHALL USE TYPE II PORTLAND CEMENT.
3. ALL METAL REINFORCEMENT SHALL CONFORM TO ASTM A615 AND SUPPLEMENT (S1), GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60 KSI.
4. ALL REINFORCING BARS SHALL BE DETAILED, BOLSTERED AND SUPPORTED IN ACCORDANCE WITH ACI 315, 318, AND PUBLICATION SP-66.
5. ALL REINFORCEMENT BARS SHALL BE SECURELY ANCHORED TO THE FORMS AND SPACED FROM THEM AS FOLLOWS:
   (A) FOR CONCRETE NOT EXPOSED DIRECTLY TO THE GROUND OR WEATHER, 2" IN SLABS, JOISTS AND WALLS ;1-1/2" IN PIERS, COLUMNS, BEAMS, AND GIRDERS.
   (B) FOR CONCRETE EXPOSED TO THE GROUND OR WEATHER, 2" IN WALLS, PIERS AND COLUMNS. 3" IN ALL FOOTINGS.
6. ALL SPLICES IN CONTINUOUS REINFORCING BARS SHALL LAP AS SHOWN. ALL SUCH SPLICES SHALL BE MADE IN A REGION OF COMPRESSION UNLESS SHOWN OTHERWISE.
   (A) #4 BAR - 24"; #5 BAR - 30"; #6 BAR - 36"; #7 BAR - 48"; #8 BAR - 60";
   D-WWF - TWO BAR SPACINGS (12" MIN)
7. LARGE AREAS OF SLAB ON GRADE SHALL BE PLACED BY LONG-STRIP METHOD WITH LENGTH TO WIDTH RATIO OF CRACK CONTROL SHALL NOT EXCEED 1.25.
8. PLACE CONTROL JOINTS IN SLABS ON GRADE BY EARLY-ENTRY SAW CUTTING 1/4 THE SLAB THICKNESS. DO NOT CUT REBAR.
9. SEE FOUNDATION SCHEDULE AND DETAILS FOR CONCRETE WALL REINFORCING.
10. PLACE REINFORCEMENT IN CENTER OF WALL UNLESS SHOWN OTHERWISE AND DOWEL TO FOOTING OR TO STRUCTURE ABOVE AND BELOW WITH SAME DOWEL SIZE AND SPACING AS VERTICAL REINFORCEMENT.
11. ALL DOWELS SHALL HAVE AT LEAST 48 BAR DIAMETER EMBEDMENT AND/OR STANDARD HOOK AT ENDS.
12. PROVIDE STD. CORNER BARS AT ALL INTERSECTING CORNERS OF WALLS AND FOOTINGS. USE SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT.
13. POST INSTALLED ANCHOR BOLTS AND REBAR SHALL USE SIMPSON AT-XP EPOXY. INSTALLATION SHALL FOLLOW ALL MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS INCLUDING HOLE SIZE AND PREPARATION, TEMPERATURE LIMITATIONS AND ASSOCIATED CURE TIMES. EMBEDMENT DEPTH SHALL BE AS PER DETAIL REQUIREMENTS. SPECIAL INSPECTION IS REQUIRED FOR ALL POST INSTALLED ANCHORS.

CONCRETE FLOOR SLAB ON GRADE ADDITIONAL REQUIREMENTS

14. ALL CONCRETE SHALL BE 3/4" MAX STONE AGGREGATE AND HAVE A MINIMUM COMPRESSIVE STRENGTH = 5000 PSI; W/C RATIO = 0.4; MAX CLORIDE ION CONTENT = 0.15% WT; AIR CONTENT 5% +/-1.5%
    A: INCLUDE XYPEX ADMIX C-1000 IN THE CONCRETE MIX AT A RATE OF 2% OF CEMENT WEIGHT.
15. ALL METAL REINFORCEMENT SHALL BE EPOXY COATED REBAR AND CONFORM TO ASTM A775 GRADE 60 (60KSI). REINFORCE WITH #5 BAR @ 12"OC BOTH WAYS AT CENTER OF SLAB.

Special Inspectors Shall:

- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.2.4.
- Inspection reports are to be submitted to the GC code consultant, Architect, and SEOR within 48 hours of performing inspections;
- A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the approved construction documents and applicable codes (see IBC 1704.2.4).

SOILS CONSTRUCTION (IBC 1705.6)

Item:			Detailed Instructions and Frequencies:
Verify subgrade is adequate to achieve design bearing capacity	Continuous ☐	Periodic ☒	Prior to placement of concrete.
Verify excavations extend to proper depth and material	Continuous ☐	Periodic ☒	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	Continuous ☐	Periodic ☒	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	Continuous ☐	Periodic ☒	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10,000ft² of surface area.
Verify proper materials, densities and lift thicknesses during placement and compaction.	Continuous ☒	Periodic ☐	

CONCRETE CONSTRUCTION (IBC 1705.3 & 1705.12.1)

Item			Detailed Instructions and Frequencies
Reinforcing steel	Continuous ☐	Periodic ☒	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Welding of reinforcing steel	Continuous ☐	Periodic ☒	Visually inspect all welds and also verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4.
Cast-in bolts & embeds	Continuous ☐	Periodic ☒	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
Post-installed anchors or dowels	Continuous ☐	Periodic ☒	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report. Horizontally or upwardly inclined anchors that resist sustained tension loads require continuous inspection and approved installers.
Use of required mix design	Continuous ☐	Periodic ☒	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 19, 26.4.3, 26.4.4; and IBC 1904.1, 1904.2, 1908.2, 1908.3.
Concrete sampling for strength tests, slump, air content, and temperature	Continuous ☒	Periodic ☐	
Concrete & shotcrete placement	Continuous ☒	Periodic ☐	
Curing temperature and techniques	Continuous ☐	Periodic ☒	Verify that the ambient temperature for concrete is kept at > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (see ACI 318: 26.4.7-26.4.9). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete. Shotcrete shall be kept continuously moist for at least 24 hours after shotcreting. All concrete materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is not exceeded.
Strength verification	Continuous ☐	Periodic ☒	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.
Formwork	Continuous ☐	Periodic ☒	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.

REVISION	DATE	BY	DESCRIPTION

DESIGN PRR
DRAWN PRR
CHECKED BFC
DATE MARCH/2024

STRUCTURAL NOTES

JONES & ASSOCIATES
CLEARFIELD CITY P.W.
NEW BULK MATERIAL STORAGE AND DECANT FACILITY

REGISTERED STRUCTURAL ENGINEER — No. 265194 — PHILIP R. ROBERTS — 11/AUG/22/2025 — STATE OF UTAH

ESI ENGINEERING
CONSULTING ENGINEERS AND LAND SURVEYORS
4141 WEST 2100 SOUTH - SUITE 100
WEST VALLEY CITY, UTAH 84120
TEL:(801)263-1752

SHEET S-001 OF 5

PROJECT NO. 23-148

Think Architecture
Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management
7927 High Point Parkway, Suite 300
Sandy, UT 84094
ph. 801.269.0055
fax. 801.269.1425
www.thinkoec.com

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JA JONES & ASSOCIATES
6080 Fashion Point Dr.
South Ogden, UT 84403
ph. 801.476.9767
www.jonescivil.com

24-Nov-23

CIVIL CONSTRUCTION DRAWINGS # 4

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT

497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

PROJECT NO. ----
DATE: APR 7, 2025

REVISIONS:
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SHEET TITLE: STRUCTURAL PLANS

SHEET NUMBER: S1.0

CIVIL

FOUNDATION NOTES

1) ALL LAYOUT AND ELEVATION INFORMATION IS PROVIDED BY THE CIVIL ENGINEER AND IS PROVIDED ON THE STRUCTURAL SHEETS FOR GENERAL INFORMATION ONLY SEE CIVIL PLANS FOR CONFIRMATION OF LAYOUT AND ALL ADDITIONAL INFORMATION
2) SEE SITE PLANS FOR ALL SET BACK DIMENSIONS AND GENERAL LAYOUT INFORMATION.
3) FOOTING DESIGN IS BASED UPON THE GEOTECHNICAL REPORT BY CMT DATED MARCH 06 2023
4) ALLOWABLE SOIL BEARING ON SUITABLE NATIVE EARTH = 2000 PSF.
5) SEE FOUNDATION AND SLAB NOTES ON S-001 FOR SLAB ON GRADE PREPARATION REQUIREMENTS.
6) ALL EXTERIOR FOOTINGS SHALL HAVE 30" OF EARTH COVER MINIMUM.
7) HOLDOWN TOP OF FOUNDATION WALL TO ALLOW FOR CONTINUITY OF FLOOR SLAB TYPICAL AT EXTERIOR SLAB TRANSITION LOCATIONS.

FOUNDATION MATERIAL SPECIFICATIONS

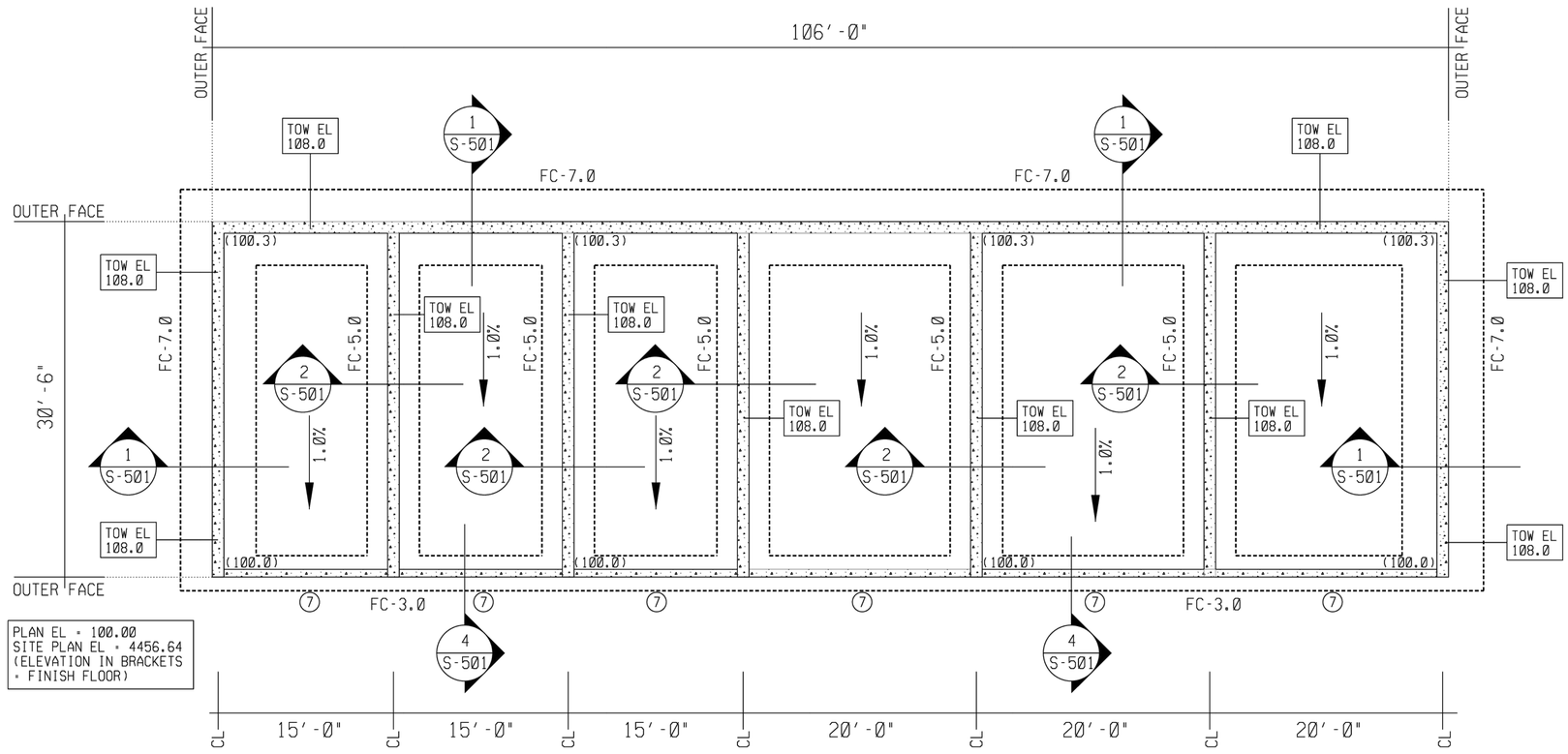
LOCATION	FOOTINGS	FOUNDATION WALLS	CONCRETE PIERS	SLABS ON GRADE SEE NOTES S-001
CONCRETE STRENGTH	F'C = 4000 PSI	F'C = 4000 PSI	F'C = 4000 PSI	SEE NOTES
AIR %	3% +/- 1.5%	5% +/- 1.5%	5% +/- 1.5%	INT 3% +/- 1.5% EXT 5% +/- 1.5%
TYPE II PORTLAND CEMENT; AGG = 3/4"; WATER/CEMENT = 0.45; SLUMP = 4" MAX				
REBAR	GRADE = 60 KSI #4 LAP = 24" #5 LAP = 30" #6 LAP = 36"			

FLOOR SLAB SCHEDULE (SEE NOTES ON S-001)

MARK	THICKNESS	REINFORCEMENT	TYPICAL LOCATION
FLOOR SLAB - A	8"	#5 @ 12"OC BW	TYPICAL SOG

FOOTING SCHEDULE SEE DETAILS ON S-501 FOR COMPLETE LAYOUT

MARK	LENGTH	WIDTH	THICK	LENGTH BAR	WIDTH BAR
FC-3.0	CONT.	36"	12"	(4)#4 X CONT.	#5 X 30" @ 12"OC
FC-5.0	CONT.	60"	16"	(5)#4 X CONT. TOP & BOTTOM	#5 X 54" @ 12"OC TOP & BOTTOM
FC-7.0	CONT.	84"	16"	(7)#4 X CONT. TOP & BOTTOM	#5 X 78" @ 12"OC TOP & BOTTOM



REVISION	DATE	BY	DESCRIPTION

DESIGN PRR
DRAWN PRR
CHECKED BFC
DATE MARCH/2024

BULK STORAGE FOUNDATION PLAN

JONES & ASSOCIATES
CLEARFIELD CITY P.W.
NEW BULK MATERIAL STORAGE AND DECANT FACILITY

REGISTERED STRUCTURAL ENGINEER — No. 26519 — PHILIP R. ROBERTS — 03/22/2024 — STATE OF UTAH

ESI ENGINEERING
CONSULTING ENGINEERS AND LAND SURVEYORS
4141 WEST 2100 SOUTH - SUITE 100
WEST VALLEY CITY, UTAH 84120
TEL:(801)263-1752

SHEET S-101 OF 5

PROJECT NO. 23-148

Think Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 High Point Parkway, Suite 300
Sandy, UT 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkoec.com

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JONES & ASSOCIATES
6080 Fashion Point Dr.
South Ogden, UT 84403
ph. 801.476.9767
www.jonescivil.com

24-Nov-23

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT
497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

CIVIL CONSTRUCTION DRAWINGS # 4

PROJECT NO. ---
DATE: APR 7, 2025

REVISIONS:
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SHEET TITLE: STRUCTURAL PLANS

SHEET NUMBER: S1.1

CIVIL

FOUNDATION NOTES

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5) SEE FOUNDATION AND SLAB NOTES ON S-001 FOR SLAB ON GRADE PREPARATION REQUIREMENTS.
6) ALL EXTERIOR FOOTINGS SHALL HAVE 30" OF EARTH COVER MINIMUM.

(7) HOLDOWN TOP OF FOUNDATION WALL TO ALLOW FOR CONTINUITY OF FLOOR SLAB TYPICAL AT EXTERIOR SLAB TRANSITION LOCATIONS.

(8) STEP FOOTING 18" TO MAINTAIN FROST DEPTH

FOUNDATION MATERIAL SPECIFICATIONS

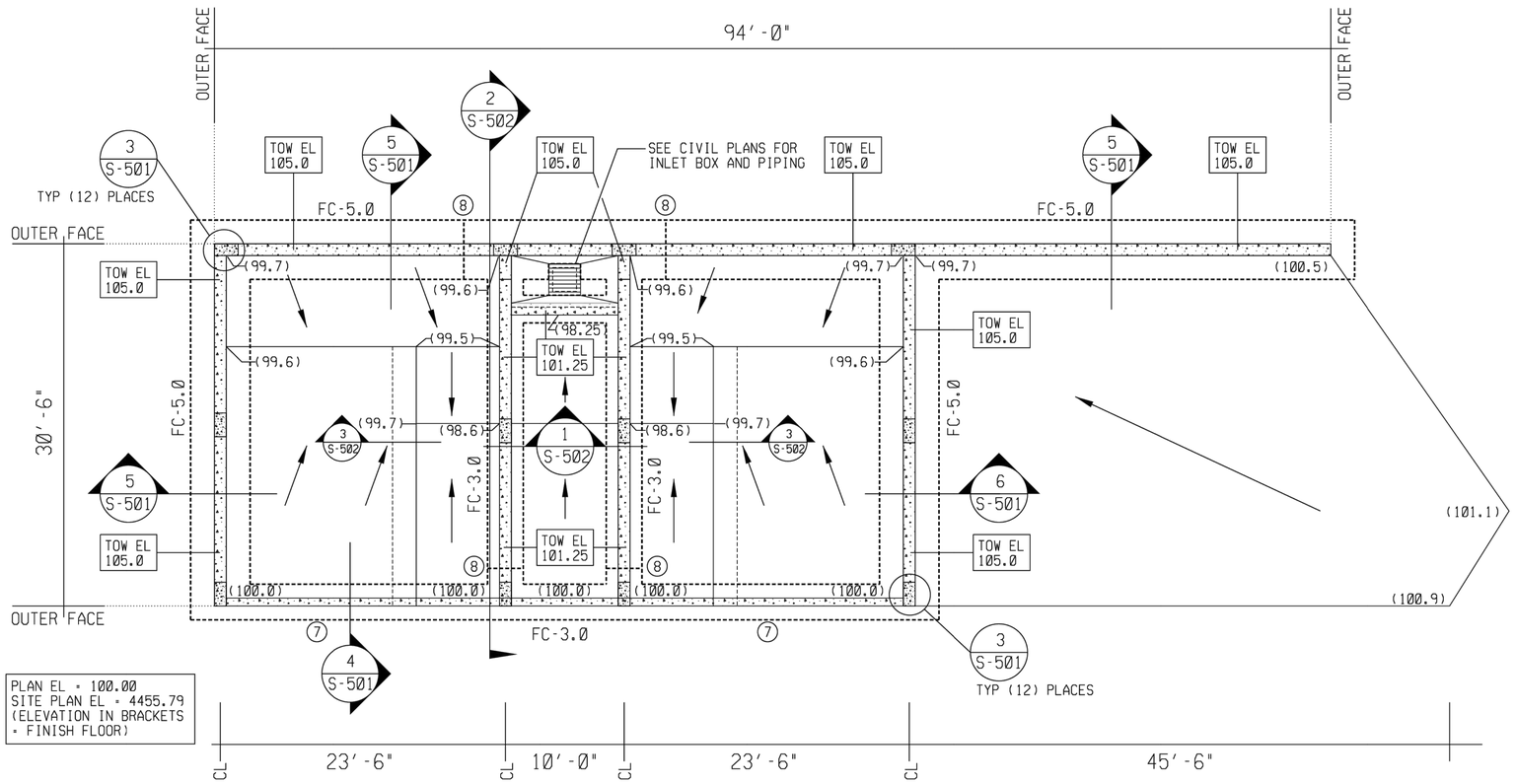
LOCATION	FOOTINGS	FOUNDATION WALLS	CONCRETE PIERS	SLABS ON GRADE SEE NOTES S-001
CONCRETE STRENGTH	F'C = 4000 PSI	F'C = 4000 PSI	F'C = 4000 PSI	F'C = 4000 PSI
AIR %	3% +/- 1.5%	5% +/- 1.5%	5% +/- 1.5%	INT 3% +/- 1.5% EXT 5% +/- 1.5%
TYPE II PORTLAND CEMENT; AGG = 3/4"; WATER/CEMENT = 0.45; SLUMP = 4" MAX				
REBAR	GRADE = 60 KSI #4 LAP = 24" #5 LAP = 30" #6 LAP = 36"			

FLOOR SLAB SCHEDULE (SEE NOTES ON S-001)

MARK	THICKNESS	REINFORCEMENT	TYPICAL LOCATION
FLOOR SLAB - A	8"	#5 @ 12"OC BW	TYPICAL SOG

FOOTING SCHEDULE SEE DETAILS ON S-501 FOR COMPLETE LAYOUT

MARK	LENGTH	WIDTH	THICK	LENGTH BAR	WIDTH BAR
FC-3.0	CONT.	36"	12"	(4)#4 X CONT.	#5 X 30" @ 12"OC
FC-5.0	CONT.	60"	16"	(5)#4 X CONT. TOP & BOTTOM	#5 X 54" @ 12"OC TOP & BOTTOM



REVISION	DATE	BY	DESCRIPTION

DESIGN PRR
DRAWN PRR
CHECKED BFC
DATE MARCH/2024

DECANT FOUNDATION PLAN

JONES & ASSOCIATES
CLEARFIELD CITY P.W.
NEW BULK MATERIAL STORAGE
AND DECANT FACILITY

REGISTERED STRUCTURAL ENGINEER
No. 265194
PHILLIP R. ROBERTS
MAR/22/2024
STATE OF UTAH

ESI ENGINEERING
CONSULTING ENGINEERS AND LAND SURVEYORS
4141 WEST 2100 SOUTH - SUITE 100
WEST VALLEY CITY, UTAH 84120
TEL:(801)263-1752

SHEET S-102 OF 5

PROJECT NO. 23-148

Think
Architecture

Architecture
Interior Design
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Construction Management

7927 High Point Parkway, Suite 300
Sandy, UT 84094
ph. 801.269.0055
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24-Nov-23

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT

497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

PROJECT NO. ----
DATE: APR 7, 2025

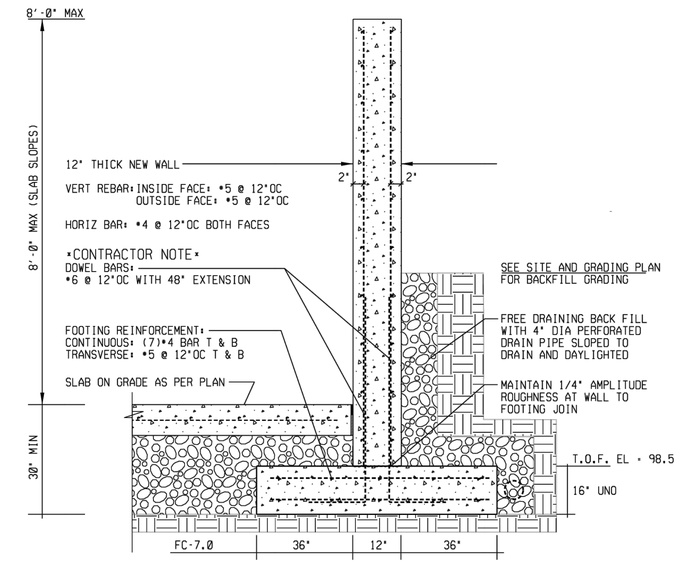
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SHEET TITLE:
STRUCTURAL PLANS

SHEET NUMBER:
S1.2

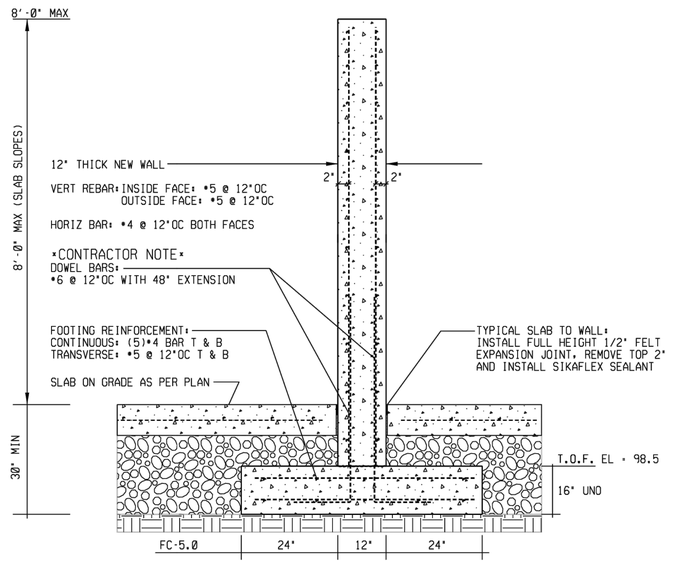
CIVIL

CIVIL CONSTRUCTION DRAWINGS # 4



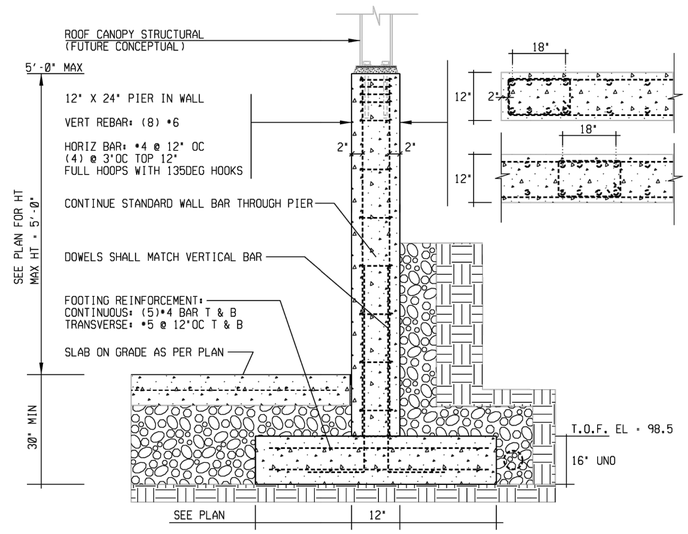
1 FOUNDATION / BIN TALL WALL EXTERIOR - STRUCTURAL SECTION

NTS SLJ



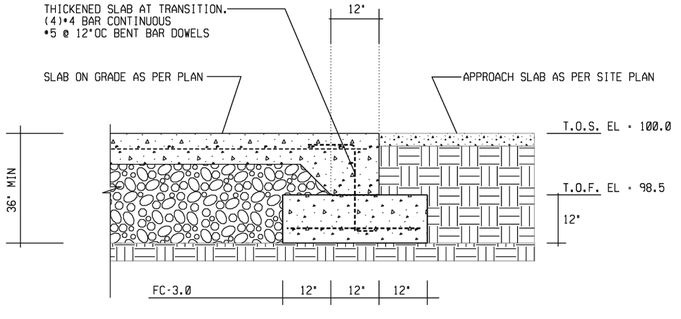
2 FOUNDATION / BIN TALL WALL INTERIOR - STRUCTURAL SECTION

NTS SLJ



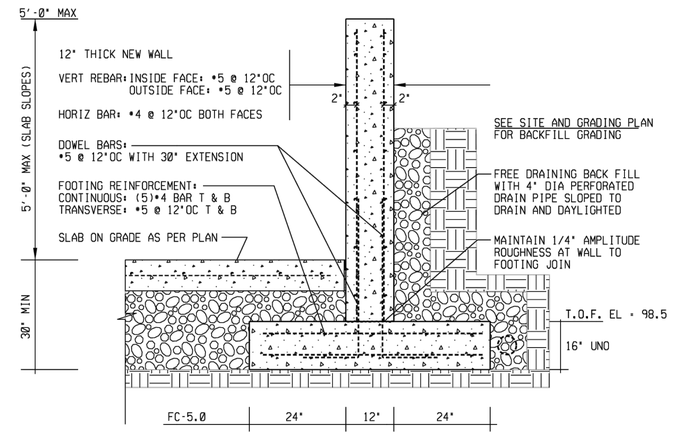
3 FOUNDATION / DECANT WALL WITH INTEGRAL PIER FOR FUTURE ROOF STRUCTURE

SLJ



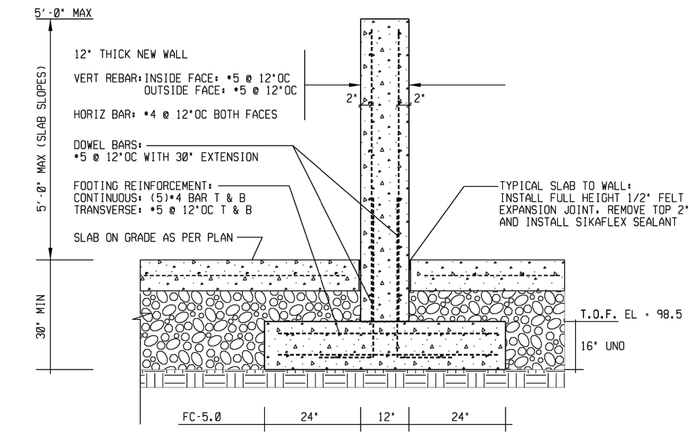
4 FOUNDATION SECTION AT INTERIOR TO APPROACH SLAB JOIN - STRUCTURAL SECTION

NTS SLJ



5 FOUNDATION / DECANT SHORT WALL EXTERIOR - STRUCTURAL SECTION

NTS SLJ



6 FOUNDATION / DECANT SHORT WALL INTERIOR - STRUCTURAL SECTION

NTS SLJ

REVISION	DATE	BY	DESCRIPTION

PRR
DRAWN PRR
CHECKED FTC
DATE MAR/2024

FOOTING AND FOUNDATION DETAILS

JONES & ASSOCIATES
CLEARFIELD CITY P.W.
NEW BULK MATERIAL STORAGE
AND DECANT FACILITY

REGISTERED STRUCTURAL ENGINEER
No. 265194
PHILIP R. ROBERTS
10/CH/22/2024
STATE OF UTAH

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WEST VALLEY CITY, UTAH 84120
TEL:(801)263-1752

SHEET S-501 OF 5

PROJECT NO. 23-148

CIVIL CONSTRUCTION DRAWINGS # 4

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Architecture
Architecture
Interior Design
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7927 High Point Parkway, Suite 300
Sandy, UT 84094
ph. 801.269.0055
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24-Nov-23

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT:
497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

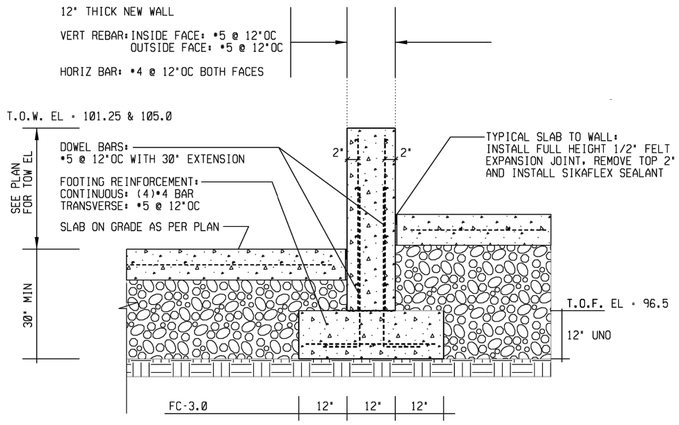
PROJECT NO. ----
DATE: APR 7, 2025

REVISIONS:
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SHEET TITLE:
STRUCTURAL PLANS

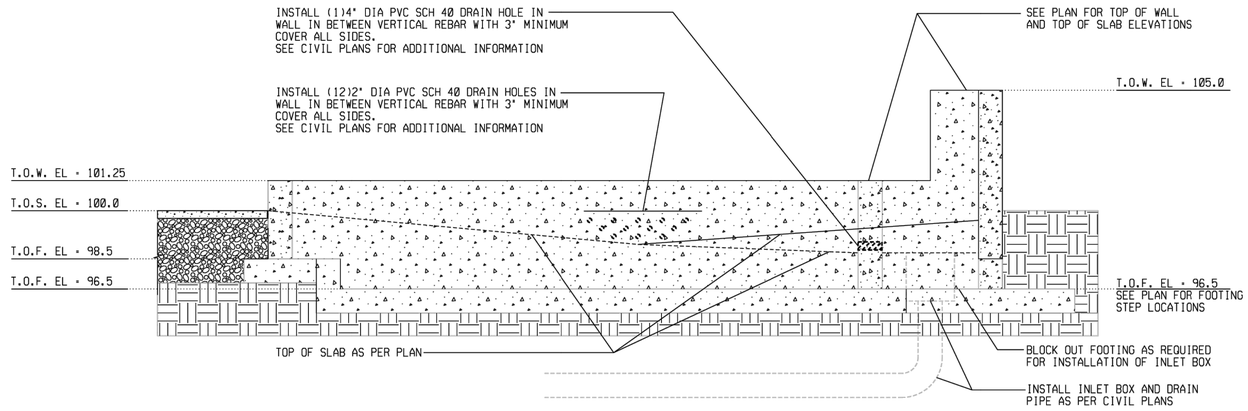
SHEET NUMBER:
S1.3

CIVIL



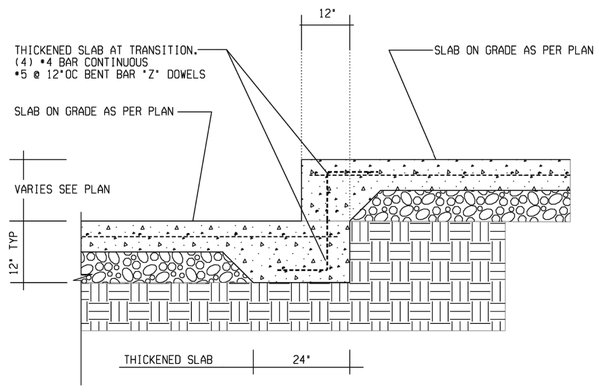
1 | FOUNDATION / DECANT INTERIOR WALL AT SLAB TRANSITION - STRUCTURAL SECTION

NTS | SLJ



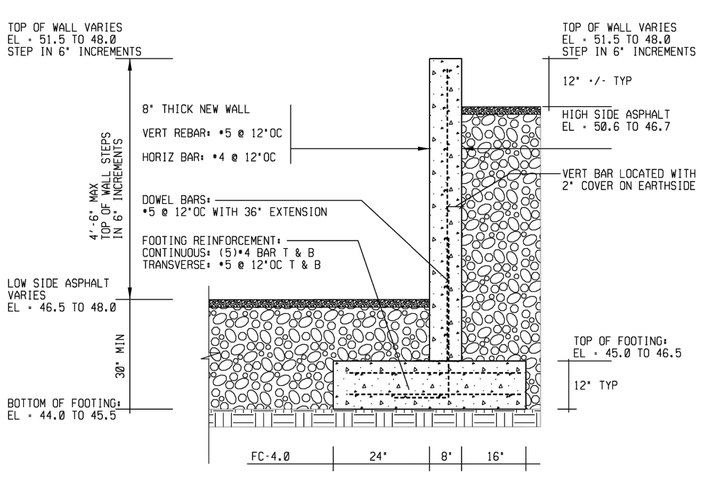
2 | INTERIOR DECANT WALLS WITH PERFORATIONS - STRUCTURAL PROFILE

NTS | SLJ



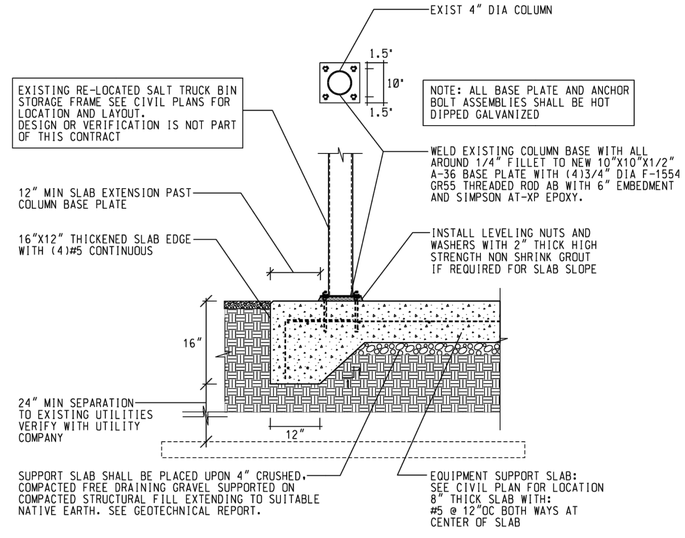
3 | INTERIOR SLAB ELEVATION TRANSITION - STRUCTURAL SECTION

NTS | SLJ



4 | FUEL ISLAND RETAINING WALL STRUCTURAL SECTION - SEE CIVIL PLANS

NTS | SLJ



5 | FOUNDATION FOR RE-LOCATION OF SALT TRUCK BIN STORAGE PLATFORM

NTS | SLJ

REVISION	DATE	BY	DESCRIPTION

DRAWN PRR
CHECKED FTC
DATE MAR/2024

FOOTING AND FOUNDATION DETAILS

JONES & ASSOCIATES
CLEARFIELD CITY P.W.
NEW BULK MATERIAL STORAGE
AND DECANT FACILITY

REGISTERED STRUCTURAL ENGINEER
No. 265194
PHILIP R. ROBERTS
12/31/2025
STATE OF UTAH

ESI ENGINEERING
CONSULTING ENGINEERS AND LAND SURVEYORS
4141 WEST 2100 SOUTH - SUITE 100
WEST VALLEY CITY, UTAH 84120
TEL:(801)263-1752

SHEET S-502 OF 5

PROJECT NO. 23-148

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Sandy, UT 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkoec.com

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JONES & ASSOCIATES
6080 Fashion Point Dr.
South Ogden, UT 84403
ph. 801.476.9767
www.jonescivil.com

24-Nov-23

CIVIL CONSTRUCTION DRAWINGS # 4

CLEARFIELD CITY PUBLIC WORKS COMPLEX PROJECT

497 SOUTH MAIN STREET
CLEARFIELD, UTAH 84015

PROJECT NO. ----
DATE: APR 7, 2025

REVISIONS:
1.
2.
3.
4.
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6.
7.

SHEET TITLE:
STRUCTURAL PLANS

SHEET NUMBER:
S1.4
CIVIL



SWPPP Documents for each identified high priority facility in Clearfield City

Clearfield City Engineering Department

Last Updated: 11/6/2026

Part of the Clearfield City Storm Water Management Plan

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PART I – MUNICIPAL OWNED HIGH PRIORITY FACILITIES

CLEARFIELD CITY PUBLIC WORKS MAINTENANCE OPERATIONS CENTER (MOC)

INTRODUCTION:

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of the Utah Pollutant Discharge Elimination System (UPDES) Permit to Discharge Municipal Storm Water. Clearfield City's UPDES Permit requires pollution prevention measures at equipment yards and maintenance shops, and the Clearfield City Department of Engineering has determined implementation of a SWPPP to encompass all activities at this facility is the best method to meet this permit condition.

This SWPPP is designed to address all activities at this facility that have the potential to impact stormwater quality.

1.1 PURPOSE

The purpose of the Stormwater Pollution Prevention Plan ("the Plan") is to establish measures, both structural and nonstructural, for minimizing potential pollution from stormwater runoff. Pollution will be minimized through the following procedures:

- Identifying and eliminating potential pollution sources
- Visual inspecting potential stormwater pollution sources
- Training employees
- Establishing preventive maintenance measures
- Implementing good housekeeping practices
- Establishing a Pollution Prevention Team responsible for implementing and reviewing
- Using structural controls when feasible
- Minimizing erosion

1.2 SITE DESCRIPTION

Clearfield City's Public Works Maintenance Operations Center (MOC) consists of four Departments: Public Works Utilities Department, Public Works Streets Department, Public Works Fleets Department, and the Parks, Open Space, and Cemetery Department. This facility provides services relating to road construction, fleet maintenance, street maintenance, utility maintenance, storm drain maintenance, snow and ice control, and parks maintenance. These services are all provided for Clearfield City.

The facility covers approximately 6.25 acres of land East of S State Street and H Street intersection, the majority of which is paved with asphalt. The facility includes an administration building, parks maintenance shop, parks fertilizer storage shed, fleet maintenance shop, public works streets and utilities shop, truck storage shed, salt storage shed, a refueling center with fuel tanks, temporary debris and waste storage, and parking lots. Various activities require use of materials that are kept onsite, including herbicides, paints, solvents, vehicle fluids, salt, sand, etc. The facility implements and maintains stormwater best management practices (BMPs) that are addressed herein.

For the purposes of this SWPPP, activities that have the potential to impact stormwater quality have been identified and evaluated for implementation of best management practices (BMPs). Stormwater BMP implementation and maintenance is the focus of this SWPPP with the intent to minimize the discharge of stormwater pollutants.

1.3 POLLUTION PREVENTION TEAM

The stormwater pollution prevention team (SWPPT) is responsible for developing the SWPPP and guiding its implementation, maintenance, and revision. The team personnel and responsibilities are provided in Table 3-1.

TABLE 1-1 STORMWATER POLLUTION PREVENTION TEAM

INDIVIDUAL	TITLE
Braden Felix, P.E.	City Engineer / Public Works Deputy Director
Austin White P.E.	MS4 Manager

Jackie Wardle	Parks Manager
Brad Wheeler	Public Works Streets / Fleet Superintendent
Saundra Rushton	Communication Manager

1.4 FACILITY ACTIVITIES

Activities that occur at this facility include those that have the potential to impact stormwater quality. Activities occurring onsite are categorized and presented in Table 3-2. Further details on these activities and control measures implemented are provided in Chapter 3.0.

TABLE 1-2 FACILITY ACTIVITIES

ACTIVITY	DESCTRIPTION	POTENTIAL CONTAIMINANTS/SOURCES
Vehicle and Equipment Storage Areas	Parking Lots Truck Shed Parks vehicle bays Public Works vehicle bays Fleet vehicle bays	Vehicle fluids Truck fluids Vehicle / equipment fluids Vehicle / equipment fluids Vehicle / equipment fluids
Fueling Areas	5,000 gal UST 10,500 gal UST	Diesel Gasoline
Material Storage	Salt shed Fertilizer Shed Sand and topsoil storage	Salt Fertilizer (nitrates, phosphates.) Sand, sediments
Vehicle Equipment and Maintenance Areas	Truck and Car Wash Bay	Vehicle debris, sediment, soaps
Vehicle Equipment and Maintenance Areas	Lube Pit Vaults	Vehicle fluids
Disposal Areas	Vactor / Sweeper Dump Concrete / Asphalt Dump Dirt Spoils Dump	Vactor and street sweeping wastes Concrete runoff and sediments Sediment

SITE MAP



POTENTIAL STORMWATER POLLUTION SOURCES

Potential stormwater pollutant sources include indoor and outdoor storage, maintenance activities and other activities that have the potential to impact stormwater quality. All of these areas and activities have the potential to contribute pollutants to stormwater either due to exposure to precipitation or due to connection to the storm drain system. BMPs are necessary at these locations to minimize impacts to stormwater quality. Each source location is described in this section, including implemented stormwater BMPs.

2.1 SITE DRAINAGE

Surface drainage is controlled by a series of gutters, catch basins, and storm drain lines that flow to the Northwest corner of the site. From there it flows South down South Main Street to S.R. 193 where it is then carried to a regional detention pond off H Street in the Freeport Center. It is ultimately discharged into the Salt Lake.

2.2 SUMMARY OF POTENTIAL POLLUTANT SOURCES

The sources listed below have the potential to impact stormwater quality. These sources were identified by site visits; locations of each are shown in the site map. Each source is discussed in detail below and summarized in Table 3, including implemented control measures. Implemented control measures include Best Management Practices (BMPs), which are discussed in further detail in Section 4.

2.2.1 FUEL LOADING AND UNLOADING ACTIVITIES

The fueling station is comprised of two separate vehicle fueling station each with a gasoline and diesel pump, and gas and diesel unloading area, two tanks bordered by a 2.5' concrete wall, a concrete pad for vehicles to park on, a shed with internet connections, and a catch basin with an oil and sand separator connected to the sanitary sewer system.

2.2.2 MATERIAL TRANSFER ACTIVITIES

The transfer of material occurs throughout the facility. Buildings receive paint, solvents, and oils etc. and outdoor storage areas receive salt, sand, containers, and fuels etc. Some of these materials can be considered hazardous. Waste piles and sumps are cleaned and disposed causing risk of stormwater pollution. The risk of an accidental spill or release while transferring hazardous materials is real and measures are taken to eliminate and or contain the risk where possible.

2.2.3 OUTDOOR STORAGE ACTIVITIES

Salt Storage (1): A permanent, covered salt storage unit is in the northeast part of the facility. The area near the entrance is sloped towards the shed so that salt residual from the loading area is kept at a minimum. Good housekeeping measures are implemented. After incoming salt is left by belly dump trucks, front end loaders are used to push the salt into the storage shed. Salt is also pushed back into the storage shed after snow removal operations require the filling of snowplow trucks with salt which can cause salt to be spilled in the loading area. Street sweepers are also used to pick up excess salt when needed.

One above ground storage tank is in the mechanic's shop. The AST contains recycled oil and is used for heating purposes. Davis County Health Department inspects the appliance 2-4 times per year.

Totes & Barrels: Various containers containing paint are located at the facility. These are generally kept inside, and routine inspections are conducted. The design of our new yard implements BMPs (spill kits) to mitigate any risk of an illicit discharge.

Parking and Storage Areas: Parking and storage areas are provided for all divisions. Surface drainage is directed to catch basins, which convey runoff into the drainage system. Street sweeping is conducted periodically. Drainage from the detention basin goes to the municipal storm drain system.

Truck Shed (14): The truck shed is used for storage; no maintenance is conducted in this building. The floor drain is a French drain that percolates into the ground.

2.2.4 CHEMICAL USE IN BUILDINGS

Maintenance Shop: Various containers of motor fluids, soap, solvents, cleaners, fertilizers, and oils are stored in the maintenance shop. A floor drain connected to a sand and oil separator is in the shop and is cleaned out 3 to 4 times a year.

Truck Shed: The truck shed is used for storage; no maintenance is conducted in this building. The floor drain is a French drain that percolates into the ground.

Totes & Barrels: Various containers containing paint are located at the facility. These are generally kept inside, and routine inspections are conducted. The design of our new yard implements BMPs (spill kits) to mitigate any risk of an illicit discharge.

Mechanics Shop: Various containers of motor fluids, soap, solvents, cleaners, fertilizers, and oils are stored in the maintenance shop. A floor drain connected to a sand and oil separator is in the shop and is cleaned out 3 to 4 times a year.

2.2.5 CLEANING AND WASTE STORAGE AREAS

Waste Material Storage: Waste materials from street sweeping and vactor truck solids are placed in a contained area with a concrete curb to mitigate storm water runoff. We are currently working with the DWQ to improve the structure to prevent discharge into the groundwater.

Truck and Car Wash Areas: truck and car wash area consist of one bay for washing, with a trench drain that drains into an oil and sand separator that is connected to the sanitary system. The sump is cleaned out monthly. Good housekeeping measures are implemented

TABLE 2-1 POTENTIAL POLLUTANT SOURCES AND CONTROL MEASURES

SITE CLASSIFICATION ID	DESCIPTION	DIVISION	POTENTIAL POLLUTANT	QUANTITY	BMP
6E	Salt Storage	Streets	Salt	Varies	Covered, Good Housekeeping
8A	Fueling Station	Fleet	Fuels, Auto Fluids	Varies	Good Housekeeping
2C	Totes and Barrels	PW and Parks	Water-Based Paint, cleaners, solvents, Fertilizers	Varies	Good Housekeeping
7G	Waste Materials Storage	PW and Parks	Street Sweep and Vactor Truck Solids, Debris from Roads, Green Waste	Varies	Contained concrete lined area, cleaned as necessary
8H	Truck and Car Wash Area	PW and Parks	Sediment, Auto Fluids	Varies	Oil/Sand Separator to Sanitary System, Good Housekeeping
8A	Truck Shed	PW	Vehicle Fluids	Varies	No Discharge, Good Housekeeping
3D	Fertilizer Shed	Parks	Fertilizers	Varies	No Discharge, Good Housekeeping

2.3 INVENTORY OF EXPOSED AREAS

Substances related to industrial activities such as process chemicals, raw materials, fuels, pesticides, fertilizers, and hazardous substances, may be discharged to a receiving water when exposed to precipitation. The identification of these materials and their associated storage areas helps determine where potential stormwater contamination may occur.

Table 1-4 presents an inventory of exposed materials at the facility. The table also indicates if the existing management controls appear to meet the UPDES permit criteria. The justification for whether the permit criteria are met is indicated in the "Controlled" column as either not exposed, contained, meets other permit requirements, or BMPs implemented.

TABLE 2-2 INVENTORY OF EXPOSED MATERIAL

AREA	QUANTITY OF MATERIAL	CONTROLLED	UPDES COMPLIANT?
Fueling Station	Varies	Good Housekeeping, Spill Kit On-Site	YES
Totes and Barrels	Varies	Good Housekeeping, Spill Kits On-Site	YES
Waste Materials Storage	Varies	Contained concrete lined area, cleaned as necessary	YES

2.4 SPILLS AND LEAKS

Documentation of all significant spills or leaks that have occurred within the last three years is an important component to this SWPPP. A significant spill, as defined in EPA Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices, includes, but is not limited to:

"...releases of oil or hazardous substances in excess of reportable quantities (RQ) under Section 311 of the CWA (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4)."

Clearfield City Public Works Maintenance Operations Center (moc) tracks any spills on a GIS web-based map titled "Illicit Discharge Map". All spills are documented here.

2.5 SAMPLING DATA

Stormwater sampling is not required at this facility. However, per the MS4 permit, visual examination of stormwater coming from the facility is required on an annual basis. Specific precipitation criteria must be met for this monitoring. Refer to Section 5.0 for detailed monitoring requirements.

MEASURES AND CONTROLS

Measures and controls identified herein are general BMPs that serve to minimize stormwater pollution to the maximum extent practicable at this facility. BMPs can be both structural and non-structural measures; all with the intent to reduce stormwater pollution. These BMPs include, good housekeeping, preventive maintenance, spill prevention and response, inspections, and employee training. This section provides a more detailed discussion of stormwater BMPs used at each potential pollutant source at the facility.

3.1 GOOD HOUSEKEEPING

Good housekeeping practices maintain and ensure a clean work environment to reduce the possibility of pollutants entering stormwater runoff. This BMP is used in all areas of the facility. Good housekeeping measures conducted facility wide include:

- Stormwater prevention equipment is regularly inspected, maintained, and cleaned.
- Inside floors are cleaned regularly to maintain a clean work environment.
- Areas with the potential to contaminate stormwater are maintained, properly cared for, and regularly inspected for conditions that might allow pollutants to enter stormwater.
- Any spilled material is immediately cleaned up and disposed of in accordance with regulatory requirements.
- Parking lots, driveways, and outdoor traffic areas are swept regularly to maintain a clean facility

3.2 PREVENTIVE MAINTENANCE

Preventive maintenance provides for the upkeep of the storm drains and conveyance systems and BMPs to minimize the discharge of stormwater pollutants. A preventive maintenance program is implemented and incorporates an inspection program. Personnel responsible for inspections of pollution prevention equipment are trained in spill prevention and response and in measures to minimize stormwater pollution. Pollution prevention equipment is tested, inspected, and maintained as necessary. Deficiencies are reported to the Pollution Prevention Team and addressed based on immediacy.

TABLE 3-1 PREVENTATIVE MAINTENANCE SCHEDULE

STORMWATER MANAGEMENT	INSPECTION SCHEDULE	MAINTENANCE SCHEDULE
Stormwater System	Quarterly	As Needed
Conveyance	Quarterly	As Needed
Catch Basins	Quarterly	As Needed
Detention Pond	Quarterly	As Needed
Manholes Prior to Leaving Property	Quarterly	As Needed
Oil Sand Separators	Monthly or as Needed	Monthly or as Needed
Waste Materials Storage	Varies	Contained concrete lined area, cleaned as necessary

3.3 SPILL PREVENTION AND RESPONSE PROCEDURES

Spill prevention and response will be in accordance with the Used Oil Spill and Containment Plan document. The Used Oil Spill and Containment Plan is hereby made part of this Plan by reference. In general, if petroleum products or listed hazardous substances are released to the environment more than the amounts identified in 40 CFR 117 and 40 CFR 302, the Stormwater Manager or other designated employee is required to notify the following entities within 24 hours of the release:

- National Response Center: (800) 424-8802
- Utah Division of Water Quality: (801) 538-6146 or 24-hour answering service at (801) 536-4123

A release is defined as including, but not limited to, any spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition, escaping, leaching, or unauthorized disposal of oil or hazardous substance that enters or threatens to enter waters of the State.

3.4 INSPECTIONS

Areas and equipment with the potential to pollute stormwater runoff are visually inspected on a frequent, regular basis. Evaluations are conducted to ensure that measures presented in this Plan are implemented in accordance with the terms of the MS4 permit. Inspections are logged, including the date of the inspection, personnel who performed the inspection, and related observations. Facility personnel conduct informal inspections of all work and storage areas monthly per MS4 permit requirement 4.2.6.6.1. The stormwater maintenance crew conducts formal, semi-annual comprehensive inspections of storage areas (including storage tank areas), shops, BMPs, stormwater controls, and stormwater conveyances. The semi-annual inspections are completed using the inspection log listed in Appendix C.

Monthly and semi-annual inspections are performed by members of the stormwater maintenance crew or a designated employee who has completed training on the details of this Plan and general permit requirements. All noncompliance issues are reported immediately to Dayton Newell, or a designated representative in his absence, so that appropriate response action and agency notification can occur.

In addition to these inspections, the maintenance crew conducts inspections of the storm drain system including catch basins on an as-needed basis, generally following a rain event.

3.5 EMPLOYEE TRAINING

Clearfield City provides stormwater training for appropriate personnel regarding the components of stormwater regulations, the Municipal Separate Storm Sewer Systems (MS4) permit and the SWPPP. Stormwater training is incorporated into existing safety meeting/training sessions. The training sessions occur on an annual basis.

The training includes:

- Good housekeeping practices
- Spill prevention and response procedures (IDDE)
- Material storage and handling practices
- New stormwater regulations or pollution prevention measures

The training program prepares personnel to effectively minimize and/or eliminate pollutants from entering the storm drain system. The goal of the program is to train personnel to prevent contaminants from entering stormwater and to respond safely and effectively. The employees should also understand how to recognize and report potential stormwater contamination situations.

3.6 RECORD KEEPING AND INTERNAL REPORTING PROCEDURES

All applicable records will be kept onsite in the central files. Records including observations, field logs, certifications, and reports will be retained for a minimum of three years. Certification and report signatures will be completed by a responsible employee. All noncompliance issues will be reported to the Pollution Prevention Team as soon as possible and addressed within 30 days.

All records relating to implementation of the SWPPP will be maintained for a minimum of three years. This includes all inspections, monitoring, training, maintenance, and incidents.

3.7 NON-STORMWATER DISCHARGES

Federal law and the UPDES permit prohibit almost all non-stormwater discharges unless specifically permitted under the MS4 permit. Non-stormwater discharges that may occur at the facility and are authorized by the MS4 permit and do not require a special discharge permit include the following:

- Firefighting activities or fire hydrant flushing
- Water line flushing
- Uncontaminated groundwater
- Landscape irrigation
- Potable water
- Uncontaminated water from sumps and secondary containments

3.8 SEDIMENT AND EROSION CONTROL

All areas of the facility are either paved with asphalt or concrete or are maintained as landscaped vegetation. As a result, minimal erosion is expected from the site. If construction activities take place at the facility in the future a UPDES Construction permit will be obtained as per the DWQ requirements, and the following measures may be implemented to help reduce the amount of soil erosion resulting from construction activities:

- Vegetate or revegetate disturbed soil as soon as possible after construction with common vegetative covers such as grass, trees, shrubs, bark, mulch, or straw.
- Implement structural control practices, such as silt fence, straw bale barrier, gravel filter berms, storm drain inlet protection, sediment traps or basins, surface roughening of slopes, or other measures deemed necessary during construction to minimize the potential for soil erosion and sediment runoff.

3.9 STORMWATER EXPOSURE CONTROL

This section describes specific source control strategies for industrial activities that may contribute to stormwater contamination. These practices should be followed where practicable to prevent or minimize contamination of stormwater.

The only area where excess risks of contaminants being conveyed with stormwater at this facility is from the fueling island. The DWQ recommends these types of areas have a cover to prevent stormwater from mixing with drips and spills. This area is visually monitored daily and cleaned and swept as needed.

Material and Waste Storage Areas

The following BMPs are used to assist in reducing stormwater contamination:

- Storage areas are covered where practical
- Storage containers for all materials must be clearly labeled and maintained in good condition.
- Materials are unloaded from delivery vehicles, stored, and used indoors where possible. In addition, petroleum products or other chemicals and materials that could contaminate stormwater are stored within the facility when feasible.

Loading and Unloading Areas

The following list includes source control BMPs that are implemented to reduce the potential of stormwater contamination from loading and unloading areas:

- Minimize stormwater run-on and runoff through construction, maintenance, and use of berms, ditches, storage facilities, or collection and treatment systems for these areas.
- Properly licensed and permitted used-oil transporters must be employed to remove the used oil for proper disposal offsite. Facility personnel must be present during transfers of used oil from the used-oil storage tank to tanker trucks.
- Provide level grades and gravel surfaces to retard flows, increase infiltration, and limit the spread of spills.
- Locate shipping and receiving activities where spills or leaks can be contained.
- Conduct shipping and receiving activities in covered or protected areas where practicable to minimize exposure to precipitation by conducting activities while no precipitation or runoff occurs or completing work indoors or by using roof overhangs, awnings, or weather curtains.
- Immediately clean up any spilt material.

3.10 MANAGEMENT OF RUNOFF

Storm drainage for the facility area is conveyed via a series of pipes, catch basins and oil/water separators. The system drains the facility area and routes the flow to the northwest part of the site. The stormwater is conveyed via a pipe to the Jordan River. To summarize, the following BMPs are implemented with the intent to reduce pollutants in the discharge of stormwater from this facility:

- Good housekeeping measures
- Preventative Maintenance
- Covered materials and activities
- Secondary containment
- Inspections
- Visual observations
- Training
- These measures are considered sufficient to manage stormwater at this facility. The design of sumps or additional controls to control stormwater from the truck wash area is being evaluated and designed.

Implementation of additional BMPs will be evaluated during each annual site inspection as discussed in Section 5.0

COMPREHENSIVE SITE EVALUATION AND INSPECTIONS

Semi-annual site inspections are required for “high priority” facilities such as this one identified in the MS4 permit. The inspections are intended to be comprehensive to identify any problem areas; the SWPPT Leader or designee will perform the inspection. This inspection provides a basis for evaluating the effectiveness of the SWPPP, and should include:

- Inspection of stormwater drainage areas for evidence of or the potential for, pollutants entering the drainage system
- Inspection of equipment needed to implement the SWPPP such as spill response equipment
- Observation of structural measures, secondary containment, catch basins, etc. for proper operation
- Evaluation of the effectiveness of stormwater pollution prevention measures and BMPs
- Revision of the SWPPP to reflect new construction areas, changes in the stormwater drainage system, changes in BMPs, etc.
- Implementation of changes to the drainage system as required
- Identification of any incidents of noncompliance
- Report results of visual observations
- Complete and sign the Inspection Forms

MONITORING

Annual visual monitoring of stormwater quality is conducted during a qualifying storm. This monitoring is intended to identify obvious indicators of stormwater pollution, identify the potential source, and implement appropriate BMPs

5.1 VISUAL MONITORING

For the annual visual monitoring, observations should be conducted within the first 30 minutes of a qualifying storm event or as soon as practical. A qualifying storm event is defined as being greater than 0.1 inches in magnitude that produces runoff and that occurs at least 72 hours from the previously measurable (greater than 0.1-inch rainfall) storm event. The examinations will be conducted on runoff in the manholes prior to leaving the property, and include documenting the color, odor, clarity, settled solids, floating solids, suspended solids, foam, oil sheen, and any other pertinent characteristic observed. If adverse conditions do not allow for the collection of stormwater samples, this will be documented and maintained with the SWPPP.

5.2 VISUAL MONITORING PERIODS

Visual examinations of stormwater quality will be conducted during the following periods:

- Once annually

5.3 EXAMINATION REPORTS

Results of visual observations will be documented. Details regarding the storm event, examinations, nature of the discharge (i.e., runoff or snow melt), is recorded during each monitoring event. These reports must be kept onsite with the SWPPP.

CLEARFIELD CITY AQUATIC AND FITNESS CENTER

INTRODUCTION:

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of the Utah Pollutant Discharge Elimination System (UPDES) Permit to Discharge Municipal Storm Water. Clearfield City's UPDES Permit requires pollution prevention measures at equipment yards and maintenance shops, and the Clearfield City Department of Engineering has determined implementation of a SWPPP to encompass all activities at this facility is the best method to meet this permit condition.

This SWPPP is designed to address all activities at this facility that have the potential to impact stormwater quality.

1.1 PURPOSE

The purpose of the Stormwater Pollution Prevention Plan ("the Plan") is to establish measures, both structural and nonstructural, for minimizing potential pollution from stormwater runoff. Pollution will be minimized through the following procedures:

- Identifying and eliminating potential pollution sources
- Visual inspecting potential stormwater pollution sources
- Training employees
- Establishing preventive maintenance measures
- Implementing good housekeeping practices
- Establishing a Pollution Prevention Team responsible for implementing and reviewing
- Using structural controls when feasible
- Minimizing erosion

1.2 SITE DESCRIPTION

Clearfield City's Aquatic and Fitness Center consists of an indoor lap pool, indoor hot tub, indoor leisure pool, outdoor leisure pool, and an outdoor splash pad. This facility provides services to the public.

The facility covers approximately 1.67 acres of land East of State Street and S.R. 193 intersection, the majority of which is occupied by building space and is paved. The facility includes an indoor fitness center connected to NDJR, an outdoor pool and splash pad area, and some lawn space. Various activities require use of materials that are kept onsite, including chlorine. The facility implements and maintains stormwater best management practices (BMPs) that are addressed herein.

For the purposes of this SWPPP, activities that have the potential to impact stormwater quality have been identified and evaluated for implementation of best management practices (BMPs). Stormwater

BMP implementation and maintenance is the focus of this SWPPP with the intent to minimize the discharge of stormwater pollutants.

1.3 POLLUTION PREVENTION TEAM

The stormwater pollution prevention team (SWPPT) is responsible for developing the SWPPP and guiding its implementation, maintenance, and revision. The team personnel and responsibilities are provided in Table 3-1.

TABLE 1-1 STORMWATER POLLUTION PREVENTION TEAM

INDIVIDUAL	TITLE
Braden Felix, P.E.	City Engineer / Public Works Deputy Director
Austin White P.E.	MS4 Manager
Jackie Wardle	Parks Manager
Brad Wheeler	Public Works Streets / Fleet Superintendent
Saundra Rushton	Communication Manager

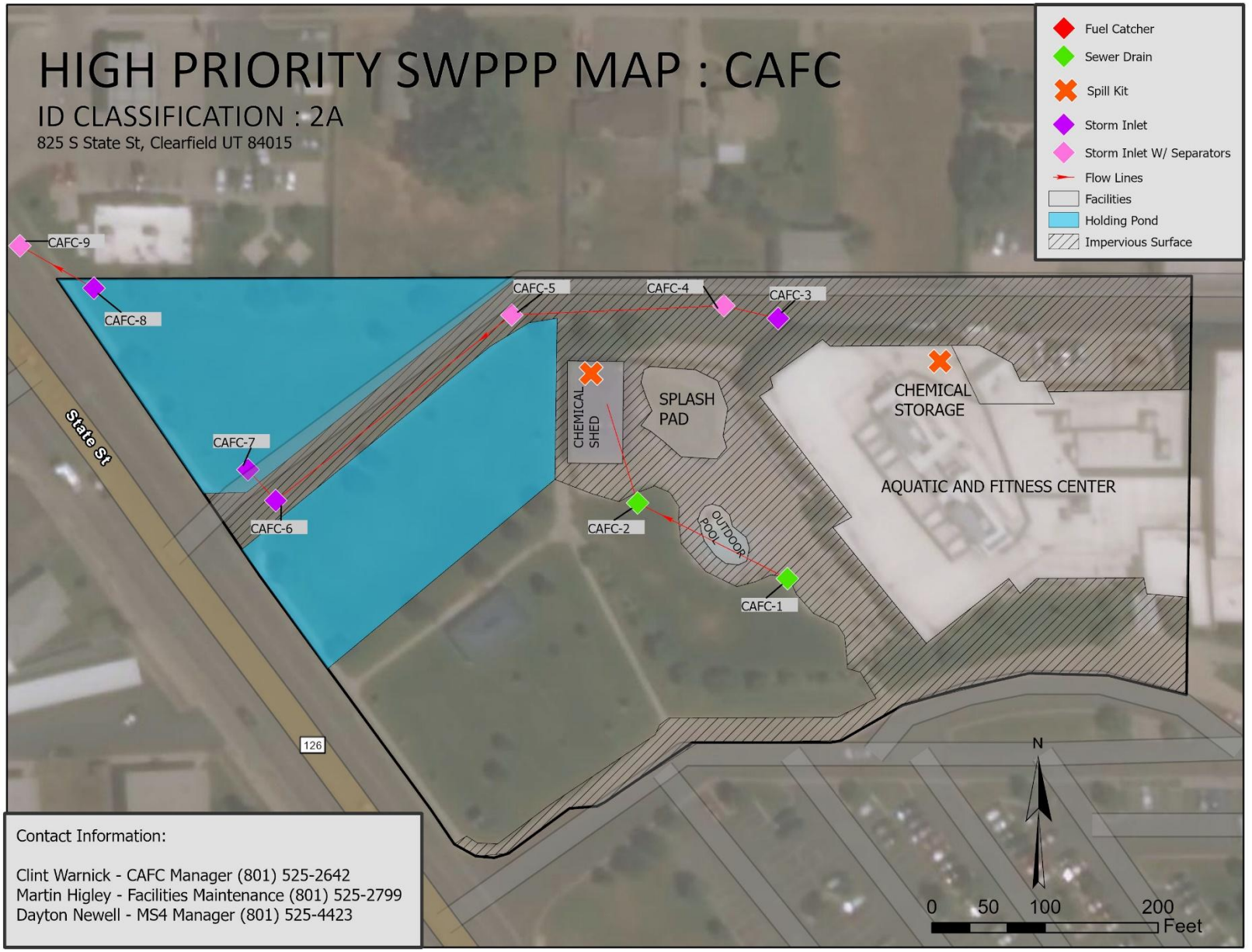
1.4 FACILITY ACTIVITIES

Activities that occur at this facility include those that have the potential to impact stormwater quality. Activities occurring onsite are categorized and presented in Table 3-2. Further details on these activities and control measures implemented are provided in Chapter 3.0.

TABLE 1-2 FACILITY ACTIVITIES

ACTIVITY	DESCTRIPTION	POTENTIAL CONTAIMINANTS/SOURCES
Chemical Storage Areas	Indoor Chemical Room Outdoor Chemical Room	Chlorine, Sodium Hypochlorite, Hydrochloric Acid, Sodium Thiosulfate Pentahydrate, Chlorine

SITE MAP


HIGH PRIORITY SWPPP MAP : CAFC
ID CLASSIFICATION : 2A
825 S State St, Clearfield UT 84015
Fuel Catcher
Sewer Drain
Spill Kit
Storm Inlet
Storm Inlet W/ Separators
Flow Lines
Facilities
Holding Pond
Impervious Surface
CAFC-9
CAFC-8
CAFC-7
CAFC-6
CAFC-5
CAFC-4
CAFC-3
CAFC-2
CAFC-1
CHEMICAL SHED
SPLASH PAD
CHEMICAL STORAGE
AQUATIC AND FITNESS CENTER
OUTDOOR POOL
State St
126
N
0
50
100
200
Feet
Contact Information:
Clint Warnick - CAFC Manager (801) 525-2642
Martin Higley - Facilities Maintenance (801) 525-2799
Dayton Newell - MS4 Manager (801) 525-4423

POTENTIAL STORMWATER POLLUTION SOURCES

Potential stormwater pollutant sources include indoor and outdoor storage, maintenance activities and other activities that have the potential to impact stormwater quality. All these areas and activities have the potential to contribute pollutants to stormwater either due to exposure to precipitation or due to connection to the storm drain system. BMPs are necessary at these locations to minimize impacts to stormwater quality. Each source location is described in this section, including implemented stormwater BMPs.

2.1 SITE DRAINAGE

Surface drainage is controlled by a series of gutters, catch basins, and storm drain lines that flow to the West side of the site. From there it flows into UDOT's storm drain system. It is ultimately discharged into the Salt Lake.

2.2 SUMMARY OF POTENTIAL POLLUTANT SOURCES

The sources listed below have the potential to impact stormwater quality. These sources were identified by site visits; locations of each are shown in the site map. Each source is discussed in detail below and summarized in Table 3, including implemented control measures. Implemented control measures include Best Management Practices (BMPs), which are discussed in further detail in Section 4.

2.2.1 MATERIAL TRANSFER ACTIVITIES

The transfer of material occurs throughout the facility. Buildings receive chemicals and cleaning supplies. Some of these materials can be considered hazardous. The risk of an accidental spill or release while transferring hazardous materials is real and measures are taken to eliminate and or contain the risk where possible.

2.2.2 CHEMICAL USE IN BUILDINGS

Main pool deck: Various containers of chemicals, soap, solvents, and cleaners are stored in the facility maintenance closet on the main pool deck. A floor drain connected to a sand and oil separator is on the deck and is cleaned out 2 times a year.

TABLE 2-1 POTENTIAL POLLUTANT SOURCES AND CONTROL MEASURES

SITE ID	DESCIPTION	DIVISION	POTENTIAL POLLUTANT	QUANTITY	BMP
	Chemical Storage	Facilities Maintenance	Sodium Hypochlorite (Bleach)	Two 200 Gallon Tanks 1250 Gallon Tank	Spill Containment Wall Spill Containment Pit
	Chemical Storage	Facilities Maintenance	Hydrochloric Acid	Two 55 Gallon drums	Spill Containment Wall Spill Containment Pit Spill Kit 12 bags of 55-lbs Sodium Bicarbonate

	Two 15 Gallon drums 10 Pails of 5-Gallons

2.4 SPILLS AND LEAKS

Documentation of all significant spills or leaks that have occurred within the last three years is an important component to this SWPPP. A significant spill, as defined in EPA Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices, includes, but is not limited to:

"...releases of oil or hazardous substances in excess of reportable quantities (RQ) under Section 311 of the CWA (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4)."

Clearfield City Aquatic and Fitness Center tracks any spills on a GIS web-based map titled "Illicit Discharge Map". All spills are documented here.

2.5 SAMPLING DATA

Stormwater sampling is not required at this facility. However, per the MS4 permit, visual examination of stormwater coming from the facility is required on an annual basis. Specific precipitation criteria must be met for this monitoring. Refer to Section 5.0 for detailed monitoring requirements.

MEASURES AND CONTROLS

Measures and controls identified herein are general BMPs that serve to minimize stormwater pollution to the maximum extent practicable at this facility. BMPs can be both structural and non-structural measures; all with the intent to reduce stormwater pollution. These BMPs include, good housekeeping, preventive maintenance, spill prevention and response, inspections, and employee training. This section provides a more detailed discussion of stormwater BMPs used at each potential pollutant source at the facility.

3.1 GOOD HOUSEKEEPING

Good housekeeping practices maintain and ensure a clean work environment to reduce the possibility of pollutants entering stormwater runoff. This BMP is used in all areas of the facility. Good housekeeping measures conducted facility wide include:

- Stormwater prevention equipment is regularly inspected, maintained, and cleaned.
- Inside floors are cleaned regularly to maintain a clean work environment.

- Areas with the potential to contaminate stormwater are maintained, properly cared for, and regularly inspected for conditions that might allow pollutants to enter stormwater.
- Any spilled material is immediately cleaned up and disposed of in accordance with regulatory requirements.
- Outdoor traffic areas are swept regularly to maintain a clean facility

3.2 PREVENTIVE MAINTENANCE

Preventive maintenance provides for the upkeep of the storm drains and conveyance systems and BMPs to minimize the discharge of stormwater pollutants. A preventive maintenance program is implemented and incorporates an inspection program. Personnel responsible for inspections of pollution prevention equipment are trained in spill prevention and response and in measures to minimize stormwater pollution. Pollution prevention equipment is tested, inspected, and maintained as necessary. Deficiencies are reported to the Pollution Prevention Team and addressed based on immediacy.

TABLE 3-1 PREVENTATIVE MAINTENANCE SCHEDULE

STORMWATER MANAGEMENT	INSPECTION SCHEDULE	MAINTENANCE SCHEDULE
Stormwater System	Quarterly	As Needed
Conveyance	Quarterly	As Needed
Catch Basins	Quarterly	As Needed
Detention Pond	Quarterly	As Needed
Manholes Prior to Leaving Property	Quarterly	As Needed
Oil Sand Separators	Monthly or as Needed	Monthly or as Needed

3.3 SPILL PREVENTION AND RESPONSE PROCEDURES

Spill prevention and response will be in accordance with the Used Oil Spill and Containment Plan document. The Used Oil Spill and Containment Plan is hereby made part of this Plan by reference. In general, if petroleum products or listed hazardous substances are released to the environment more than the amounts identified in 40 CFR 117 and 40 CFR 302, the Stormwater Manager or other designated employee is required to notify the following entities within 24 hours of the release:

- National Response Center: (800) 424-8802
- Utah Division of Water Quality: (801) 538-6146 or 24-hour answering service at (801) 536-4123

A release is defined as including, but not limited to, any spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition, escaping, leaching, or unauthorized disposal of oil or hazardous substance that enters or threatens to enter waters of the State.

3.4 INSPECTIONS

Areas and equipment with the potential to pollute stormwater runoff are visually inspected on a frequent, regular basis. Evaluations are conducted to ensure that measures presented in this Plan are implemented in accordance with the terms of the MS4 permit. Inspections are logged, including the date of the inspection, personnel who performed the inspection, and related observations. Facility

personnel conduct informal inspections of all work and storage areas monthly per MS4 permit requirement 4.2.6.6.1. The stormwater maintenance crew conducts formal, semi-annual comprehensive inspections of storage areas (including storage tank areas), shops, BMPs, stormwater controls, and stormwater conveyances. The semi-annual inspections are completed using the inspection log listed in Appendix C.

Monthly and semi-annual inspections are performed by members of the stormwater maintenance crew or a designated employee who has completed training on the details of this Plan and general permit requirements. All noncompliance issues are reported immediately to Dayton Newell, or a designated representative in his absence, so that appropriate response action and agency notification can occur.

In addition to these inspections, the maintenance crew conducts inspections of the storm drain system including catch basins on an as-needed basis, generally following a rain event.

3.5 EMPLOYEE TRAINING

Clearfield City provides stormwater training for appropriate personnel regarding the components of stormwater regulations, the Municipal Separate Storm Sewer Systems (MS4) permit and the SWPPP. Stormwater training is incorporated into existing safety meeting/training sessions. The training sessions occur on an annual basis.

The training includes:

- Good housekeeping practices
- Spill prevention and response procedures (IDDE)
- Material storage and handling practices
- New stormwater regulations or pollution prevention measures

The training program prepares personnel to effectively minimize and/or eliminate pollutants from entering the storm drain system. The goal of the program is to train personnel to prevent contaminants from entering stormwater and to respond safely and effectively. The employees should also understand how to recognize and report potential stormwater contamination situations.

3.6 RECORD KEEPING AND INTERNAL REPORTING PROCEDURES

All applicable records will be kept onsite in the central files. Records including observations, field logs, certifications, and reports will be retained for a minimum of three years. Certification and report signatures will be completed by a responsible employee. All noncompliance issues will be reported to the Pollution Prevention Team as soon as possible and addressed within 30 days.

All records relating to implementation of the SWPPP will be maintained for a minimum of three years. This includes all inspections, monitoring, training, maintenance, and incidents.

3.7 NON-STORMWATER DISCHARGES

Federal law and the UPDES permit prohibit almost all non-stormwater discharges unless specifically permitted under the MS4 permit. Non-stormwater discharges that may occur at the facility and are authorized by the MS4 permit and do not require a special discharge permit include the following:

- Firefighting activities or fire hydrant flushing

- Water line flushing
- Uncontaminated groundwater
- Landscape irrigation
- Potable water
- Uncontaminated water from sumps and secondary containments

3.8 SEDIMENT AND EROSION CONTROL

All areas of the facility are either paved with asphalt or concrete or are maintained as landscaped vegetation. As a result, minimal erosion is expected from the site. If construction activities take place at the facility in the future a UPDES Construction permit will be obtained as per the DWQ requirements, and the following measures may be implemented to help reduce the amount of soil erosion resulting from construction activities:

- Vegetate or revegetate disturbed soil as soon as possible after construction with common vegetative covers such as grass, trees, shrubs, bark, mulch, or straw.
- Implement structural control practices, such as silt fence, straw bale barrier, gravel filter berms, storm drain inlet protection, sediment traps or basins, surface roughening of slopes, or other measures deemed necessary during construction to minimize the potential for soil erosion and sediment runoff.

3.10 MANAGEMENT OF RUNOFF

Storm drainage for the facility area is conveyed via a series of pipes, catch basins and oil/water separators. The system drains the facility area and routes the flow to the northwest part of the site. The stormwater is conveyed via a pipe to the Jordan River. To summarize, the following BMPs are implemented with the intent to reduce pollutants in the discharge of stormwater from this facility:

- Good housekeeping measures
- Preventative Maintenance
- Covered materials and activities
- Secondary containment
- Inspections
- Visual observations
- Training
- These measures are considered sufficient to manage stormwater at this facility. The design of sumps or additional controls to control stormwater from the truck wash area is being evaluated and designed.

Implementation of additional BMPs will be evaluated during each annual site inspection as discussed in Section 5.0

COMPREHENSIVE SITE EVALUATION AND INSPECTIONS

Semi-annual site inspections are required for “high priority” facilities such as this one identified in the MS4 permit. The inspections are intended to be comprehensive to identify any problem areas; the

SWPPT Leader or designee will perform the inspection. This inspection provides a basis for evaluating the effectiveness of the SWPPP, and should include:

- Inspection of stormwater drainage areas for evidence of or the potential for, pollutants entering the drainage system
- Inspection of equipment needed to implement the SWPPP such as spill response equipment
- Observation of structural measures, secondary containment, catch basins, etc. for proper operation
- Evaluation of the effectiveness of stormwater pollution prevention measures and BMPs
- Revision of the SWPPP to reflect new construction areas, changes in the stormwater drainage system, changes in BMPs, etc.
- Implementation of changes to the drainage system as required
- Identification of any incidents of noncompliance
- Report results of visual observations
- Complete and sign the Inspection Forms

MONITORING

Annual visual monitoring of stormwater quality is conducted during a qualifying storm. This monitoring is intended to identify obvious indicators of stormwater pollution, identify the potential source, and implement appropriate BMPs

5.1 VISUAL MONITORING

For the annual visual monitoring, observations should be conducted within the first 30 minutes of a qualifying storm event or as soon as practical. A qualifying storm event is defined as being greater than 0.1 inches in magnitude that produces runoff and that occurs at least 72 hours from the previously measurable (greater than 0.1-inch rainfall) storm event. The examinations will be conducted on runoff in the manholes prior to leaving the property, and include documenting the color, odor, clarity, settled solids, floating solids, suspended solids, foam, oil sheen, and any other pertinent characteristic observed. If adverse conditions do not allow for the collection of stormwater samples, this will be documented and maintained with the SWPPP.

5.2 VISUAL MONITORING PERIODS

Visual examinations of stormwater quality will be conducted during the following periods:

- Once annually

5.3 EXAMINATION REPORTS

Results of visual observations will be documented. Details regarding the storm event, examinations, nature of the discharge (i.e., runoff or snow melt), is recorded during each monitoring event. These reports must be kept onsite with the SWPPP.

MCM 1 – PUBLIC EDUCATION AND OUTREACH STRATEGY

SMALL MS4 GENERAL UPDES PERMIT UTR090000

4.2.1 IMPLEMENTATION DOCUMENT
SUBSECTION OF 4.1.2 REQUIREMENTS

CLEARFIELD CITY PUBLIC WORKS
APRIL 2026

Minimum Performance Measure 4.2.1.1 – Targeting Specific Pollutants and Pollutant Sources

Minimum Performance Measure 4.2.1.1 *– Target specific pollutants and pollutant sources that impact or have the potential to impact the beneficial uses of receiving waters. Provide information which describes the potential impacts from storm water discharges. Provide methods for avoiding, minimizing, reducing, and/or eliminating the adverse impacts of storm water discharges. Provide actions individuals can take to improve water quality including participation in local environmental stewardship activities, based on land uses and target audiences found within the community.*

Permit Requirement

Permittees Shall: Target specific pollutants and pollutant sources determined by the Permittee to be impacting, or have the potential to impact, the beneficial uses of receiving waters.

The Program Must:

- Provide information which describes the potential impacts from stormwater discharges.
- Provide methods for avoiding, minimizing, reducing, and/or eliminating the adverse impacts of stormwater discharges.
- Provide actions individuals can take to improve water quality, including participation in local environmental stewardship activities.
- Base these efforts on land uses and target audiences found within the community.

This Minimum Performance Measure is part of the broader Public Education and Outreach program (MCM 4.2.1) and supports overall compliance with water quality protection goals under the Clean Water Act.

Receiving Waters and Beneficial Uses

Receiving waters for Clearfield are the Farmington Bay Wetlands and ultimately the Great Salt Lake. There are no waters of the state, streams, rivers, or lakes within Clearfield City limits.

4.2.1 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS

Farmington Bay and Great Salt Lake waters support beneficial uses including:

- Aquatic life
- Recreation
- Agriculture
- Drinking water source protection

Key water quality concerns in the Farmington Bay Watershed include:

- **Eutrophication and Nutrient Pollution (Nitrogen and Phosphorus)** The bay has historically been described as severely eutrophic or even hypereutrophic, with excessive nutrient levels promoting algal growth and harmful cyanobacteria blooms. Nutrients fuel low dissolved oxygen, habitat degradation, and potential toxin production. While point sources (e.g., wastewater treatment plants) contribute a large share (~50% in some estimates), non-point sources—including urban and agricultural stormwater runoff—add nutrients from fertilizers, pet waste, grass clippings, and landscape runoff.
    - *Wurtsbaugh, Wayne A.; Marcarelli, Amy M.; Christison, Cameron; Moore, Joel; Gross, Donovan; Bates, Sophia; and Kircher, Sara, "Comparative Analysis of Pollution in Farmington Bay and the Great Salt Lake, Utah" (2002). Watershed Sciences Faculty Publications. Paper 540. https://digitalcommons.usu.edu/wats_facpub/540*
- **Sediment and Turbidity** Stormwater runoff carries sediment from construction sites, impervious surfaces, and eroded areas. This increases turbidity, smothers benthic habitats, and transports attached pollutants.
- **Bacteria (e.g., E. coli) and Pathogens** Runoff from urban areas can introduce bacteria from pet waste, wildlife, and illicit discharges. Monitoring occurs in connected areas like Farmington Pond and the Jordan River (which influences the bay), with occasional recreational concerns, though recent sampling at Farmington Pond has shown levels below thresholds.
- **Other Pollutants**
    - Oils, grease, hydrocarbons, heavy metals, and toxics from roads, parking lots, and vehicle/equipment maintenance.
    - Pesticides, herbicides, and household chemicals washed from lawns and landscapes.
    - Salts and de-icing chemicals in winter runoff.
    - Emerging concerns like mercury and other contaminants in sediments and biota, with potential exposure risks to birds.

Stormwater runoff from Clearfield City flows into canals that feed Farmington Bay system. As impervious surfaces increase with development, runoff volume and pollutant loads rise because stormwater receives little to no treatment before entering waterways. Davis County Stormwater Coalition's efforts focus on public

education, illicit discharge elimination, construction controls, and low-impact development to reduce these loads.

Targeted Pollutants and Pollutant Sources

The following pollutants and sources are prioritized based on local land uses and known impacts to beneficial uses. Education efforts focus on the most relevant sources for each audience.

- **Nutrients (Nitrogen & Phosphorus)** - from fertilizers, pet waste, grass clippings, and landscaping.
- **Bacteria (E. coli)** - from pet waste, failing septic systems, and wildlife.
- **Sediment** - from construction sites, bare soil, and erosion.
- **Oil & Grease / Hydrocarbons** - from vehicle maintenance, leaks, and parking areas.
- **Trash & Debris** - from littering and improper waste disposal.
- **Heavy Metals & Toxics** - from household hazardous waste and industrial/commercial activities.
- **Chlorinated Pool Water & Wash Water** - from improper draining or washing activities.

Primary Land Uses and Associated Sources in Clearfield City

- **Residential (single-family homes, apartments):** Lawn/landscape maintenance, pet waste, car washing, improper disposal of household chemicals.
- **Commercial/Industrial/Institutional:** Vehicle/equipment maintenance, parking lot runoff, material storage, landscaping.
- **Construction/Development:** Sediment and construction materials.
- **Municipal Operations (MS4-owned facilities):** Streets, parks, fleet maintenance, and public infrastructure.

Potential Impacts from Stormwater Discharges

Stormwater runoff picks up pollutants as it flows over impervious surfaces (roads, roofs, parking lots) and pervious areas (lawns, construction sites). Unlike sanitary sewage, stormwater typically receives no treatment before entering receiving waters.

Key Impacts Include:

- **Nutrient enrichment:** Excessive algae growth, harmful algal blooms, reduced dissolved oxygen, and kills aquatic life.

- **Bacterial contamination:** Increased risk of waterborne illness for swimmers, boaters, and pets.
- **Sedimentation:** Smothering of aquatic habitat, reduced water clarity, and filling of channels.
- **Toxic pollutants (oils, metals, chemicals):** Harm to aquatic life, bioaccumulation in the food chain, and long-term ecosystem degradation.
- **Increased temperature and flow:** Thermal stress on cold-water species and streambank erosion.
- **Trash accumulation:** Aesthetic degradation and physical harm to wildlife.

These impacts threaten the beneficial uses listed above and can lead to regulatory listings on the 303(d) impaired waters list. Clearfield City does not have any 303(d) impaired waters within city limits.

Methods for Avoiding, Minimizing, Reducing, and Eliminating Adverse Impacts

Education materials and programs emphasize practical Best Management Practices (BMPs) to prevent pollutants from entering the stormwater system.

General Strategies:

- **Source Control** — Prevent pollutants from being available for runoff (e.g., proper storage and use).
- **Housekeeping** — Regular maintenance and cleanup.
- **Infiltration & Filtration** — Promote on-site retention where feasible.
- **Proper Disposal** — Direct pollutants to appropriate waste streams instead of storm drains.

Audience-Specific Methods (examples):

- **Residents/Homeowners:** Use fertilizers sparingly (or phosphorus-free), pick up pet waste, wash cars on grass or at commercial car washes, dispose of yard waste properly, and avoid hosing debris into streets.
- **Businesses/Commercial:** Implement spill response plans, cover outdoor storage, use drip trays for vehicle maintenance, and train employees on stormwater awareness.
- **Developers/Contractors:** Stabilize exposed soil quickly, install sediment barriers, and design post-construction controls (e.g., rain gardens, permeable pavement).

- **Municipal Staff:** Apply de-icing materials judiciously, sweep streets regularly, and maintain catch basins and detention ponds.

Actions Individuals Can Take to Improve Water Quality

The public education program provides clear, actionable steps tailored to land uses and audiences. Materials encourage behavior change and participation in stewardship.

Key Individual Actions:

- **Proper Pet Waste Management:** Always pick up and dispose of trash (prevents bacteria and nutrients).
- **Smart Lawn & Garden Care:** Test soil before fertilizing, use slow-release or organic products, leave grass clippings on the lawn (grass cycling"), and water efficiently to reduce runoff. LINK TO USU SOIL TESTING SITE
- **Vehicle & Equipment Maintenance:** Fix leaks promptly, recycle used oil and filters, and avoid washing vehicles on driveways.
- **Household Hazardous Waste:** Take paints, cleaners, pesticides, and batteries to proper collection events — never pour down storm drains.
- **Yard Waste & Debris:** Compost leaves and grass; never blow or sweep into streets.
- **Pool & Spa Water:** Allow chlorine to dissipate before draining to landscaped areas (never to storm drains).
- **Reporting Issues:** Call Clearfield City Stormwater **801.525.4423** or Davis County Environmental Health Services Division at **801.525.5128** to report illicit discharges, spills, or clogged drains.

Participation in Local Environmental Stewardship Activities

Encourage community involvement through:

- Volunteer cleanups
- Adopt-a-Storm Drain or Adopt-a-Highway programs.
- Participation in watershed council or citizen science monitoring.
- School and youth education programs on stormwater.
- Reporting and removing illegal dumping.

These actions directly reduce pollutant loads and demonstrate collective responsibility for protecting local waters.

4.2.1 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS

Implementation Approach

- **Target Audiences:** Residents, businesses/institutions, developers/contractors, and municipal employees.
- **Delivery Methods:** Website content, social media, brochures/flyers, utility bill inserts, community events, workshops, curb markers ("No Dumping – Drains to River"), and partnerships with the Davis County Stormwater Coalition.
- **Integration:** Coordinate with other MCMs (e.g., IDDE outreach, construction site controls).
- **Measurable Goals & Tracking:** Document activities, audience reached, and topics covered annually. Effectiveness will be evaluated as part of the overall SWMP assessment (cross-reference Section 4.1.2).

Example Outreach Summary Table

TARGET AUDIENCE	KEY POLLUTANTS ADDRESSED	EXAMPLE MESSAGES & ACTIONS	DELIVERY METHODS
Residents	Nutrients, Pet Waste, Bacteria, Trash	"Pick up after your pet – protect our waters"	Bill Inserts, Social Media, Events
Businesses & Commercial	Oil/Grease, Hazardous Waste, Sediment	"Cover your materials – prevent spills"	Workshops, site visits
Developers & Contractors	Sediment, Construction Pollutants	"Stabilize soil early – use proper BMPs"	Plan Reviews, Pre-Con Meetings, Construction Development Packet
Municipal Staff	All Pollutants	Internal Training on Good Housekeeping	Annual Employee Training – Department Focused

Documentation and Evaluation

Records of all outreach materials, events, and metrics (e.g., number reached, topics covered) will be maintained. This information supports annual reporting and adaptive management to improve program effectiveness.

This plan will be reviewed annually and updated based on water quality data, emerging issues, and feedback from the community.

Minimum Performance Measure 4.2.1.2 – Illicit Discharges and Improper Disposal of Waste

Minimum Performance measure 4.2.1.2 *– Provide and document information given to the public of the Permittee's prohibitions against, and the water quality impacts associated with illicit discharges and improper disposal of waste. Provide information to the public on maintenance of septic systems; effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site infiltration of storm water; effects of automotive work and car washing on water quality; proper disposal of swimming pool water; and proper management of pet waste.*

Permit Requirement

The Permittee shall provide and document information given to the public regarding:

- City of Clearfield's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts that are associated with illicit discharges and improper disposal of waste.

At a minimum, the program must consider the following topics (focusing on those most relevant to the community):

- Maintenance of septic systems.
- Effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers).
- Benefits of on-site infiltration of stormwater.
- Effects of automotive work and car washing on water quality.
- Proper disposal of swimming pool water.
- Proper management of pet waste.

This performance measure is part of the broader Public Education and Outreach program (MCM 4.2.1) and supports the Illicit Discharge Detection and Elimination (IDDE) program. All outreach is documented as required under Section 4.1.2.

City of Clearfield Prohibitions on Illicit Discharges

The City of Clearfield prohibits the discharge of non-stormwater (illicit discharges) into the municipal separate storm sewer system (MS4). Illicit discharges include any

discharge that is not composed entirely of stormwater, except for specific exempted flows (e.g., fire-fighting water).

Key Prohibitions Include:

- Dumping or discharging any waste, chemicals, oils, paints, solvents, or debris into storm drains, streets, or channels.
- Improper disposal of household, automotive, or yard waste that may enter the stormwater system.
- Any activity that causes or contributes to pollution of receiving waters (e.g., Farmington Bay tributaries and ultimately Great Salt Lake).

Violations may result in warnings, citations, fines, or other enforcement actions. Residents are encouraged to report suspected illicit discharges to [Clearfield City Stormwater **801.525.4423**, Environmental Health Services Division at **801.525.5128**

Water Quality Impacts of Illicit Discharges and Improper Waste Disposal

In Clearfield and Davis County, stormwater flows untreated directly into local creeks, the Jordan River, Farmington Bay, and Great Salt Lake. Illicit discharges and improper disposal introduce pollutants that:

- Degrade water quality and impair beneficial uses (aquatic life, recreation, drinking water protection).
- Contribute to E. coli impairments in local watersheds.
- Increase nutrients, bacteria, sediments, oils, and toxics, leading to algal blooms, low dissolved oxygen, habitat loss, and health risks for humans and wildlife.

Targeted Topics and Educational Messages

The City provides clear, actionable information on the required topics through brochures, website content, social media, utility bill inserts, community events, and partnerships with the Davia County Stormwater Coalition.

4.1 Effects of Outdoor Activities

- Lawn Care (Pesticides, Herbicides, and Fertilizers)
- Over-application of lawn chemicals washes into storm drains during rain or irrigation.

Key Messages:

- Test soil before fertilizing; use only what is needed and choose phosphorus-free products where possible.
- Apply pesticides and herbicides sparingly and according to label instructions.

- Avoid applying before forecasted rain.
- Impact: Excess nutrients fuel algal growth; chemicals harm aquatic life.

4.2 Benefits of On-Site Infiltration of Stormwater

Capturing and infiltrating runoff on your property reduces flooding and pollutant transport.

Key Messages:

- Install rain gardens, rain barrels, permeable pavers, or native landscaping.
- Direct downspouts onto grass or landscaped areas instead of driveways.
- Benefits: Recharges groundwater, filters pollutants naturally, reduces runoff volume and velocity.

4.4 Effects of Automotive Work and Car Washing on Water Quality

Fluids and soaps from driveways flow directly into storm drains.

Key Messages:

- Perform oil changes and repairs at commercial shops or use drip pans and recycle fluids properly.
- Wash vehicles on the lawn or at a commercial car wash (never on driveways or streets).
- Impact: Oil, grease, metals, and soaps harm fish and degrade water quality.

4.5 Proper Disposal of Swimming Pool Water

Pool water often contains high chlorine, salts, and chemicals.

Key Messages:

- Allow chlorine levels to drop below 0.019 mg/l before draining.
- Drain slowly to landscaped areas or the sanitary sewer (if allowed); **NEVER** to storm drains or streets.
- Impact: Chlorine and chemicals are toxic to aquatic life.

4.6 Proper Management of Pet Waste

Pet waste is a significant source of E. coli bacteria in local watersheds.

Key Messages:

- Always pick up after your pet.
- Bag the waste and dispose in the trash (or flush in toilet where appropriate).
- Never leave it on sidewalks, lawns, or parks where rain can wash it into storm drains.
- Impact: Bacteria from pet waste impairs recreational uses and threatens public health.

Delivery Methods and Target Audiences

Outreach is primarily directed to residents (general public) but supports broader efforts for businesses and other audiences.

Methods Include:

- Printed fact sheets and brochures (e.g., "Pet Waste and Water Quality," "Household and Vehicle Maintenance," "Landscape Gardening and Yard Maintenance").
- City website stormwater page with dedicated topic pages and downloadable PDFs.
- Social media campaigns and seasonal reminders.
- Utility bill inserts and community events.
- Curb markers ("No Dumping – Drains to River") and storm drain stenciling.
- Collaboration with Davis County Stormwater Coalition resources.

Documentation of Outreach Activities

As required by Permit Section 4.1.2, the City maintains ongoing records of all information provided under this measure, including:

- Type of material or activity (brochure, event, social media post).
- Date and audience reached.
- Topics covered.
- Estimated number of people reached.

Records are reviewed annually as part of the SWMP effectiveness evaluation and included in the Annual Report.

Example Documentation Table

TOPIC/MESSAGE	DELIVERY METHOD	DATE/SEASON	AUDIENCE REACHED	METRICS/NOTES
Proper Management of Pet Waste	Brochure + Social Media	Spring / Ongoing	Residents	Xxxx
Effects of Car Washing & Automotive Work	Utility Bill Insert + Website	Summer	General Public	Xxxx
Benefits of On-Site Infiltration	Rain Garden Workshop	Fall	Homeowners	Xxxx

Integration and Continuous Improvement

This outreach integrates with Minimum Performance Measure 4.2.1.1 (targeted pollutants) and the IDDE program. Messages are evaluated for effectiveness through feedback, surveys, or observed behavior changes and adjusted as needed to focus on the most relevant local issues.

The program will be reviewed annually and updated based on water quality data, community needs, and permit requirements.

Minimum Performance Measure 4.2.1.3 – Outreach to Businesses and Institutions

Minimum Performance Measure 4.2.1.3 *– Provide and document information given to businesses and institutions annually of the Permittee's prohibitions against and the water quality impacts associated with illicit discharges and improper disposal of waste. Provide information to businesses and institutions on effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site infiltration of storm water; building and equipment maintenance (proper management of waste water); use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to ground water) proper storage of materials (emphasize pollution prevention) proper management of waste materials and dumpsters (cover and pollution prevention) and proper management of parking lot surfaces (sweeping).*

Permit Requirement

The Permittee shall provide and document information given annually to businesses and institutions regarding:

- The City of Clearfield's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts associated with illicit discharges and improper disposal of waste.

At a minimum, the program must address the following topics relevant to businesses and institutions:

- Effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers).
- Benefits of on-site infiltration of stormwater.
- Building and equipment maintenance (proper management of wastewater).
- Use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to groundwater).
- Proper storage of materials (emphasize pollution prevention).
- Proper management of waste materials and dumpsters (cover and pollution prevention).
- Proper management of parking lot surfaces (sweeping).

This performance measure supports the Illicit Discharge Detection and Elimination (IDDE) program and is documented as required under Permit Section 4.1.2.

Clearfield City's Prohibitions on Illicit Discharges

The City of Clearfield prohibits any non-stormwater discharge (illicit discharge) into the municipal separate storm sewer system (MS4). This includes dumping, spills, or improper disposal of waste that may reach storm drains, gutters, or channels.

Businesses and institutions are required to prevent pollutants from entering the stormwater system. Violations can result in enforcement actions, including warnings, citations, fines, cleanup orders, or other penalties as outlined in Clearfield City Code.

To report a spill or suspected illicit discharge:

Call Clearfield City Stormwater at **801.525.4423** during business hours or Davis County Environmental Health Services Division at **801.525.5128**

Water Quality Impacts on Local Receiving Waters

Stormwater in Clearfield and Davis County flows untreated into local creeks and tributaries of the Jordan River, Farmington Bay, and ultimately to Great Salt Lake. Illicit discharges and poor business practices introduce pollutants that:

- Impair beneficial uses (aquatic life, recreation, and water quality).
- Contribute to E. coli bacteria impairments in local watersheds.
- Increase nutrients, sediments, oils, grease, salts, and toxics, leading to algal blooms, habitat degradation, groundwater contamination, and reduced recreational opportunities.

Targeted Topics and Educational Messages for Businesses and Institutions

The City provides targeted, practical information annually to commercial, industrial, institutional, and multi-family properties. Materials emphasize pollution prevention and cost-saving benefits.

4.1 Effects of Outdoor Activities – Lawn Care (Pesticides, Herbicides, and Fertilizers)

Commercial landscaping and institutional grounds maintenance can contribute significant nutrient and chemical runoff.

Key Messages:

- Test soil before applying fertilizers; use only the amount needed and prefer slow-release or phosphorus-free products.

- Apply pesticides and herbicides according to label directions and avoid application before rain.
- Impact: Excess nutrients promote algal growth; chemicals can harm aquatic life and contaminate groundwater.

4.2 Benefits of On-Site Infiltration of Stormwater

Reducing runoff at the source protects water quality and reduces flooding.

Key Messages:

- Install rain gardens, bioswales, permeable pavement, or direct roof downspouts to vegetated areas.
- Benefits: Naturally filters pollutants, recharges groundwater, reduces peak flows, and can lower long-term maintenance costs.

4.3 Building and Equipment Maintenance (Proper Management of Wastewater)

Washing, pressure washing, or maintenance activities often generate dirty water.

Key Messages:

- Direct wash water to landscaped areas, sanitary sewer (where allowed), or use containment and proper disposal.
- Never discharge to storm drains or streets.
- Impact: Soaps, detergents, and contaminants harm receiving waters.

4.4 Use of Salt or Other Deicing Materials

Winter maintenance can contribute chlorides and other deicers to stormwater and groundwater.

Key Messages:

- Use the minimum amount necessary; apply before precipitation when possible.
- Cover salt piles and storage areas to prevent runoff.
- Sweep up excess salt after events.
- Impact: High salt levels contaminate groundwater and harm aquatic ecosystems.

4.5 Proper Storage of Materials (Pollution Prevention)

Outdoor storage of chemicals, fuels, or materials is a common source of pollution.

Key Messages:

- Store all materials under cover or in secondary containment.
- Use spill kits and train staff on spill response.
- Emphasize pollution prevention to avoid costly cleanups and fines.

4.6 Proper Management of Waste Materials and Dumpsters

Leaking or uncovered dumpsters can release liquids and debris during storms.

Key Messages:

- Keep dumpsters covered and in good condition.
- Place dumpsters on impervious surfaces with spill containment where possible.
- Clean up spills immediately and prevent wash-down water from entering storm drains.

4.7 Proper Management of Parking Lot Surfaces (Sweeping)

Parking lots accumulate oil, sediment, and debris that wash into storm drains.

Key Messages:

- Sweep parking lots regularly (especially before and after storms).
- Use vacuum-assisted sweepers when possible for better pollutant removal.
- Impact: Reduces sediment, metals, and hydrocarbons entering local waterways.

Annual Delivery Methods and Documentation

Outreach to businesses and institutions is conducted **at least annually** through a combination of methods, often in partnership with the Davis County Stormwater Coalition.

Delivery Methods Include:

- Direct mail or email campaigns with fact sheets.
- Targeted workshops or webinars for commercial property managers and facility staff.
- Site visits or compliance assistance letters.
- Brochures and posters distributed at business licensing or during inspections.
- Website resources and downloadable BMP guides.
- Collaboration with local business associations.

Example Annual Outreach Documentation Table

4.2.1 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS				
TOPIC/BMP	**DELIVERY METHOD**	**DATE/ FREQUENCY**	**NUMBER OF BUSINESSES/INSTITUTIONS REACHED**	**MATERIALS DISTRIBUTED/NOTES**
Proper Sotrage of Materials & Spill Prevention	Email Campaign + Fact Sheet	Spring (Annually)	Xxxx	Xxxx
Parking Lot Sweeping and Winter Deicing	Workshop/Brochure	Fall (Annually)	Xxxx	Xxxx
Dumpster Management & Wastewater Disposal	Site visits during IDDE inspections	Ongoing / Annual summary		
Lawn Care & On-Site Infiltration	Coalition-provided materials	Summer		

All activities, materials, and metrics are tracked and retained as part of the ongoing SWMP documentation process (Section 4.1.2).

Integration and Continuous Improvement

This outreach complements Minimum Performance Measures 4.2.1.1 and 4.2.1.2 and directly supports the IDDE program. Messages are reviewed annually for relevance and effectiveness, with adjustments based on local water quality data, feedback, and emerging issues (e.g., salt management in winter or E. coli reduction).

The program will be updated as needed to meet permit requirements and improve water quality protection in Murray.

Minimum Performance Measure 4.2.1.4 – Outreach to Engineers, Contractors, Developers, and Planners (SWPPPs & BMPs)

Minimum Performance Measure 4.2.1.4 *– Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMPs for reducing adverse impacts from storm water runoff from development sites.*

Permit Requirement

The Permittee shall **provide and document information** given to engineers, construction contractors, developers, development review staff, and land use planners concerning:

- The development of **Stormwater Pollution Prevention Plans (SWPPPs)**.

- **Best Management Practices (BMPs)** for reducing adverse impacts from stormwater runoff from development and construction sites.

This supports the Construction Site Stormwater Runoff Control program and is documented under Permit Section 4.1.2.

City of Clearfield Requirements

Clearfield City requires a Stormwater Activity Permit for construction sites disturbing one acre or more (or part of a larger common plan). A SWPPP must be prepared in accordance with the UPDES Construction General Permit and Clearfield City's Stormwater Ordinance.

The SWPPP must identify potential pollutant sources and describe BMPs for erosion and sediment control, good housekeeping, and post-construction stormwater management.

To report sediment or illicit discharges from construction sites:

- Call Clearfield City Stormwater at 801.525.4423
- After hours/weekends/holidays: Dispatch at 801.525.2806.

Key Topics Covered in Outreach

Information is provided on:

- Developing a SWPPP — Site assessment, pollutant sources, BMP selection, inspection/maintenance schedules, and recordkeeping.
- Erosion and Sediment Control BMPs— Silt fence, straw wattles, erosion control blankets, sediment basins, and construction entrance tracking controls.
- Good Housekeeping BMPs — Material storage, spill prevention, concrete washout, and waste management.
- Temporary and Permanent Stabilization — Seeding, mulching, and vegetation establishment.
- Reducing Adverse Impacts — Minimizing soil exposure, protecting receiving waters, and complying with local ordinances.

Delivery Methods and Documentation

Outreach is provided during plan review meetings, pre-construction conferences, permitting processes, and through targeted workshops or Coalition resources.

Example Documentation Table

All records (dates, attendees, materials) are maintained per Section 4.1.2 and included in annual reporting.

AUDIENCE	TOPIC/ACTIVITY	DELIVERY METHOD	DATE/FREQUENCY	NUMBER REACHED	NOTES/MATERIAL
Developers & Contractors	SWPPP Development & BMP Selection	| Pre-construction meeting	| Per project		| SWPPP checklist
Engineers & Plan Review Staff	Erosion & Sediment Control Requirements	Internal training + Guidance Manual	Annually		Updated manual
Land Use Planners	Construction Runoff Impacts	Coalition workshop	Annual		Presentation

Integration and Review

This outreach integrates with post-construction controls and IDDE efforts. Materials are reviewed annually for effectiveness and updated based on permit changes or local needs.

Minimum Performance Measure 4.2.1.5 – Training for Permittee-Owned or Operated Facility Employees

Minimum Performance Measure 4.2.1.5 *– Provide and document information and training given to employees of Permittee-owned or operated facilities concerning the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. The permittee must at a minimum consider the following topics: equipment inspection to ensure timely maintenance; proper storage of industrial materials (emphasize pollution prevention); proper management and disposal of wastes; proper management of dumpsters; minimization of use of salt and other de-icing materials (cover/prevent runoff to mS4 and ground water contamination); benefits of appropriate on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).*

Permit Requirement

The Permittee shall provide and document information and training given to employees of Permittee-owned or operated facilities concerning:

- The City's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts associated with such discharges.

At a minimum, consider these topics:

- Equipment inspection to ensure timely maintenance.
- Proper storage of industrial materials (emphasize pollution prevention).
- Proper management and disposal of wastes.
- Proper management of dumpsters.
- Minimization of use of salt and other de-icing materials (cover/prevent runoff to MS4 and groundwater contamination).
- Benefits of appropriate on-site infiltration (in low-exposure areas such as roofs or employee parking).
- Proper maintenance of parking lot surfaces (sweeping).

This training supports municipal operations pollution prevention and is documented under Section 4.1.2.

Prohibitions and Water Quality Impacts

Clearfield City prohibits illicit discharges into the MS4. Municipal facility activities must prevent pollutants from reaching storm drains, which flow untreated to local waterbodies. Impacts include nutrient enrichment, bacteria (E. coli), sediment, oils, salts, and toxins that impair aquatic life and recreation.

To report an illicit discharge, call Clearfield City Stormwater at **801.525.4423** during business hours or Davis County Environmental Health Services Division at **801.525.5128**

Targeted Training Topics

Annual training (or more frequent as needed) covers practical BMPs tailored to City operations (streets, parks, aquatic, fleet, facilities).

- Equipment Inspection & Maintenance — Regular checks to prevent leaks of oil, fuel, or fluids.
- Proper Storage of Materials — Use covered areas or secondary containment; maintain spill kits.
- Waste Management & Dumpsters — Keep dumpsters covered, on impervious surfaces, and clean up leaks immediately.
- De-icing Materials (Salt) - Apply only as needed; cover storage piles; sweep up excess to prevent runoff and groundwater contamination.
- On-Site Infiltration — Direct clean roof runoff or low-exposure parking areas to rain gardens or vegetated zones where feasible.
- Parking Lot Sweeping — Regular sweeping (especially before storms) to remove sediment, metals, and hydrocarbons.

Delivery and Documentation

Training is delivered via in-person sessions, online modules, tailgate meetings, or Coalition resources. New employees receive orientation.

Example Training Documentation Table

TOPIC	DELIVERY METHOD	DATE/FREQUENCY	NUMBER OF EMPLOYEES TRAINED	NOTES
Salt Management & Deicing BMPs	Winter Tailgate Meeting	Annually (Fall)		Public Works
Spill Prevention & Material Storage	Annual Facility Training	Annually		Stormwater Staff
Parking Lot Sweeping & Infiltration	Online Module + Field Demo	Spring		Coalition Video

4.2.1 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS

Records include sign-in sheets, agendas, and attendance and are retained per Section 4.1.2.

Integration and Review

This training complements IDDE and operations & maintenance programs. Effectiveness is evaluated annually through observations and updated as needed.

Minimum Performance Measure 4.2.1.6 – Training on Low Impact Development (LID) and Green Infrastructure

Minimum Performance Measure 4.2.1.6 *– Provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable to learn about Low Impact Development (LID) practices, green infrastructure practices, and to communicate the specific requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.*

Permit Requirement

The Permittee shall provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable concerning:

- Low Impact Development (LID) practices.
- Green infrastructure practices.
- Specific requirements for post-construction stormwater controls and the BMPs chosen within the SWMP.

This supports the Post-Construction Stormwater Management program and is documented under Section 4.1.2.

Key Concepts

- Low Impact Development (LID): Site design techniques that mimic natural hydrology by infiltrating, filtering, storing, and evaporating runoff close to its source.
- Green Infrastructure: Practices such as rain gardens, bioswales, permeable pavement, green roofs, and native landscaping that reduce runoff volume and pollutant loads while providing community benefits.
- Post-Construction Controls: Permanent BMPs required for new development and redevelopment to protect water quality (e.g., retention basins, bioretention cells, or proprietary devices per Clearfield City standards).

Training emphasizes integration into site planning, plan review checklists, and long-term maintenance.

Training Content

- Benefits of LID/green infrastructure (reduced flooding, improved water quality, groundwater recharge, habitat creation).
- Specific Clearfield City post-construction BMP requirements and design standards.
- How to select, size, and locate appropriate BMPs.
- Maintenance obligations and inspection procedures.
- Resources from the Davis County Stormwater Coalition

Delivery Methods and Documentation

Training occurs through internal workshops, Coalition-sponsored sessions, plan review meetings, and continuing education for staff and consultants.

Example Documentation Table

AUDIENCE	TOPIC	DELIVERY METHOD	DATE/FREQUENCY	NUMBER TRAINED	NOTES
Engineers & Plan Review Staff	LID Practices & Post Construction BMPs	Annual Training Workshop	Annually		Coalition Resources
Land Use Planners	Green Infrastructure in Site Design	Coalition Manual	Biannually		LID Guidance
Developers & Consultants	SWMP Post-Construction Requirements	Pre-App Meetings	As Needed		Checklist

Records of training dates, agendas, attendees, and materials are maintained per Section 4.1.2.

Integration and Review

This training integrates with construction site controls (4.2.1.4) and overall SWMP adaptive management. Content is reviewed annually and updated to reflect new techniques or permit requirements.

Minimum Performance Measure 4.2.1.7 – Evaluation of Educational Messages and Overall Program Effectiveness

Minimum Performance Measure 4.2.1.7 *– The Permittee must identify methods used to evaluate the effectiveness of the educational messages and overall education program. Methods to evaluate effectiveness of the program must be tied to a defined goal of the program and overall objective of changes in behavior and knowledge.*

Permit Requirement

The Permittee must identify methods used to evaluate the effectiveness of the educational messages and the overall education program.

Methods to evaluate effectiveness must be tied to a defined goal of the program and the overall objective of changes in behavior and knowledge.

This evaluation supports adaptive management and is documented as required under Permit Section 4.1.2.

Defined Goals of the Public Education and Outreach Program

The primary goal of Clearfield City's PEO program is to increase public awareness and knowledge of stormwater pollution issues and to promote measurable changes in behavior that reduce pollutant loads to the MS4 and Great Salt Lake.

Specific Program Goals:

- Increase resident and business knowledge of illicit discharge prohibitions and proper waste management.
- Encourage adoption of key behaviors (e.g., proper pet waste disposal, reduced fertilizer use, regular parking lot sweeping, on-site infiltration).
- Support overall water quality protection by reducing E. coli, nutrients, sediment, oils, and salts entering receiving waters.
- Achieve broad community participation in stewardship activities.

Methods to Evaluate Effectiveness

The City uses a combination of quantitative and qualitative methods tied directly to the goals above. Evaluation occurs annually as part of the SWMP effectiveness assessment (Section 4.1.2).

Primary Evaluation Methods:

- Pre- and Post-Activity Surveys / Knowledge Assessments

- Short surveys distributed at workshops, events, or via online links to measure increases in knowledge (e.g., "Do you know the correct way to dispose of pet waste?").
- Tied to Goal: Changes in knowledge.

Behavior Change Indicators

- Track observable or self-reported behaviors (e.g., number of residents reporting use of rain gardens, businesses adopting sweeping programs, or reduced complaints about illicit discharges).
- Monitor indirect indicators such as increased calls to the stormwater hotline for reporting issues (indicating awareness) or participation in clean-up events.

Output and Reach Metrics

- Number of people reached, materials distributed, social media impressions, website visits, and event attendance.
- Correlated with trends in water quality data or IDDE investigations where possible.

Qualitative Feedback

- Participant feedback forms, stakeholder interviews, and observations from municipal staff during site visits or inspections.
- Review of program adjustments based on feedback.

Long-Term Trend Analysis

- Compare annual data over multiple years to assess sustained improvements in knowledge and behavior.

Example Evaluation Documentation Table

PROGRAM GOAL	EVAL. METHOD	FREQ.	DATA SOURCE	TARGET
Increase Knowledge of Illicit Discharges	Pre/Post Surveys at events and Online	Annually	Survey Responses	>20% improvement in correct answers
Promote Proper Pet Waste Management	Self-Reported	Annually	Survey + Number of Reports	Increased reports
Encourage On-Site Infiltration	Tracking of Rain Garden Installations	Annually	Permit Records + Workshop	Increase in BMPs installed
Overall Program Effectiveness	Combined Reach – Feedback – Water Quality Trends	Annual Review	Annual Report Compilation	Documented Behavior Changes and Program Adjustments

Results from these evaluations are used to refine messages, target audiences, and delivery methods in subsequent years.

Integration and Annual Review

Evaluation findings are incorporated into the annual SWMP assessment (Section 4.1.2) and the Annual Report. The program is adaptively managed based on results to maximize behavior change and water quality benefits.

Minimum Performance Measure 4.2.1.8 – Rationale for Chosen BMPs (Activities/Products) in the Public Education and Outreach Program

Minimum Performance Measure 4.2.1.8 *– The Permittee must include written documentation or rationale as to why particular BMPs (Activities/Products) were chosen for its public education and outreach program. Note: Each activity or product has associated Best Management Practices (BMPs) that can be referenced as needed and are listed in Appendix I.*

Permit Requirement

The Permittee must include **written documentation or rationale** as to why particular BMPs (Activities/Products) were chosen for its public education and outreach program.

This documentation supports the overall PEO program and is maintained under Section 4.1.2.

Rationale for Selection of PEO BMPs / Activities / Products

Clearfield City selects outreach activities and products based on the following criteria:

- Relevance to local water quality issues — Focus on high-priority pollutants associated with the city (E. coli from pet waste and nutrients from landscaping).
- Target audience needs — Tailored to residents, businesses, institutions, developers, and municipal staff.
- Cost-effectiveness and feasibility — Leveraging resources from the Davis County Stormwater Coalition to maximize reach with limited staff.
- Proven or promising practices — Activities shown to raise awareness and drive behavior change in similar Utah communities.
- Measurable outcomes — Activities that support evaluation methods in 4.2.1.7 (reach, knowledge, and behavior change).
- Integration with other MCMs — Strong linkage to IDDE, construction, post-construction, and municipal operations programs.

Selected BMPs / Activities / Products and Rationale

AUDIENCE/MEASURE	SELECTED ACTIVITY/PRODUCT	RATIONALE FOR SELECTION
General Public (4.2.1.1 & 4.2.1.2)	Brochures, utility bill inserts, social media campaigns, storm drain stenciling	Cost-effective, high reach to households; directly targets common behaviors (pet waste, car washing, lawn care); easy to track distribution and impressions.
Businesses & Institutions (4.2.1.3)	Targeted fact sheets, workshops, compliance assistance letters	| Businesses generate significant pollutants (parking lots, dumpsters, de-icing); direct engagement improves compliance and reduces enforcement needs
Engineers, Contractors, Developers (4.2.1.4)	Pre-construction meetings, SWPPP checklists, Guidance Manual	Ensures early integration of erosion control and SWPPPs; reduces sediment and other construction-related impacts at the source
Municipal Facility Employees (4.2.1.5)	Annual training sessions, tailgate meetings, online modules	Internal staff control key operations (sweeping, salt use, material storage); training prevents illicit discharges from City facilities and sets an example for the community.
MS4 Staff & Planners (4.2.1.6)	LID/Green Infrastructure workshops and Coalition resources	Promotes long-term water quality protection through better site design; aligns with post-construction requirements and reduces future retrofit costs.
All Audiences	Partnership with Davis County Stormwater Coalition	Provides high-quality shared materials, broader reach, and consistent messaging across the watershed at reduced cost to the City

These selections emphasize a mix of passive (brochures, website) and active (workshops, training) methods to reach diverse audiences effectively while remaining practical within municipal resources.

Documentation and Adaptive Management

All chosen activities are tracked annually (see Section 4.1.2). Rationale and effectiveness are reviewed each year. If evaluation (per 4.2.1.7) shows limited behavior change, alternative or additional BMPs may be selected (e.g., expanded digital campaigns or new Coalition resources).

MCM 2 – PUBLIC INVOLVEMENT AND PARTICIPATION

SMALL MS4 GENERAL UPDES PERMIT UTR090000

4.2.2 IMPLEMENTATION DOCUMENT
SUBSECTION OF 4.1.2 REQUIREMENTS

CLEARFIELD CITY PUBLIC WORKS
APRIL 2026

Minimum Performance Measure 4.2.2.1 – Public Involvement in SWMP Decision-Making

Minimum Performance Measure 4.2.2.1 *– Adopt a program or policy directive to create opportunities for the public to provide input during decision-making processes involving the development, implementation, and update of the SWMP, including development and adoption of all required ordinances or regulatory mechanisms.*

Policy Directive for Public Input

The Permittee hereby adopts the following program and policy directive to create opportunities for the public to provide input during decision-making processes involving the development, implementation, and update of the SWMP, including the development and adoption of all required ordinances or regulatory mechanisms.

The Program Must:

It is the policy of Clearfield City to actively encourage and facilitate public participation in all aspects of the SWMP. Public input will be solicited and considered during:

- Development and revision of the SWMP document
- Creation, amendment, or adoption of stormwater ordinances and regulatory mechanisms
- Planning and prioritization of stormwater projects and BMPs
- Evaluation of SWMP effectiveness and adaptive management decisions

Methods for Providing Public Input Opportunities

- Public meetings, workshops, and hearings
- Online comment forms and surveys
- Stakeholder advisory committees or focus groups
- Notice and comment periods for draft documents and proposed ordinances
- Direct outreach to interested parties, neighborhood groups, and environmental organizations

All public comments received will be documented, reviewed by staff, and considered in final decision-making. A summary of how public input was incorporated (or reasons why it was not) will be maintained in the project or SWMP record.

Minimum Performance Measure 4.2.2.2 – Availability of the Revised SWMP Document

***Minimum Performance measure 4.2.2.2** – Renewal Permittees shall make the revised SWMP document available to the public for review and input within 120 days from the effective date of this Permit*

Permit Requirement

The Permittee shall provide and document information given to the public regarding:

- City of Clearfield's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts that are associated with illicit discharges and improper disposal of waste.

At a minimum, the program must consider the following topics (focusing on those most relevant to the community):

- Maintenance of septic systems.
- Effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers).
- Benefits of on-site infiltration of stormwater.
- Effects of automotive work and car washing on water quality.
- Proper disposal of swimming pool water.
- Proper management of pet waste.

This performance measure is part of the broader Public Education and Outreach program (MCM 4.2.1) and supports the Illicit Discharge Detection and Elimination (IDDE) program. All outreach is documented as required under Section 4.1.2.

City of Clearfield Prohibitions on Illicit Discharges

The City of Clearfield prohibits the discharge of non-stormwater (illicit discharges) into the municipal separate storm sewer system (MS4). Illicit discharges include any discharge that is not composed entirely of stormwater, except for specific exempted flows (e.g., fire-fighting water).

Key Prohibitions Include:

- Dumping or discharging any waste, chemicals, oils, paints, solvents, or debris into storm drains, streets, or channels.

- Improper disposal of household, automotive, or yard waste that may enter the stormwater system.
- Any activity that causes or contributes to pollution of receiving waters (e.g., Farmington Bay tributaries and ultimately Great Salt Lake).

Violations may result in warnings, citations, fines, or other enforcement actions. Residents are encouraged to report suspected illicit discharges to [Clearfield City Stormwater **801.525.4423**, Environmental Health Services Division at **801.525.5128**

Water Quality Impacts of Illicit Discharges and Improper Waste Disposal

In Clearfield and Davis County, stormwater flows untreated directly into local creeks, the Jordan River, Farmington Bay, and Great Salt Lake. Illicit discharges and improper disposal introduce pollutants that:

- Degrade water quality and impair beneficial uses (aquatic life, recreation, drinking water protection).
- Contribute to E. coli impairments in local watersheds.
- Increase nutrients, bacteria, sediments, oils, and toxics, leading to algal blooms, low dissolved oxygen, habitat loss, and health risks for humans and wildlife.

Targeted Topics and Educational Messages

The City provides clear, actionable information on the required topics through brochures, website content, social media, utility bill inserts, community events, and partnerships with the Davia County Stormwater Coalition.

4.1 Effects of Outdoor Activities

- Lawn Care (Pesticides, Herbicides, and Fertilizers)
- Over-application of lawn chemicals washes into storm drains during rain or irrigation.

Key Messages:

- Test soil before fertilizing; use only what is needed and choose phosphorus-free products where possible.
- Apply pesticides and herbicides sparingly and according to label instructions.
- Avoid applying before forecasted rain.
- Impact: Excess nutrients fuel algal growth; chemicals harm aquatic life.

4.2 Benefits of On-Site Infiltration of Stormwater

Capturing and infiltrating runoff on your property reduces flooding and pollutant transport.

Key Messages:

- Install rain gardens, rain barrels, permeable pavers, or native landscaping.
- Direct downspouts onto grass or landscaped areas instead of driveways.
- Benefits: Recharges groundwater, filters pollutants naturally, reduces runoff volume and velocity.

4.4 Effects of Automotive Work and Car Washing on Water Quality

Fluids and soaps from driveways flow directly into storm drains.

Key Messages:

- Perform oil changes and repairs at commercial shops or use drip pans and recycle fluids properly.
- Wash vehicles on the lawn or at a commercial car wash (never on driveways or streets).
- Impact: Oil, grease, metals, and soaps harm fish and degrade water quality.

4.5 Proper Disposal of Swimming Pool Water

Pool water often contains high chlorine, salts, and chemicals.

Key Messages:

- Allow chlorine levels to drop below 0.019 mg/l before draining.
- Drain slowly to landscaped areas or the sanitary sewer (if allowed); **NEVER** to storm drains or streets.
- Impact: Chlorine and chemicals are toxic to aquatic life.

4.6 Proper Management of Pet Waste

Pet waste is a significant source of E. coli bacteria in local watersheds.

Key Messages:

- Always pick up after your pet.
- Bag the waste and dispose in the trash (or flush in toilet where appropriate).
- Never leave it on sidewalks, lawns, or parks where rain can wash it into storm drains.
- Impact: Bacteria from pet waste impairs recreational uses and threatens public health.

Delivery Methods and Target Audiences

Outreach is primarily directed to residents (general public) but supports broader efforts for businesses and other audiences.

Methods Include:

- Printed fact sheets and brochures (e.g., "Pet Waste and Water Quality," "Household and Vehicle Maintenance," "Landscape Gardening and Yard Maintenance").
- City website stormwater page with dedicated topic pages and downloadable PDFs.
- Social media campaigns and seasonal reminders.
- Utility bill inserts and community events.
- Curb markers ("No Dumping – Drains to River") and storm drain stenciling.
- Collaboration with Davis County Stormwater Coalition resources.

Documentation of Outreach Activities

As required by Permit Section 4.1.2, the City maintains ongoing records of all information provided under this measure, including:

- Type of material or activity (brochure, event, social media post).
- Date and audience reached.
- Topics covered.
- Estimated number of people reached.

Records are reviewed annually as part of the SWMP effectiveness evaluation and included in the Annual Report.

Example Documentation Table

TOPIC/MESSAGE	DELIVERY METHOD	DATE/SEASON	AUDIENCE REACHED	METRICS/NOTES
Proper Management of Pet Waste	Brochure + Social Media	Spring / Ongoing	Residents	Xxxx
Effects of Car Washing & Automotive Work	Utility Bill Insert + Website	Summer	General Public	Xxxx
Benefits of On-Site Infiltration	Rain Garden Workshop	Fall	Homeowners	Xxxx

Integration and Continuous Improvement

This outreach integrates with Minimum Performance Measure 4.2.1.1 (targeted pollutants) and the IDDE program. Messages are evaluated for effectiveness through feedback, surveys, or observed behavior changes and adjusted as needed to focus on the most relevant local issues.

4.2.2 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS

The program will be reviewed annually and updated based on water quality data, community needs, and permit requirements.

Minimum Performance Measure 4.2.1.3 – Outreach to Businesses and Institutions

Minimum Performance Measure 4.2.1.3 *– Provide and document information given to businesses and institutions annually of the Permittee's prohibitions against and the water quality impacts associated with illicit discharges and improper disposal of waste. Provide information to businesses and institutions on effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers); benefits of on-site infiltration of storm water; building and equipment maintenance (proper management of waste water); use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to ground water) proper storage of materials (emphasize pollution prevention) proper management of waste materials and dumpsters (cover and pollution prevention) and proper management of parking lot surfaces (sweeping).*

Permit Requirement

The Permittee shall provide and document information given annually to businesses and institutions regarding:

- The City of Clearfield's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts associated with illicit discharges and improper disposal of waste.

At a minimum, the program must address the following topics relevant to businesses and institutions:

- Effects of outdoor activities such as lawn care (use of pesticides, herbicides, and fertilizers).
- Benefits of on-site infiltration of stormwater.
- Building and equipment maintenance (proper management of wastewater).
- Use of salt or other deicing materials (cover/prevent runoff to storm system and contamination to groundwater).
- Proper storage of materials (emphasize pollution prevention).
- Proper management of waste materials and dumpsters (cover and pollution prevention).
- Proper management of parking lot surfaces (sweeping).

This performance measure supports the Illicit Discharge Detection and Elimination (IDDE) program and is documented as required under Permit Section 4.1.2.

Clearfield City's Prohibitions on Illicit Discharges

The City of Clearfield prohibits any non-stormwater discharge (illicit discharge) into the municipal separate storm sewer system (MS4). This includes dumping, spills, or improper disposal of waste that may reach storm drains, gutters, or channels.

Businesses and institutions are required to prevent pollutants from entering the stormwater system. Violations can result in enforcement actions, including warnings, citations, fines, cleanup orders, or other penalties as outlined in Clearfield City Code.

To report a spill or suspected illicit discharge:

Call Clearfield City Stormwater at **801.525.4423** during business hours or Davis County Environmental Health Services Division at **801.525.5128**

Water Quality Impacts on Local Receiving Waters

Stormwater in Clearfield and Davis County flows untreated into local creeks and tributaries of the Jordan River, Farmington Bay, and ultimately to Great Salt Lake. Illicit discharges and poor business practices introduce pollutants that:

- Impair beneficial uses (aquatic life, recreation, and water quality).
- Contribute to E. coli bacteria impairments in local watersheds.
- Increase nutrients, sediments, oils, grease, salts, and toxics, leading to algal blooms, habitat degradation, groundwater contamination, and reduced recreational opportunities.

Targeted Topics and Educational Messages for Businesses and Institutions

The City provides targeted, practical information annually to commercial, industrial, institutional, and multi-family properties. Materials emphasize pollution prevention and cost-saving benefits.

4.1 Effects of Outdoor Activities – Lawn Care (Pesticides, Herbicides, and Fertilizers)

Commercial landscaping and institutional grounds maintenance can contribute significant nutrient and chemical runoff.

Key Messages:

- Test soil before applying fertilizers; use only the amount needed and prefer slow-release or phosphorus-free products.

- Apply pesticides and herbicides according to label directions and avoid application before rain.
- Impact: Excess nutrients promote algal growth; chemicals can harm aquatic life and contaminate groundwater.

4.2 Benefits of On-Site Infiltration of Stormwater

Reducing runoff at the source protects water quality and reduces flooding.

Key Messages:

- Install rain gardens, bioswales, permeable pavement, or direct roof downspouts to vegetated areas.
- Benefits: Naturally filters pollutants, recharges groundwater, reduces peak flows, and can lower long-term maintenance costs.

4.3 Building and Equipment Maintenance (Proper Management of Wastewater)

Washing, pressure washing, or maintenance activities often generate dirty water.

Key Messages:

- Direct wash water to landscaped areas, sanitary sewer (where allowed), or use containment and proper disposal.
- Never discharge to storm drains or streets.
- Impact: Soaps, detergents, and contaminants harm receiving waters.

4.4 Use of Salt or Other Deicing Materials

Winter maintenance can contribute chlorides and other deicers to stormwater and groundwater.

Key Messages:

- Use the minimum amount necessary; apply before precipitation when possible.
- Cover salt piles and storage areas to prevent runoff.
- Sweep up excess salt after events.
- Impact: High salt levels contaminate groundwater and harm aquatic ecosystems.

4.5 Proper Storage of Materials (Pollution Prevention)

Outdoor storage of chemicals, fuels, or materials is a common source of pollution.

Key Messages:

- Store all materials under cover or in secondary containment.
- Use spill kits and train staff on spill response.
- Emphasize pollution prevention to avoid costly cleanups and fines.

4.6 Proper Management of Waste Materials and Dumpsters

Leaking or uncovered dumpsters can release liquids and debris during storms.

Key Messages:

- Keep dumpsters covered and in good condition.
- Place dumpsters on impervious surfaces with spill containment where possible.
- Clean up spills immediately and prevent wash-down water from entering storm drains.

4.7 Proper Management of Parking Lot Surfaces (Sweeping)

Parking lots accumulate oil, sediment, and debris that wash into storm drains.

Key Messages:

- Sweep parking lots regularly (especially before and after storms).
- Use vacuum-assisted sweepers when possible for better pollutant removal.
- Impact: Reduces sediment, metals, and hydrocarbons entering local waterways.

Annual Delivery Methods and Documentation

Outreach to businesses and institutions is conducted **at least annually** through a combination of methods, often in partnership with the Davis County Stormwater Coalition.

Delivery Methods Include:

- Direct mail or email campaigns with fact sheets.
- Targeted workshops or webinars for commercial property managers and facility staff.
- Site visits or compliance assistance letters.
- Brochures and posters distributed at business licensing or during inspections.
- Website resources and downloadable BMP guides.
- Collaboration with local business associations.

Example Annual Outreach Documentation Table

4.2.2 IMPLEMENTATION DOCUMENT – REVIEW 2026 – A SUBSECTION OF 4.1.2 REQUIREMENTS				
TOPIC/BMP	**DELIVERY METHOD**	**DATE/ FREQUENCY**	**NUMBER OF BUSINESSES/INSTITUTIONS REACHED**	**MATERIALS DISTRIBUTED/NOTES**
Proper Sotrage of Materials & Spill Prevention	Email Campaign + Fact Sheet	Spring (Annually)	Xxxx	Xxxx
Parking Lot Sweeping and Winter Deicing	Workshop/Brochure	Fall (Annually)	Xxxx	Xxxx
Dumpster Management & Wastewater Disposal	Site visits during IDDE inspections	Ongoing / Annual summary		
Lawn Care & On-Site Infiltration	Coalition-provided materials	Summer		

All activities, materials, and metrics are tracked and retained as part of the ongoing SWMP documentation process (Section 4.1.2).

Integration and Continuous Improvement

This outreach complements Minimum Performance Measures 4.2.1.1 and 4.2.1.2 and directly supports the IDDE program. Messages are reviewed annually for relevance and effectiveness, with adjustments based on local water quality data, feedback, and emerging issues (e.g., salt management in winter or E. coli reduction).

The program will be updated as needed to meet permit requirements and improve water quality protection in Murray.

Minimum Performance Measure 4.2.1.4 – Outreach to Engineers, Contractors, Developers, and Planners (SWPPPs & BMPs)

Minimum Performance Measure 4.2.1.4 *– Provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs) and BMPs for reducing adverse impacts from storm water runoff from development sites.*

Permit Requirement

The Permittee shall **provide and document information** given to engineers, construction contractors, developers, development review staff, and land use planners concerning:

- The development of **Stormwater Pollution Prevention Plans (SWPPPs)**.

- **Best Management Practices (BMPs)** for reducing adverse impacts from stormwater runoff from development and construction sites.

This supports the Construction Site Stormwater Runoff Control program and is documented under Permit Section 4.1.2.

City of Clearfield Requirements

Clearfield City requires a Stormwater Activity Permit for construction sites disturbing one acre or more (or part of a larger common plan). A SWPPP must be prepared in accordance with the UPDES Construction General Permit and Clearfield City's Stormwater Ordinance.

The SWPPP must identify potential pollutant sources and describe BMPs for erosion and sediment control, good housekeeping, and post-construction stormwater management.

To report sediment or illicit discharges from construction sites:

- Call Clearfield City Stormwater at 801.525.4423
- After hours/weekends/holidays: Dispatch at 801.525.2806.

Key Topics Covered in Outreach

Information is provided on:

- Developing a SWPPP — Site assessment, pollutant sources, BMP selection, inspection/maintenance schedules, and recordkeeping.
- Erosion and Sediment Control BMPs— Silt fence, straw wattles, erosion control blankets, sediment basins, and construction entrance tracking controls.
- Good Housekeeping BMPs — Material storage, spill prevention, concrete washout, and waste management.
- Temporary and Permanent Stabilization — Seeding, mulching, and vegetation establishment.
- Reducing Adverse Impacts — Minimizing soil exposure, protecting receiving waters, and complying with local ordinances.

Delivery Methods and Documentation

Outreach is provided during plan review meetings, pre-construction conferences, permitting processes, and through targeted workshops or Coalition resources.

Example Documentation Table

All records (dates, attendees, materials) are maintained per Section 4.1.2 and included in annual reporting.

AUDIENCE	TOPIC/ACTIVITY	DELIVERY METHOD	DATE/FREQUENCY	NUMBER REACHED	NOTES/MATERIAL
Developers & Contractors	SWPPP Development & BMP Selection	| Pre-construction meeting	| Per project		| SWPPP checklist
Engineers & Plan Review Staff	Erosion & Sediment Control Requirements	Internal training + Guidance Manual	Annually		Updated manual
Land Use Planners	Construction Runoff Impacts	Coalition workshop	Annual		Presentation

Integration and Review

This outreach integrates with post-construction controls and IDDE efforts. Materials are reviewed annually for effectiveness and updated based on permit changes or local needs.

Minimum Performance Measure 4.2.1.5 – Training for Permittee-Owned or Operated Facility Employees

Minimum Performance Measure 4.2.1.5 *– Provide and document information and training given to employees of Permittee-owned or operated facilities concerning the Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. The permittee must at a minimum consider the following topics: equipment inspection to ensure timely maintenance; proper storage of industrial materials (emphasize pollution prevention); proper management and disposal of wastes; proper management of dumpsters; minimization of use of salt and other de-icing materials (cover/prevent runoff to mS4 and ground water contamination); benefits of appropriate on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking); and proper maintenance of parking lot surfaces (sweeping).*

Permit Requirement

The Permittee shall provide and document information and training given to employees of Permittee-owned or operated facilities concerning:

- The City's prohibitions against illicit discharges and improper disposal of waste.
- The water quality impacts associated with such discharges.

At a minimum, consider these topics:

- Equipment inspection to ensure timely maintenance.
- Proper storage of industrial materials (emphasize pollution prevention).
- Proper management and disposal of wastes.
- Proper management of dumpsters.
- Minimization of use of salt and other de-icing materials (cover/prevent runoff to MS4 and groundwater contamination).
- Benefits of appropriate on-site infiltration (in low-exposure areas such as roofs or employee parking).
- Proper maintenance of parking lot surfaces (sweeping).

This training supports municipal operations pollution prevention and is documented under Section 4.1.2.

Prohibitions and Water Quality Impacts

Clearfield City prohibits illicit discharges into the MS4. Municipal facility activities must prevent pollutants from reaching storm drains, which flow untreated to local waterbodies. Impacts include nutrient enrichment, bacteria (E. coli), sediment, oils, salts, and toxins that impair aquatic life and recreation.

To report an illicit discharge, call Clearfield City Stormwater at **801.525.4423** during business hours or Davis County Environmental Health Services Division at **801.525.5128**

Targeted Training Topics

Annual training (or more frequent as needed) covers practical BMPs tailored to City operations (streets, parks, aquatic, fleet, facilities).

- Equipment Inspection & Maintenance — Regular checks to prevent leaks of oil, fuel, or fluids.
- Proper Storage of Materials — Use covered areas or secondary containment; maintain spill kits.
- Waste Management & Dumpsters — Keep dumpsters covered, on impervious surfaces, and clean up leaks immediately.
- De-icing Materials (Salt) - Apply only as needed; cover storage piles; sweep up excess to prevent runoff and groundwater contamination.
- On-Site Infiltration — Direct clean roof runoff or low-exposure parking areas to rain gardens or vegetated zones where feasible.
- Parking Lot Sweeping — Regular sweeping (especially before storms) to remove sediment, metals, and hydrocarbons.

Delivery and Documentation

Training is delivered via in-person sessions, online modules, tailgate meetings, or Coalition resources. New employees receive orientation.

Example Training Documentation Table

TOPIC	DELIVERY METHOD	DATE/FREQUENCY	NUMBER OF EMPLOYEES TRAINED	NOTES
Salt Management &Deicing BMPs	Winter Tailgate Meeting	Annually (Fall)		Public Works
Spill Prevention & Material Storage	Annual Facility Training	Annually		Stormwater Staff
Parking Lot Sweeping & Infiltration	Online Module + Field Demo	Spring		Coalition Video

Records include sign-in sheets, agendas, and attendance and are retained per Section 4.1.2.

Integration and Review

This training complements IDDE and operations & maintenance programs. Effectiveness is evaluated annually through observations and updated as needed.

Minimum Performance Measure 4.2.1.6 – Training on Low Impact Development (LID) and Green Infrastructure

Minimum Performance Measure 4.2.1.6 *– Provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable to learn about Low Impact Development (LID) practices, green infrastructure practices, and to communicate the specific requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP.*

Permit Requirement

The Permittee shall provide and document information and training given to MS4 engineers, development and plan review staff, land use planners, and other parties as applicable concerning:

- Low Impact Development (LID) practices.
- Green infrastructure practices.
- Specific requirements for post-construction stormwater controls and the BMPs chosen within the SWMP.

This supports the Post-Construction Stormwater Management program and is documented under Section 4.1.2.

Key Concepts

- Low Impact Development (LID): Site design techniques that mimic natural hydrology by infiltrating, filtering, storing, and evaporating runoff close to its source.
- Green Infrastructure: Practices such as rain gardens, bioswales, permeable pavement, green roofs, and native landscaping that reduce runoff volume and pollutant loads while providing community benefits.
- Post-Construction Controls: Permanent BMPs required for new development and redevelopment to protect water quality (e.g., retention basins, bioretention cells, or proprietary devices per Clearfield City standards).

Training emphasizes integration into site planning, plan review checklists, and long-term maintenance.

Training Content

- Benefits of LID/green infrastructure (reduced flooding, improved water quality, groundwater recharge, habitat creation).
- Specific Clearfield City post-construction BMP requirements and design standards.
- How to select, size, and locate appropriate BMPs.
- Maintenance obligations and inspection procedures.
- Resources from the Davis County Stormwater Coalition

Delivery Methods and Documentation

Training occurs through internal workshops, Coalition-sponsored sessions, plan review meetings, and continuing education for staff and consultants.

Example Documentation Table

AUDIENCE	TOPIC	DELIVERY METHOD	DATE/FREQUENCY	NUMBER TRAINED	NOTES
Engineers & Plan Review Staff	LID Practices & Post Construction BMPs	Annual Training Workshop	Annually		Coalition Resources
Land Use Planners	Green Infrastructure in Site Design	Coalition Manual	Biannually		LID Guidance
Developers & Consultants	SWMP Post-Construction Requirements	Pre-App Meetings	As Needed		Checklist

Records of training dates, agendas, attendees, and materials are maintained per Section 4.1.2.

Integration and Review

This training integrates with construction site controls (4.2.1.4) and overall SWMP adaptive management. Content is reviewed annually and updated to reflect new techniques or permit requirements.

Minimum Performance Measure 4.2.1.7 – Evaluation of Educational Messages and Overall Program Effectiveness

***Minimum Performance Measure 4.2.1.7** – The Permittee must identify methods used to evaluate the effectiveness of the educational messages and overall education program. Methods to evaluate effectiveness of the program must be tied to a defined goal of the program and overall objective of changes in behavior and knowledge.*

Permit Requirement

The Permittee must identify methods used to evaluate the effectiveness of the educational messages and the overall education program.

Methods to evaluate effectiveness must be tied to a defined goal of the program and the overall objective of changes in behavior and knowledge.

This evaluation supports adaptive management and is documented as required under Permit Section 4.1.2.

Defined Goals of the Public Education and Outreach Program

The primary goal of Clearfield City's PEO program is to increase public awareness and knowledge of stormwater pollution issues and to promote measurable changes in behavior that reduce pollutant loads to the MS4 and Great Salt Lake.

Specific Program Goals:

- Increase resident and business knowledge of illicit discharge prohibitions and proper waste management.
- Encourage adoption of key behaviors (e.g., proper pet waste disposal, reduced fertilizer use, regular parking lot sweeping, on-site infiltration).
- Support overall water quality protection by reducing E. coli, nutrients, sediment, oils, and salts entering receiving waters.
- Achieve broad community participation in stewardship activities.

Methods to Evaluate Effectiveness

The City uses a combination of quantitative and qualitative methods tied directly to the goals above. Evaluation occurs annually as part of the SWMP effectiveness assessment (Section 4.1.2).

Primary Evaluation Methods:

- Pre- and Post-Activity Surveys / Knowledge Assessments

- Short surveys distributed at workshops, events, or via online links to measure increases in knowledge (e.g., "Do you know the correct way to dispose of pet waste?").
- Tied to Goal: Changes in knowledge.

Behavior Change Indicators

- Track observable or self-reported behaviors (e.g., number of residents reporting use of rain gardens, businesses adopting sweeping programs, or reduced complaints about illicit discharges).
- Monitor indirect indicators such as increased calls to the stormwater hotline for reporting issues (indicating awareness) or participation in clean-up events.

Output and Reach Metrics

- Number of people reached, materials distributed, social media impressions, website visits, and event attendance.
- Correlated with trends in water quality data or IDDE investigations where possible.

Qualitative Feedback

- Participant feedback forms, stakeholder interviews, and observations from municipal staff during site visits or inspections.
- Review of program adjustments based on feedback.

Long-Term Trend Analysis

- Compare annual data over multiple years to assess sustained improvements in knowledge and behavior.

Example Evaluation Documentation Table

PROGRAM GOAL	EVAL. METHOD	FREQ.	DATA SOURCE	TARGET
Increase Knowledge of Illicit Discharges	Pre/Post Surveys at events and Online	Annually	Survey Responses	>20% improvement in correct answers
Promote Proper Pet Waste Management	Self Reported	Annually	Survey + Number of Reports	Increased reports
Encourage On-Site Infiltration	Tracking of Rain Garden Installations	Annually	Permit Records + Workshop	Increase in BMPs installed
Overall Program Effectiveness	Combined Reach – Feedback – Water Quality Trends	Annual Review	Annual Report Compilation	Documented Behavior Changes and Program Adjustments

Results from these evaluations are used to refine messages, target audiences, and delivery methods in subsequent years.

Integration and Annual Review

Evaluation findings are incorporated into the annual SWMP assessment (Section 4.1.2) and the Annual Report. The program is adaptively managed based on results to maximize behavior change and water quality benefits.

Minimum Performance Measure 4.2.1.8 – Rationale for Chosen BMPs (Activities/Products) in the Public Education and Outreach Program

Minimum Performance Measure 4.2.1.8 *– The Permittee must include written documentation or rationale as to why particular BMPs (Activities/Products) were chosen for its public education and outreach program. Note: Each activity or product has associated Best Management Practices (BMPs) that can be referenced as needed and are listed in Appendix I.*

Permit Requirement

The Permittee must include **written documentation or rationale** as to why particular BMPs (Activities/Products) were chosen for its public education and outreach program.

This documentation supports the overall PEO program and is maintained under Section 4.1.2.

Rationale for Selection of PEO BMPs / Activities / Products

Clearfield City selects outreach activities and products based on the following criteria:

- Relevance to local water quality issues — Focus on high-priority pollutants associated with the city (E. coli from pet waste and nutrients from landscaping).
- Target audience needs — Tailored to residents, businesses, institutions, developers, and municipal staff.
- Cost-effectiveness and feasibility — Leveraging resources from the Davis County Stormwater Coalition to maximize reach with limited staff.
- Proven or promising practices — Activities shown to raise awareness and drive behavior change in similar Utah communities.
- Measurable outcomes — Activities that support evaluation methods in 4.2.1.7 (reach, knowledge, and behavior change).
- Integration with other MCMs — Strong linkage to IDDE, construction, post-construction, and municipal operations programs.

Selected BMPs / Activities / Products and Rationale

AUDIENCE/MEASURE	SELECTED ACTIVITY/PRODUCT	RATIONALE FOR SELECTION
General Public (4.2.1.1 & 4.2.1.2)	Brochures, utility bill inserts, social media campaigns, storm drain stenciling	Cost-effective, high reach to households; directly targets common behaviors (pet waste, car washing, lawn care); easy to track distribution and impressions.
Businesses & Institutions (4.2.1.3)	Targeted fact sheets, workshops, compliance assistance letters	| Businesses generate significant pollutants (parking lots, dumpsters, de-icing); direct engagement improves compliance and reduces enforcement needs
Engineers, Contractors, Developers (4.2.1.4)	Pre-construction meetings, SWPPP checklists, Guidance Manual	Ensures early integration of erosion control and SWPPPs; reduces sediment and other construction-related impacts at the source
Municipal Facility Employees (4.2.1.5)	Annual training sessions, tailgate meetings, online modules	Internal staff control key operations (sweeping, salt use, material storage); training prevents illicit discharges from City facilities and sets an example for the community.
MS4 Staff & Planners (4.2.1.6)	LID/Green Infrastructure workshops and Coalition resources	Promotes long-term water quality protection through better site design; aligns with post-construction requirements and reduces future retrofit costs.
All Audiences	Partnership with Davis County Stormwater Coalition	Provides high-quality shared materials, broader reach, and consistent messaging across the watershed at reduced cost to the City

These selections emphasize a mix of passive (brochures, website) and active (workshops, training) methods to reach diverse audiences effectively while remaining practical within municipal resources.

Documentation and Adaptive Management

All chosen activities are tracked annually (see Section 4.1.2). Rationale and effectiveness are reviewed each year. If evaluation (per 4.2.1.7) shows limited behavior change, alternative or additional BMPs may be selected (e.g., expanded digital campaigns or new Coalition resources).