Prepared by:
Utah Department of Transportation
March of 2022

Certification

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

Rhonda Thiele, Stormwater Program Manager
Utah Department of Transportation

Date: 3/2/22

SWMP Modifications

Table 1-1: Modifications to UDOT's Stormwater Management Program (SWMP)

Mod. No.	Brief Description	Approved By	Date
01	IDDE section detail added—Section 5	Rhonda Thiele	5/1/20
02	Added IDDE Hotline—Section 4.3	Rhonda Thiele	5/1/20
03	DWS details field screening—Section 5.5	Rhonda Thiele	5/1/20
04	Constr. Section detail added—Section 6	Rhonda Thiele	5/1/20
05	LTSW section detail added—Section 7	Rhonda Thiele	5/1/20
06	Enforcement actions expanded for IDDE, Constructions and LTSW—Sections 5.4; 6.6; 7.7	Rhonda Thiele	5/1/20
07	P2GH inspection SOP update—Section 8	Rhonda Thiele	5/1/20
08	Training section detail added—Section 11	Rhonda Thiele	5/1/20
09	Addition of MS4 Location Description-- Section 1.1	Rhonda Thiele	9/30/20
10	Clarify Water Quality Priorities—Section 2.1.2	Rhonda Thiele	9/30/20
11	Added Appendix I and included relevant contracts	Rhonda Thiele	9/30/20
12	Added "Timing and Schedule" section to each BMP in Appendix E	Rhonda Thiele	9/30/20
13	Added an updated inspection schedule under section 8.2.	Rhonda Thiele	12/6/21
14	Added section 9: Industrial and High Risk Runoff Program	Rhonda Thiele	2/27/22
15	Changed section 5.5 from Dry Weather Screening to be the Priority Area Inspection section and moved Dry Weather Screening to section 5.6	Rhonda Thiele	2/27/22
15	Updated section 5.6 to include new Dry Weather Screening protocol.	Rhonda Thiele	2/28/22
16	Added Appendix G: Information Recorded in UDOT Priority Area Inspection Forms	Rhonda Thiele	2/28/22

17	Corrected link in section 7.8 to direct to the UDOT Construction Stormwater webpage.	Rhonda Thiele	2/28/22
18	Changed onsite stormwater retention figure from the 85th to 80th percentile as stated in our renewed MS4 permit.	Rhonda Thiele	3/2/22

Table of Contents

Appendices

Appendix A: Reference List
Appendix B: IDDE Reporting Standard Operating Procedures
Appendix C: Construction Site Inventory and Documentation Oversight Inspections
Appendix D: Information Recorded in UDOT Facility Inspection Forms
Appendix E: UDOT Best Management Practices Fact Sheets
Appendix F: Responsible Entity Identification & Accountability
Appendix G: Information Recorded in UDOT Priority Area Inspection Forms

1. Stormwater Management Program

1.1. Introduction

This Stormwater Management Program (SWMP) was prepared by the Utah Department of Transportation (UDOT) to describe procedures and practices to reduce or eliminate the discharge of pollutants to Waters of the State to the maximum extent practicable (MEP).

This SWMP was prepared in accordance with UDOT's Municipal Separate Storm Sewer System (MS4) Permit No. UTS000003 to help achieve the goals outlined in the Code of Federal Regulations (CFR) Title 40 part 122, Federal Clean Water Act Section 402 and Utah Administrative Code R317-8. As a statewide organization, UDOT's MS4 covers much of the state of Utah and includes all UDOT owned and maintained roads, the associated right of way, and all UDOT owned or operated facilities.

1.2. Description

Control measures and best management practices (BMPs) described in this SWMP are designed to limit the discharge of pollutants to UDOT's MS4; which includes all roadway drainage systems, maintenance facilities and associated right-of-ways within UDOT's jurisdiction statewide.

Minimum Control Measures

The SWMP addresses the six minimum control measures established by the EPA through the State of Utah Division of Water Quality. A separate section is dedicated to each control measure listed below, outlining BMPs that describe specific activities, procedures, training and other actions that help to prevent and reduce pollution to Waters of the State.

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination (IDDE)
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development and redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

Additional Measures

- Industrial and High Risk Runoff
- Wet Weather Monitoring

1.3. SWMP Review and Modification

An annual review of this SWMP will be conducted in conjunction with the Annual Stormwater Report. Any modifications will be submitted to the Utah Division of Water Quality (DWQ) in accordance with the Permit.

1.4. SWMP Responsibility and Resources

The SWMP affects all UDOT Regions and most divisions; however, the level of impact and responsibility varies. The Asset, Maintenance, and Facilities Management Division undertakes stewardship and management responsibilities for the stormwater program. There is a central UDOT stormwater team that includes the Stormwater Program Manager and Stormwater Specialists who work at the central Complex as well as regionally located Region Stormwater Coordinators (RSCs) who work to coordinate stormwater compliance efforts within each UDOT Region.

1.4.1. Oversight and Compliance

UDOT's organizational structure helps to ensure that the MS4 Permit requirements and the SWMP activities are implemented consistently statewide. Region management positions are responsible for day-to-day overall operations, whereas functional program managers oversee specific program areas. The SWMP is unique in that it must adapt to changes in technology, regulations, and requirements, and it operationally relies on UDOT staff oversight, inspection and enforcement to ensure Permit compliance.

Figure 1-1 shows the map of the UDOT Regions and Figure 1-2 and Figure 1-3 illustrates the UDOT Organizational chart and UDOT leadership staff with stormwater program responsibilities.

1.4.2. Stormwater Coordination

Figure 1-4 shows how various UDOT divisions and groups collaborate and manage the statewide stormwater program. The Technology and Innovation Group at the UDOT Central Office provides project support and assistance to Regions. Regions are responsible for design, construction and maintenance of individual projects. Staff from the Central Technology and Innovation Group coordinate the MS4 stormwater program and communicate with the Region Stormwater Coordinators and other groups including environmental, hydraulics, design, construction and maintenance on stormwater issues.

Each group and division is responsible for the following stormwater tasks according to their core activities:

- Developing tools (e.g., specifications, inspection forms, estimating methods, etc.) for incorporating stormwater requirements into activities.
- Developing manuals of instruction for using stormwater tools and educating staff and contractors on stormwater responsibilities, requirements, and activities.
- Developing and conducting training classes in support of manuals developed for stormwater quality.
- Assist Regions and other divisions and groups on stormwater issues.

1.4.3. SWMP Implementation

The following sections identify the roles and responsibilities of UDOT divisions in coordinating and executing stormwater BMPs.

1.4.3.1. Role of Stormwater Program Manager

The UDOT Stormwater Program Manager provides statewide guidance on MS4 Permit compliance, regulatory coordination, SWMP revisions, BMP evaluation, Region coordination, stormwater monitoring, program evaluation and training.

The roles of the Stormwater Program Manager include:

- **Management:** Manage the overall stormwater program as well as stormwater personnel, including Region Stormwater Coordinators and Stormwater Specialists.
- **Permit Compliance Oversight:** Ensure consistent SWMP implementation, and MS4 Permit compliance by UDOT Regions and UDOT groups and divisions.
- **Regulatory Coordination:** Coordinate overall Permit compliance with DWQ and assist the Regions in coordinating specific stormwater compliance matters with DWQ.
- **Updating the SWMP:** Coordinate revisions and annual updates to the SWMP in accordance with the MS4 Permit.

- **Evaluation of Treatment BMPs:** Coordinate the evaluation of Treatment BMPs considered or identified for inclusion in the SWMP to manage the quality of discharges from stormwater drainage systems associated with UDOT's facilities. The process for evaluation and approval of BMPs is discussed in more detail in Section 7. The SWMP staff also oversees the evaluation of new stormwater quality management techniques, products and designs.
- **Coordination with UDOT Regions, Groups and Divisions:** Provide guidance and direction regarding MS4 Permit compliance. This includes providing training on Permit requirements, SWMP implementation, stormwater BMPs, compliance schedules, reporting formats, legal authorities, budgeting assistance and other information needed to effectively implement the MS4 Permit and SWMP requirements.
- **Monitoring & Screening:** Manage wet weather monitoring and provide assistance to regions for dry weather screening to comply with the Permit requirements.
- **Program Evaluation:** Evaluate the stormwater program elements for Permit compliance and develop program improvements. Assess the effectiveness of SWMP implementation, through managing program evaluation tasks.
- **Reporting:** Coordinate the preparation of the Annual Report and submit the report to DWQ.
- **Training:** Provide and recommend the necessary training for current and new employees on MS4 Permit compliance.
- **Public Education and Outreach:** Manage the public education and outreach efforts for improving stormwater quality.
- **Stormwater Resources:** Ensure adequacy of stormwater resources for each fiscal year; assist with prioritizing and evaluating stormwater resources, activities, and operations.

1.4.3.2. Role of Region Stormwater Coordinator

Region Stormwater Coordinator (RSC) - Manage stormwater permitting and compliance throughout their respective Regions. Stormwater Coordinators work with Region design, construction, maintenance and permitting staff to ensure compliance with UDOT's MS4 Permit. Coordinators are responsible for compiling MS4 annual reporting information for inclusion in the Annual Report.

1.4.3.3. Role of Pre-Construction Division

The role of the Preconstruction Division includes providing direction to the Region Preconstruction staff on the implementation of water quality management practices associated with design activities. Key UDOT Preconstruction Division positions and responsibilities include:

- **Engineer for Preconstruction -** Responsible for the overall design program, policies, and procedures on a statewide basis.
- **Region Preconstruction Engineers** - Responsible for the implementation of the policies, procedures, and personnel of the Preconstruction Division within their respective regions. This includes ensuring compliance with all applicable Permits required for projects to be implemented by the Preconstruction Division.
- **Region Project Managers** – Responsible for managing UDOT projects and leading the project team through concept development, design, advertisement and construction. During project design, the Project Manager works collaboratively with other professionals (Structures, Hydraulics, Landscape Architect, Geotechnical, Environmental, etc.) to assure that projects meet UDOT standards**.**
- **Region Design Team Leader** – Responsible for project design documents, specifications and cost estimates which include temporary and permanent water quality BMPs when applicable.
- **Region Environmental Manager** - Responsible for ensuring environmental documents and commitments are provided for every project.
- **Region Landscape Architect (LA)** – Jointly responsible with the Region Stormwater Coordinator for determining whether a SWPPP is required during construction. Supports UDOT staff on drafting SWPPPs for in-house construction projects.

1.4.3.4. Role of Construction Division

The role of the Central Construction Division includes providing direction to the Region Construction on the implementation of water quality management practices associated with Construction activities.
The key UDOT Construction Division positions responsible for implementing stormwater are as follows:

- **State Construction Engineer** - Responsible for all construction contracts and updating, revising, and maintaining construction policies and procedures, specifications and standard drawings, manuals of instruction, and training programs. This includes implementation of elements of the SWMP relevant to construction activities.
- **Region Resident Engineers (RE)** – Responsible for administering Region construction contracts and ensuring that stormwater BMPs are implemented, inspected, and maintained on construction sites as specified in the approved Stormwater Pollution Prevention Plan (SWPPP). The RE reviews proposed modifications to the project SWPPP and, when necessary, notifies the Contractor of any required changes prior to approval. The RE is responsible for ensuring the SWPPP, along with the Notice of Intent (NOI), is filed with the Utah Division of Water Quality (DWQ) through the online EPA Central Data Exchange (CDX) database. The RE makes decisions regarding the acceptance of materials furnished and work performed. The RE also ensures the contractor personnel responsible for implementation of stormwater management measures are properly trained and have received Environmental Control Supervisor (ECS) certification.
- **Environmental Control Supervisor (ECS) –** A certified person on the construction crew responsible for environmental issues during project construction. This includes SWPPP compliance and inspections of temporary and permanent BMPs for erosion and sediment control.

1.4.3.5. Role of Permitting

The role of the Permitting Section includes providing support to Regions on Encroachment Permits and Agreements. Key positions within the Statewide Permitting are:

- **Permit Program Manager** is responsible for statewide policies and procedures for encroachment permits.

- **Region Permits Officer** coordinates with Permit applicants throughout the permitting process: submittal, review and approval. The Region Permits Officer also coordinates with other UDOT functional units to ensure the proposed activity conforms to policies and standards including stormwater Permit compliance.
- **Region Permits Inspector** is responsible for providing quality assurance and ensuring that the Permittee implements and maintains stormwater BMPs and may revoke an Encroachment Permit if the Permittee does not comply with Permit conditions.

1.4.3.6. Role of Traffic & Safety

The role of the Central Safety and Risk Management Section includes developing standard procedures and processes related to public safety and UDOT activities. Key positions within the Statewide Permitting are:

- **Central UDOT Risk and Safety Manager -** Responsible for developing safety procedures and processes for UDOT employees and contractors. The Risk and Safety Manager is also responsible for helping UDOT Regions manage emergency spills and illicit discharges on UDOT roadways and rights of way.
- **Region Safety and Risk Managers** - Responsible for implementing safety and risk management procedures for accidents and spills on UDOT roadways and right of way (ROW).

1.4.3.7. Role of Employee Development

The role of the Learning and Development Section includes developing training to ensure that UDOT staff is adequately trained for all job descriptions. Key positions within the Learning and Development Section are:

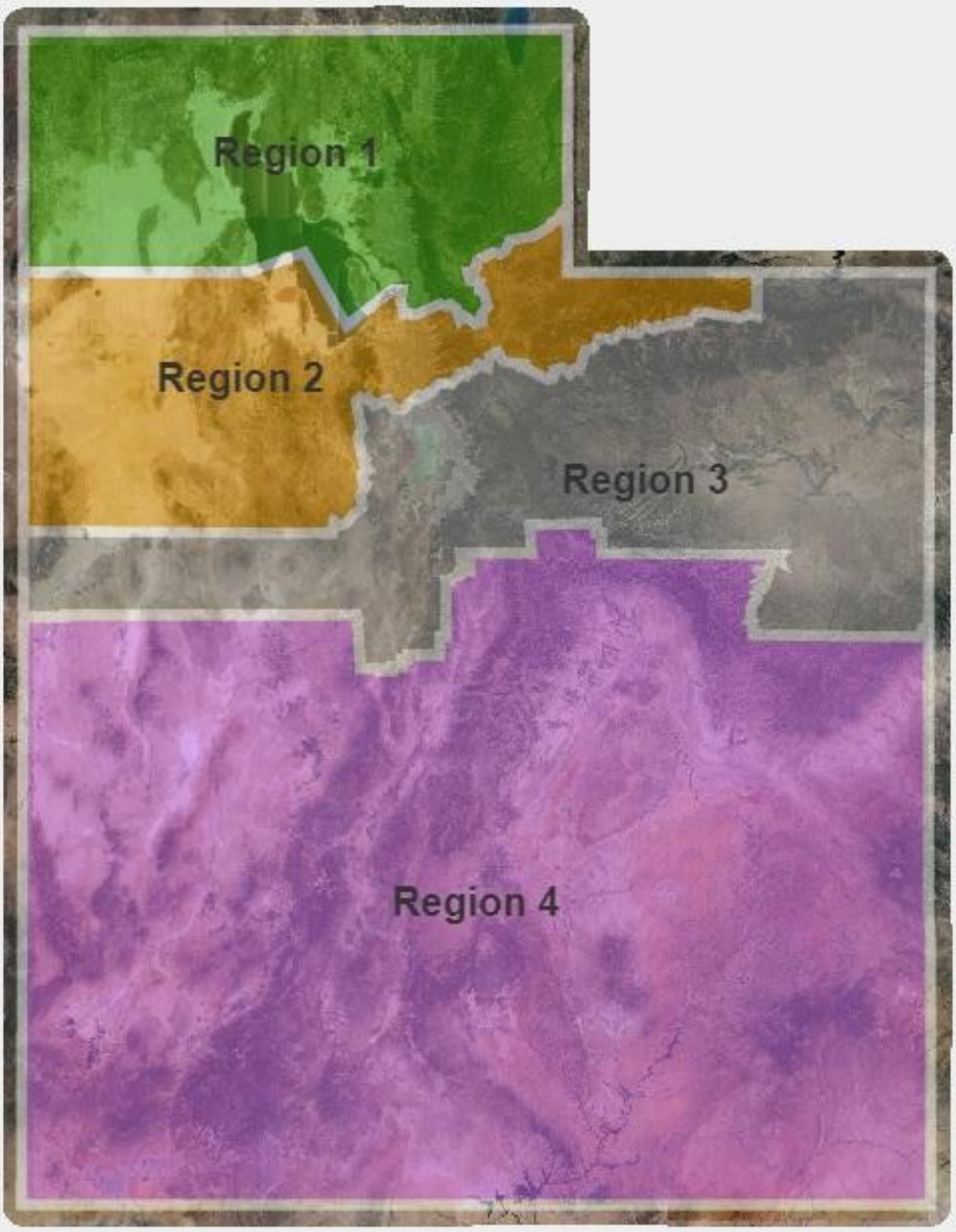
- **Chief Learning Officer –** Responsible for all training content on the UDOT U Learning Portal. The Learning Portal allows users to attend online training modules, register for training courses and view their training record. This provides a single resource for employee learning, development and documentation of training received.

1.4.3.8. Role of Asset, Maintenance, and Facilities Management

The Central Maintenance Division coordinates training of Maintenance Program staff and facilities implementation in the Regions on water quality management practices associated with Maintenance training activities and facilities. Key UDOT Maintenance Planning Division positions and responsibilities include:

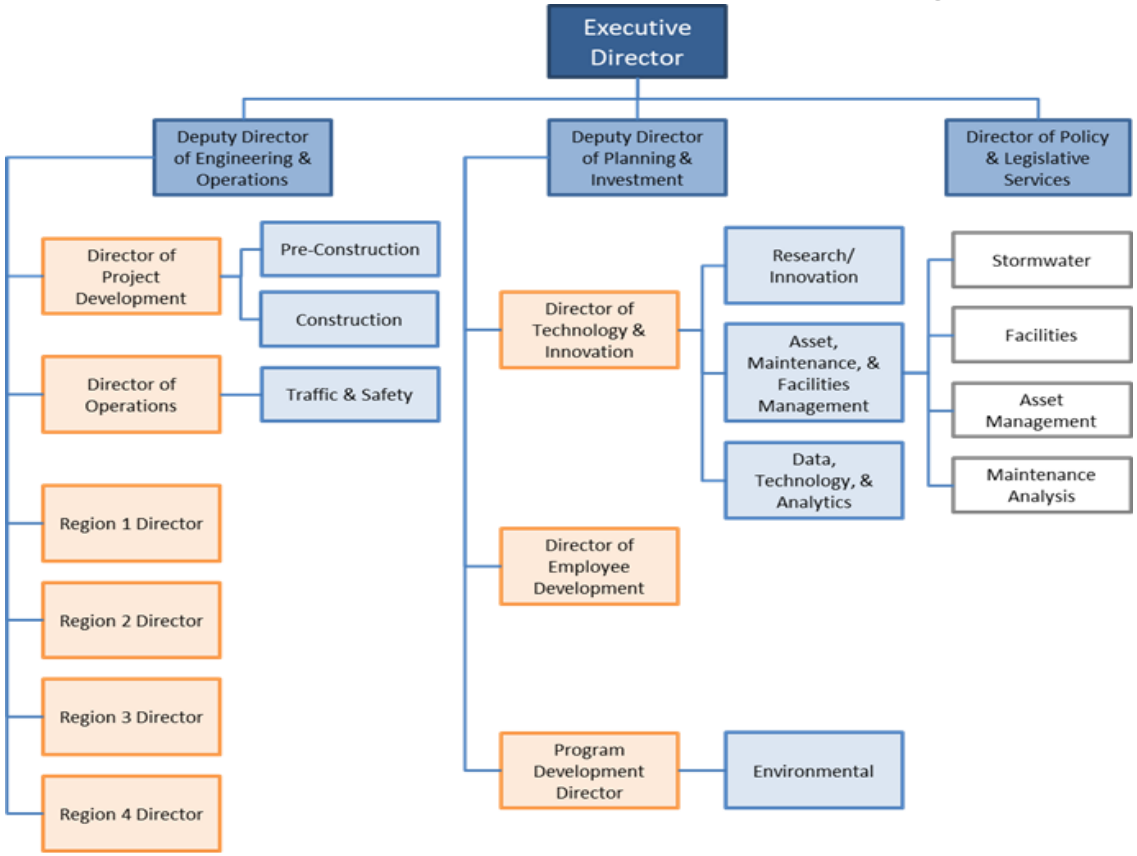
- **Director of Maintenance** - Responsible for statewide planning, policies and procedures and training for Region Maintenance staff and provides direction to Region Maintenance programs on water quality management practices and procedures outlined in the SWMP. Also, the Director of Maintenance provides information for the MS4 Annual Report.
- **Region District Engineers** - Responsible for implementing policies and procedures in their area of Region responsibility, overseeing the Maintenance Management Quality Assurance (MMQA+) program, and providing guidance and direction to Region Maintenance Area Supervisors. In addition, District Engineers are responsible for ensuring Stormwater Pollution Prevention Plans (SWPPPs) are in place at all maintenance stations and Region equipment shops
- **Region Maintenance Area Supervisors** – Manage maintenance planning at Regions and provide direction to Maintenance Station Supervisors in their areas of jurisdiction.
- **Region Maintenance Station Supervisors -** Responsible for managing all maintenance responsibilities for their respective maintenance stations. They ensure that SWPPP requirements are being met and are responsible for documenting MS4 Permit compliance activities for their specific station.

Figure 1-1: UDOT Region Map



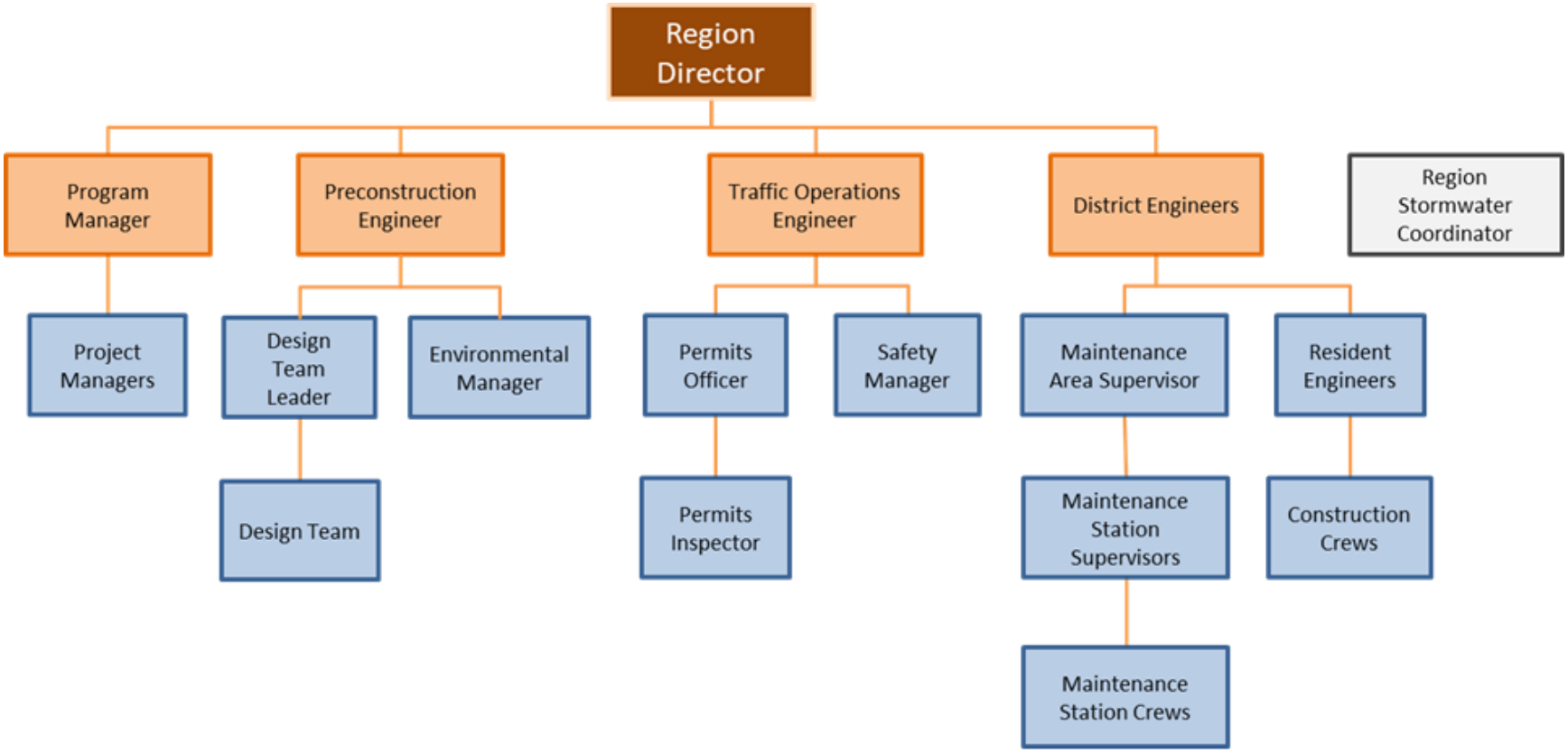
Utah Department of Transportation

Figure 1-2: Central Positions and Groups with Stormwater Program Responsibilities



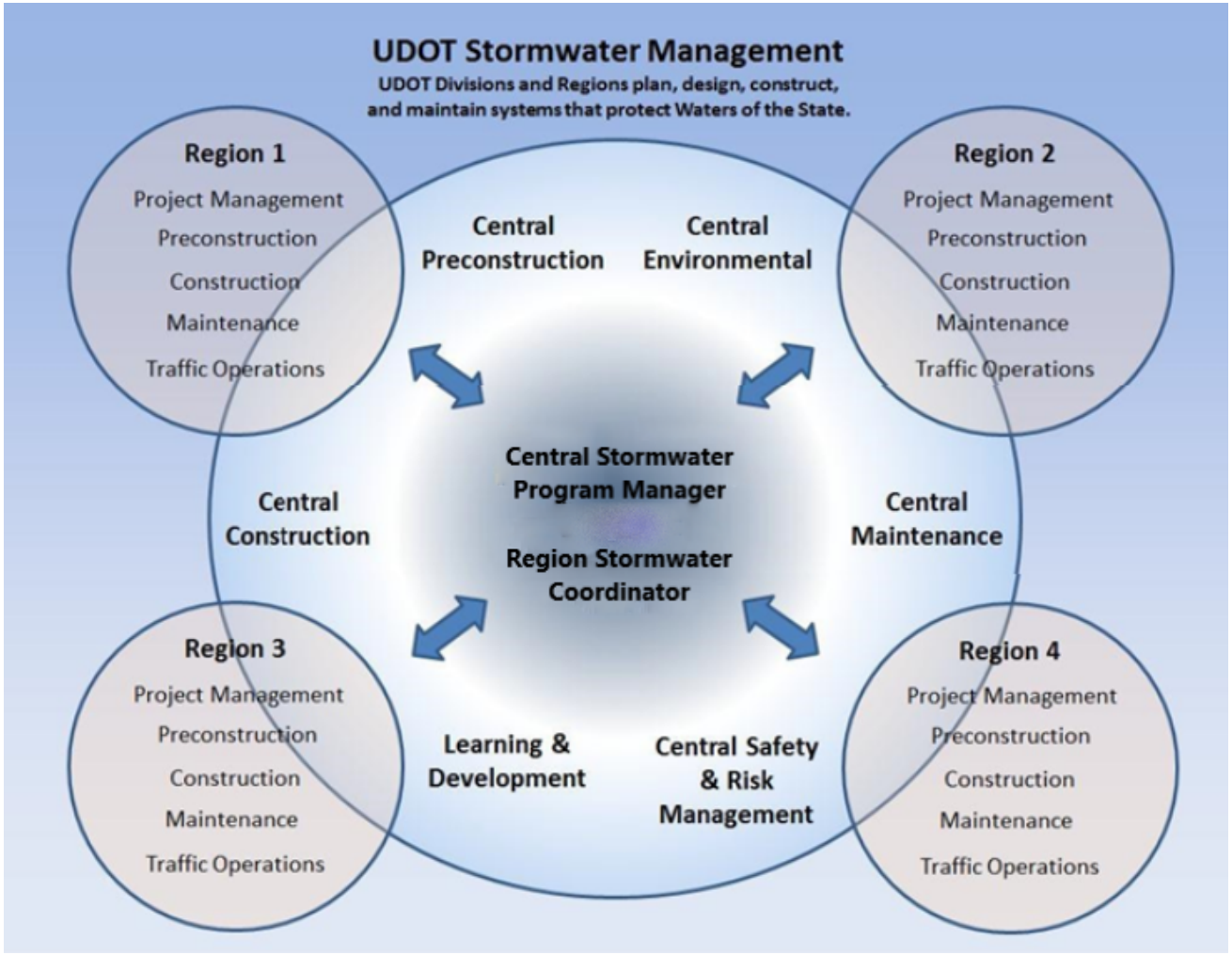
Utah Department of Transportation

Figure 1-3: Region Positions with Stormwater Program Roles and Responsibilities



Utah Department of Transportation

Figure 1-4: UDOT Stormwater Management Organizational Diagram



1.5. Legal Authority

Under the authority granted by the Utah Code 72-1-201, UDOT is responsible for the planning, design, construction and maintenance of all state transportation systems. UDOT will provide adequate finances, staff, equipment and support capabilities to implement the control measures outlined in the SWMP.

UDOT has jurisdiction over facilities constructed within state roadway rights-of-way according to Utah Code 72-7-102 and 72-7-104. UDOT Rule R930 “Detection and Elimination of Unauthorized Discharges into Drainage Systems, Enforcement of Water Laws, Sanctions for Violation, and Permitting” clarifies UDOT’s legal authority to:

- Detect, investigate, eliminate and enforce against non-stormwater discharges, including illegal dumping
- Create regulatory mechanisms (Permits, Agreements, etc.)
- Obtain compensation for connecting to and maintaining UDOT’s storm drainage system
- Recover costs and expenses for removal of connections to UDOT’s storm drainage system

2. Special Conditions

2.1 Discharges to Water Quality Impaired Waters

2.1.1 Overview

The Utah Division of Water Quality (DWQ) compiles data and conducts analyses to determine whether water quality is sufficient to meet the beneficial uses assigned to Utah's waters and summarizes the results biennially in an Integrated Report. Part 3 of the Integrated Report lists impaired waters that fail to meet water quality standards or are biologically impaired (303(d) List). The report is available at:
https://deq.utah.gov/legacy/programs/water-quality/monitoring reporting/assessment/2016-integrated-report.htm

When a lake, river or stream fails to meet water quality standards, section 303(d) of the Clean Water Act directs the state to place the waterbody on a list of "impaired" waters (referred to as the 303(d) list) and to prepare a plan to restore water quality, called a Total Maximum Daily Load study (TMDL). TMDL studies that have been approved by EPA are available at:
https://deq.utah.gov/water-quality/watershed-monitoring-program/approved-tmdls watershed-management-program

DWQ has consolidated the information found in the Integrated Report and results of TMDL studies into an interactive GIS map. The map is available at http://enviro.deq.utah.gov/

2.1.2 Controlling Pollutants of Concern

UDOT utilizes GIS data to determine if stormwater runoff from its MS4 could discharge to a 303(d) listed (impaired) water body. UDOT's MS4 Annual Report includes a list of impaired waters that receive stormwater runoff. If stormwater runoff discharges to an impaired water body, UDOT will determine if a Total Maximum Daily Load (TMDL) has been approved by EPA. If a TMDL has been approved, UDOT will comply with the requirements of the TMDL that corresponds to UDOT's contribution to the impairment.

In addition to the pollutants of concern identified by the DWQ for particular waterbodies, UDOT focuses on implementing BMPs that target pollutants that are common to high traffic roadways. These pollutants include total dissolved solids (TDS) and sediment. BMPs implemented to control these pollutants include permanent and temporary structural controls, as well as behavioral practices designed to limit pollutants.

2.2 Nitrogen and Phosphorus Reduction

2.2.1 Overview

Nitrogen and phosphorus are nutrients that support the growth of algae and aquatic plants, which provide food and habitat for fish, shellfish and other aquatic organisms. Excessive nitrogen and phosphorus cause algae to grow faster than ecosystems can handle and can impact aquatic habitats by decreasing the oxygen levels necessary for aquatic species. In addition, some types of algae are harmful to humans because they produce elevated toxins and bacterial growth that can cause illness due to contact with polluted water, tainted fish or shellfish.

2.2.2 Nitrogen and Phosphorus Reduction Strategy

UDOT does not use fertilizers when establishing or maintaining roadside vegetation.

Educational materials will be provided on UDOT's website describing common sources of nutrients and practices to reduce the discharge of nutrients to receiving waters. Below is the link to the UDOT Stormwater Public Education and Involvement webpage where several fact sheets designed for the public can be found.
https://www.udot.utah.gov/connect/public/stormwater-management-program/public-education-and-involvement/

3. Public Education and Outreach

3.1 Overview

UDOT implements a statewide public education and outreach program designed to promote behavior changes that the public can make to reduce water quality impacts associated with stormwater pollutants and illicit discharges. The program also includes education of commercial and industrial entities whose actions may impair the quality of stormwater discharges to UDOT's properties and facilities.

3.2 Public Education Strategies

3.2.1 Participation in Stormwater Organizations

UDOT partners with the Salt Lake County Stormwater Coalition, the Utah Stormwater Advisory Council, and the Utah Floodplain and Stormwater Management Association, as well as a number of local and regional stormwater coalitions across the state, to help provide education and outreach on stormwater pollutants and measures to minimize pollutant discharges. Members of the public and governmental staff who attend meetings and conferences sponsored by stormwater organizations gain valuable information on stormwater pollutants, illicit discharges and control measures that reduce the discharge of pollutants to Waters of the State.

3.2.2 Mass Media

Television media is the most effective tool in educating Utah residents statewide about stormwater pollution prevention. Professionally produced TV commercials provide educational and informational materials to residents on the topic of stormwater, common stormwater pollutants and proper disposal of waste materials. UDOT supports the Salt Lake County Stormwater Coalition in providing mass media educational materials for TV commercials and movie theater pre-feature "cinema spots".

3.2.3 Educational Materials on UDOT Web Site

Educational materials and messaging are developed for posting on UDOT's website(https://www.udot.utah.gov/connect/public/stormwater-management-program/public-education-and-involvement/) to address specific pollutants and pollutant sources that could degrade beneficial uses of receiving waters.

4. Public Involvement and Participation

4.1 Public Review of the UDOT SWMP

The current SWMP was developed in accordance with UDOT's renewed permit effective August 31, 2021.

A copy of this SWMP is available on UDOT's website for continued public review for the duration of the permit.

4.2 Adopt-A-Highway and Sponsor-A-Highway Program

The Adopt-A-Highway and Sponsor-A-Highway programs provide opportunities for volunteers to collect litter along the highways and receive recognition for their contribution to keeping the environment and highways clean. As part of these programs, the Region Adopt-A-Highway Coordinators establish partnerships with local organizations, giving individuals, community groups, businesses, and other organizations the opportunity to contribute in cleaning up Utah.

4.3 UDOT Spill Response Hotline

The public can report a spill, illegal connection, or illicit discharge using UDOT's Spill Response Hotline. This hotline allows the public to provide information on observed spills and illicit discharges that will be used by UDOT to initiate an investigation and remediate the spill. More information on IDDE Response procedures can be found in Section 5 of this document.

The hotline can be reached at: (801) 965-4037

More information on the Spill Response Hotline and reporting a spill or illicit discharge can be found on UDOT's IDDE Webpage:

https://www.udot.utah.gov/connect/public/stormwater-management-program/illicit discharge-detection/

IDDE information for UDOT staff and contracted staff, including SOPs, links to digital forms, and more information can be found at UDOT's Contractor & Employee Stormwater Resources webpage:
https://www.udot.utah.gov/connect/business/contractor-stormwater-resources

5. Illicit Discharge Detection and Elimination

5.1 Legal Authority

Utah Code 72-7-102, 72-7-104, and 72-7-208 grants UDOT adequate authority to detect, investigate, eliminate, and enforce against any non-stormwater discharges (including illegal dumping) that it identifies in its storm drainage system or within its right-of-way. Illegal connections to UDOT's storm drainage system are considered unauthorized encroachments. UDOT Rule R930 "Detection and Elimination of Unauthorized Discharges into Drainage Systems, Enforcement of Water Laws, Sanctions for Violation, and Permitting" further clarifies UDOT's legal authority.

5.2 Defining Illicit Discharges, Illegal Connections, and Illegal Dumping

An illicit discharge is any discharge to UDOT's MS4 that is not composed entirely of stormwater, with some allowable exceptions listed in UTS000003 Part 1.2.2.2. Illegal connections to UDOT's stormwater system are prohibited as they may carry unauthorized drainage, wastewater, pollutants, or other illicit discharges. Illegal connections may be intentional or may be unknown to the property owner. Resolution may include elimination of the connection, or proper permitting.

Illegal dumping is an illicit discharge characterized by one or multiple occasions of intentional dumping of trash, debris, or other wastes on state highways, facilities, or in receiving waters. Such activity is prohibited by state and local laws. Protocols for reporting illicit discharges and illegal connections are described in more detail below.

5.3 IDDE Reporting Protocol

Information on the difference between a spill, illicit discharge, and illegal connection is included on UDOT's IDDE Webpage: https://www.udot.utah.gov/connect/public/stormwater-management-program/illicit discharge-detection/

This information helps the public, UDOT staff, and contractors identify incidents that should be reported. The website also includes the proper reporting protocol, including calling 9-1-1 in emergency situations, contacting the UDOT Spill Response Hotline or RSC in a non-emergency during regular business hours, or the Utah Department of Environmental Quality (DEQ) Hotline outside of normal business hours. A more detailed IDDE Reporting Standard Operating Procedure (Appendix B) was created in November 2019 and has been distributed to field technicians and contracted staff performing Dry Weather Screening functions due to the high likelihood of encountering illicit discharges, illegal connections, or illegal dumping during the course of their work. UDOT staff that frequently work in the ROW are trained to communicate any potential spills, dumping, or discharges to the RSC.

5.3.1 Recording a Spill, Discharge or Dumping Report

All incidents reported to Stormwater Staff at the Complex are recorded in the Survey123 IDDE Hotline Call Log Form (https://survey123.arcgis.com/share/a8c00ae9b011430489247f8f0357e225) and referred to the appropriate RSC for follow-up investigation. The RSC, with the help of UDOT Safety/Loss/Incident Management Team, Maintenance Staff, or other UDOT region staff document all confirmed incidents in the Survey123 IDDE Investigation Log (https://arcg.is/0yvzGz). This IDDE Investigation Log populates the spill hotspot map (https://arcg.is/09zrf8). RSCs are trained on proper spill documentation procedures as part of initial training on job responsibilities. RSCs then train other involved region staff on how to properly document all IDDE incidents.

5.4 IDDE Response and Enforcement Protocols

UTS000003 Part 4.2.3.2 requires that UDOT have a regulatory mechanism to prohibit illicit discharges into UDOT's ROW or on UDOT Property and to require removal of any such discharge. UDOT must require cessation of any illicit discharges as soon as they are detected (UTS000003, Part 4.2.3.6). In order to comply with this requirement, Utah Administrative Code R930-9-2 states:

> *"The Department has the authority to detect, investigate, eliminate, and enforce against any non-stormwater discharge (including illegal dumping) to its drainage systems and within its right-of-way. The Department also has the authority to create an effective regulatory mechanism to implement actions that meet the requirements of the Department's Utah Pollutant Discharge Elimination System ("UPDES") Municipal Separate Storm Sewer System ("MS4") Permit."*

The following sections review in more detail the enforcement procedures used to address IDDE violations.

5.4.1 Types of Violations

According to UTS000003 Part 7.22, an illicit discharge is “any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) and non-storm water discharges provided for in Permit Part 1.2.2.2.” There are three main types of activities that violate the IDDE section of UDOT’s MS4 permit:

5.4.1.1 Spills of Materials onto UDOT’s ROW or onto UDOT Property

A spill is an unintentional release of anything other than stormwater related to a single event. Common spills encountered in UDOT’s ROW include:

- Fuel released due to debris or an accident damaging the fuel tanks of a semi-truck
- Petroleum products, antifreeze, oil, or other mechanical fluids released due to a vehicle accident
- Solid or liquid materials released from a tanker or cargo truck involved in a vehicle accident (crude oil, garbage, sewage, etc.)

5.4.1.2 Dumping of Materials onto UDOT ROW or Property

Illegal dumping is the intentional release or disposal of any substance into an unapproved location. Dumping can be either a single incident or repeated occurrence. Common dumping incidents encountered in UDOT’s ROW include:

- Dump, cargo, or tanker trucks discharging any quantity of solid or liquid materials into UDOT’s ROW or onto UDOT property (rest areas, property at or nearby Port of Entry facilities, pull-outs, rural exits, wide roadway shoulders, etc.)
- Illegal disposal of trash in the ROW (littering)
- Discharging of concrete washout or other building materials into UDOT’s ROW
- Intentional disposal of paint, motor vehicle fluids, or other materials directly into storm drains

5.4.1.3 Illegal connections into UDOT’s MS4

An illegal connection is any unauthorized pipe, ditch, or other manmade structure that is physically connected to UDOT’s property or drainage system. Illegal connections found in UDOT’s ROW could include:

- Sewage, wastewater, or process water pipes connected directly into UDOT’s MS4

- Adjacent municipalities or private properties discharging stormwater into UDOT's MS4 without undergoing the proper permitting for offsite drainage

5.4.2 Responding to Violations and Timing of Enforcement

Response and enforcement actions in the IDDE program vary depending upon the type of violation. The following sections are a general guide to responding to confirmed violations of each of the types identified in 5.4.1.

5.4.2.1 Spill and Dumping Response Enforcement Procedures

Spills and dumping incidents that occur in UDOT's ROW often involve multiple state and local government organizations. Depending upon the type of substance and the nature of the incident, these parties could include: Utah Highway Patrol, local emergency response, local health departments, neighboring MS4s, and the Utah Division of Water Quality. UDOT works with these organizations to determine which party will lead any necessary clean up or enforcement actions on each incident.

In the event that UDOT is the lead on illicit discharge response and enforcement, for all incidents where the responsible party is known, that party (or their insurance) will cover all costs associated with proper cleanup and removal of the substance(s). Any spilled or discharged substance into UDOT's ROW falls under Utah Transportation Code 72-7-104. This legislation outlines the procedures for requiring that third parties remove any unauthorized object in the ROW. A spilled or discharged substance is considered an "object of any kind or character" (72-7- 104; subsection 1). "Installation" refers to any of the objects defined in (72-7-104; subsection 1) and includes any spill or illicit discharge.

Utah Transportation Code 72-7-104 states:

> *(1) If any person, firm, or corporation installs, places, constructs, alters, repairs, or maintains any approach road, driveway, pole, pipeline, conduit, sewer, ditch, culvert, outdoor advertising sign, or any other structure or object of any kind or character within the right-of-way of any highway without complying with this title, the highway authority having jurisdiction over the right-of way may:*
>
> > *(a) remove the installation from the right-of-way or require the person, firm, or corporation to remove the installation; or*
> >
> > *(b) give written notice to the person, firm, or corporation to remove the installation from the right-of-way.*

(2) Notice under Subsection (1)(b) may be served by:
(a) personal service; or
(b) (i) mailing the notice to the person, firm, or corporation by certified mail; and
(ii) posting a copy on the installation for 10 days.
(3) If the installation is not removed within 10 days after the notice is complete, the highway authority may remove the installation at the expense of the person, firm, or corporation.
(4) A highway authority may recover:
(a) the costs and expenses incurred in removing the installation, serving notice, and the costs of a lawsuit if any; and
(b) $10 for each day the installation remained within the right-of-way after notice was complete.
(5) (a) If the person, firm, or corporation disputes or denies the existence, placement, construction, or maintenance of the installation, or refuses to remove or permits removal, the highway authority may bring an action to abate the installation as a public nuisance.
(b) If the highway authority is granted a judgment, the highway authority may recover the costs of having the public nuisance abated as provided in Subsection (4).
(6) The department, its agents, or employees, if acting in good faith, incur no liability for causing removal of an installation within a right-of-way of a highway as provided in this section.
(7) The actions of the department under this section are not subject to the provisions of Title 63G, Chapter 4, Administrative Procedures Act.

In the event that no culpable party can be found, UDOT will still coordinate with local and state authorities on cleanup procedures.

5.4.2.2 Illegal Connection Response Enforcement Procedures
In order to prevent illegal connections, UDOT requires that any entity wishing to tie into its MS4 follow the permitting procedures for Offsite Drainage Connections (UDOT 08A-06, found at

https://www.udot.utah.gov/connect/business/permits/encroachment-permits/). UDOT has the legal authority to require these permits through Utah Administrative Code R930-9-4. Any outside entity must file the proper permit and enter into an agreement with UDOT. Entities proposing to tie in must abide by certain conditions, outlined in Section C of UDOT 08A-06. This section includes limitations on the quantity of water UDOT can accept as well as the requirement that all pollutants and contaminants must be removed before water from an offsite source enters into UDOT's MS4.

The violation of any conditions within this agreement, including the discharge of water containing pollutants or contaminants, can result in permit cancellation. The following statement on cancellation is included in all drainage agreements.

> *(5)* ***CANCELLATION OF PERMIT:*** *Any failure on the part of Permittee to comply with the terms and conditions set forth in the Permit or this Agreement may result in cancellation of the Permit. Failure of the Permittee to pay any sum of money for costs incurred by the Department in association with inspection, reconstruction, repair, or maintenance of the drainage system may also result in cancellation of the Permit. Non-compliance with either the Permit or Agreement may result in the Department removing the drainage system and restoring the highway and Right of Way at the sole expense of the Permittee. The Department will notify the Permittee in writing prior to any cancellation, setting forth the violations, and will provide the Permittee a reasonable time to correct the violations to the satisfaction of the Department. The Department may order the Permittee to remove its drainage system if the violations are not corrected.*

In the event that an unpermitted connection into UDOT's MS4 is discovered, steps will be taken to trace discharges back to their source, responsible parties notified of the unauthorized connection, and connections capped or removed following the procedures in Utah Administrative Code R930-9-5. Entities found in violation will have 10 days to remove the connection or UDOT may remove the connection at the expense of the responsible parties.

5.4.3 Escalation Guide for Repeated Noncompliance

In the event that an offending party fails to respond to the actions outlined above, or has recurring or particularly egregious violations, UDOT has the right to take legal action. UDOT may elect to pursue legal action to ensure corrective actions are taken to resolve an illicit discharge or illegal connection and to recover appropriate costs.

5.5 Priority Area Inspections

UDOT's MS4 permit, part 4.2.3.3.1, requires that UDOT locate and list priority areas likely to have illicit discharges such as the following:

- 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 with a history of sewer overflows or cross-connections; and,
- Areas upstream of sensitive waterbodies

UDOT has 29 Park and Rides, 29 Rest Areas, and 6 Welcome Centers. Most of these facilities are older, in remote areas susceptible to illegal dumping, and served by onsite sewage disposal systems. Each facility is inspected annually by the RSC or other stormwater staff using a Survey123 form to record results and to upload photos. The priority area inspections are tracked and documented using a Survey123 form that can be accessed by desktop or mobile devices. This form feeds an interactive GIS Dashboard that can be viewed here: https://uplan.maps.arcgis.com/apps/dashboards/d700a006764848049bc6f15dca8610f7. Appendix G details the information that is recorded using the UDOT Priority Area Inspection Form.

5.6 Dry Weather Screening

Dry weather screening at stormwater outfalls is part of UDOT's IDDE Plan to identify potential illicit discharges and locate illegal connections. The objective of this activity is to eliminate sources of non-stormwater discharges to the MS4 and Waters of the State.

Dry weather screening involves identifying stormwater outfall locations, performing field investigations during periods of dry weather, water quality testing procedures, water sampling procedures, and assessing the potential for illicit discharges. Observations of non-stormwater flow at outfalls can reveal information about the pollutant type and possible source for locating the connection and eliminating the discharge. SOPs and BMPs for dry weather screening are described in more detail in the UDOT "Dry Weather Screening Plan" (found at: https://www.udot.utah.gov/connect/business/contractor stormwater-resources/).

Dry weather screening will be performed on all UDOT "priority" stormwater outfalls at least twice during the 5-year permit term. "Priority" outfalls are based on the following criteria:

- Any outfall within a 1-mile radius of any UDOT maintenance facility or any outfall that has a known direct connection to a UDOT facility;
- Any outfall that discharges into a waterbody with an approved TMDL, WLA, or other established pollutant limit; and
- Any outfall identified as flowing or ponded in previous dry weather screening that was not traced back to groundwater, natural water, or an agricultural source.

5.6.1 Protocol for Field Screening Outfalls

UDOT utilizes a contractor to perform all field screening of priority outfalls for dry weather flows. This contractor uses a Survey123 form to record field screening results and wireless hotspots to upload the screening results in real time. Field screening protocols are described in more detail in the "Dry Weather Screening Plan" (found at: https://www.udot.utah.gov/connect/business/contractor stormwater-resources/) and include: safety guidelines, detailed descriptions of screening parameters, water quality testing procedures, and water sampling procedures.

5.6.2 Follow-Up to Field Screening

The purpose of dry weather screening is to not only identify, but also to remove any illicit discharges or illegal connections into UDOT's stormwater system. Therefore, all flowing outfalls require follow-up. Because of UDOT's statewide jurisdiction, it is necessary for the stormwater team to perform desktop follow-up in order to coordinate efforts before performing in-field follow-up. Desktop follow-up activities can include:

- Using maps to determine if an outfall could be connected to a UDOT facility or if it is discharging into a waterbody with an approved TMDL, WLA, or other established pollutant limit
- Reviewing previous inspection forms to determine previous inspection results
- Sending a follow-up facility inspection form that requires photo documentation showing all proper BMPs are in place at those facilities
- Determining priority for follow-up based on the field test parameters and observations.

RSCs may perform follow-up visits themselves or coordinate with their regional maintenance staff. Each RSC keeps a spreadsheet with all outfalls to record all follow-up activities. These spreadsheets are kept in the Stormwater Google Shared Drive where they are accessible to all stormwater staff. For more information on follow-up activities, see UDOT's "Dry Weather Screening Plan".

5.6.3 Corrective Actions

When the source of an illicit discharge or illegal connection is located through dry weather screening follow-up, the discharge or connection must be removed. Corrective actions that result from dry weather screening follow the enforcement action procedures outlined in section 5.4 of this document.

5.7 Mapping

UDOT maintains a storm sewer system map in the UPlan Map Center. The map, titled "Statewide Stormwater Drainage Features", includes the location of stormwater outfalls, the name of receiving waters, and location of associated stormwater conveyance structures. This map is used to locate outfalls for dry weather screening. Data from the Survey123 Dry Weather Screening form will be linked to the outfall location and displayed in a map in the UPlan Map Center database.

5.8 IDDE Training

Training procedures for IDDE and all other minimum control measures are described in *Section 11: Training*

6. Construction Site Stormwater Runoff Control

6.1 Overview

This section describes how UDOT addresses construction activities to reduce the discharge of pollutants from construction sites and describes how UDOT will meet the requirements of the UDOT MS4 Permit No. UTS000003. Projects that are located within the jurisdiction of federal or tribal lands are subject to the requirements of the U.S. Environmental Protection Agency's (U.S. EPA) 2022 National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities.

6.2 Construction Project Permit Coverage

All UDOT construction projects are covered by at least one of the permits described below.

1. For projects that disturb 1 or more acres of soil (including less than an acre if it is part of a common plan of development or sale that is over an acre), the UPDES General Permit for Discharges from Construction Activities (Permit Number UTRC00000) (Statewide CGP) applies. Construction activity subject to this permit includes earth or land disturbing activities, such as clearing, grading, site preparation (e.g., excavating, cutting, and filling), soil compaction, movement, and stockpiling of top soils.

2. The U.S. EPA CGP is applicable when construction projects cross into federal or Tribal land under the following conditions:
    a. Construction project will disturb one or more acres of land, or will disturb less than one acre of land but is part of a common plan of development or sale that will ultimately disturb one or more acres of land.

Project permits include requirements for permanent structural BMP installation and maintenance, natural buffers to streams, discharge controls, restrictions on chemical treatment, and water quality requirements.

6.3 Construction Site Runoff Management

UDOT hires contractors to perform highway construction work. UDOT's contract Standard Specifications Section 01355 requires the contractor to manage its work activities in a way that reduces the discharge of pollutants to surface waters, groundwater, and MS4s. UDOT's current Standard Specifications can be found here: https://www.udot.utah.gov/connect/business/standards/

These Standard Specifications have been amended through Supplemental Specifications to include more detailed information on stormwater requirements.

A link to all UDOT Standard Specifications (including the 01355) is included in the bid package for all projects. After a project has been awarded, a link to all UDOT Standard Specifications is included in the table of contents in the project contract of all UDOT construction projects.

6.4 Administration Activities

Administrative activities related to construction stormwater management address both technical issues and requirements specific to UDOT's MS4 Permit and the Statewide CGP. These administrative activities are described below.

6.4.1 Pre-Construction Activities

Activities prior to beginning construction may include:

- Before the geometry meeting, the design team must provide any information to the Landscape Architect (LA) or assigned Environmental staff needed to complete the water resources memo which includes Clean Water Act Section 404 and 401 permitting determinations, as well as calculations of earth disturbance.
- Regional Environmental staff submits the water resources memo to the design team before the beginning of the Plan in Hand (PIH) meeting.
- The design team must incorporate erosion and sediment control measures into the plan set before the beginning of the Plans, Specifications, & Estimates (PS&E) meeting, so that the RSC has the opportunity to comment on the erosion and sediment control measures.
- A draft SWPPP is completed by the design team, which is provided to the winning contractor after the contract is finalized.
- The winning contractor will finalize the provided draft SWPPP and submit it to the RE for approval and signature before any ground disturbing activities begin. The RSC will review the completed document using the developed checklist to verify that it meets the requirements of the CGP.

6.4.2 The MS4 Compliance Plan and Projects with Less than an Acre of Disturbance

UDOT has developed a tool to assist projects that disturb less than an acre of earth with documenting and enforcing the UDOT MS4 permit on construction sites. The MS4 Compliance Plan is a template which identifies all potential pollutant sources on the project site, and describes what BMP measures have been installed by the contractor to prevent illegal discharges from occurring.

It is UDOT's goal to enforce the UDOT MS4 IDDE requirements on all projects. In order to meet this goal, UDOT is utilizing the MS4 Compliance Plan on all projects that do not require compliance with the CGP. The contractor is obligated in the 01355 Supplemental Specifications to complete an MS4 Compliance Plan, and to install and maintain BMPs on the project.

The design team and RSCs are responsible for identifying the potential pollutants onsite and providing the draft MS4 Compliance Plan to the awarded contractor after contract documents are finalized.

The contractor is responsible to identify any additional BMPs that will be used to prevent illegal discharges from the site, and to submit the completed template to the RE before any ground disturbing activity begins. The RSC and RE must verify that the plan is sufficient to prevent discharges onsite before the project begins.

UDOT has developed a SOP to describe the procedure for preparing and reviewing a MS4 Compliance Plan as well as the template for the MS4 Compliance Plan. It can be found on the UDOT Construction and Long-Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.4.3 Submittal, Review and Authorization of SWPPPs

The Stormwater Pollution Prevention Plan (SWPPP) is an implementation plan for addressing the temporary impacts of construction activities on stormwater runoff. The SWPPP contains project-specific information related to how the project will be constructed, and a description of the erosion and sediment control BMPs to be deployed at the project site.

The procedure for developing and reviewing the SWPPP is as follows:

- The water resources memo or Environmental Document is used to confirm whether a project is required to comply with the CGP.
- Assigned UDOT design staff is responsible for compiling the information necessary to complete the draft SWPPP, and providing it to the RE as part of the bid package.
- The RE is responsible to provide the draft SWPPP to the contractor when the contract is awarded. The contractor must complete the portions they are responsible for, and return the completed draft SWPPP to the RE before any ground disturbing activities begin.
- The RSC reviews the submitted SWPPP for compliance with the CGP, and for completeness.

- Once the SWPPP has been reviewed and approved, the contractor and RE must sign the certification page of the document.

UDOT has developed Design and Pre-Construction Phase SOPs that detail the specific procedures for the development, review, and certification of the SWPPP. They can be found on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.4.4 SWPPP Modifications during Construction

During construction, changes in the site conditions may occur that affect the ability of the contractor to implement the SWPPP as initially authorized, or the ability of the previously authorized SWPPP to meet the objectives for onsite controls. The contractor submits proposed SWPPP modifications to the RE for review. The RE will review the contractor's proposed modification for completeness and conformance with the revised conditions and give approval to the contractor if the modification is acceptable.

Section 13 in the UDOT SWPPP template details the specific procedures and conditions which require the SWPPP to be amended during the construction phase of the project. It can be found on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.4.5 Project Completion

Once the project is complete, the contractor must notify the RE. Before releasing the contractor of any further obligations, the RE must do the following:

- Verify that all required stabilization measures have been installed and vegetation cover requirements have been met.
- Verify that all earth-disturbing activities and construction support activities are complete.
- Verify that all waste, temporary erosion and sediment controls, construction materials, and pollutant generating materials are removed from the site.

Once these conditions have been met, the contractor must submit a Notice of Termination (NOT) to the DWQ within 30 days of the site completing its construction phase.

UDOT has developed a Notice of Termination SOP that details the specific procedures for project closeout and NOT submission. It can also be found on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.5 Inspections

UDOT staff and the contractor's staff jointly perform all stormwater inspections on construction sites, allowing the RE to track the timely completion of inspections and site inspection reports during all phases of construction. The Contract Standard Specifications for water pollution control requires the contractor to monitor and inspect erosion and sediment control BMPs at the job site in accordance with the Statewide CGP and UDOT MS4 permit requirements.

6.5.1 Pre-Land Disturbance Inspections

UDOT requires that all construction projects must install and inspect BMPs before land disturbing activities begin. The UDOT ECS and contractor ECS must perform the inspection together to verify that the necessary controls are in place to prevent discharges during the initial disturbance of the construction phase of the project.

Projects that disturb only a small portion of the total area of the project at any given time do not need to keep BMPs on undisturbed or stabilized areas of the project. Whenever a new area is disturbed for the first time, BMPs must be installed prior to disturbance, and a Pre-Land Disturbance Inspection must be performed.

UDOT has created a Pre-Land Disturbance Inspection form which can be found on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.5.2 Weekly Compliance Inspections

UDOT requires the contractor ECS to be responsible for inspecting the site for compliance with the Statewide CGP. UDOT ECSs are responsible for overseeing the contractor ECS inspections to ensure the proper implementation and functioning of erosion and sediment control BMPs (SWPPP, Section 10.2). Compliance inspections must be completed at least once per week and within 24 hours of any precipitation event of .5 inches or greater (01355, 3.3.D.4).

UDOT ECSs are responsible for reviewing the inspection form to ensure that the results of the inspection are accurate, as well as to prescribe corrective actions and timeframes for corrective actions to be completed. This oversight by the UDOT ECS also ensures that compliance inspections are completed in a timely manner. Periodic Construction Site Documentation Oversight Inspections performed by Region Stormwater Coordinators are an additional check to verify that weekly inspections are consistently completed (see 6.5.4 for more details).

UDOT requires that contractors use the UDOT SWPPP Inspection Form. The form can be found on the UDOT Construction and Long Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor-stormwater-resources/construction-longterm-stormwater-management/

UDOT has developed an SOP that details the specific procedures for Weekly Compliance Inspections during the construction phase of the project. This SOP can be found on the UDOT Construction and Long-Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

When completing inspections, the UDOT and contracted ECS are instructed to use the “Corrective Actions” table on the back page of the inspection form to record the specific BMP deficiencies identified and the corrective actions needed. The specific corrective actions performed as well as the date of correction are added in the “Comments” section of the form upon completion.

For sites that use Masterworks, weekly inspections can be recorded and submitted via Masterworks. Region Stormwater Coordinators can then access Masterworks to track completion of weekly inspections at these sites. For those sites that do not utilize Masterworks, all inspection forms are required to be added into ProjectWise as part of the project completion. Paper copies of inspection forms must also be included in the SWPPP binder on site and be available for review.

6.5.3 Follow-Up Inspections

All follow-up inspections must be performed within 7 days of the issue of the corrective action. Both the contractor and the UDOT ECS must perform follow-up inspections. All corrective actions must be recorded and the contractor must update the site map of the SWPPP to reflect these corrections. If the deficiency or violation has not been corrected and the site is still not in compliance with the UDOT MS4 permit or CGP, another follow-up inspection is required, and escalating enforcement actions are required.

UDOT has developed SOPs that describe the procedure for completing follow-up inspections. It can be found on the UDOT Construction and Long-Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor stormwater-resources/construction-longterm-stormwater-management/

6.5.4 Construction Site Documentation Oversight Inspections

RSCs are responsible for keeping an inventory of all active construction sites within UDOT jurisdiction in their respective UDOT regions. They must periodically visit each site to review site inspection reports and all SWPPP documentation. These Documentation Oversight Inspections occur at least once during the construction phase of a project. Documentation Oversight Inspections are recorded using the Survey123 app which walks the Coordinator through a Checklist developed to ensure that proper documentation is on site, inspections are being completed
according to the required weekly schedule, and that any deficiencies are corrected in a timely manner. There is also space on the form to record any BMP deficiencies identified while on site with space for pictures and notes. UDOT has developed an in-depth SOP for proper Construction Site Inventory and Documentation Oversight Inspections (Appendix C).

6.6 Enforcement

UTS000003 Part 4.2.4.2 requires a written SOP documenting specific processes and sanctions that minimize noncompliance at construction sites. The Permit also requires that UDOT have a series of escalating enforcement options. The “Construction Site Enforcement Procedures SOP” was developed for this purpose and is accessible to both contractors and UDOT staff through the UDOT Construction and Long-Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.6.1 Types of Violations

There are a number of conditions at a construction site that would result in noncompliance with either UDOT’s MS4 Permit or the Utah Construction General Permit (CGP). Some common violations observed at UDOT construction sites include:

- Failure to install or maintain proper perimeter control or inlet protection BMPs
- Improper concrete washout
- Failure to keep construction site Stormwater Pollution Prevention Plan (SWPPP) up to date (changes to site not reflected on map, inspection forms not stored in binder, etc.)
- Failure to complete weekly SWPPP inspections on site

- Failure to implement good house-keeping practices on the project site (including all staging areas, equipment fueling or maintenance areas, garbage dumpsters, port-a-potties, etc.)
- Failure to provide stabilization and other erosion control measures at construction sites

6.6.2 Responding to Violations and Timing of Enforcement

As stated in Section 6.3 Construction Site Management, UDOT's contract Standard Specifications Section 01355, Environmental Compliance, requires that all contractors comply with requirements of the CGP and manage work activities in a way that reduces the discharge of pollutants to surface waters, groundwater, and MS4s. UDOT's current Standard Specifications can be found here: https://www.udot.utah.gov/connect/business/standards/

Failure to abide by the requirements of the 01355 is considered a violation of contract for which UDOT may take the enforcement actions outlined below.

6.6.2.1 Enforcement Tools

The enforcement tools available for violations at construction sites are listed below in order of increasing severity:

- *Verbal warning* – used to highlight deficiencies and notify contractors that escalating enforcement actions will be utilized if action is not taken to resolve the violation before the required deadline.
- *Disincentive* – a financial penalty levied on the contractor. Issued in response to violations or failure to complete corrective actions in accordance with deadlines. Penalties are specified in Section 1.6 of UDOT's Environmental Specifications (01355).
- *Cease and desist order* – a tool aimed at a specific activity which is causing, allowing, or facilitating a violation. The order would require the offender to terminate the activity in question. The activity can resume when the operator meets the requirements of the RE's enforcement action, and obtains confirmation that activities can resume.
- *Stop work order*– a tool aimed at the larger site to gain compliance. This tool is to be used in conjunction with other enforcement tools, when previous enforcement actions have failed to bring the site back into compliance, or when a violation is particularly severe.

6.6.2.2 Enforcement Procedure Guidelines

During routine and post storm event SWPPP inspections on UDOT construction sites, both UDOT and the Contractor Environmental Control Supervisors (ECS) review site conditions and determine what, if any, corrective actions are required to comply with the CGP. Deficiencies may also be identified by the Resident Engineer (RE) as part of the final site inspection, particularly any failure to provide proper stabilization or erosion control BMPs. If deficiencies are identified as part of the final inspection, corrective actions must be taken by the contractor to resolve the identified deficiencies before project closeout.

The project RE is responsible for issuing enforcement actions on sites in their jurisdiction. Enforcement action must be taken when a Corrective Action for a permit violation or BMP deficiency is not corrected within the allotted time frame set by the RE or UDOT ECS acting on the RE's behalf. A determination should be made as to the severity of the situation, the corrective action required, and the allowed timeframe in which corrective action(s) should be completed.

When issuing enforcement actions, REs must ensure that a corrective action is included to fix the problem, or stop the violation from occurring. Additionally they must give a timeline for any corrective actions to be completed. This timeframe should be determined by the RE or UDOT ECS, agreed to, and documented on the inspection form during the SWPPP inspection.

The timeframe to complete corrective actions should be determined by the severity of the condition, as outlined in the CGP:

- Per section 5.2 of the CGP, corrective actions deadlines should be determined when the action is identified and implement the following protocol:
    - Any active discharges or violations of the permit must be corrected immediately. Conditions warranting immediate correction include:
        - Facilitating, allowing, or failing to abate an active discharge to surface waters, a stormwater conveyance feature, or onto the ground.
        - Illegal dumping of waste material, including wastewater from washing tools or vehicles used in concrete operations.

- When site conditions warrant immediate attention, take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution for the problem is installed and made operational;
- When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;
- When the problem requires a new or replacement control or significant repair, the corrective action must be completed no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days (e.g., due to availability of materials, excessive costs to expedite shipping or activities, or lengthy installation times) the contractor ECS and UDOT ECS, with RE involvement, must document why it is infeasible to do so and provide a reasonable correction schedule. Documentation must be kept in the Corrective Actions section of the SWPPP inspection form.

All enforcement must be documented in the Enforcement Action Log in the SWPPP, completely filling out all sections of this log. Additionally, it is suggested that the RE or UDOT ECS takes photos of the violation or deficiency in addition to other documentation. Finally, any enforcement action issued requires a follow-up inspection to document when the project regains permit compliance.

6.6.2.3 Escalation Guide for Repeated Noncompliance

Escalating enforcement actions are utilized for construction contractors that fail to meet established timelines set forth for completing corrective actions, or those with repeated violations. Enforcement is escalated as necessary until permit compliance is attained. The complete list of available enforcement actions is in Section *4.2.1. Enforcement Tools* of this document. An escalated enforcement action is an enforcement action that is more severe than one previously issued. For example, if a disincentive is issued to a contractor and the contractor fails to correct the violation, then an escalated enforcement action could consist of a cease and desist order, and a higher monetary disincentive in accordance with the escalation timeline specified in Section 1.6 of the 01355. Failure to meet the established timeframes for corrective actions without adequate justification will result in escalating enforcement actions as follows, or as determined by the RE:

- Failure to immediately respond to prevent discharge of pollutants will result in daily disincentive penalties. Disincentives will continue to accrue, as outlined in UDOT Standard Specification 01355, until the corrective action is completed. Depending on the severity of the situation, the RE may issue a stop work order for work contributing to the discharge of pollutants.
- Failure to complete a corrective action that does not require a new or replacement control within 24 hours (or next day COB), will result in a verbal warning to the contractor stating that disincentive penalties will begin to accrue if the corrective action is not completed within another 24 hours. Failure to complete the corrective action within the additional 24 hours will result in daily disincentive penalties being issued, per UDOT Standard Specification 01355, until the corrective action is completed.
- Failure to correct a problem which requires replacement or significant repair within 7 days (or otherwise document why a repair is infeasible) will result in a verbal warning to the contractor stating that disincentives will begin to accrue if the corrective action is not completed within another 24 hours. Failure to complete the corrective action within the additional 24 hours will result in daily disincentive penalties, per UDOT Standard Specification 01355, until the corrective action is completed.

Section 1.6 of UDOT Standard Specifications 01355 includes the following regarding the timeline of escalation of daily disincentive penalties:

A. Disincentives are assessed against the Contractor in the amount of $1,000 for each calendar day or portion thereof the project is not in compliance with required permits and regulations.

6.7 *The disincentives assessed increase to $2,000 per day if the Contractor remains in noncompliance after three days and increase to $3,000 per day if the Contractor remains in noncompliance after seven days.*

The AASHTO Construction Stormwater Field Guide provides information on the design, installation, inspection and maintenance of temporary erosion control measures. The Guide shows best practices for installing and implementing temporary erosion control measures through pictures and graphics and is accessible on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.8 Notice of Termination and Project Closeout

After the contractor submits the NOT to the DWQ, the UDOT and contractor ECS must perform a Final NOT inspection to verify that all conditions to close out the project have been met.

Once the inspection is completed, the RE must inform the RSC to make them aware the project is complete. The RSC is then responsible for changing the status of the project on the DWQ database to reflect the completed nature of the project.

UDOT has developed a SOP that identifies the procedure for project closeout and NOT submission. It can be found on the UDOT Construction and Long-Term Stormwater Management webpage at:
https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

6.9 Construction Site Stormwater Pollution Prevention Training

Training procedures for Construction Site Stormwater Runoff Control and all other minimum control measures are described in *Section 11: Training*

7 Post-Construction Stormwater Management in New Development and Redevelopment

7.1 Overview

UDOT provides control measures to manage post-construction stormwater runoff from new development and redevelopment projects that disturb one or more acres of ground, including projects less than one acre that are part of a larger common plan of development or sale.

UDOT's goal for all new development and redevelopment projects is for post development hydrology to match pre-development hydrology. Any project that disturbs greater than an acre of land must retain the 80th percentile, 24-hour storm event, unless deemed infeasible through the Water Quality Design process (see the Stormwater Quality Design Manual, https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/).

7.2 New Development and Redevelopment Requirements

Permanent stormwater BMPs are included in new development and redevelopment projects that disturb greater than or equal to one acre of soil, including projects less than one acre that are part of a larger common plan of development or sale. BMPs are selected and designed to protect water quality, minimize life-cycle maintenance costs and resources, provide adequate site access, and maximize worker and public safety. BMP selection is an iterative process that begins with initial project scoping activities which include the evaluation of low impact development (LID) measures and structural BMPs to protect water quality and reduce the discharge of pollutants to Waters of the State.

As the project progresses into detailed design, the design team revisits the BMP selection process at each design milestone. The design of BMPs is part of the drainage system analysis for the project. Finalized BMPs are included in contract documents that are advertised for construction.

Design methodologies and guidance for post-construction stormwater management BMPs in new development and redevelopment are found in UDOT's Stormwater Quality Design Manual found on the UDOT Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/

The design methodology consists of on-site retention of all stormwater from the 80th percentile, 24-hour storm event.

UDOT projects that disturb an acre or more or that are less than an acre that are part of a larger common plan of development or sale are required to include UDOT's Stormwater Quality Design Documentation which documents key water quality design decisions and calculations. Depending on the type of project, this documentation is required to be included as either a stand-alone document or as an appendix to the project's required drainage report.

7.3 Site Plan Review

UDOT has four project delivery methods: design-build (DB), progressive design builds (PDB), construction manager/general contractor (CM/GC), and design-bid build (DBB). Stormwater quality requirements for DBs and PDBs are part of the Request for Proposal (RFP) documents for each project that contractors are contractually obligated to follow. For CMGCs and DBBs, UDOT is in the process of integrating requirements from the Stormwater Quality Design Manual into the Project Delivery Network (PDN). The PDN outlines each step of the project design process for CMGCs and DBBs. This process, along with the corresponding QA/QC procedures, ensures that site plans are reviewed for water quality impacts on every project.

All project plans, and related information, are stored in UDOT's ProjectWise database. Information is distributed and reviewed by the UDOT design team before the PIH meeting (about 60% design), and the PS&E meeting (about 90% design). The recipient lists, comment forms, and meeting dates are all stored in ProjectWise.

7.4 Long-Term Stormwater Control Inspections

Inspections of post-construction BMPs are necessary to ensure adequate ongoing long-term operation, performance and maintenance.

7.4.1 UDOT Inspections

UDOT has contracted with a third party consultant who performed a large-scale inspection effort in the fall of 2021 which resulted in the inspection of all UDOT long-term BMPs. According to section 4.2.5.2.6 of the UDOT MS4 Permit, UDOT is required to inspect all long-term BMPs at least every other year. A Survey123 electronic form is utilized during all inspections of long-term BMPs. The Survey123 form is integrated with the inventory of long-term stormwater management features (Section 7.6) so that inspection and feature data are stored within the same database. Inspection reports include the following information:

- Inspection date

- Name and signature of inspector
- Project Location
- Current Ownership information
- Maintenance issues or violations that need to be addressed
- Previously completed maintenance efforts
- Descriptions of BMP condition, specific to the type of BMP being inspected, including:
    - Quality of vegetation and soils
    - Inlet and outlet channel or structure condition
    - Catch basin, spillway, weir and control structure condition
    - Sediment and debris accumulation
- Inspection photos and notes

7.4.2 Inspection Tracking Mechanism

Data from the Survey123 long-term feature inspection form is connected to a live data view system through the Survey123 program and UDOT is currently building an ArcGIS Interactive Dashboard that will be fed by these inspection forms. This dashboard will allow UDOT to easily track the completion of inspections by UDOT personnel. The dashboard will include a color-coded map showing features and their inspection and maintenance status. Additionally, there are graphs that track inspection status progress by region throughout the year.

7.5 BMP Maintenance

All post-construction BMPs for new development and redevelopment sites must be managed and maintained after construction, whether they are located within or outside of UDOT right-of-way. The UDOT MS4 Permit requires adequate access for performing periodic inspections and maintenance activities. UDOT coordinates with local government entities regarding the management and maintenance of post construction BMPs located outside UDOT right-of-way.

For any inspected feature where an immediate need for maintenance was identified, the RSC in that corresponding region will coordinate needed maintenance. For ease of identification, the LTSW ID for each feature starts with the 4 digits of the maintenance station that is responsible for that feature. When possible, maintenance should be prioritized on those features where maintenance needs prevented proper inspection by field personnel.

The frequency and type of required maintenance is dependent upon the type of BMP installed and the conditions of the area that drains to each BMP. All BMPs will be assessed for maintenance needs on at least an every other year basis as part of the permit inspection requirement. Any BMP found in need of maintenance during an inspection will have the maintenance needs addressed as soon as practicable. Maintenance will be performed by either local UDOT maintenance staff or contracted staff where applicable.

7.6 Inventory

An inventory of all post-construction stormwater features is maintained online in UDOT's ArcGIS Online platform, UPLAN. Information for each post-construction BMP includes:

- BMP type or description
- Person or entity that owns the BMP
- Person or entity that will maintain the BMP
- Maintenance requirements (frequency of required maintenance and inspections)
- Maintenance and Inspection records

Inventory is updated by contracted staff as projects that add or change UDOT's stormwater infrastructure are completed. UDOT notifies the mapping consultant periodically of all completed construction projects where new stormwater assets (including long-term BMPs) are added or updated so that they can begin mapping the new features. When they complete their mapping packages, they will send them to the UDOT GIS team who will update the online UDOT stormwater feature inventory, found on UPLAN.

7.7 Enforcement Actions

The following section will describe the enforcement protocol used to address violations that could negatively impact the operation of long-term stormwater features.

7.7.1 Types of Violations

There are a number of violations that could negatively impact UDOT's long-term stormwater control features. Some of the more common potential violations include:

- Filling in, damaging, or altering a long-term feature
- Illegally connecting into a long-term feature

- Failing to construct a long-term stormwater feature according to specifications

This list is not comprehensive, and any action that impairs function of UDOT's long-term stormwater features shall be addressed in a manner which results in the removal or cessation of the impairment.

7.7.2 Responding to Violations and Timing of Enforcement

Common violations that can impair the function of long-term stormwater features often overlap with violations within the IDDE and construction sections of this guide. Enforcement response varies depending upon the type of violation and often mimics responses detailed in Section 5.4 of this document.

7.7.2.1 Long-Term Feature Damage or Alteration Enforcement Procedures

Utah Transportation Code 72-7-104 prohibits any alteration to long-term stormwater features in the ROW and describes the appropriate procedures that UDOT may take in response to such a violation. Long-term stormwater features that are not explicitly mentioned in 72-7-104, subsection 1, are covered by this code as "any other structure or object of any kind or character within the right-of-way of any highway". Utah Transportation Code 72-7-104 states:

> *(1) If any person, firm, or corporation installs, places, constructs, alters, repairs, or maintains any approach road, driveway, pole, pipeline, conduit, sewer, ditch, culvert, outdoor advertising sign, or any other structure or object of any kind or character within the right-of-way of any highway without complying with this title, the highway authority having jurisdiction over the right-of way may:*
>
> *(a) remove the installation from the right-of-way or require the person, firm, or corporation to remove the installation; or*
>
> *(b) give written notice to the person, firm, or corporation to remove the installation from the right-of-way.*
>
> *(2) Notice under Subsection (1)(b) may be served by:*
>
> *(a) personal service; or*
>
> *(b) (i) mailing the notice to the person, firm, or corporation by certified mail; and*
>
> *(ii) posting a copy on the installation for 10 days.*
>
> *(3) If the installation is not removed within 10 days after the notice is complete, the highway authority may remove*
>
> *the installation at the expense of the person, firm, or corporation.*

(4) A highway authority may recover:

(a) the costs and expenses incurred in removing the installation, serving notice, and the costs of a lawsuit if any; and

(b) $10 for each day the installation remained within the right-of-way after notice was complete.

(5) (a) If the person, firm, or corporation disputes or denies the existence, placement, construction, or maintenance of the installation, or refuses to remove or permit its removal, the highway authority may bring an action to abate the installation as a public nuisance.

(b) If the highway authority is granted a judgment, the highway authority may recover the costs of having the public nuisance abated as provided in Subsection (4).

(6) The department, its agents, or employees, if acting in good faith, incur no liability for causing removal of an installation within a right-of-way of a highway as provided in this section.

(7) The actions of the department under this section are not subject to the provisions of Title 63G, Chapter 4, Administrative Procedures Act.

In addition to the above enforcement actions, additional actions can be taken if the violating party has been issued an access or encroachment permit. According to UAC R-930-6-11, Access Management, in cases where the violating party has previously been issued a permit but has violated the permit terms or caused a hazard to the traveling public, the access or encroachment permit may be suspended or revoked.

7.7.2.2. Long-Term Feature Illegal Connection Enforcement Procedures

Illegal connections into long-term stormwater features follow the same enforcement protocol described in section 5.4.2 of this document, Illegal Connection Response Enforcement Procedures.

7.7.2.3 Enforcement Procedures for Improper Construction of Long-Term Features

As a part of the final NOT inspection, REs inspect all long-term stormwater management features to ensure they are constructed in accordance with project plans and specifications. Contract language requires that contractors follow all plans and specifications for any work completed on a project, including work on stormwater management features. As such, failure to adhere to plans is considered a breach of contract and UDOT may utilize enforcement tools outlined in section 7.7.2.1 and/or require that the contractor fix any discrepancies between plans and the built feature(s). The RE will not sign off on a project NOT until all features are built up to the standards outlined in plans and specifications.

7.7.3 Escalation Guide for Repeated Noncompliance

Escalation procedures for violations involving long-term stormwater management features vary depending upon the type of violation. Violations that overlap with IDDE or construction violations follow the escalation procedures outlined in those respective sections.

There are a number of other escalating enforcement actions that can be utilized in the event of repeated violations or failure to remedy violations within the allotted time frame, including:

- For violators that have been issued access or encroachment permits, a suspended permit may be escalated and be revoked for repeat offenders or for particularly severe violations.

UDOT may also pursue legal action, where applicable, to ensure corrective actions are taken to resolve violations involving long-term stormwater management features and to recover appropriate costs.

7.8 UDOT Stormwater Quality Design Manual

In June of 2018, UDOT created a Stormwater Quality Design Manual to guide both contracted and UDOT design engineers on the selection and performance expectations of long-term (post-construction) stormwater BMPs. This guide has five chapters, covering stormwater quality and quantity requirements, pollutants of concern, guidance on BMP selection and performance, and design specifications for stormwater treatment and surface stabilization BMPs. The UDOT Stormwater Quality Design Manual can be found on UDOT's Construction and Long-Term Stormwater Management webpage at: https://www.udot.utah.gov/connect/business/contractor-stormwater-resources/construction-longterm-stormwater-management/

As described in *7.3 Site Plan Review*, UDOT contractually requires the use of the Stormwater Quality Design Manual for its DBs and PDBs. Revisions to the PDN have integrated stormwater requirements with the existing drainage design requirements which will direct UDOT and contracted designers to use the Stormwater Quality Design Manual, as well as walk them through the process of proper stormwater BMP selection for each project.

7.9 General Retrofit Plan

UDOT's retrofit plan involves reviewing locations where water quality has the potential to be adversely impacted by UDOT facilities or roadways. As projects are developed in these locations, BMPs will be studied and included where feasible, to help reduce adverse impacts to water quality.
The following criteria are considered when developing potential retrofit BMPs:

- Proximity to a waterbody
- Waterbody Status (i.e. impaired, unimpaired, approved TMDLs)
- Hydrologic condition of the receiving waterbody
- Proximity to sensitive ecosystems or protected areas
- Sites that could be enhanced by retrofitting

UDOT has identified the retrofitting needs for Maintenance Stations across the state and is in the process of designing and constructing these retrofits. UDOT has hired Horrocks Engineers and WCG to design these improvements statewide and Jones & DeMille Engineering for additional design work only in Region 4. In addition to the $16.7M originally allocated in 2019, UDOT received an additional $20M in May 2020 through the Transportation Solutions Program for retrofitting UDOT facilities for water quality improvements across the state. Examples of improvements completed at UDOT Maintenance Stations during this reporting period include:

- Regrading of pavement to isolate and direct clean stormwater away from wastewater retention ponds
- Construction of paint and oil distributor washout containment areas
- Construction of dumpster, vactor, and sweeping decant and containment areas
- Construction of new wash pads and wash racks for equipment pressure washing
- Removal of retention ponds at sites where equipment wash pads are allowed to tie into the sanitary sewer system

- Construction of double-lined, wash water retention ponds with leak detection
- Installation of evaporative sprinklers to help evaporate excess retention pond water
- Cleaning, inspection and maintenance of retention and detention ponds
- Repair or replacement of salt storage structures and pavements
- Addition of secondary containment for brine storage areas
- Replacement of a failing oil water separator

7.10 Long-Term Stormwater Management Training

Training procedures for Long-Term Stormwater Management and all other minimum control measures are described in *Section 11: Training*.

8 Pollution Prevention and Good Housekeeping for Municipal Operations

8.1 Facilities Operations

Most UDOT facilities are managed by the Asset, Maintenance, and Facilities Management Division. Such facilities include, but are not limited to, maintenance stations/yards, equipment storage areas, and storage facilities. In addition, other divisions may operate fixed facilities addressed in this section. For facilities under the Asset, Maintenance, and Facilities Management Division, the positions listed in Section 1.4.3.8 are responsible for implementing the SWMP.

8.1.1 Facility Inventory

Asset, Maintenance, and Facilities Management Division staff have developed an inventory of all UDOT-owned or -operated facilities. They will review the inventory annually and update it as necessary. The following types of facilities are included in the inventory:

- Maintenance Stations
- Salt Storage Facilities (“Satellite Sheds”)
- Central and Regional Headquarters
- Ports of Entry (POEs)
- Rest Areas and Welcome Centers
- “Park and Ride” Public Parking Lots
- The following areas at any of these facilities are also inventoried:
- Materials and equipment storage areas
- Equipment and vehicle maintenance areas
- Fueling islands
- Brine making operations
- Waste containment areas
- Vehicle storage areas
- Structural stormwater controls

The facilities in the inventory are assessed for their potential to discharge stormwater with the following typical pollutants of concern including, but not limited to:

- Total suspended solids (TSS)
- Sediment
- Petroleum products
- Chlorides
- Heavy metals (e.g., Zinc, Lead)

The inventory assessment considers the following:

- Amount of urban pollutants stored at the site
- Identification of improperly stored materials
- Activities performed outside (e.g., changing automotive fluids)
- Proximity to waterbodies

- Poor housekeeping practices
- Discharge of pollutant(s) of concern to impaired water(s)
- Any additional indirect sources of bacteria, chlorine, organic matter, etc. onsite

Maintenance Stations, Satellite Sheds, Central and Regional Headquarters, and POEs are assessed through a combination of reviewing reports from Monthly and Semi-Annual Inspections and through frequent ongoing communication with individuals who work in these facilities by the Region Stormwater Coordinators. Any reported spill or illicit discharge or illegal connection that occurs at a facility will also result in immediate assessment of that facility for the above criteria.

8.1.2 Stormwater Pollution Prevention Plans

The Stormwater Pollution Prevention Plan (SWPPP) describes the activities conducted at a facility and the BMPs to be implemented to reduce or eliminate the discharge of pollutants in stormwater runoff from the facility. A site-specific SWPPP was developed for each UDOT-owned or operated facility and is retained onsite. LID techniques have been incorporated into the design process and will be considered for all new and redeveloped UDOT-owned or operated facilities. Additionally, non-maintenance facilities were evaluated to determine those that may require a site specific SWPPP. All SWPPPs will be updated if:

- There is a change in design, construction, operation, or site features that may affect the discharge of pollutants to surface water, groundwater, or a MS4;
- The SWPPP is found to be in violation of any condition of the Permit, or;
- It is required by DWQ or EPA.

UDOT has developed SWPPP templates that address the following:

- Facility Information
- Facility Activities and BMPs
- Spill and Illicit Discharge Prevention and Reporting
- SOPs for Accessing and Performing Monthly and Semi-Annual Facility Inspections
- Potential sources of pollution that may reasonably affect the quality of stormwater discharges associated with facility activities
- A site map that includes the following information:
    - Property boundaries
    - Buildings and impervious surfaces
    - Directions of stormwater flow using arrows

- Locations of structural control measures
- Location and name of the nearest defined drainage(s) which could receive runoff from the facility and whether it contains water or not
- Location of all stormwater conveyances including ditches, pipes, basins, inlets, and swales
- Locations where the following activities are exposed to stormwater:
  - Fixed fueling operations
  - Vehicle and equipment maintenance and/or cleaning areas
  - Brine making areas
  - Loading/unloading areas
  - Waste storage or disposal areas
  - Liquid storage tanks
  - Process and equipment operating areas
  - Storage or disposal areas for significant materials
- Locations of all analytical and visual stormwater monitoring points
- Locations of stormwater inlets and outfalls, with a unique identification code for each outfall and an approximate outline of the areas draining to each outfall
- Locations of all non-stormwater discharges

Facilities that are not required to develop a SWPPP are still required to control the discharge of pollutants through implementation of appropriate source BMPs, but documented inspections and monitoring are not required. However, if UDOT or DWQ determines that a non-maintenance facility may discharge pollutants to the stormwater drainage system or directly to surface waters, UDOT will prepare a SWPPP for that facility.

Table 8-1 shows the facility categories for which SOPs were developed.

Table 8-1: Facility Minimum Pollution Prevention Procedures

Facility Category	Minimum Pollution Prevention Procedures
Buildings and Facilities (Offices, Parking Garages, Buildings, or Utilities)	• Use, storage, and disposal of chemicals • Establish Spill Prevention Plans (if applicable) and coordinate with the local fire department (as necessary) • Dumpsters and other waste management, including cleaning,washing, painting, and other maintenance activities • Schedules for sweeping parking lots and keeping the facility clean to minimize the runoff of pollutants
Material Storage Areas, Heavy Equipment Storage Areas and Maintenance Areas	• Manage all stored materials with the appropriate BMPs to prevent the discharge of contaminants to the MS4 and Waters of the State • Enclose or cover storage piles of salt or other materials used for deicing to prevent exposure to precipitation, except for exposure resulting from adding or removing materials from the pile (may be waived for salt piles located in areas where surface and/or ground waters are already high in concentrations of salt)
Right-of-Ways and Open Space	• Implement proper application, storage, and disposal of fertilizer, pesticides,and herbicides and minimize their use • Control of sediment and erosion • Turf maintenance and landscaping activities that 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 • Proper cleaning of maintenance equipment, building exteriors, and trash containers, and the disposal of associated waste and wastewater
Vehicle and Equipment	• Proper procedures for vehicle maintenance and repair activities, including using drip pans and absorbents under or around leaky vehicles and equipment, or storing leaky vehicles and equipment indoors where feasible • Covering fueling areas (where feasible) to minimize exposure • Preventing vehicle and equipment wash water from discharging to the MS4 or Waters of the State

Facility Category	Minimum Pollution Prevention Procedures
Roads, Highways, and Parking Lots	• Scheduled sweeping for streets, roads, highways, and UDOT-owned or operated parking lots designed to reduce road and parking lot debris and other pollutants • Road and parking lot maintenance activities including pothole repair,pavement marking, sealing and repaving • Cold weather operations activities including plowing, sanding,deicing compounds application, and maintenance of snow disposal areas • Right-of-Way maintenance including mowing, herbicide, pesticide and fertilizer applications • UDOT-sponsored events, such as large outdoor festivals • Prevent snow storage areas from discharging pollutants to receiving waters
Stormwater Collection and Conveyance System	• Scheduled regular inspection, cleaning, and repair of catch basins,stormwater conveyance pipes, ditches, irrigation canals, culverts, structural stormwater controls, structural runoff treatment, and/or flow control facilities • Implementing catch basin cleaning, stormwater system maintenance, scheduled structural BMP inspections and maintenance, and pollution prevention/good housekeeping practices • Prioritize storm sewer system maintenance (with a higher frequency at highest priority areas), based on water quality concerns, condition of the receiving water, amount and type of material that typically accumulates in an area, or other location-specific factors • Inspect all UDOT-owned or operated structural BMPs including swales, retention/detention basins or other structures annually to ensure proper maintenance • Develop, ensure, and document proper disposal methods of all waste and wastewater removed from the stormwater conveyance system, street sweeping, catch basins, and structural BMP cleaning and maintenance. Proper disposal of the materials removed from the MS4 system, including dewatering them in a contained, impervious area and discharging them to a local sanitary sewer (with approval of local authorities) where feasible. Solid material will be stored and disposed of properly to avoid discharge to Waters of the State during a storm event. Other treatment and disposal measures will be reviewed and approved by DWQ, especially for those materials that may require special handling and disposal if they are prohibited from disposal at a landfill.

8.2 Inspections

All UDOT-owned or operated facilities are inspected by Maintenance Division staff on a monthly, semi-annual and annual basis using electronic inspection forms through the Survey123 smartphone app or on a desktop computer through Uplan (https://uplan.maps.arcgis.com/apps/MapSeries/index.html?appid=a647f52268964e7aa890332b6b544be6). A written description of the information recorded in each of these inspections is included in the attachments of each facility SWPPP document.

Inspection completion rates are tracked in a maintenance inspection dashboard for easy review. This dashboard can be accessed through Uplan at the above link. Additionally, automated text message reminders are set up to remind Maintenance staff to complete these inspections. Reminders are sent at the last Thursday of the month for monthly visual inspections and once in the spring and fall for semi-annual comprehensive and annual stormwater discharge inspections to all facilities that have not yet completed their inspections for that time period.

8.2.1 Monthly Visual Inspections

Visual inspections are performed on a monthly basis by Maintenance Division staff at their respective facilities. The inspection form describes the areas that should be checked to ensure that the potential for pollutant discharge is minimized. If spills are identified during visual inspections, they are cleaned up immediately to prevent contact with precipitation or runoff. Monthly inspections are submitted electronically through the Survey123 app and responses are recorded in the UPlan database. Information logged in monthly inspections includes any identified deficiencies and the corrective actions taken to correct them. To view the complete version of this form, please refer to Appendix D *Information Recorded in UDOT Facility Inspection Forms*.

8.2.2 Semi-Annual Comprehensive Inspections

A comprehensive inspection of UDOT facilities is performed at least semi-annually and documented in an electronic form through the Survey123 application. High priority pollutant generating areas at UDOT facilities are visually inspected, including at a minimum and where applicable, waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, salt storage and brine making areas. To view the complete version of this form, please refer to Appendix D *Information Recorded in UDOT Facility Inspection Forms*.

8.2.3 Annual Stormwater Discharge Inspections

On an annual basis, the quality of stormwater discharges from UDOT facilities is observed by Maintenance Division staff. If climatic conditions prevent the visual observation from being performed, UDOT will evaluate stormwater discharges at least annually for each facility. A discharge sample is collected within the first 30 minutes (or as soon as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging from a storm event that is greater than 0.1 inches that occurs at least 72 hours after the previously measurable (greater than 0.1 inch rainfall) storm event. To view the complete version of this form, please refer to Appendix D *Information Recorded in UDOT Facility Inspection Forms*.

8.3 Floor Drain Inventory

An inventory of floor drains inside UDOT-owned or operated buildings has been developed by Maintenance Division staff. In addition, site maps and diagrams have been developed. The floor drains and their confirmed discharge locations are documented in the SWPPP, ensuring that floor drain discharges are not entering the MS4.

8.4 Design of Flood Management Structural Controls

New UDOT flood management structural controls, or those that discharge to the MS4, are designed to minimize the impacts to water quality and hydrology while still meeting project objectives. Environmental and Hydraulics Division staff review the plans of new flood management structural controls to ensure that they minimize impacts to water quality and hydrology. In addition, existing flood management structural controls are assessed by Environmental and Hydraulics Division staff to determine whether changes or additions are required to improve water quality.

8.5 Contractors Performing Maintenance

If UDOT enlists a contractor to assist with the maintenance of facilities, operations, or structural stormwater BMPs, the contract language documents UDOT's expectations for permit compliance. UDOT ensures that its contracts include contractually required documentation or periodic site visits to confirm that contractors are using appropriate stormwater controls, following the standard operating procedures, implementing adequate stormwater control measures, and good housekeeping practices.

8.6 Pollution Prevention and Good Housekeeping Training

Training procedures for Pollution Prevention and Good Housekeeping and all other minimum control measures are described in *Section 11: Training*.

9 Industrial and High Risk Runoff Program

9.1 Overview

UDOT implements a program for industrial sites that directly connect to UDOT's ROW or MS4.

UDOT follows the procedures outlined in UDOT Policy 08A-06, Drainage Systems and Offsite Drainage Connections when any entity requests to connect into UDOT's MS4. These procedures outline the role of the permit applicant and UDOT Region Permits Officer in preparing, approving, and documenting the Drainage Agreement.
UDOT reserves the right to cancel Drainage Agreements in the event that the connecting entity fails to abide by the conditions of the agreement, including condition C6 which states: "Pollutants and contaminants must be removed prior to entering the Department's drainage system using water quality controls."

If a connection is granted by the Region Permits Officer, education is provided through the use of a Stormwater Pollution Prevention for Commercial and Industrial Facilities Fact Sheet that is located on the UDOT Public Education and Involvement webpage https://www.udot.utah.gov/connect/public/stormwater-management-program/public-education-and-involvement/ and is provided to the applicant by being included in the UDOT Drainage Agreement. The location of the connection is mapped into Uplan along with a Multi-Sector General Permit (MSGP) permit number if applicable.

9.2 DWQ Notifications

If UDOT determines that storm pollutants from an industrial site are being discharged into UDOT's right-of-way, UDOT is required to submit a written notification to the Director of DWQ within 15 days of its discovery. The following information must be provided by the industrial site operator to UDOT and submitted to DWQ:

- Discharge location
- Summary of operator's activities or water quality concerns

10 Wet Weather Monitoring

10.1 Overview

The objective of wet weather monitoring is to estimate pollutant loadings and assess stormwater quality trends from representative transportation land uses. Data obtained from monitoring will be used to estimate pollutants from outfalls, event mean concentrations, annual pollutant loadings, and assess the performance of water quality BMPs. Data will also be used to identify and prioritize portions of the MS4 requiring additional controls and identify water quality improvements or degradation.

UDOT has prepared a Wet Weather Monitoring Plan (found at: https://www.udot.utah.gov/connect/business/contractor-stormwater-resources/) that describes four monitoring sites, the drainage areas for each site, procedures used to conduct monitoring, water quality parameters analyzed and the duration, frequency, and timing of sampling.

UDOT has hired a consultant to perform wet weather monitoring and reporting for all four UDOT monitoring sites. SWCA monitors each site twice a year, during the fall and spring, and produces a report that is included as part of the Annual Report submitted to DWQ.

11 Training

11.1 Overview

Training is a key component of ensuring that staff implements the SWMP effectively. If changes occur in procedures, methods, or staffing, follow up training will be provided. Training records include dates, activities or course descriptions and staff names. For any consultant firms that perform activities on behalf of UDOT, their staff is trained on UDOT practices and procedures and consultant firms serve as an extension of UDOT staff.

A summary of the training activities performed during each fiscal year will be included in the Annual Report. The following sections describe the training procedures, topics and activities performed to meet UDOT MS4 Permit requirements.

11.2 IDDE Training

11.2.1 IDDE Training for UDOT Staff

UDOT provides annual IDDE training to all UDOT employees. All new hires are assigned four stormwater training modules through an online training management system, the UDOT Learning Portal, during NEO, including one module dedicated to IDDE. All current employees must retake this online training annually, and training records are tracked in the Learning Portal. The online training course includes information on common stormwater pollutants, identifying illicit discharges and illegal connections, and properly reporting these discharges. This module includes links to UDOT's Stormwater IDDE webpage, which contains further resources for staff.

11.2.2 IDDE Training for UDOT Contracted Staff

Contracted staff receive IDDE training through various channels depending on the job that contractor performs.

11.2.2.1 Construction Oversight Roles

Contracted staff that act on UDOT's behalf on construction sites and perform oversight and inspection functions are also required to take all four UDOT Learning Portal training modules, including IDDE, as part of Construction Engineering Management Training (CEMT). Any contracted staff that takes the Stormwater Modules through the learning portal will be assigned those courses annually for recertification.

11.2.2.2 Stormwater Program Contracted Staff

Any contracted staff that works directly with the UDOT Stormwater Team receives constant training through meetings with UDOT's stormwater staff. Constant communication on all stormwater projects is necessary for meeting permit requirements and program objectives. Contracted staff that frequently work in UDOT ROW (such as contracted dry weather screening field staff) receives a copy of the IDDE Reporting Standard Operating Procedure (Appendix A).

11.2.3 Dry Weather Screening Training

UDOT dry weather screening and the training that is associated with each dry weather screening component is described in context in the UDOT Dry Weather Screening Plan (found at: https://www.udot.utah.gov/connect/business/contractor-stormwater resources/). Below is a brief overview of training and associated training documents included in each component.

11.2.3.1 Protocol for Field Screening Outfalls

UDOT utilizes a contractor to perform all field screening of outfalls for dry weather flows. Field crew training is performed by the contractor before field crews start work. All SOPs and field protocols used in the training are based off of UDOT's Dry Weather Screening Plan and have been reviewed and approved by UDOT stormwater staff. Daily and weekly field staff check-ins provide an opportunity to troubleshoot issues and assess the need for additional training.

11.2.3.2 Protocol for Desktop Follow-up on Flowing Outfalls

UDOT's stormwater program manager, stormwater specialists, and RSCs receive an email notification when field staff encounters any flowing or ponded outfalls. The UDOT Stormwater Team performs desktop follow-up on any notifications as soon as possible to determine how to proceed. The team utilizes the SOP for Desktop Follow Up on Ponded or Flowing Outfalls for these procedures. For more details on what the desktop follow-up entails, see the UDOT Dry Weather Screening Plan. All new staff are trained in follow-up procedures as a part of regular training of new job duties.

11.2.3.3 Tracing an Illicit Discharge or Illegal Connection to the Source

RSCs coordinate all tracing and tracking efforts done in their region. RSCs rely on the UDOT Dry Weather Screening Plan for procedural guidance and train and coordinate with regional maintenance staff in order to trace discharges upstream.

11.2.3.4 Field Protocol for Taking Water Samples and Lab Analysis

If field measures indicate an Illicit Discharge/Illegal Connection but the source cannot be determined, water sampling and lab testing may be deemed necessary. UDOT's Dry Weather Screening Plan includes a table of instances in which water sampling and testing could help determine the source of the discharge. Water sampling procedures are included in the appendices of the Dry Weather Screening Plan and attached as. All individuals taking water samples for analysis must review this SOP. UDOT does not perform any lab analyses of water samples in-house—all water samples are brought to outside lab facilities for analysis.

11.3 Construction Site Stormwater Runoff Control Training

11.3.1 Environmental Control Supervisor (ECS) Training Course

In order to increase protection of environmental resources within and adjacent to UDOT construction sites, UDOT requires the contractor to designate an Environmental Control Supervisor for selected projects. Types of projects that may require an Environmental Control Supervisor include those that have 404 Permits, UPDES Permits, Stream Alteration Permits or other environmental concerns.

UDOT's Environmental Control Supervisor (ECS) on-line training course provides information on the development of project SWPPPs and BMPs to reduce adverse impacts from construction sites on downstream water bodies. The ECS class is taken by UDOT construction inspectors, engineers, and contracted staff. If course attendees pass the exam, a certificate of completion is provided which allows the attendee to serve as the ECS for construction projects. Those persons who serve as the ECS on UDOT projects must retake the ECS course every 3 years. ECS certification is required for UDOT personnel in order to advance to the Transportation Technician III level, a career path which all Transportation Technicians are encouraged to pursue.

11.3.2 UDOT Staff

All UDOT staff are assigned four stormwater training modules on the UDOT Learning Portal as part of NEO. NEO also includes a Stormwater Management Overview Presentation by UDOT stormwater staff including Construction Stormwater Runoff Control. Modules are then assigned annually thereafter. Construction Site Stormwater Runoff Control is one of these four modules assigned.

11.3.3 Contracted Staff

Contracted staff that act on UDOT's behalf on construction sites and perform oversight and inspection functions are also required to take all four UDOT Stormwater training modules as part of Construction Engineering Management Training (CEMT). Any contracted staff that takes the Stormwater Modules through the learning portal will be assigned those courses annually for recertification.

11.4 Long-Term Stormwater Management Learning Portal Course

All UDOT and contracted staff are trained in Long-Term Stormwater management in accordance with UTS000003 Section 4.2.5.6 following the procedures outlined below.

11.4.1 Long-Term Stormwater Management Training for all UDOT Staff

UDOT provides annual Long-Term Stormwater Management training to all UDOT employees. All new hires are assigned four stormwater training modules through the UDOT Learning Portal during NEO, including one module dedicated to Long-Term Stormwater Management. All current employees must retake this online training annually and training records are tracked in the UDOT Learning Portal. The online training course includes information on permanent methods of controlling runoff and maintenance requirements of structural controls. This module includes links to UDOT's Long-Term Stormwater Maintenance webpage, which contains further resources for staff.

11.4.2 Long-Term Stormwater Management Training for UDOT Contracted Staff

Contracted staff receive Long-Term Stormwater training through various channels depending on the job that contractor performs.

11.4.2.1 Design and Engineering Roles

All contracted design staff receive instruction in design methodologies and guidance for post-construction stormwater management BMPs through UDOT's Stormwater Quality Design Manual. Contracted designers learn of the Stormwater Quality Design Manual and other long term stormwater management requirements through either the Request for Proposal (RFP) or the proposed revisions to the Project Delivery Network (PDN), depending upon which of the four project delivery methods is utilized. For more information on this, see section 4 of the "Post Construction (Long-Term) Stormwater Management in New Development and Redevelopment Program Consent Decree Submission".

Additionally, contracted engineering staff that participate in Construction Engineering Management Training (CEMT) are required to take all four UDOT Learning Portal training modules. Any contracted staff that takes the Stormwater Modules through the learning portal will be assigned those courses annually for recertification.

11.4.2.2 Stormwater Program Contracted Staff

Any contracted staff that works directly with the UDOT Stormwater Team receives constant training through meetings with UDOT's stormwater staff. Constant communication on all stormwater projects is necessary for meeting permit requirements and program objectives.

11.4.3 Long-Term Stormwater Feature Inspection and Maintenance Logs

Inspections of long-term stormwater features will be conducted at least every other year by UDOT or contracted staff. A Survey123 electronic form is utilized during all inspections of long-term BMPs. All individuals performing inspections follow the "Long-Term Stormwater Feature Inspections and Maintenance Logs with Survey123" SOP. All new stormwater staff are trained on inspection procedures as part of normal job duty training. All regional staff that perform inspections are trained by the RSC in their respective region.

11.5 Pollution Prevention/Good Housekeeping Learning Portal Course

Pollution Prevention and Good Housekeeping training is provided annually to all UDOT Employees and to all new employees before the start of work through the UDOT Learning Portal. Completion of this training is recorded in the Learning Portal. This training includes an overview of the requirements of this minimum control measure, reviews facility SWPPPs, discusses the maintenance requirements of different types of facilities, and walks through the inspection requirements at UDOT facilities.

11.6 Stormwater Quality Design Manual BMP Learning Portal Course

This training is provided to all Region design staff that may be involved in designing long term stormwater BMPs through the UDOT Learning Portal. Completion of this course is tracked through the Learning Portal site. This course provides detailed procedures for selecting and designing long-term stormwater BMPs and gives an overview of information in the Stormwater Quality Design Manual. It also includes a walkthrough on using the NCHRP Volume Performance Tool for selecting structural BMPs.

12 Measurable Goals

The SWMP is evaluated on an annual basis to determine whether it effectively meets its overall goals. As required by the MS4 Permit, measurable goals were established to identify milestones and gauge the progress of implementing the SWMP. It consists of three steps:

- **Develop** – Develop programs associated with the UPDES Permit requirements.
- **Implement** – Implement the programs and all UPDES Permit requirements.
- **Evaluate** - Evaluate the development of the programs and their implementation to determine if any program modifications are required. If the evaluation stage determines that modifications to the SWMP or revised measurable goals are necessary, then the SWMP is updated in the following fiscal year.

Table 12-1 lists the measurable goals identified for each SWMP element and how implementation will be assessed.

Table 12-1: Measurable Goals

Item	Implementation Date	Measurable Goal/Action	Assessment
Monitoring			
Wet Weather Monitoring Plan	August, 2021	Prepare and submit the Wet Weather Monitoring Report to DEQ/DWQ.	Ongoing. Collect and analyze data from monitoring activities; document findings in Annual Report
Wet Weather Monitoring Activities	June, 2022	Determine any future needs/improvements in the WWM program. Submit revised plan to DWQ.	Collect and analyze data from previous monitoring activities and determine the next contractor and relevant scope
Public Education and Outreach			
Mass Media Commercials on Stormwater	Ongoing as part of participation in Stormwater Coalitions	Provide mass media commercials to statewide audiences.	Document TV commercials and movie theater “pre-feature” cinema spots provided.
Stormwater Training modules	July 2023	Update existing training modules to reflect current permit and overall betterment..	Add updated Training modules to Learning Portal and assign in alignment with UDOT staff and consultant roles

Item	Implementation Date	Measurable Goal/Action	Assessment
Public Involvement and Participation			
Public Review of the Draft UDOT SWMP	Fall 2016	Provide an opportunity for the public to review and comment on the Draft SWMP Plan.	Post public comments and UDOT responses on the UDOT website.
Adopt-A-Highway Litter Cleanup Program	Reported Annually	Continue to provide the Adopt-A-Highway Litter Removal Program.	Document the number of trash bags filled
Spill Report Hotline	Ongoing	Publicize telephone number on UDOT's IDDE webpage for the public to call and report any suspected spills, illegal connections or illicit discharges.	Determine frequency and nature of calls; look for trends
Illicit Discharge Detection and Elimination			
Priority Area Inspections	Ongoing	Complete inspections of all rest areas, park and rides and welcome centers on an annual basis as per current MS4 permit.	Inspect annually and determine frequency and type of pollution issues observed. Report findings in annual report.
IDDE Dry Weather Screening	February 2023	Prepare solicitation and determine next contractor to perform DWS activities according to new MS4 permit schedule and priorities	All priority outfalls successfully screened with timely response to any found to be flowing with non-stormwater
Stormwater Features Map	Ongoing	Revise maps if new stormwater features are constructed or modifications to existing features are made.	Stormwater feature mapping reflects changes made in new projects
Administrative Rule on non-stormwater discharges	January 2022	Strengthen Administrative Rule describing UDOT's authority to detect, investigate, eliminate and enforce against non-stormwater discharges.	Determine if R930-9 can include penalties or if new Utah state code must be created. Determine how best to set up a fee schedule for stormwater system connections.
IDDE Documentation	Ongoing	Implement screening protocol within 2 days after discovery of an illicit discharge.	Document screening activities and findings using Survey123 form

Item	Implementation Date	Measurable Goal/Action	Assessment
Construction Site Stormwater Runoff Control			
Inspectors Document	March 2022	Revise Construction Site Inspectors Document and determine further training to be provided to UDOT inspectors	Report on training provided to UDOT staff/contractors in annual report.
SWPPP Documentation Oversight Inspections	Ongoing	Periodically inspect SWPPP documentation at all construction sites for compliance and note any documentation/enforcement/BMP deficiencies.	All active SWPPP sites inspected by RSC at least once during the project; more frequently if needed to assist REs/ECSs in achieving compliance with the CGP.
UDOT Standard Specification “Environmental Compliance”	June 2022	Review and Update 01355 Specification ‘Environmental Compliance’ to determine if the Liquidated Damages section can be strengthened.	If strengthened disincentives are determined, report in SWMP revision and annual report.
Post-Construction Stormwater Management in New Development and Redevelopment			
Long-term Stormwater feature inspections and maintenance	Ongoing; Every other year inspections with maintenance notifications	Continue proactive inspection and maintenance of long-term stormwater features	Determine prevalent maintenance needs and costs associated with maintenance..
Stormwater Quality Design Manual	Ongoing	Review and evaluate the manual for further modifications to promote pollution prevention and stormwater infiltration.	Assess performance, document modifications or maintenance needed Documenting projects that are greater than an acre that have successfully met the 80th percentile requirement using internal stormwater spreadsheets
Pollution Prevention/Good Housekeeping for Municipal Operations			
Street Sweeping	Ongoing	Determine frequency of sweeping efforts and how best to prioritize in a statewide MS4 jurisdiction	Document street sweeping efforts
Spill Prevention and Response Plan	Ongoing	Review and update region spill response procedures	Document modifications made to current procedures

Item	Implementation Date	Measurable Goal/Action	Assessment
SWPPPs for UDOT Maintenance Stations	Ongoing	Keep Facility SWPPPs updated and tailored to individual sheds and Ports of Entry (POEs)	Update SWPPPs as changes are made to Maintenance Stations and POEs..
SWPPP Monthly Visual Inspection	Monthly	Perform visual inspections of facilities monthly in accordance with the standard procedures to minimize the potential for pollutant discharge. Check for evidence of spills. Keep inspection records onsite, including noting any deficiencies and corrective actions taken.	Document monthly Inspections using Survey123, identified deficiencies, and corrective actions. Report this information in the Annual Report.
Semi-Annual Comprehensive Stormwater Inspection	Semi-Annually	Perform a comprehensive inspection of facilities semi-annually in accordance with the standard procedures. Check for evidence of spills. Keep inspection records onsite, including noting any deficiencies and corrective actions taken.	Document semi-annual Inspections using Survey123, identified deficiencies, and corrective actions. Report this information in the Annual Report.
Annual Visual Observation of Stormwater Discharge	Annually	Perform visual observations of stormwater discharges from UDOT facilities at least once per year. Document visual observations and keep records with the SWPPP, including noting any deficiencies and corrective actions taken.	Document visual Observations using Survey123, identified deficiencies, and corrective actions. Report this information in the Annual Report.
Industrial and High Risk Runoff Program			
Industrial/High Risk Runoff Education	Ongoing	Coordinate the inclusion of educational fact sheets with UDOT drainage agreements for all requested connections from industrial/commercial	Track drainage agreements that include these fact sheets
Industrial Facility Connections Map Procedures	Ongoing	Develop and implement standard procedures for adding new industrial facility connections to the Industrial Facilities Map.	Develop procedures and implement them by tracking the connections added. Report this information in the Annual Report.
Training			

Item	Implementation Date	Measurable Goal/Action	Assessment
Train All Employees, Contracted Staff, and Other Responsible Entities	Ongoing	Provide annual and new hire training to employees, contracted staff, and other responsible entities on IDDE, Construction Site Runoff Control, Long-Term Stormwater Runoff, and Good Housekeeping and Pollution Prevention through the UDOT Learning Portal. Keep training records for annual reporting.	Train all employees, contracted staff, and other responsible entities. Report this information in the Annual Report.
Train All Employees, Contracted Staff, and Other Responsible Entities	Ongoing	Provide annual and new hire training to employees, contracted staff, and other responsible entities on IDDE, Construction Site Runoff Control, Long-Term Stormwater Runoff, and Good Housekeeping and Pollution Prevention through the UDOT Learning Portal. Keep training records for annual reporting.	Train all employees, contracted staff, and other responsible entities. Report this information in the Annual Report.
Specialized Training	Ongoing	Provide specialized training to maintenance employees as-needed on select topics	Document training in UDOT Training Tracker
UDOT Environmental Control Supervisor (ECS) Training	Ongoing (recertification required every 3 years)	Provide training to UDOT construction staff and contractor staff on: • Construction Permit • Erosion and sediment control BMPs • Plan reviews • Site inspections and enforcement Review training materials on a bi-annual basis.	Retain a list of all who have taken and passed the UDOT ECS course and other training courses. Document changes made to training materials
IDDE Training	Annually	Provide training to employees, contracted staff, and other responsible entities about the IDDE program including identification and termination of illicit discharges and illegal connections.	Document training provided in the Annual Report
Long-term stormwater management	Annually	Provide training to UDOT design staff and contracted staff on post-construction BMPs.	Document training provided in the Annual Report.
Spill Prevention and Response Plan	Annually	Provide annual training to maintenance personnel regarding spill prevention and response.	Document training provided.

13 Reporting

13.1 Annual Report

UDOT is required to submit an annual report to DWQ by October 1 that documents the activities accomplished during the prior fiscal year (July 1 through June 30). The format of the annual report is consistent with what was prepared for the previous permit term. The following information is included in the annual report:

- Current Stormwater Management Program (SWMP) document, including any modifications made during the fiscal year as a result of the minimal annual review required by the UPDES Permit.
- A summary of the data, including monitoring data, accumulated through the reporting year for wet weather monitoring, including conclusions concerning what is shown by the data and how Permit objectives are being or are not being met.
- A summary describing the number and nature of enforcement actions, inspections, and public education programs.
- Annual expenditures for UPDES Permit compliance for the prior fiscal year and projected budget for the upcoming fiscal year.
- Identification of long-term water quality improvements or degradation.
- The annual report is signed by UDOT and certified in accordance with the UPDES Permit requirements.

Appendix A: Reference List

Table A-1: UDOT Stormwater Management Program Reference List

Title	Website Hyperlink
EN Series Standard Drawings for Temporary Erosion Control (EN 1 – EN 7)	https://www.udot.utah.gov/connect/business/standards/
AASHTO Construction Stormwater Field Guide	https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/
UDOT Stormwater Pollution Prevention Plan Outline	https://www.udot.utah.gov/connect/business/contractor-stormwater resources/construction-longterm-stormwater-management/
UDOT Standard Specification 1355 titled “Environmental Protection” and UDOT Standard Specification 1571 titled “Environmental Controls”	https://www.udot.utah.gov/connect/business/standards/
UDOT Spills and Illicit Discharge Detection and Elimination	https://www.udot.utah.gov/connect/public/stormwater-management program/illicit-discharge-detection/
UDOT Stormwater Information and Permitting	https://www.udot.utah.gov/connect/public/stormwater-management program/

Appendix B: IDDE Reporting Standard Operating Procedures

IDDE Reporting Standard Operating Procedure

1. Objective

Many UDOT or contracted staff work out in the field and have opportunities to observe illicit discharges or illegal dumping in UDOT ROW or on UDOT property. When it comes to reporting illicit discharges, everybody is part of the UDOT Stormwater Team. This SOP will help staff identify potential illicit discharges and provide a list of individuals to contact in the event that you observe a suspected illicit discharge or illegal dumping incident.

2. Defining Illicit Discharges

UDOT's MS4 Permit defines an illicit discharge as:
"any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) and non-storm water discharges provided for in Permit Part 1.2.2.2."
The allowable non-stormwater discharges (Part 1.2.2.2.) include:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated groundwater infiltration
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering runoff
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Residual street wash water
- Dechlorinated water reservoir discharges
- Discharges or flows from emergency firefighting activity

Other than the above, **clean stormwater should be the only thing that enters into UDOT's stormwater system or Waters of the State.**

3. What to Report

While out in UDOT's ROW or on UDOT property, staff could encounter any number of illicit discharge or illegal dumping scenarios. The following section provides some examples of incidents to report and common clues that an illicit discharge or dumping is occurring. These are only examples.

- A general rule of thumb: **report any suspicious activity or suspicious substances observed during the course of work**
- Report any individual you see dumping solid or liquid wastes onto UDOT ROW or into storm drains or water bodies
- Report any of the following **signs of Illicit Discharges**
- A waterbody or stormwater ditch or pipe that contains water with an unusual color, strong odor, foam, or oil sheen
- Small diameter pipes entering UDOT ditches, storm drains or Waters of the State; for example, PVC pipes or small black corrugated (HDPE) pipes
- Visible stains on the roadway, soils, catch basins, or stormwater outfalls
- Excessive buildup of sediment, trash, or other debris around stormwater inlets or outfalls
- Report any of the following **Signs of illegal Dumping**
- Empty containers overturned on storm drain inlets
- Abandoned containers (barrels, oil drums, garbage bags, etc.) in UDOT ROW
- Piles of unknown solid wastes or powders (often dumped around Port of Entry Facilities, rest areas, or pull-outs)
- Excessive accumulation of trash or other debris

4. Information to Collect and Report

When you suspect an illicit discharge or illegal dumping incident has occurred, there are a few pieces of information that are crucial for follow-up investigations. If possible, please report: • Time and Date
• Location (Route number, milepost, or address)
• Description of substance (type, estimated amount, etc.)
• Where exactly the substance was dumped (shoulder of road, parking lot, into storm drains, into waterways, etc.)
• Description of any individuals or vehicles you saw actively dumping waste (license plate numbers, etc.)
• Any pictures of the incident

5. Who to Call

The table below includes the contact numbers of Region Stormwater Coordinators as well as the Spill Response Hotline number. **In any suspected emergency situation, call 911.** Emergency situations include any incident that could cause an immediate threat to public health or safety, or severe damage to the environment.

Type of Discharge	Contact Name	Contact Number
Emergency-- Immediate threat to public safety or health		**911**
Region 1-- Non-emergency	Bren Edwards	(801) 309-5206
Region 2-- Non-emergency	Stephanie McGinnis	TBD
Region 3-- Non-emergency	Jordan Pogorzelski	(801) 227-8023
Region 4-- Non-emergency	Jared Barton	(435) 979-4548
Stormwater Program Specialist (statewide)	Brandon Burrows	(435) 773-7897
Unable to contact above Region Stormwater Coordinator	Spill Response Hotline	(801) 965-4196
Outside of normal business hours, non-emergency	Utah DEQ Spill Hotline	(801) 965-4037

Appendix C: Construction Site Inventory and Documentation Oversight Inspections

Construction Site Inventory and Inspection Review Standard Operating Procedure

DOJ Consent Decree requires the following in 'Section V. Compliance Requirements':

1. Construction Site Stormwater Runoff Control. Defendant shall revise its construction site stormwater runoff control program to ensure adequate permitting and permit compliance for construction sites. The revised construction site stormwater runoff control program shall include the following:
   a. A mechanism to track timely completion of contract operators' site inspection reports;
   b. A system to periodically review site inspection reports from contract operators at all UDOT construction sites;
   c. A checklist that UDOT shall use during its periodic review of contract operators' site inspection reports to ensure that contract operators are correcting deficiencies in a timely manner;

To comply with these requirements, this Standard Operating Procedure (SOP) will outline a system to establish an inventory of active construction sites within UDOT jurisdiction, a procedure for routine periodic reviews of weekly inspection reports and a checklist for Region Stormwater Program Coordinators to utilize during the review.

Construction Site Inventory

Region Stormwater Program Coordinators must be aware of all construction projects active in their region at any given time. In order to track projects within a region, coordinators should utilize an inventory which should be updated at the filing of a Notice of Intent (NOI) or Notice of Termination (NOT). This inventory will be used to track which sites the coordinator has visited to review the inspection reports, as well as keep track of active projects.

The Inventory can be altered to fit the needs of each coordinator, but must at minimum, contain the following information:

- Project Name
- Project Number
- ePM PIN
- Construction General Permit number (issued by Department of Water Quality (DWQ))
- Project start date (NOI)
- Project end date (NOT)
- Location
  - Route, Milepost (MP)
- Contact information
  - Resident Engineer (RE) (name, phone number)
  - UDOT Environmental Control Supervisor (ECS) (name, phone number)
- Date visited by coordinator
- Construction Site Documentation Review Checklist submission

Periodic Site Inspection Reviews

Regional Stormwater Program Coordinators will be responsible for visiting each UDOT construction site located within their region to review inspection reports at least once during the construction phase of the project. More frequent inspections will be prioritized according to the following factors:

- Enforcement Actions have been needed on a site
- Contractor on site has a history of noncompliance
- Duration of the project

Site inspection reviews should be coordinated with REs for projects in the RE's respective area, with the intent of verifying permit compliance on the project. Coordinators will, at a minimum, review the following materials for each project:

- Weekly oversight inspection forms
- Corrective action logs
- Enforcement action logs
- Follow-up inspection forms

Coordinators will use the "Construction Documentation Inspection" form in the Survey123 app to document the review of site inspections. The checklist below is a paper version of the form utilized on the Survey123 app. If a site is found to be deficient in complying with any permits it is covered under, the Coordinator should report those issues to the RE for the project, and identify any corrective action necessary to bring the site back into compliance. Ensure that any documentation that may have been deficient in the past is not altered in any way by corrective action, but that changes to future documentation are made to keep the site compliant.

Coordinators should perform the review by looking at copies of multiple inspections across different dates. The intent is to identify a representative sample of inspections, enforcement actions, and corrective actions for a site. While reviewing, if a corrective action was issued for a deficiency found during an inspection, make sure to also review the corresponding entry in the enforcement action log if an enforcement action was issued.

Although not the main objective of these reviews, Region Stormwater Coordinators may identify BMP deficiencies while out on site for a documentation review. If any BMP deficiencies are identified, the Coordinator should record these in the "BMP Deficiencies" section of the form. The form includes space for notes as well as pictures of the deficiencies. Inspection reports provided to the project REs will include these notes and pictures. REs should be directed to address any BMP deficiencies as soon as possible.

Information Recorded in the Construction Documentation Oversight Inspection Form

- **Date of Inspection**
- **Full Name**
- **Is this inspection being performed digitally?**
- **Select the Region in which the Inspection is being performed**
- **Is there an RE or other individual that works on site present with you for this review?**
    - **Position and Name of Individual(s) on Site for Inspection**
- **Construction Site Information**
    - **Site Name**
    - **Site Number**
    - **Site PIN**
    - **Contractor Working on Project**
    - **Does this project have a SWPPP?**
    - **Does this project have a MS4 Compliance Plan?**
        - **If yes, see MS4 Compliance Plan section below**
- **Weekly Oversight Inspection Form**
    - **Has the project consistently completed a weekly oversight inspection form every week?**
        - **Add any notes on this deficiency.**
    - **Are the inspection forms completely filled out?**
        - **Add any notes on this deficiency.**
    - **Are the forms signed by both the UDOT and Contractor ECS?**
        - **Add any notes on this deficiency.**
    - **Does the UDOT ECS include comments on the form regarding observations made during the inspection.**
        - **Add any notes on this deficiency.**
    - **Are corrective actions issued for each deficiency noted on the form?**
        - **Add any notes on this deficiency.**
    - **Are the inspection forms filed with the SWPPP after completion?**
        - **Add any notes on this deficiency.**
- **Corrective Action Log**
    - **Have there been any Corrective Actions required at the site?**
    - **Does the project utilize a corrective action log to track corrective actions?**
        - **If no, Add any notes on this deficiency.**
    - **Are deficiencies discovered during weekly inspections recorded within two workdays in the corrective action log?**
        - **Add any notes on this deficiency.**
    - **Do entries describe specific measures to identify what changes are needed to bring the deficiency into compliance?**

        - Add any notes on this deficiency.
    - Are completed corrective actions recorded in the log, including the date and the action that was completed?
        - Add any notes on this deficiency.
- Enforcement Action Log
    - Has this site received any enforcement actions?
    - How many enforcement actions have been issued by UDOT at this site since your last inspection?
    - Does the site utilize an enforcement action log to track any enforcement actions issued by the RE?
        - If no, please add notes on this deficiency
    - How many enforcement actions are listed in the Enforcement Action Log?
    - Which of the following types of enforcement actions have been issued by UDOT at this site since your last inspection?
    - If other, please explain.
    - Number of UDOT-issued Verbal Warnings since your last inspection:
    - Number of UDOT-issued Disincentives since your last inspection:
    - Number of UDOT-issued Warning Letters since your last inspection:
    - Number of UDOT-issued Stop Work Orders since your last inspection:
    - Number of UDOT-issued Notice of Violations (NOVs) since your last inspection:
    - Number of UDOT-issued other enforcement actions since your last inspection:
    - Add any notes on the Enforcement Action(s) taken.
    - Link to Enforcement Action Documentation (optional)
        - Add any notes on this deficiency.
    - Are both dates and a description of the violation recorded on the log?
        - Add any notes on this deficiency.
    - Is a follow-up inspection performed and recorded for each enforcement action?
        - Add any notes on this deficiency.
- Follow Up Inspection Form
    - For each corrective action issued, is a follow-up inspection performed and documented?
        - Add any notes on this deficiency.
    - Does the UDOT ECS include comments on the form regarding observations made during the follow-up inspection.
        - Add any notes on this deficiency.
    - Are corrective actions issued for each deficiency found during the follow-up inspection noted on the form?
        - Add any notes on this deficiency.
    - Are the follow-up inspection forms filed with the SWPPP after completion?
        - Add any notes on this deficiency.
- MS4 Compliance Plan
    - Are the BMPs in place at this site effectively controlling stormwater runoff?

- **Which of the following are problems with BMPs on the site?**
- **If other, please explain.**

- **BMP Deficiencies**
  - **While on site, did you notice any BMP deficiencies?**
  - **Select the categories in which BMP deficiencies were identified.**
    - **Materials Storage/Fueling/Erosion Control and Inlet Protection/Concrete Washout/Portable Toilets/Dumpster or Waste Containment**
  - **Please describe any other BMP deficiencies noted on site**
  - **Other Deficiency Photo 1**
  - **Please select problems identified with Materials Storage at this site**
    - **Secondary containment is not present or not utilized**
    - **Materials or containers need to be covered**
    - **Hazardous materials are stored too close to a storm drain or catch basin**
    - **Waste Containers are leaking or in need of repair or replacement**
    - **Spill or discharge of materials or wastes onsite**
    - **If other, please explain.**
    - **Add any additional notes on Materials Storage problems below.**
    - **Storage Deficiency Photo 1**
  - **Please select problems identified with Fueling at this site.**
    - **Secondary containment is not present or not utilized for oil or fuel storage**
    - **Fuel storage or fueling station too close to storm drain or catch basin**
    - **Evidence of an oil or fuel spill**
    - **Equipment is leaking and not properly contained**
    - **Other**
    - **If other, please explain.**
    - **Add any additional notes on Fueling problems below.**
      - **Fueling Deficiency Photo 1**
  - **Please select problems identified with Erosion Control at this site**
    - **Sediment trackout offsite**
    - **Inlet protection missing**
    - **Inlet protection inadequate or needs maintenance**
    - **Need additional erosion control BMPs**
    - **Eroson control BMPs need maintenance or repair**
    - **If other, please explain.**
    - **Add any additional notes on Erosion Control problems below.**
    - **Erosion Control Deficiency Photo 1**
  - **Please select problems identified with Concrete Washout at this site**
    - **Concrete washout container leaking or overflowing**
    - **Concrete washout directly onto ground (no container)**

        - **If other, please explain.**
        - **Add any additional notes on Concrete Washout problems below.**
        - **Concrete Washout Deficiency Photo 1**
    - **Please select problems identified with Portable Toilets at this site**
        - **Toilet needs to be staked down or secured**
        - **Toilet is too close to a storm drain or catch basin**
        - **If other, please explain.**
        - **Add any additional notes on Portable Toilet problems below.**
        - **Portable Toilet Deficiency Photo 1**
    - **Please select problems identified with Dumpsters or Waste Containers at this site**
        - **Needs to be covered**
        - **Improperly sealed -plug is missing or container is in need of replacement or repair**
        - **Evidence of a spill or leak from the container**
        - **Overfilled and needs to be emptied**
        - **Waste blowing out of the dumpster**
        - **If other, please explain.**
        - **Add any additional notes on Dumpster or Waste Container problems below.**
        - **Dumpster or Waste Container Deficiency Photo 1**
- **Are there any additional notes you would like to add?**
- **Do you need any additional space to add more notes?**
- **Extended Notes**
- **Would you like to add any photos?**
- **Photos (add as many as necessary)**
    - **Photo 1**
- **Construction Oversight Inspection Follow-Up Documentation (To be completed AFTER initial submittal)**
    - **Did the findings in this inspection result in the RE issuing an enforcement action?**
    - **Notes on any follow-up on documented deficiencies on site including any information on enforcement actions that resulted from inspection findings.**
    - **Follow-Up Documentation-- Photos and Files-- 1**
    - **Have all deficiencies identified in this inspection been adequately resolved?**
- **Please sign to certify completion of this inspection.**

This form has a place for notes following each item in the document review checklist and BMP deficiency sections. The BMP deficiency section also has a space to add photos within each category and a space for additional photos at the end of the form.

Appendix D: Information Recorded in UDOT Facility Inspection Forms

Information Recorded in UDOT Facility Monthly Visual Inspection

- **StartTime**
- **Elapsed_Time**
- **EndTime**
- **Inspector Name**
- **Username**
- **UDOT Region and Station**
  - **Select your UDOT Region.**
  - **Select your Region 1 Maintenance Station.**
  - **Select your Region 2 Maintenance Station.**
  - **Select your Region 3 Maintenance Station.**
  - **Select your Region 4 Maintenance Station.**
  - **If the Facility is not listed in the selections above, please write the shed number and name here:**
- **Pollutants and Potential Pollutants of Stormwater**
- **Did this facility have any spill(s), leak(s), or other deficiencies?**
- **Monthly Visual Inspection**
  - **Please select the type of deficiency that occurred.**
  - **Describe the spill(s), leak(s), or other deficiencies identified.**
  - **What was the approximate quantity of spilled or leaked material?**
  - **Is the spill, leak, or other deficiency contained on-site?**
  - **What corrective actions were taken to immediately remedy the spill, leak, or other deficiencies?**
  - **What circumstances prevented immediate corrective actions to be taken to remedy the spill, leak, or other deficiency?**
  - **What corrective actions were later taken to remedy the spill, leak, or other deficiency?**
- **Please upload a photo of the spill, leak, or deficiency or any cleanup efforts**
- **Please add photos**
- **Used Oil Containment**
  - **Is there a used oil containment area, disposal container or tank that is used at this station?**
    - **Photo should be taken from an area that shows as much of the overall containment area as possible**
  - **Are there oil stains or spills surrounding the used oil disposal area or container?**
    - **If yes, please include the spill in the previous section.**
  - **Are there used oil containers outside of a secondary containment area?**
    - **If yes, please describe why secondary containment is not being used and take a photo of the container in question.**
  - **Note for inspector: “Containment plugs must never be removed or altered. If the secondary containment fills ip, or is close to capacity, please contact your Area and Station Supervisor in order to empty the waste. Please reach out to your Region Stormwater Coordinator with any questions or concerns on this process.”**
    - **“Please go to the Waste Disposal Tracking Form to record this maintenance and the location of waste disposal.”**
  - **Please provide photo**
  - **Is the area surrounding the salt shed swept clean?**
    - **Please add a photo showing the salt shed and the area surrounding the salt shed entrance.**
    - **Second photo optional**
- **O/W Separator Inspection**
  - **Please hit Yes to continue with your monthly O/W Separator inspection, if there is no O/W Separator onsite, hit N/A to skip**
  - **How many oil/water separators are at this site?**
  - **Please upload a photo showing the "sludge judge" used for this inspection.**
  - **Where is this oil/water separator located? (i.e. wash bay, mechanic bay #1, etc.)**
  - **"Sludge Judge" Photo, Oil/Water Separator #2.**
  - **Location of Oil/Water Separator #2**
  - **"Sludge Judge" Photo, Oil/Water Separator #3.**
  - **Location of Oil/Water Separator #3**

    - **"Sludge Judge" Photo, Oil/Water Separator #4.**
    - **Location of Oil/Water Separator #4**
    - **"Sludge Judge" Photo, Oil/Water Separator #5.**
    - **Location of Oil/Water Separator #5**
    - **From visual inspection, do any of the oil/water separators require maintenance and/or cleaning at this time?**
    - **Have all of the oil/water separators at this station been cleaned out or maintained in the last 6 months?**
    - **Who will perform this maintenance or cleaning on the oil/water separator?**
        - **UDOT**
            - **Please go to the Waste Disposal Tracking Form to record this maintenance and the location of waste disposal.**
        - **Contracted Company**
            - **Contact the oil/water separator cleanout contractor as soon as possible to have the oil/water separator maintained.**
        - **If other, please describe.**
- **Retention Pond Inspection**
    - **Does this facility have a retention pond used to collect truck wash water?**
        - **If yes, Is water overflowing out of the retention pond or is the pond close to overflowing?**
            - **If Yes, please add a photo of the wash water retention pond and notify the Area and Station Supervisor to properly dispose of the waste water. Please reach out to your Region Stormwater Coordinator with any questions or concerns on this process.**
    - **What percent of the pond is filled with water? Give your best estimate.**
        - **0%/1-10%/11-25%/26-50%/51-75%/76-100%**
    - **Would you like to perform your Annual pond inspection at this time?**
    - **Is there water left in this pond?**
        - **If yes, "In order to complete this inspection, water must be fully evaporated or pumped from this pond."**
        - **If no, "What percent of the pond is filled with dirt, sediment, or other debris?"**
    - **Please select the type of Pond Liner(s) used at this facility.**
        - **Asphalt/Concrete/Rubber/Other/No Liner**
        - **If other Liner Type, please describe:**
    - **Please pick the statement that best describes the current condition of the pond liner.**
        - **Extremely Poor/Poor/Fair/Good/Like New**
    - **Please add a photo of the pond showing the condition of the liner.**
    - **Does this pond have a leak detection device?**
        - **Please select the statement(s) that best refelect the condition of the leak detection device.**
            - **The leak detection device indicates that the liner is not functioning and the pond is leaking.**
            - **The leak detection device is damaged or may not be properly functioning. Repairs may be required.**
            - **The leak detection is in good condition and does not indicate the pond is leaking.**
    - **Over the last year which of the following types of maintenance have been performed on the pond at this facility?**
        - **Sediment or sludge removal/Pond Sweeping/Crack Seal Pond Liner/Pond Liner Repair/Other/No maintenance has been performed in the last year**
    - **Please describe any other maintenance performed on this pond.**
    - **Please select the most recent date when maintenance was performed.**
    - **Please add a photo showing the maintenance performed.**
    - **If you have any additional notes on the maintenance performed, please add them below.**
        - **"If this pond maintenance activity generated any waste materials, please go to the Waste Disposal Tracking Form to record this maintenance and the location of waste disposal."**
- **Please type your initials. This will act as an electronic signature, certifying the completion of this inspection.**

Information Recorded in UDOT Annual Visual Observation of Stormwater Discharge Inspection

- **Start_Time**
- **Elapsed_Time**
- **End_Time**
- **Inspector Name**
- **Username**
- **UDOT Region and Facility**
  - **Select your UDOT Region.**
  - **Select your Region 1 Facility.**
  - **Select your Region 2 Facility.**
  - **Select your Region 3 Facility.**
  - **Select your Region 4 Facility.**
  - **If the Facility is not listed in the selections above, please write the shed number and name here:**
- **Annual Visual Observation Information**
  - **The Annual Visual Observation of Stormwater Discharge Inspection is a quick method to help you assess the effectiveness of your facility's BMPs to reduce pollution in stormwater runoff. This inspection is a requirement of UDOT's MS4 Permit and is to be sampled with results submitted at least once per year by a member of your facility's Stormwater Pollution Prevention Team (Station Supervisor and Area Supervisor) as indicated in your SWPPP. This inspection is to be performed within the first 30 minutes (or soon thereafter as practical, but not to exceed one hour) of when runoff from rain or snowmelt begins flowing. Locations for sampling should be chosen in such a manner than the samples are representative of the overall stormwater discharge of the site. All sampling should occur when the flow from rain or snowmelt exceeds 0.1" (i.e. sheet flow across your pavement), and the event is at least 72 hours from a previously 0.1" or greater storm event or snowmelt episode. To effectively sample stormwater sheet flow, a clean and clear glass or plastic receptacle should be used, such as a mason jar, glass container or wide-mouth plastic bottle. Areas of the facility that may be good sites for sampling include, but are not limited to: outfalls, storm drain inlets or drop inlets (place container below the lip of the inlet), depressions that collect flow, or by damming water on flat pavement to collect a sample. An effective means of sampling from inlet boxes is to remove the grate and catch the stormwater as it flows over the lip of the inlet box. If damming water, using a clean plastic sandwich type bag to scoop water is helpful. The Annual Visual Observation of Stormwater Discharge Inspection must be performed and documented once per year.**
- **Stormwater Discharge Questions**
  - **What is the source of runoff?**
    - **Rain/Snowmelt**
  - **Stormwater discharge odor:**
    - **None/Chemical/Sewage/Rotten Egg/Petroleum/Other**
      - **If "other" odor, please describe:**
  - **Stormwater discharge color:**
    - **Clear/White/Brown/Yellow/Other**
      - **If "other" color, please describe:**
  - **Stormwater discharge clarity:**
    - **Clear/Cloudy/Opaque/Other**
      - **If "other" clarity, please describe:**
  - **Stormwater discharge floatables:**
    - **None/Surface Scrum/Oil Sheen/Foamy/Sewage/Other**
      - **If "other" floatables, please describe:**
  - **Does the stormwater discharge appear to be contaminated?**
    - **If yes, what is the likely source of the contamination?**
    - **What corrective actions were taken to immediately eliminate the source(s) of contamination?**
- **Notes**
- **Do you want to upload a photo?**
- **Please add Photos**
- **Please sign to certify completion of this inspection.**

Information Recorded in UDOT Facility Semi-Annual Comprehensive Stormwater Inspection

- Start_Time
- Elapsed_Time
- End_Time
- Inspector Name
- Username
- Region and Facility
    - Select your UDOT region
    - Select your Region 1 Facility
    - Select your Region 2 Facility
    - Select your Region 3 Facility
    - Select your Region 4 Facility
    - If the Facility is not listed in the selections above, please write the shed number and name here:
- Semi-Annual Comprehensive Stormwater Inspection Information
    - The Semi-Annual Comprehensive Stormwater Inspection is a requirement of UDOT's MS4 Permit and must be performed, with inspection results submitted, at least twice per year by a member of your facility's Stormwater Pollution Prevention Team (Station Supervisor and Area Supervisor) as indicated in your SWPPP
    - The purpose of the Semi-Annual Comprehensive Stormwater Inspection is to prevent and/or reduce pollutant runoff from UDOT owned or operated facilities. This is partly accomplished by performing a comprehensive in-depth inspection of the facility's building(s) and grounds, with specific attention paid to stormwater controls, waste storage areas, dumpsters, vehicle and equipment maintenance areas, and all other pollutant generating or possible pollutant generating areas.
    - Any spills, leaks, or other deficiencies found during the Semi-Annual Comprehensive Stormwater Inspection should be immediately remedied, and the corrective action taken must be recorded.
- General Facility
    - Are the facility buildings in good maintenance?
        - If no, please describe:
    - Are equipment storage areas maintained in a clean and orderly manner?
    - If no, please describe:
    - Please add a photo showing the equipment storage area (this includes indoor areas, covered outdoor storage areas, etc.
        - If no, please describe:
    - Please add a photo showing the equipment storage area
        - If needed, add additional photos of the equipment storage areas
    - Is the facility water supply system and culinary plumbing system in proper working order?
        - If no, please describe:
    - Are spill kits and/or spill cleanup materials located onsite?
        - If no, please describe why this facility does not need spill clean up kits or materials:
    - If this facility has a salt shed or salt storage, is all salt contained within the structure?
        - If no, please describe:
    - Please add a photo showing the salt shed and the area surrounding the salt shed
        - If needed, add additional photos of the salt shed and the area surrounding the salt shed
- Sanitary Sewer and Septic System
    - Select the sanitary waste system of this facility.
        - Sanitary Sewer/Septic System/Sewage Vault/Not Applicable
    - Is the sanitary sewer system in proper working order?
        - If no, please describe:
    - Is the septic system in proper working order?
        - If no, please describe:
    - Is the sewage vault system in proper working order?
        - If no, please describe:
- Landscape and Irrigation

    - Does this facility have landscaping and/or irrigation?
    - Is the irrigation system functioning properly (no leaks, breaks, etc.).
        - If no, please describe:
    - Are there any physical indicators of irrigation system runoff (sediment trails, pavement discoloration, etc.)?
        - If yes, please describe:
    - If landscaping and/or vegetation is used as a BMP for erosion control, are the BMPs properly maintained?
        - If no, please describe:
- Outdoor Surfaces (asphalt/concrete, dirt/vegetation)
    - Are there any spills on the impervious surfaces (asphalt/concrete)?
        - If yes, please describe:
    - Please add a photo showing any spills, staining, or leaks on asphalt or concrete areas.
        - If needed, add additional photos of the spills, staining, or leaks on asphalt or concrete areas.
    - Are there any spills on the pervious surfaces (dirt/vegetation)?
        - If yes, please describe:
    - Please add a photo showing any dirt or gravel area where equipment or vehicles are parked or stored. Capture as much of the area as possible.
        - If needed, add additional photos of dirt or gravel area where equipment or vehicles are parked or stored.
- Stormwater Drainage System
    - Does the facility have a stormwater conveyance system?
    - Is the stormwater conveyance system properly maintained?
        - If no, please describe:
    - Does this facility have stormwater treatment BMPs?
    - Are stormwater treatment BMPs properly maintained?
        - If no, please describe:
- Non-Hazardous Waste Storage
    - Does this facility have a trash container?
        - If yes, Please add a photo showing the trash containers at this facility.
    - Is the trash container located a reasonable distance away from a storm drain inlet?
        - If no, please describe:
    - For waste containers with discharge ports near the bottom, are the ports plugged or sealed to prevent pollutant discharge?
        - If no, please describe:
    - Please add a photo showing the waste containers discharge port.
    - Does the trash container have a lid and is it kept closed?
        - If no, please describe:
    - Does this facility accept or store street sweeper waste?
        - If no, move to the vactor waste section.
    - Please add a photo showing the area where street sweepings are kept.
    - Are street sweepings contained to prevent wind dispersion?
        - If no, please describe:
    - Are street sweepings contained so that stormwater contact does not flow offsite, onto ground, or into the stormwater conveyance system?
        - If no, please describe:
    - Does this facility accept or store vactor waste?
        - If Na, move to Hazmat Waste Storage Section
    - Please add a photo showing the vactor decant areas at this facility.
    - Is vactor waste contained to prevent wind dispersion?
        - If no, please describe:
    - Is vactor waste contained so that stormwater contact does not flow offsite, onto ground, or into the stormwater conveyance system?
        - If no, please describe:
- Hazardous Material and Waste Storage
    - Does this facility store or use hazardous material or waste?
    - Please add a photo showing any Hazardous Waste storage areas.
    - Do hazardous materials and wastes have spill containment BMPs?
        - If yes, Are there spills or leaks in the area surrounding the spill containment?
            - If yes, please describe:

        - If no, Are there spills or leaks in the area surrounding the hazardous materials or waste?
            - If yes, please describe:
    - Please add a photo showing any spills or leaks surrounding the Hazardous Waste containment
    - For hazardous materials and waste stored outdoors, are these items stored off the ground, covered to prevent contamination of stormwater, and placed in containment?
        - If no, please describe:
    - Are hazardous materials and waste stored and loaded a reasonable distance away from storm drain inlets?
        - If no, please describe:
- Outdoor Storage of Raw Materials
    - Does this facility store raw materials outdoors?
        - If yes, please add a photo showing any outdoor raw material storage areas or stockpiles
    - Are raw material storage areas located away from stormwater drainage paths or storm drain inlets?
        - If no, please describe:
    - Is the stockpile maintained so that material is less likely to erode?
        - If no, please describe:
- Vehicle and Equipment Maintenance and Repair
    - Does this facility have a vehicle and equipment maintenance area?
        - If no, move to the Fuel Island section.
        - If yes, Is there a readily accessible spill kit (with ample supplies) located in the vehicle and equipment maintenance areas to cleanup typical shop spills/leaks?
            - If no, please describe:
    - Are the vehicle and equipment maintenance areas clean and organized?
        - If no, please describe:
    - Are used cleanup materials and wastes removed and properly disposed of after use?
        - If no, please describe:
    - Are BMPs used under leaking vehicles and equipment to prevent pooling spills and tracking?
        - If no, please describe:
    - Are vehicle fluids prevented from leaving the maintenance area and discharging to drainage paths, storm drain systems, etc.?
        - If no, please describe:
    - Are hazardous materials in the equipment maintenance area stored with spill containment?
        - If no, please describe:
    - Is the area surrounding the spill containment free of spills/leaks?
        - If no, please describe:
    - Are hazardous wastes stored in sealed containers?
        - If no, please describe:
- Fuel Island & Aboveground Tanks - Leak and Spill Control
    - Does this facility have aboveground tanks and/or a fuel island?
        - If no, please continue on to the Similar Pollutant Generating Areas section
    - Please add a photo showing any above ground fuel tanks or fueling stations.
    - Does the fuel island have a spill kit (with ample supplies) readily accessible for small vehicular spills?
        - If no, please describe:
    - Are used cleanup materials and waste removed and properly disposed of from the fueling area?
        - If no, please describe:
    - Are proper fueling and spill cleanup instructions posted at the fueling area?
        - If no, please describe:
    - Are automatic shutoff valves installed at each fueling pump?
        - If no, please describe:
    - Are manual/emergency shutoff valves present at the fuel island?
        - If no, please describe:
    - Are fuel pumps, hoses, and nozzles clean and free from leaks?
        - If no, please describe:
    - Is there a spill containment system around aboveground fuel tanks?
        - If no, please describe:
    - Is the spill containment system free of rainwater and spills/leaks?
        - If no, please describe:
    - If a drain valve is present, is the spill containment drain valve closed?
        - If no, please describe:
    - Are aboveground tanks located (or BMP controls in place) to prevent spilled fluids from

discharging to drainage paths, storm drain systems, or watercourses?
- **If no, please describe:**

- **If there is a generator on site, is its fuel stored in secondary containment?**
  - **If no, please describe:**
- **Are portable fueling tanks (gas cans) leak free?**
  - **If no, please describe:**
- **Are portable fueling tanks stored in a flammable cabinet?**
  - **If no, please describe:**
- **Please add a photo showing the area where any portable fuel tanks are stored.**

- **Similar Pollutant Generating Areas**
  - **If this facility has any other similar areas that may generate pollutants, have these areas been thoroughly inspected?**
    - **Please note any issues or deficiencies found.**
    - **If no, please describe:**
- **Illicit Discharges**
  - **Are the facility buildings and grounds, and perimeter free of illicit discharges originating from within this facility?**
    - **If no, please describe:**
  - **Please note any other pertinent information that should be recorded regarding this Semi-Annual Comprehensive Stormwater Inspection?**
- **Do you want to upload a photo of a deficiency encountered during the inspection?**
  - **Please add photos**
- **Please sign to certify completion of this inspection**

Appendix E: UDOT Best Management Practices Fact Sheets

Public Education and Outreach on Stormwater Impacts

BMP - Television Commercials on Stormwater

Objective

Increase public awareness of stormwater and the effects of common pollutants. Inform and educate the public on ways to minimize the discharge of pollutants to storm drain systems.

Description

Professionally produced TV commercials provide educational and informational materials to residents on the topic of stormwater, common stormwater pollutants and proper disposal of waste materials.

Television commercials are broadcast on major networks to audiences statewide and focus on stormwater quality. Commercials describe stormwater, common pollutants, and ways the public can prevent and minimize pollutants from being discharged to storm drain systems.

UDOT supports the Salt Lake County Stormwater Coalition in providing mass media educational materials for TV commercials and movie theater pre-feature “cinema spots”. Salt Lake County hired a consultant that developed and produced the TV commercials as well as other mass-educational materials.

Decision Process

Television media is the most effective tool in educating Utah residents statewide about stormwater pollution prevention. Target audiences include all residents, business and property owners throughout Utah. Target pollution sources include common household hazardous wastes and litter, vehicle fluids/wash water and lawn care chemicals.

Staffing

This BMP involves yearly financial support to Salt Lake County. Except for general coordination activities, no UDOT staffing resources are required.

Timing and Schedule

Television commercials and cinema spots are released annually. Timing and duration of these campaigns vary, but are generally 1-2 months out of the year.

BMP - Stormwater Information on UDOT's Website

Objective

Increase public awareness of stormwater and the effects of pollutants. Educate the public on ways to minimize the discharge of pollutants to storm drain systems.

Description

Provide on-line information that explains what stormwater is and how pollutants from stormwater can impact the aquatic environment. Information directly on the web site or on web links would describe how to properly dispose of common household wastes and include steps to reduce the discharge of pollutants to rivers, streams and stormwater facilities. In addition, the web site will provide the opportunity for the public to email information to staff on potential problems, illicit discharges or spills.

Educational materials and messaging are developed for posting on UDOT's web site to address specific pollutants and pollutant sources that could degrade beneficial uses of receiving waters. Materials may include the categories and topics shown in the Table below.

Decision Process

Many highway users access UDOT's web site to obtain information on transportation projects and traffic conditions. Web based information is an effective way to inform and educate the public on issues regarding stormwater quality and the ultimate destination of stormwater runoff.

The target audience for this BMP includes residents, business and property owners, and all other interested individuals and groups that may desire to obtain transportation information via the web site. Target pollutant sources described will include litter, common household hazardous wastes, vehicle fluids and lawn care chemicals.

Staffing

The Central Stormwater Coordinator will work with the UDOT Web Manager to add and update stormwater information on the web site.

Timing and Schedule

Website content is reviewed and updated annually. New stormwater fact sheets were developed and added to the website in July of 2020.

Public Education and Outreach Topics	
Category	**Topics**
Stormwater pollutants and pollutant sources that may impact receiving water beneficial uses.	· Impacts from stormwater discharges. · Measures that individuals can take to avoid, minimize, reduce and/or eliminate pollutant discharges to storm drainage systems.
Illicit discharges and improper disposal of wastes	· Maintenance of septic systems · Effects of automotive work and car washing on water quality · Proper disposal of swimming pool water · Proper disposal of household hazardous waste · Proper disposal of used motor oil · Proper management of pet waste
Business, commercial and industrial facilities	· Proper lawn maintenance and the use of pesticides, herbicides, and fertilizer · Benefits of appropriate on-site infiltration of stormwater · Building and equipment maintenance, including the proper management of waste water · Proper storage of materials, emphasizing pollution prevention · Proper management of waste materials and dumpsters, including covering practices and pollution prevention · Proper management of parking lot surfaces, including sweeping
Applicators and distributors of pesticides, herbicides, and fertilizers	· Proper use, application, and disposal of pesticides, herbicides, and fertilizers

Public Involvement and Participation

BMP - Stormwater Comment Opportunity via UDOT's Website

Objective

Provide an on-line opportunity to the public to submit comments and suggestions regarding stormwater issues.

Description

Stormwater Information directly on UDOT's web site or on web links would describe how stormwater is managed on transportation projects. UDOT's website will provide the opportunity for the public to comment on these management strategies and email suggestions to UDOT staff. The website will also provide an e-mail opportunity and telephone number/contact person for the public to share information on potential stormwater problems, illicit discharges or spills.

Decision Process

Many highway users access UDOT's web site to obtain information on transportation projects and traffic conditions. Web based information is an effective way to inform and educate the public on issues regarding stormwater quality and management techniques.

The target audience for this BMP includes residents, business and property owners, and all other interested individuals and groups that may desire to obtain transportation information via the web site. Target pollutant sources described will include litter, common household hazardous wastes, vehicle fluids and lawn care chemicals.

Staffing

The Central Stormwater Coordinator will work with the UDOT Web Manager to update information on the web site.

Timing and Schedule

Contact information on the UDOT website is updated upon any changes in staffing.

Communications with the public regarding stormwater issues are handled as soon as practicable. Response time will depend upon the nature of the communication.

BMP - Adopt-A-Highway Litter Cleanup Program

Objective

Provide the public an opportunity to be involved and participate in UDOT's litter cleanup program on state roadways and highways. The objective of this BMP is to prevent litter and associated pollutants from being discharged to downstream drainage facilities and receiving waters.

Description

The "Adopt a Highway" program is a cleanup effort by volunteers from various groups who collect and remove litter on a specific segment of interstate highway or local state roadway. UDOT provides litter bags and collects the bags and disposes of the waste material at a local landfill.

Decision Process

Each "Adopt-A-Highway" group involved collects litter on a two mile segment of roadway right of way a minimum of three times per year.

By participating in the Adopt-A-Highway program, members of the public learn firsthand, the effects of litter pollution on roadside areas and the importance of proper disposal. To recognize the efforts of the group, UDOT erects a sign on that section of roadway with the group's name.

Staffing

- Region Adopt-A-Highway Coordinators

Timing and Schedule

Each group collects litter a minimum of three times per year. Schedules are set by the groups and coordinated with the maintenance facility responsible for that segment of right of way.

BMP – UDOT Spill Response Hotline

Objective

Provide an opportunity for the public to report potential locations of spills and illicit discharges.

Description

The public can report a spill, illicit discharge or illegal connection using UDOT's Spill Response Hotline. The Spill Response Hotline number is listed on UDOT's Illicit Discharge Detection and Elimination website along with information on types of spills, discharges, and illegal connections, and more information on how to report these incidents.

Decision Process

By calling the Spill Response Hotline, members of the public participate in the effort to locate and stop pollutant discharges. The public also learns the importance of proper disposal of waste materials.

Staffing

- UDOT Central Stormwater Staff
- UDOT Region Stormwater Coordinators
- Region Safety/Risk Managers

Timing and Schedule

A spill response hotline was added in October of 2019.

The spill response hotline is staffed Monday – Thursday from 7:30 am – 5:30 pm. Outside these hours, a voicemail message directs callers to call 911 in the event of emergency or the Utah DEQ 24-hour response line.

Illicit Discharge Detection and Elimination

BMP – Storm Drain Outfall Maps

Objective

Develop maps that show UDOT MS4 drainage systems and outfalls.

Description

A GIS layer titled “Stormwater Drainage Systems” has been created in UDOT’s UPLAN Map Center and information on existing drainage systems has been added. This GIS layer serves as the tool for showing the Department’s statewide MS4 drainage systems, associated outfalls, water quality structural controls and Waters of the State. Available Information on local drainage systems has also been added to this GIS layer, which will help in tracking potential illegal connections and illicit discharges. This layer is accessible to UDOT staff for adding new drainage features and editing existing features as modifications are made.

Decision Process

Implementation of this BMP will help show locations of drainage systems and associated outfalls for the purposes of dry weather screening by UDOT Region staff.

Staffing

Staffing for this BMP includes:

- Central GIS staff
- Region Environmental Engineer
- Region Hydraulics Engineer
- Region GIS staff

Timing and Schedule

Mapping was completed in January of 2020.
Mapping is updated on a continual basis as construction alters or adds new stormwater features to UDOT’s system.

BMP – Stormwater Outfall Screening

Objective

The objective of outfall screening is to eliminate sources of non-stormwater discharges to the MS4 and Waters of the State.

Description

Stormwater outfall screening involves identifying drainage system outfalls, performing field investigations during periods of dry weather and assessing the potential for illicit discharges to the MS4.

Decision Process

Observations of stormwater flow at outlets can reveal information about the pollutant type and possible source for locating the connection and eliminating the discharge. Illicit discharges often result in changes in physical and chemical characteristics of water.
Drainage system outfalls will be inspected during dry weather conditions (72 hours since the pervious storm) for the following indicators of pollutants:

Odor – Odor can sometimes indicate the source of contamination. Industrial discharges may result in an odor that would suggest contamination from oil, gasoline, chemicals or solvents. Industries related to food production could discharge organic substances into drainage facilities which would convey associated odors downstream.

Color – Color is another indicator of illicit discharges, especially from industrial sources.

Clarity **–** discharges that are cloudy may result from concrete mixing or stone related industries. In addition, sanitary wastewater can be cloudy.

Floatable Matter **–** discharges may also have floatable matter that could indicate possible sources.

Deposits and Stains – Deposits and stains can remain on surfaces after illicit discharges have ceased. However, not all deposits are the result of illicit discharges. Natural water sources that have a high degree of natural hardness may result in deposits at the flow line of pipe culverts and at outlet structures.

Vegetation **-** Vegetation adjacent to the outfall could be affected if the discharge is other than stormwater. Plant growth may be stunted if the discharge is too

acidic. Plants will continue to show effects of contamination even after the flow has ceased.

A Survey123 form will be completed for every outfall inspected. Follow-up activities will be conducted for locations where pollutants indicate possible illicit discharges. If observations indicate possible pollutant discharges, the drainage system upstream will be investigated in further detail to determine the source of the discharge. Findings will be reported to the local Health Department for action to eliminate the illicit discharge.

All enforcement actions taken will be documented.

Outfall screening is described in the UDOTs “Dry Weather Screening Plan for Stormwater Outfalls”

Staffing

Staffing for this BMP includes:

- Region staff
- Environmental Consultants

BMP – Encroachment Permits

Objective

Prohibit/eliminate illicit discharges of stormwater and pollutants from entering UDOT drainage facilities and right of way.

Description

Entities proposing to connect into the Department's drainage system must file a permit application and enter into an Agreement with the Department. The following conditions apply for proposed drainage connections:

1. The Department must have a drainage system that can accept additional stormwater runoff.

2. No connection will be allowed if the Department's drainage system depends entirely on subsurface infiltration such as infiltration trenches, infiltration basins, dry wells, sumps or similar features.

3. Flows from offsite areas must not exceed the capacity of the drainage system or interfere with the Department's ability to use its drainage system.

4. The quantity of stormwater discharged into the Department's drainage system for the 10 year storm event must not exceed 0.2 cubic feet per second per acre of developed area.

5. Size the storage facility and outlet structure to contain the 100-year storm event while providing 1 foot of freeboard from the water surface elevation to the top of the facility.

6. Pollutants and contaminants must be removed prior to entering the Department's drainage system using water quality controls.

7. Offsite drainage is not allowed to pond within the Department's Right of Way unless authorized by the Department in writing.

8. The requesting entity pays the cost of connecting to the Department's drainage system.

Decision Process

Encroachment permits can help prevent/eliminate unauthorized discharges of stormwater and pollutants from entering UDOT storm drain facilities and right of way. Failure to obtain an encroachment permit is a violation of UDOT Policy and enforcement actions are taken against those responsible. Enforcement against parties responsible would be accomplished by UDOT, with punitive measures being levied by the local health department with jurisdiction over the area.

Staffing

Staffing for this BMP includes the UDOT Stormwater Team Staff and the UDOT Permits Division

Timing and Schedule

Drainage Agreements are executed when an outside entity requests to connect.

Construction Site Stormwater Runoff Control

BMP – UDOT Standard Drawings for Temporary Erosion and Sediment Control

Objective

Minimize the discharge of construction site pollutants to stormwater conveyance systems.

Description

This BMP consists of UDOT Standard Drawings that describe temporary erosion and sediment control measures used on UDOT construction and maintenance projects.
These drawings describe the necessary elements of each control measure and how each measure is to be constructed. UDOT Standard Drawings for temporary erosion control include:

EN 01: Check Dams EN 02: Silt Fence

EN 03: Slope Drain and Temporary Berm EN 04: Drop Inlet Barriers

EN 05: Pipe Inlet and Curb Inlet Barriers

EN 06: Sediment Trap and Stabilized Construction Entrance EN 07: Straw Bale Barrier

Strategy

Control measures listed above are designed to trap pollutants in stormwater prior to discharge from the construction site. Temporary erosion and sediment control measures can reduce erosion and sediment loss by approximately 80%.

Staffing

Staffing for this BMP includes:

- Region Environmental Staff
- Region Design Staff
- Region Construction Staff

Timing and Schedule

The construction season varies by region, but generally extends from April through October, depending upon the weather each year.

BMP – UDOT Standard Specification 01571 "Environmental Controls"

Objective

Outline requirements for controlling erosion and capturing sediment laden runoff from UDOT construction sites.

Description

This specification includes descriptions, materials, installation and inspection requirements of temporary and permanent erosion control measures. The requirements described in this specification are contractual and ensure that control measures will meet UDOT standards when installed. The environmental control measures include:

Temporary Control Measures	Permanent Control Measures
Channel Liner	Topsoil and Seeding
Erosion Control Blanket	Turf Reinforcement Mat
Wood Fiber Mulch	
Hydraulically Applied Medium (Bonded Fiber Matrix)	
Check Dams[1]	
Silt Fence[1]	
Slope Drain and Temporary Berm[1]	
Drop Inlet Barriers[1]	
Pipe Inlet Barrier and Curb Inlet Barriers[1]	
Straw Bale Barrier[1]	

Sediment Trap[1]	
Stabilized Construction Entrance[1]	
Environmental Fence	

1 Installation details are shown in the UDOT “EN” Series Standard Drawings

Strategy

The specification outlines UDOT requirements and installation standards for contractors, provides an enforcement mechanism and allows for liquidated damages to be assessed against the contractor in the event of non-compliance.

Staffing

Staffing for this BMP includes:

- UDOT Region Construction Staff

BMP – AASHTO Construction Stormwater Field Guide for Temporary Erosion and Sediment Control

Objective

Provide guidance to construction staff to minimize the discharge of construction site pollutants off site areas and waterways.

Description

The AASHTO Construction Field Guide is a quick reference for construction inspectors and resident engineers on topics related to installation, maintenance and inspection of sediment and erosion control BMPs. The guide includes information on installation, inspection and maintenance of temporary erosion control measures:

Chapter 1 – Introduction: Scope, Objective and NPDES Regulations
Chapter 2 – Pollution Prevention and General Housekeeping
Chapter 3 – Sediment Control
Chapter 4 – Erosion Control
Chapter 5 – Temporary Drainage Management

The AASHTO Construction Field Guide replaces the UDOT Erosion and Sediment Control Field Guide.

Strategy

The field guide is a useful tool that is concise enough to be carried from job site to job site. Using this guide helps projects stay in compliance with federal and state water quality regulations. Common problems with erosion/sediment control measures on construction sites can be identified and information on effective BMPs is provided.

Timing and Schedule

A copy of the AASHTO Construction Field Guide is always accessible via the UDOT Construction and Long-Term Stormwater Management Webpage.

BMP – UDOT Stormwater Pollution Prevention Plan (SWPPP)

Objective

Minimize the discharge of construction site pollutants to offsite areas and waterways.

Description

The SWPPP is an implementation and documentation plan used for stormwater management on construction projects. This document outlines responsible parties, construction activities and schedules, permit requirements, spill response, maps, inspections, plans, details and for minimizing the discharge of pollutants from construction projects. BMPs include temporary erosion and sediment control measures that address construction activities and permanent measures that address erosion control for the life of the project. SWPPPs also include post-construction low impact development (LID) water quality measures and non-LID measures to be constructed on the project.

SWPPPs are developed for all projects that will disturb one or more acres of soil in accordance with the Construction General Permit for Stormwater Discharges. In addition, SWPPPs are developed for all projects (regardless of acreage disturbed) that are adjacent to Waters of the State, sensitive environmental areas or special aquatic sites as defined by the US Army Corps of Engineers.

Strategy

Providing SWPPPs for projects enables construction staff to manage construction site pollutants and helps prevent pollutants from being discharged to offsite areas and waterways.

BMP – UDOT Standard Specification 01355 “Environmental Compliance”

Objective

Provide guidance and direction to comply with federal and state environmental regulations.

Description

This specification applies to all UDOT projects and outlines specific actions to be taken and requirements necessary for environmental compliance. Topics include:

Strategy

This specification is part of the UDOT Standard Specifications for Road and Bridge Construction that are included as part of contract documents for projects.

Staffing

Staffing for this BMP is comprised of:

- UDOT Standards Committee
- UDOT Central Environmental Staff

Timing and Schedule

As of June 2020, UDOT Standards and Standard Drawings are updated annually.

BMP – UDOT Environmental Control Supervisor (ECS) Training

Objective

Increase protection of environmental resources within and adjacent to UDOT construction sites.

Description

In order to increase protection of environmental resources within and adjacent to UDOT construction sites, UDOT often requires the contractor to designate an Environmental Control Supervisor for selected projects. Types of projects that may require an Environmental Control Supervisor include those that have 404 Permits, UPDES Permits, Stream Alteration Permits or other environmental concerns.

Strategy

UDOT's Environmental Control Supervisor (ECS) on-line training course provides information on the development of project SWPPPs and BMPs to reduce adverse impacts from construction sites on downstream water bodies. The ECS class is taken by UDOT construction inspectors, engineers, and contractor staff. If course attendees pass the exam, a Certificate of completion is provided which allows the attendee to serve as the ECS for construction projects. Those persons who serve as the ECS on UDOT projects must retake the ECS course every 3 years. ECS certification is required for UDOT personnel in order to advance to the Transportation Technician III level, a career path which all Transportation Technicians are encouraged to pursue.
Documentation of all individuals certified as an ECS is accomplished through UDOTs Learning Management System (LMS).

The responsibilities of the ECS include:

- Inspecting the project site for compliance with UPDES Construction General Permit for stormwater discharges and other environmental permits
- Maintaining temporary erosion and sediment control measures
- Modifying the project SWPPP as required
- Ensuring that environmental clearances are obtained for off-site work
- Coordinating with the UDOT construction crew's ECS
- Ensuring that environmental mitigation commitments are followed on the project

Staffing

Staffing for this BMP includes:

- UDOT Central Environmental Services staff
- UDOT Central Construction staff

Timing and Schedule

ECS recertification is required every 3 years.

BMP – Contractor Rating for Environmental Compliance

Objective

Increase contractor environmental sensitivity in the construction phase.

Description

UDOT has a rating system that provides an opportunity for UDOT construction staff to comment on contractor performance for each project. Contractor performance is rated by the UDOT resident engineer on quality control/workmanship, traffic control, EEO/labor compliance, organization/supervision, partnering, schedule, public relations and environmental compliance. An overall score of 70 or below (out of 100) is considered failing. If the overall rating score falls below 70, the contractor is no longer pre-qualified to bid on major UDOT projects. A project is considered "major" if the estimated construction cost is likely to exceed $500,000. The rating for environmental compliance includes the following issues:

- Hazardous Waste Requirements
- Air Quality
- Clearances for off-site work
- Invasive Weed Control
- UPDES Permit Requirements
- 404/Stream Alteration Permit Requirements
- Temporary Erosion Control

Strategy

A rating system for contractors gives UDOT management an indication of how they are performing on a variety of issues. It also provides feedback on areas in which the contractor needs additional training and guidance. This system also provides a way to recognize high quality work and preclude those contractors who have done poor quality work from bidding on major UDOT projects.

Staffing

Staffing for this BMP includes:

- UDOT Resident Engineers

Timing and Schedule

Contractor ratings are completed as a part of project closeout. Exact timing is dependent upon project timelines.

Post-Construction Stormwater Management in New Development and Redevelopment

BMP – Post Construction Stormwater Quality Design Manual

Objective

Provide a stand-alone stormwater design manual to assist designers in selecting and designing post-construction (permanent) water quality controls for UDOT projects.

Description

Post-construction BMPs described in the design manual will include state of the art structural BMPs and low impact development (LID) BMPs for use on UDOT projects. The manual will contain design information, guidance and requirements as well as information to estimate the effectiveness of BMPs. Topics will include UDOT's MS4 Stormwater Permit, UDOT's Stormwater Management Program (SWMP), BMP selection and design, common transportation related pollutants, flow based treatment BMPs and volume reduction measures. BMPs will include:

- Vegetated Strips and Swales
- Infiltration Measures
- Detention Measures
- Gross Solids Removal Devices
- Media Filters
- Wet Basin
- Open Graded Surface Course

Refer to the Design Manual for detailed descriptions of the selection and design of post- construction BMPs.

Strategy

Providing a single design manual for UDOT staff and contracted staff that outlines post- construction BMP requirements is critical for statewide consistency and Permit compliance. This manual will help educate design staff how to design post-construction BMPs that will reduce transportation related pollutants from being discharged to Waters of the State.

Timing and Schedule

The Stormwater Quality Design Manual was completed in June of 2018.

Pollution Prevention/Good Housekeeping for Municipal Operations

BMP – Maintenance Station Stormwater Pollution Prevention Plan (SWPPP)

Objective

The objective of Maintenance Station SWPPPs is to identify possible pollutant sources and activities and outline practices and control measures that will reduce the discharge of pollutants from UDOT facilities to offsite areas and waterways.

Description

A SWPPP is prepared for each UDOT maintenance station statewide. Each SWPPP includes a site map showing storage areas for equipment, fuel, chemicals, salt and brine making. Site maps also show parking lots, office buildings, maintenance shops, drainage systems, detention/retention basins and nearby receiving waters, if present.
SWPPPs also include a discussion of pollutants of concern from maintenance activities, standard operating procedures (SOPs) for material storage and vehicle equipment repair. SWPPPs also include information on specific BMPs, training, stormwater and non-stormwater discharges and inspections.

SWPPPs have been developed to meet the following objectives:

- Identify pollutant sources that may affect the quality of stormwater discharges;
- Identify potential pathways and conveyances for pollutants to discharge from the facility, and
- Identify, assign, and implement control measures and best management practices to reduce or prevent pollutants in stormwater discharges.

Strategy

UDOT is required to reduce the discharge of pollutants associated with stormwater runoff from UDOT-owned facilities. The SWPPP is a planning, evaluating, implementing and reporting tool that is used to ensure compliance with the MS4 Permit.

Staffing

Staffing for this BMP is derived from:

- UDOT Central Maintenance Division
- UDOT Region Maintenance Area Supervisors, Station Supervisors
- UDOT Region Maintenance staff

Timing and Schedule

UDOT Facility SWPPPs were last reviewed in February of 2020.
Facility SWPPPs are reviewed annually and updated to reflect any changes to site conditions and operations.

BMP – Salt Piles and Salt Storage

Objective

Prevent salt and storm runoff containing salt from polluting stormwater and adversely affecting downstream environmental resources.

Description

Salt is an important material in UDOT's winter road maintenance program. UDOT has approximately 120 stockpiles of salt throughout the state. Salt piles are covered, preventing storm runoff from contacting the material. During loading/unloading salt for winter operations, salt is swept back under the covered area to prevent contaminated runoff from leaving the area. It is important to prevent salt and brine from migrating to downstream drainage facilities and receiving waters.

Strategy

Excessive quantities of salt can cause adverse impacts to aquatic environments and roadside vegetation. Therefore, it is important to incorporate best management practices to contain salt and salt leachate in order to store this material properly.

Staffing

Staffing for this BMP includes

- UDOT Region Maintenance Area Supervisors and Station Supervisors
- UDOT Region Maintenance staff

Timing and Schedule

Winter operations involving salt and brine are performed each year from November to

April; weather dependent.

Salt not actively in use is always stored in the covered salt storage area.

BMP – Street Sweeping

Objective

Remove particulates and debris from paved roadway surfaces. Description

All state paved roadways in urbanized and rural areas are swept at least once per year. Material collected is properly disposed of at local landfills. Paved roadways in urban areas are swept approximately 2 times per year.

Strategy

Street sweeping efforts help to remove fine particulate matter and other pollutants before being discharged into storm drain systems and downstream receiving waters.

Staffing

Staffing for this BMP includes:

- UDOT Region Maintenance Area Supervisors and Station Supervisors
- UDOT Region Maintenance staff

Timing and Schedule

Sweeping is prioritized annually in the spring to remove grit from winter operations but can be scheduled any time as needed.

BMP – Herbicide Application

Objective

Apply herbicides in such a manner to reduce to the maximum extent possible, the discharge of pollutants to adjacent areas, drainage facilities and receiving waters.

Description

Maintenance forces selectively apply herbicides to roadside areas within the roadway right way to control undesirable plant species and invasive weed species listed on the Utah State Department of Agriculture's Noxious Weed List and each counties weed list.

Strategy

The UDOT Maintenance Division implements a process that integrates the needs of local communities, visual quality, knowledge of wildlife and plant ecology and various economical methods to manage roadside vegetation. Healthy stands of vegetation resist invasion by noxious weeds, reduce the need for herbicide application and reduce maintenance costs. All personnel who apply herbicides receive approximately 20 hours of specialized training. This training includes the use of the various types of herbicides, calibration of equipment and field instruction. Trainees are supplied with handouts, instruction manuals and reference manuals. Every maintenance station is supplied with plant identification and weed management books. Applicators as well as other interested persons are encouraged to attend the annual Utah Weed Control Conference. UDOT's Roadside Vegetation Manager is continually evaluating the use and effectiveness of various herbicides. It was through this effort, that it was decided to discontinue the use of fertilizers throughout the department.

UDOT is a strong advocate of wildlife habitat preservation. UDOT supports a program called "Roadsides for Wildlife" which advocates leaving a strip of natural vegetation adjacent to the roadway. This program recommends leaving this strip of vegetation partially mowed or un-mowed. This has numerous benefits such as providing habitat for many bird species, reducing erosion and siltation and resisting invasion by noxious weeds. Native grasses, wildflowers and shrubs provide an aesthetically pleasing landscape and are important components of quality wildlife habitat.

Staffing

Staffing and equipment resources are derived from:

- UDOT Central Roadside Vegetation Manager.

- UDOT Region Maintenance Area Supervisors and Station Supervisors
- UDOT Region Maintenance staff

Timing and Schedule
Annually, March through September

Appendix G: Information Recorded in UDOT Priority Area Inspection Forms

- *Inspection Date*
- *Inspector Name*
- *Username*
- *Select your job function at UDOT.*
- *Select your UDOT region.*
- *Select your Region 1 facility.*
- *Select your Region 2 facility.*
- *Select your Region 3 facility.*
- *Select your Region 4 facility.*
- *Priority Area Data*
    - *Select the UDOT region where this inspection is being performed.*
    - *Select the Type of Feature being Inspected*
    - *If other, please describe the type of feature.*
    - *Unique Feature ID:*
    - *Street Address:*
    - *Nearest Route*
    - *Nearest Milepost*
- *Field Observations*
    - *Is there evidence of illegal dumping?*
        - *If yes, please describe:*
    - *Is there evidence of an illicit connection to UDOT's storm drainage system?*
        - *If yes, please describe the illicit connection:*
    - *Is there flow present and originating from the illicit connection?*
        - *If yes, please describe the flow:*
    - *Was the illegal connection traced to the source?*
        - *If no, please describe:*
        - *If yes, please describe:*
    - *Is there evidence of an illicit discharge?*
        - *If yes, please describe:*
    - *Was the illicit discharge traced to the source?*
        - *If no, please describe:*
        - *If yes, please describe:*
    - *Is there a stormwater outfall in the immediate area?*
    - *Is there evidence of contamination reaching the outfall?*
        - *If yes, please describe the contamination:*
- *Notes*
- *Please add a photo showing the inspection site*
- *Do you want to upload additional photos?*
- *Photos (add as many as necessary)*
    - *Photo 1*
- *Please sign to certify completion of this inspection.*