STORMWATER POLLUTION PREVENTION PLAN

FEBRUARY 21, 2020

1423 BRIGHAM MAINTENANCE STATION

Utah Department of Transportation
Brigham Maintenance Station
1325 East Highway 90
Brigham City, Utah 84032
(435) 723-5784

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."

Daniel Page, S.E.

Certifying Official

Director of Maintenance, Asset, and Facility Management

Certifying Official's Title

Certifying Official's Signature

Date

Stormwater Pollution Prevention Team

The following personnel are responsible for implementing this Stormwater Pollution Prevention Plan (SWPPP). The Station Supervisor is responsible for ensuring that there is a current SWPPP for this facility.

Name	**Position**	**Role**	**Reference in SWPPP**
Travis Jeppsen	Station Supervisor	Manages daily operations at the facility, updates facility SWPPP, documents any in-house stormwater related training in SWPPP	1.5, 3.4, 4.1, 5, Attachments B, E, F
Troy Esterholdt	Area Supervisor	Oversees maintenance facilities within their area, primary contact for spills within their area	4.1, 5, Attachment B
Bren Edwards	Region Stormwater Program Coordinator	Notified of any issues, needs or questions regarding stormwater and stormwater infrastructure at the facilities in their region	4.1, 5, Attachment B

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Acronyms and Abbreviations

BMP	Best Management Practice
DWQ	Utah Division of Water Quality
Maintenance	UDOT Maintenance Division
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
Permit	UDOT UPDES Municipal Separate Storm Sewer System (MS4) Permit (UTS000003)
SOP	Standard Operating Procedure
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
UDOT	Utah Department of Transportation
UPDES	Utah Pollutant Discharge Elimination System
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

1 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for this maintenance station in general accordance with the requirements of the Utah Department of Transportation (UDOT) Stormwater Management Program (SWMP) to comply with the Utah Pollutant Discharge Elimination System (UPDES) Permit. The Permit requires the preparation of SWPPPs for maintenance stations. The SWPPP identifies potential pollutants and tailored standard operating procedures (SOPs) that include best management practices (BMPs) that, when implemented at the facility, will have the ultimate goal of preventing or reducing the discharge of pollutants from this facility. The SWPPP also includes information on the required inspections to be conducted at the facility.

1.1 SWPPP Purpose

The purpose of the SWPPP is to identify the activities conducted at the maintenance station and the stormwater SOPs that will be implemented to reduce the discharge of pollutant runoff from the facility. This SWPPP provides a site-specific description of stormwater pollution prevention practices at this facility.

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

1.2 SWPPP Objectives

This SWPPP has 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;
- Identify and implement SOPs that include best management practices to reduce or prevent pollutants in stormwater discharges.

1.3 Pollutants

The MS4 Permit requires that the SWMP address, at minimum, typical pollutants found at UDOT facilities and operations. These pollutants are:

- Total suspended solids
- Sediment
- Petroleum products
- Pesticides and herbicides
- Chlorides
- Heavy metals (e.g., zinc, lead)
- Bacteria
- Chlorine
- Organic matter

SWPPPs developed for UDOT owned or operated facilities identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges associated with activity from the facility and include BMPs to reduce or eliminate pollutants in stormwater runoff.

1.3.1 Description of Potential Pollutant Sources

There are potential pollutant sources that can exist in different areas around the maintenance station. Potential areas of concern at a maintenance facility include:

- 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
- Operations that have the potential to discharge pollutants into stormwater conveyance systems that leave the site

A list of hazardous materials located at the station can be found in Section 3.4. To identify the locations of potential pollutant sources at the station, please refer to the Site Map in Attachment A.

1.4 SWPPP Availability

This SWPPP will be maintained at this facility and will be made available to a representative of the Utah Division of Water Quality (DWQ), the US Environmental Protection Agency (USEPA) and/or other local agency if requested.

1.5 SWPPP Revisions

The individuals listed on the Stormwater Pollution Prevention Team Page of this SWPPP are responsible for ensuring that any changes in design, construction, operation, or maintenance activities at the station do not cause the discharge of pollutants to surface water, groundwater, or a municipal separate storm sewer system (MS4). This SWPPP will be revised if it is in violation of any condition of the Permit, has not achieved the general objective of reducing pollutants in stormwater discharges, or whenever the DWQ requires revision of the SWPPP. Additionally, the Station Supervisor is responsible for ensuring the SWPPP is revised as activities and SOPs change.

2 MAINTENANCE FACILITY INFORMATION

This section of the SWPPP provides a general description of the maintenance station.

The Brigham maintenance station is a staging area for the routine and emergency repair and upkeep of the state highway system within the State of Utah. The maintenance station's primary activities are to store equipment, tools, raw materials, loading and unloading of materials, equipment repair, and equipment cleaning.

One maintenance crew is stationed at this facility.

Maintenance vehicles required to support the highway activities conducted from this maintenance station are stored at this station.

2.1 Property Information

Described below is property information for the Brigham Maintenance Station. All elevations are referenced to mean sea level. Latitude and Longitude are in decimal degrees. A facility site map is located in Attachment A of this SWPPP.

Street Address	1325 East Highway 90
City	Brigham
State	Utah
Zip Code	84302
County	Box Elder
Facility Acreage (acres)	15
Facility Elevation (feet)	4604
Latitude	41.5023°
Longitude	111.9950°

2.2 Topological Features

The Brigham Maintenance Station is located at 1325 East, within Brigham City, Utah. The property is split into two parts with a creek that runs through the site. South of the creek, the site is sloped to drain to the creek. This area contains native soil and a gravel base. This area is used for material and aggregate storage. The area to the north of the creek is where all the sheds are and this area is predominantly paved. The paved areas drain to the north and to the southwest. The site is at the base of a canyon. The north and east sides of the site have steep slopes that drain to the site. The site is surrounded on three sides by a construction and mining company. The fourth side is bordered by a road and then native ground.

2.3 Environmental Areas and Surface Water Bodies

This facility is located nearby Box Elder Creek, an impaired water body in the state of Utah. Any pollutants that are generated or runoff from this facility may contribute to the impairment of this water body. Only clean stormwater and snowmelt are allowed to leave this facility through the storm drainage system.

2.4 Water Supply and Site Wells

There are no on-site groundwater wells, drinking water wells, agricultural wells, or injection wells operated at this station. Potable water service is provided to the site by Brigham City.

2.5 Stormwater Conveyance and Treatment BMPs

The Brigham Maintenance Station has four distinct drainage areas. The site has a graded, unpaved area on the south side of the creek that is mainly used for materials and non-salt aggregate storage. This area sheet flows north to the creek. The area directly around the retention and the salt shed sheet flows and collects in the retention basin. The area between the maintenance shed and the fence on the south side has stormwater that collects near a swale approximately 30 feet north of the fence. The water collects and passes through a pipe under the access road. The stormwater returns to the swale and continues to go west until it passes under the fence and leaves the site. The smallest drainage area is north of the shed. Water from the east side of the area and the northernmost parts of the site sheet flow to the north fence line where flows pass under the fence at the center of the fence line.

The facility falls within the Brigham City MS4 under the UDPES Phase I requirements. The point of contact for stormwater and drainage for the area surrounding the maintenance facility is Brigham City.

Treatment BMPs are defined as permanent stormwater treatment measures to improve stormwater quality. Treatment BMPs at the Brigham City Maintenance Station include a retention basin.

2.6 Wash Water Conveyance

Washing is done in two locations at this site. Washing is done at the wash racks near the retention basin and an internal site within the maintenance building. Runoff water near the wash rack area is drained and collected in the retention basin. The runoff from washing in the building is collected in an internal drainage system that is pumped out of the building to just north of the wash racks where it drains into the retention basin.

2.7 Sewage Conveyance

Sanitary waste at the Brigham Maintenance Station is conveyed to Brigham City sanitary sewer system. The Brigham Sewer Department operates the sewer system.

The Station Supervisor will keep the list of chemicals in Section 3.4 at the station current and up to date. For any questions about any new or current products and their potential discharge to the sanitary sewer system, please contact the Brigham Sewer Department. Contact information for the Brigham Sewer Department can be found in Attachment B of the SWPPP in the Maintenance Emergency Call Down List and above.

3 MAINTENANCE FACILITY ACTIVITIES AND BMPS

This section identifies the activities conducted at the maintenance station and the SOPs that include BMPs to reduce and/or eliminate the discharge of pollutants in stormwater runoff from the facility.

3.1 Activities

The Brigham Maintenance Station is a staging area for the routine and emergency repair and upkeep of the state highway system within the State of Utah. The maintenance station's primary activities are to store equipment, tools, raw materials, roadway waste materials, loading and unloading of materials, equipment repair, equipment cleaning and equipment fueling.

3.1.1 Operations and Maintenance Program – Standard Operating Procedures

The Operations and Maintenance program for UDOT maintenance stations include Standard Operating Procedures for the following items:

- use, storage and disposal of chemicals
- spill prevention plans
- dumpster and waste management
- cleaning, washing, painting and other activities
- parking lot and facility cleaning (sweeping & schedules)
- inventory of floor drains and discharge locations
- salt and other deicing materials
- brine making operations
- application, storage and disposal of pesticides and herbicides
- vehicle cleaning, maintenance and storage
- wastewater disposal
- fueling operations
- detention and retention basin management
- guidance documents for the Operations and Maintenance Program may be found in the Standard Operating Procedures and Resources (Attachment B)

3.1.2 SOPs for Salt and Other Deicing Materials

Storage piles of salt or other materials used for deicing are enclosed or covered to prevent exposure to precipitation. Materials should be prevented from physically leaving the maintenance station. For further guidance, see the SOP for Salt Storage (Attachment B).

Salt is held in a covered shed, and all operations are such that spillage and other salt discharges will drain into the retention basin to the north of the salt shed. The brine station is also placed so that any spills will drain into the retention basin. The retention basin is cleaned on an as needed basis.

3.1.3 SOPs for Vehicles and Equipment

Vehicle and equipment repair, storage and maintenance must be conducted in a manner to prevent the discharge of contaminants from the site. For further guidance, see the BMP Fact Sheets for Vehicle and Equipment Fueling, Vehicle and Equipment Washing and Vehicle and Equipment Maintenance (Attachment B).

Most vehicles are stored in the shed when not in use, drip pans and absorbent materials are available when needed. There is a fueling station at this site. Major mechanical work is done off site however when mechanical work is done at the station it is done in the shed. Wash water from the wash racks drains directly into the retention basin, water from cleaning inside of the shed is collected and pumped out in the retention basin.

3.2 Pollutant Sources and Best Management Practices

Maintenance BMPs are pollution prevention measures designed to reduce the discharge of pollutants associated with maintenance activities. The maintenance station has implemented BMPs for each maintenance activity identified in Section 3.1. Based on the activities conducted, a list of potential pollutant sources, pollutants, locations, and applicable BMPs has been compiled in Attachment B of the SWPPP. The BMPs identified in the SOPs for this facility are considered appropriate and are implemented on an activity-by-activity basis. Details describing the BMPs that relate to the facility specific SOPs are provided in Attachment B including description, appropriate application, and list of pollutants each BMP helps minimize.

Table 1: Potential Pollutant Sources at the Brigham Maintenance Station, Pollutants of Concern, Location, BMPs and BMP Reference													
	Pollutants of Concern										FW* = Facility Wide		
Potential Pollutant Sources	**Petroleum Products**	**TSS/Sediments**	**Litter and Debris**	**Heavy Metals**	**pH**	**Nutrients**	**Pathogens**	**Pesticides**	**Solvents/ Degreasers**	**Chlorides**	**Map Location Attachment A**	**Describe BMPs in Place**	**BMP Reference Attachment C**
Building and Grounds Maintenance	**X**	**X**	**X**							**X**	FW*	Building and grounds maintenance activities are conducted in a careful manner to ensure pollutants are not discharged into the storm drains.	MS-4, MS-5, MS-6, MS-7, MS-9, MS-10
Vehicle & Equipment Parking	**X**			**X**	**X**						3E & 4E	Spill cleanup materials are utilized in the event of vehicle or equipment leaks or spills. Used absorbent or other clean-up materials are disposed of properly.	MS-5, MS-13
Vehicle & Equipment Washing & Steam Cleaning	**X**	**X**	**X**	**X**		**X**					3D & 3E	The uncovered wash rack drains to a retention basin. Washing in the building drains into a pipe, which discharges into the retention basin.	MS-6, MS-15
Vehicle & Equipment Maintenance & Repair	**X**			**X**		**X**			**X**		3E	Maintenance and repair activities are conducted indoors. Petroleum products, solvents, degreasers, and other automotive fluids used during maintenance and repair are kept inside the shops or within covered secondary containment. Spill kits equipped with dry sweep absorbent and absorbent pads are utilized in the event of a spill. Used absorbent or other clean-up materials are disposed of properly.	MS-16
Vehicle & Equipment	**X**										4E	Vehicle and equipment fueling activities are	MS-11,

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Fueling												performed in designated areas where spill kits are readily available. Dry sweep absorbent and absorbent pads are utilized in the event of a spill. Used absorbent or other clean-up materials are disposed of properly.	MS-14
Outdoor Loading & Unloading of Materials & Tools	**X**	**X**	**X**	**X**	**X**	**X**				**X**	4D, & 3C	Spills or leaks resulting from outdoor material loading/unloading are cleaned immediately. Spill kits equipped with dry sweep absorbent and absorbent pads are utilized in the event of a spill. Used absorbent or other clean-up materials are disposed of properly.	MS-6, MS-7, MS-9
Outdoor Storage of Raw Materials	**X**	**X**	**X**	**X**	**X**	**X**					4D	Materials are stored in covered areas to prevent contact with stormwater.	MS-2, MS-6, MS-7, MS-9, MS-12
Roadway Waste Handling & Disposal	**X**	**X**	**X**	**X**	**X**	**X**					4D, 3C	When possible, roadway waste is accumulated and sorted Surrounding areas are swept as needed.	MS-8, MS-12, MS-13
Storage of Hazardous Materials	**X**	**X**	**X**	**X**	**X**	**X**			**X**		3C, 4E, &3E	All hazardous materials are stored indoors or within covered secondary containment.	MS-3, MS-11
Pesticide Storage					**X**			**X**			3E	Pesticides are stored in enclosed secondary containment storage units.	MS-3

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Pesticide Use and Mixing					**X**			**X**			3D, 3E	Pesticides are used and mixed according to manufacturer specifications. Mixing operations are conducted at the wash rack to ensure spills are captured and discharged retention basin.	MS-1, MS-5
Portable Sewage: Restrooms/RV Dump Station/ Maintenance					**X**		**X**				N/A	The station drains to the sanitary sewer system. Restrooms are located indoors.	MS-8

3.3 Non-Hazardous Materials Storage

Based on the activities conducted at the facility, the following non-hazardous materials are stored outdoors.

Non-Hazardous Material	Location on Site Map	BMPs
Aggregate	5E	None. Aggregates are stored on native ground and are uncovered.
Treated Wood	2E	None. Uncovered in stacks.
Heavy Equipment Parts	2C, 2E, & 3C	When room is available, they are stored under covered area. However, this is not always possible.
Trash	3C	Stored under uncovered dumpster.
Steel/Sheet Metal	2C, 3C, & 4E	Stacked in in piles uncovered.
Rubber	4E	Containers are located in covered areas.

3.4 Hazardous Materials Storage

The following hazardous materials are stored at this facility in proper containment. Hazardous materials reference documents are included in Attachment D of this document.

Table 2: Maintenance Hazardous Materials List				
Common Name	**Chemical Name**	**Storage Location on Site Map**	**Liquid or Solid**	**BMPs**
Motor Oil 10-40	Petroleum oil	4E, & 3E	Liquid	Stored inside building.
Absorbent W/ Diesel, Oil, & Gasoline	Petroleum oil	3E	Solid	Stored inside building. Transported off-site by a licensed HW hauler for disposal.
Gly Star Pro	Glyphosate Surfactant	3E	Liquid	Stored inside chemical storage locker.
Vista	Fluroxypyr	3E	Liquid	Stored inside chemical storage locker.
Diesel	Petroleum oil	4E	Liquid	Stored in an underground storage tank.
Chem-Trol	Polyacrylamide	4E	Liquid	Stored inside chemical storage locker.
R-56	herbicide adjuvant	4E	Liquid	Stored inside chemical storage locker.
Cold Patch Asphalt	Asphalt	4E	Solid	Stored inside covered shed.
Mixed Concrete	Concrete	4E	Solid	Stored inside building.
Vetern	2-4D and Dicamba	4E	Liquid	Stored inside chemical storage locker.
Elastoflex 506	Elastoflex / Rubberized Asphalt Joint/Crack Sealer	4E	Solid	Stored inside building.
Gasoline	Petroleum oil	3E, 4E	Liquid	Stored in underground storage tanks.
Heavy Duty Grease	Grease	3E	Solid	Stored inside building.
Aqua Star	Glyphosate, N-(Phosphonomethyl) glycine	3E	Liquid	Stored inside chemical storage locker.
Pendulum	Pendimethalin	3E	Liquid	Stored inside chemical storage locker.
Multi-Purpose Automatic Transmission Fluid	Petroleum oil	3E	Liquid	Stored inside building.
Tractor Hydraulic Fluid	Petroleum oil	3E	Liquid	Stored inside building.

3.5 BMP Training and Awareness

Per the UDOT SWMP, UDOT policy and practice is to provide education and training to ensure employees have the knowledge and skills necessary to perform their functions effectively and efficiently. Annual stormwater training is required of all UDOT employees whose duties involve stormwater management and administered through the UDOT Learning Portal. The Pollution Prevention and Good Housekeeping training includes the following topics:

- equipment inspection to ensure timely maintenance;
- proper storage of industrial materials (emphasize pollution prevention);
- proper management and disposal of wastes; proper management of dumpsters;
- minimization of use of salt and other deicing materials (cover/prevent runoff to MS4 and ground water contamination);
- benefits of appropriate on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking);
- proper maintenance of parking lot surfaces (sweeping).

Station Supervisors will review BMPs with crews to prevent or control non-stormwater discharges every time there is a change of type of work activity. BMP training sign in sheets for this facility are included in Attachment E of this document.

The Station Supervisor is responsible for providing and documenting on-going awareness training for stormwater pollution issues for activity crews and station personnel. Training is conducted during tailgate and pre-job meetings to review environmental concerns and BMPs, and to ensure that BMPs are implemented during maintenance activities. The awareness training includes:

- The importance of observing good housekeeping practices, with emphasis on preventing debris from entering the Station's stormwater management system.
- Explanation and discussion of required standards for housekeeping and the procedures required to maintain those housekeeping standards.
- Explanation and discussion of spill response procedures, locations and proper usage of absorbent materials and spill recovery equipment, spill response methods, disposal of spill cleanup materials, and spill reporting requirements.
- Discussion of material management practices and UDOT policies associated with the outdoor storage of materials and the practices for handling materials to minimize the potential for discharges.
- Discussion of proper solid waste handling procedures.

4 NON-STORMWATER DISCHARGES

The UDOT MS4 Permit prohibits the release of non-stormwater discharges into the MS4. Unlike with the sanitary sewer, the stormwater system leads directly into Waters of the State (streams, rivers, lakes, groundwater, etc.) without going through a water treatment system. Anything that enters the storm system will end up in Utah's water. Diligence is required at all UDOT facilities to eliminate non-stormwater discharges to Utah's waters.

4.1 Non-Stormwater Discharges (Prevention and Reporting)

The Department's UDOT MS4 Permit prohibits the discharge of non-permitted non-stormwater discharges. If a discharge occurs, or if the station receives a written notice or order from any regulatory agency, the Station Supervisor will immediately notify the Region Stormwater Program Coordinator. The Station Supervisor will coordinate the reporting of prohibited non- stormwater discharges to the DWQ through the Region Stormwater Program Coordinator and the Area Supervisor.

To prevent non-stormwater discharges from occurring, the responsible Station Supervisor will ensure that maintenance personnel:

- Determine where the flow of a leak, spill, or other runoff will travel;
- Identify drain inlets and water courses, both upstream and downstream of the work site;
- Ensure that vehicles and equipment are clean and in good operating condition by conducting pre-operational inspection of vehicles and equipment;
- Set up work areas to minimize the tracking of material by vehicles and equipment in and out of the work area;
- Collect and properly dispose of wastes, materials removed as a result of equipment and system maintenance, litter and debris;
- Secure lids on containers of liquids when not in use;
- Control spills promptly;
- Have appropriate spill cleanup material onsite and protect drainage systems and watercourses from spilled material.

5 FACILITY SWPPP INSPECTIONS

As stated in the UDOT MS4 Permit, UDOT is required to conduct weekly or more frequent as necessary visual inspections of UDOT facilities and track those inspections in a log for every facility. The purpose of the inspections is (1) to identify areas contributing to a discharge of potential pollutants associated with the maintenance station activities, and (2) to evaluate whether SOPs and BMPs identified in the SWPPP are adequate and properly implemented or whether additional control practices are needed.

Station Supervisors are responsible for weekly visual inspections, quarterly comprehensive inspections (with specific attention paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, salt storage and brine making areas and similar pollutant-generating areas) and quarterly visual observation of stormwater discharges. Inspections are to monitor the implementation and adequacy of the facility's BMPs and for notifying the Area Supervisor and Region Stormwater Program Coordinator in the event that a non-stormwater discharge or other instance of non-compliance occurs.

All Weekly Visual Log, Quarterly Comprehensive, and Quarterly Discharge inspections shall be completed using the Survey123 app or through a web browser on the desktop at the following link:

https://uplan.maps.arcgis.com/apps/MapSeries/index.html?appid=a647f52268964e7aa890332b6b544be6

Records of completed inspections and inspection form responses can also be accessed at the above link.

Stormwater self-audit inspections conducted by UDOT personnel, or inspection documents from local regulatory agencies, will be appended to Attachment C of this SWPPP, and retained for at least the effective period of the permit.

Appendix C includes an SOP for utilizing Survey123 as well as a list of information recorded in each of the electronic inspection forms.

Weekly Inspection Forms

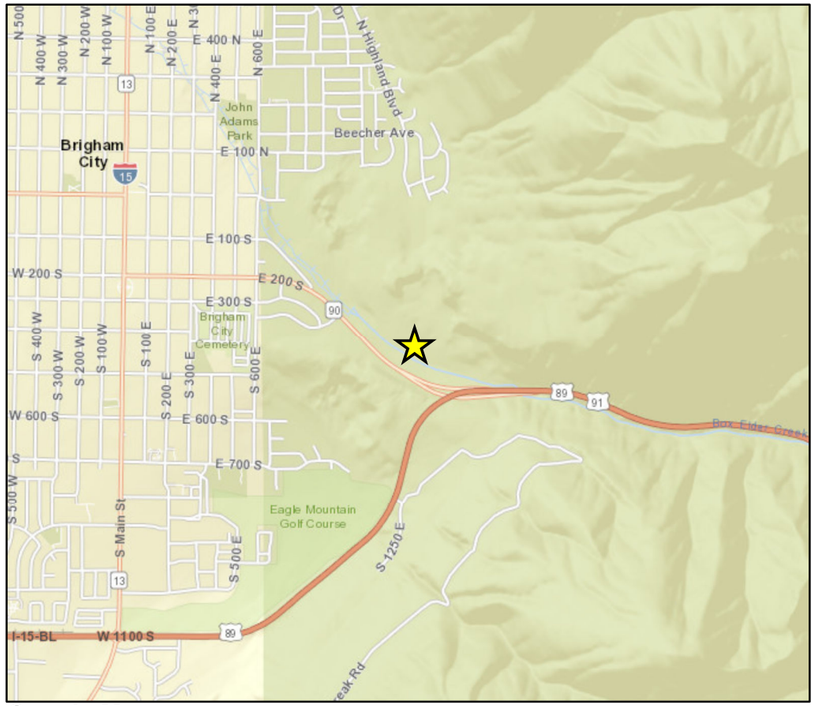
- UDOT Maintenance Station Weekly Inspection Log –This visual inspection is to be completed at least weekly and whenever a spill is detected at the maintenance station. Weekly inspections are documented in the Weekly Visual Inspection Survey123 form. Details of the information collected through this inspection form are on page C-8. Any spill events (whether observed during the weekly visual inspection or otherwise) must be documented with the same Weekly Visual Inspection Survey123 form.

Quarterly Inspection Forms

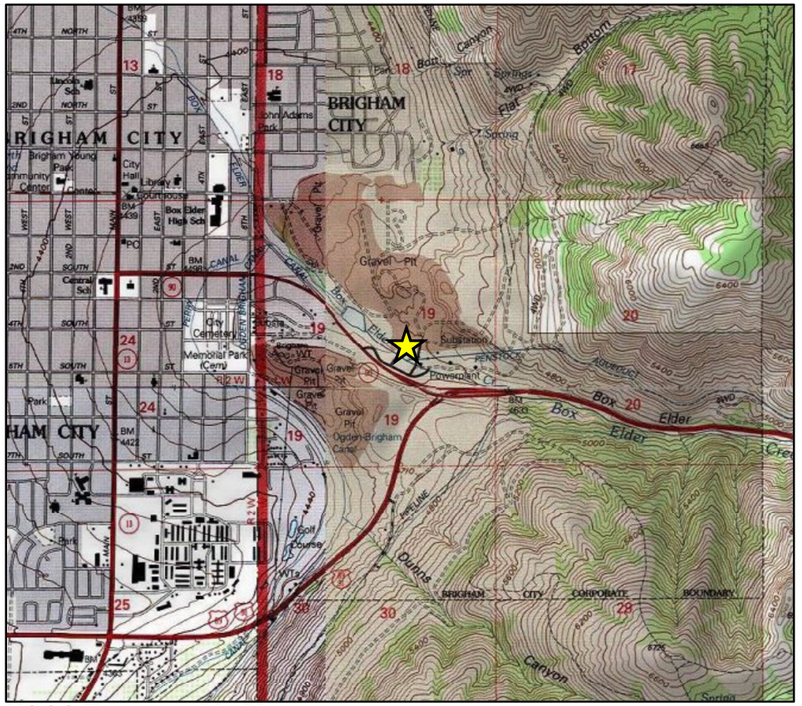
- UDOT Maintenance Station Quarterly Comprehensive Stormwater Inspection – Details on the information collected in the electronic Survey123 form are on pages C-3 to C-7.
- UDOT Maintenance Station Quarterly Stormwater Discharge Inspection – Details on the information collected in the electronic Survey123 form are on page C-2.

Station supervisors are responsible for addressing deficiencies noted on any inspections and documenting the corrective actions.

ATTACHMENT A:
Site Map



Google Maps



USGS Topographic Map

ESRI Aerial

DESCRIPTIONS

- Site Boundary
- Site Feature Area
- Pervious Area

(All areas within site boundary not listed as pervious are assumed to be impervious.)

- Stormwater Gutter
- Stormwater Earthen Ditch
- Wastewater Pipe
- Stormwater Pipe
- Stormwater Surface Flow

- (B) Basin
- [BS] Battery Storage
- (C) Chemical Storage
- (F) Fuel Island / Storage
- (I) Inlet
- [M] Metals
- [ME] Misc. Equipment
- [MS] Misc. Storage or Waste
- (O) Oil Products
- Oil Water Separator
- (O) Outfall
- [PM] Paint Related Materials
- [SB] Salt / Brine Making
- [SS] Salt Shed / Storage
- ★ Spill Kit
- [SR] Spreader / Loading Rack
- [SP] Stockpile
- [WR] Wash Rack
- [WC] Waste Container

UDOT Keeping Utah Moving

Maintenance Station 1423
Brigham City
1325 E. Hwy 90
1/12/2016

N

Wood and crates

MS

M

ME

Retention

B

SB

ME

O

WR

Floor Drain

I

Vehicle storage

O

ME

ME

Dumpster

Dumpster

WC

WC

SS

M

SR

O

I

F

ME

Used oil

O

C

Aggregate

SP

Aggregate

SP

SP

Gravel

Hwy 90

Maintenance Station 1423
Brigham City
1325 E. Hwy 90
1/12/2016

ATTACHMENT B:
Operations and Maintenance Program (Standard Operating Procedures and Resources)

Resources for Standard Operating Procedures

Below are some additional resources and information about the Standard Operating Procedures that are conducted at this facility.

Inventory Control:

Region and Central warehouses have eliminated chlorinated solvents from inventories and now stock citrus-based solvents. Good BMPs for inventory control:

Inventory Management

- Buy only what is needed over a 3-month period
- Rotate inventory so older material is used first
- Store materials in a manner to prevent spills, leaks, or damage to containers
- Use secondary containment where prudent
- Use an inventory tracking system
- Label all containers with contents, date of purchase, date opened
- Don't accept free samples you won't use
- Be licensed to use restricted chemicals
- Read and become familiar with labels
- Use environmentally safe chemicals
- Keep absorbent materials readily accessible; renew supply to handle a 55-gallon drum rupture.

Waste Management:

All hazardous wastes are defined by characteristics that are harmful to human health and the environment. A chemical product (including liquids, gases, solids, powders, etc.) becomes a waste when it is released from its original container in an uncontrolled manner. Proper waste management must include knowledge of each product's and/or waste material's properties. This aids in determining proper handling and disposal. Properties that are "characteristic" and define hazardous waste are listed in the box below.

Characteristic Wastes*

- Ignitable
- Corrosive
- Reactive

- Toxic

[*] *40 CFR, Part §261.20-261.24*

Characteristic wastes are regulated by federal, state, and local laws and codes. These waste characteristics are carefully defined in the Code of Federal Regulations, (CFR) Title 40, and Part 260. Review of regulations covering a particular waste stream is necessary to determine how to properly manage, transport, and safely dispose of it. Careful handling and multi-copy paperwork that tracks waste generation to final disposal ("cradle to grave") is required.

Waste Segregation:

Characteristic wastes should be stored and segregated according to their properties. Some wastes can be incompatible, causing chemical reactions that can lead to toxic gas production and/or spontaneous ignition. Product Material Safety Data Sheets aid in determining proper handling and disposal. Keep waste containers tightly closed and stored in a well-ventilated area. Storage times do not exceed UDOT's Small Quantity Generator status of 180 days. Likewise, quantity stored should not exceed 2200 pounds per month (approximately 4 drums). Arrangements are made for disposal with a State contracted hazardous waste disposal company to have the wastes removed.

Spill Response & Emergency Preparedness

First response agencies shall be called when UDOT employees and/or its agents observe **any hazardous material/s release to water bodies, 1 gallon or more of hazardous chemical/s, 25 gallons of hydrocarbons (fuel, oil) or more are released to the environment** (see Attachment D for US D.O.T. Hazardous Materials definition and classifications). Call down lists are posted at maintenance stations and provide the Department of Environmental Quality's (DEQ's) 24- hour emergency response number.

Maintenance Emergency Call Down List

Immediately Contact	
Dispatch	911
Station Supervisor	435-730-3740
Area Supervisor	435-881-1044
Region Stormwater Program Coordinator	801-309-5206
Brigham Sewer Department	435-226-1441
24 Hour Emergency Phone Number for Incident Spills	**801-536-4123**
Within ½-hour contact	
District or Maintenance Engineer	801-510-1954
Local Health Department	435-734-0845
Region Safety/Risk Manager	801-791-2412
Hazardous Waste Spills	801-538-6170
Large Spills And/or Water Affected	
Releases Affecting "Waters of the State" or involving Petroleum Products	**801-538-6146**
National Response Center	800-424-8802

Report spills immediately. Begin cleanup ASAP.

Obtain help from experts!

	Maintenance Stations - Good Housekeeping Checklist
	Used Oil & Fuels
	Drum oily rags for an industrial cleaner to process and recycle. Do not add liquids to drum. Keep drum lid closed when not in use.
	Collect used oil in maintenance station's used oil tank or collect in drums stored within lined and bermed secondary containment at construction staging areas.
	Pierce used oil filters and allow to drain for a minimum of 24 hours. Wrap empty filters in newspaper and dispose in dumpster.
	Label as "Used Oil" tanks or drums and secure with padlocks to deter illegal dumping. Used crankcase oil is recyclable and therefore considered non-hazardous. Utah has many certified oil recyclers. The Division of Solid and Hazardous Waste in DEQ has a variety of resources listed on their website: http://www.deq.utah.gov/ProgramsServices/programs/waste/usedoil/#facilitieshttps://deq.utah.gov/waste-management-and-radiation-control/used-oil-recycling-program
	Solvents, Chemicals, Herbicides
	Eliminate chlorinated solvent usage. These solvents generate hazardous waste, are toxic to environment and carcinogenic to humans. Use citrus-based solvents in their place. Secure tight fitting lids on volatile substances to prevent evaporation and spills.
	Use contained and self-draining parts washers. If warranted, consider a solvent recycling/regeneration parts washer. No hazardous waste is generated.
	Do not aerate solvents, thinners, or fuels as a disposal method. This is an air quality regulation violation and is subject to fines.
	No open containers in and around work site. Use spigots and hand pumps on drums and 5-gallon containers. When mixing chemicals such as herbicides, pour concentrate slowly to avoid "glug and splash" from vacuum created in container.
	Vehicle Maintenance
	Regularly inspect and maintain station equipment. Repair seals and leaks as practicable and use absorbent materials where necessary.
	Never hose hazardous materials down drains or off pavement. Avoid spreading hazardous waste to the environment.
	Use drip pans and/or absorbent pads under work that can release fuels, oils, solvents, and chemicals that will produce characteristic wastes.
	Security
	Secure maintenance stations and construction staging areas with locked gates when unoccupied.
	Use and maintain a supply of personal protective equipment appropriate to work (i.e. gloves, protective eyewear, coveralls, etc.).
	Keep a supply of absorbent materials/spill prevention kit at hand for accidental spills. Learn proper disposal methods from MSDS.

Brine Making Operations

SOP

Associated Activity Codes: 7S77, 7D58

Purpose and Description

- The purpose of this Standard Operating Procedure (SOP) is to lay out operational considerations and inspection criteria to properly maintain and minimize pollutant discharges associated with brine making.
- Brine making operations consist of multiple phases and pieces of equipment.
    - Brine pond – a retention pond that receives washwater from vehicle washing operations or receives runoff from salt sheds. The pond allows sediment and other pollutants to settle out of suspension before drawing the water on the surface of the pond into the brine tanks for use in making brine.
    - Brine storage area – tanks that hold collected water and are then mixed with a saline solution to create brine for use in de-icing operations.
    - Brine tank filling stations – areas near the brine storage area where sanding trucks can fill their tanks with brine.

Pollutants and BMPs

- Pollutants associated with brine making: salt, petroleum products, total suspended solids, sediments, heavy metals, chlorides, nutrients
- List of BMPs in place: brine storage tanks, salt shed, retention pond, sweeping, vacuuming, pumping and proper disposal of wastewater

Brine Application

- Brine is applied on UDOT roadways before snowfall and ice forms. Brine application should be forecasted 24 hours before the application time to ensure ideal conditions for the application.
    - Brine should not be applied during snowfall, rainfall or during excessively windy conditions.
    - Brine should ONLY be applied as a part of winter time operations, for winter time public safety.
- When deciding to apply brine, routes that need the brine should be identified. If the route receiving the brine is in an urban area, notify UDOT Traffic Operations if lane closures or restrictions are needed.
- Brine should be applied at temperatures above 15 degrees Fahrenheit.
- For salt brine, the application rate should not exceed 50 gallons per lane mile. For liquid magnesium chloride, the application rate should not exceed 25 gallons per lane mile. Refer to the "Snow Fighter's Handbook" for more application rates and other brine application information.
- Record all dates of brine application in the UDOT MMQA+ Snow Log.

Site Considerations

- Facilities that wish to use the retention pond water as makeup water to create brine must limit the type and amount of pollutants that can enter those retention ponds. Retention ponds that generate brine cannot have tailings from vacuuming or sweeping decant into them, but

can allow the washwater from washing snow removal vehicles after their use to drain into the pond.
    - This facility utilizes culinary water to create brine.
    - This facility allows runoff from the following operations to enter the retention pond Sweepings, loading salt, loading brine and mag
- Retention ponds must not allow any discharge to groundwater, as groundwater is considered a water of the state and is protected from non-stormwater discharges under the UDOT MS4 permit.
    - Clay, zero void asphalt, concrete, and double liner with leak detection are types of liners to help prevent discharges to groundwater.
        - This facility uses the following system to prevent discharges from the retention pond: This pond has a rubber liner that uses an evaporation and sprinkler system
    - The area that drains into the detention pond should also be free from any defects that would allow groundwater infiltration.

  ● Retention ponds used for brine making operations should also be separate from stormwater run-on, to ensure that only the allowed wastewaters enter the retention ponds. This can beachieved through the placement of berms, and by grading the area to only allow desired runoff to enter the pond.
- The brine storage areas and brine tank filling stations should both be placed in such a way to drain back into the retention pond that is used to fill the tanks. This will ensure that if there is a leak, overspray or hose failure, the runoff will not create a non-stormwater discharge, but instead be controlled and appropriately mitigated.

Inspections

- During the weekly and quarterly site inspections, each retention pond, storage tank, and filling area used for brine making operations must be inspected.
    - Look for cracks, holes, or other defects in the pond lining, especially along the edges. When the asphalt, concrete, or liner begins to deteriorate, the pond runs a risk of discharging pollutants to groundwater. Note any defects during the inspection and document them for future pond maintenance needs.
    - Look at any staining in or around the pond.
        - If salt staining is the only noticeable staining, this is acceptable because of the agreement to use the ponds for brine making.
        - If other stains, such as oil, brake fluid, or other unidentifiable discoloring is present, those stains should be removed if possible. Investigate the source of the stains, and remove any pollutant sources, such as trash or debris that may be causing the stains.
    - Look at the area outside of the pond for any signs of runoff, seepage, or staining. If present, investigate the source; are there leaks or defects in the barriers of the retention pond that may be causing water to leak from within the contained pond? Document any instances where this is occurring for future use in pond maintenance.
    - Check the leak detection sampling point to see if there is any liquid in the sampling point. If there is water in the leak detection sampling point, there is a leak somewhere in the liner, and the liner must be repaired. Document the incident for future pond

maintenance needs.

- Look at the water level of the pond. If the pond is at risk of filling up beyond the top of the pond, it runs the risk of discharging non-stormwater pollutants.
    - Evaluate the volume of water that is being discharged to the pond, and determine if there is a way it can be reduced, either by decreasing the frequency of vehicle washing or by removing certain washing operations altogether.
    - Keep in mind that the ponds may be at risk of overflowing from the combination of vehicle washing and rain events. It will be important to watch the level of the pond and not increase the risk of having it overflow.

Pond Maintenance

- Ponds and their liners should always be maintained according to any applicable manufacturer's standards.
    - This facility's pond must be maintained at least once every 10 years
- Schedule all pond maintenance during the dry season of the year, and during a time when dry weather is expected.
- Visually inspect the drained pond for defects in the lining. Document any areas that need to be repaired.
- Removing any built up material in the bottom of the pond will be necessary to keep the quality of brine at an acceptable level.
    - When removing material from the bottom of the pond, it will be important to take caution with what equipment is used in the process. Using equipment with tracks may damage the pond lining.
    - Utilize manufacturer's information specific to your pond to tailor your equipment selection and ensure that the integrity of the pond lining is preserved.
        - This facility will use a skid steer and a vactor pump truck to help maintain the pond.
    - Properly dispose of any material dredged from the bottom of the retention pond.
- Repair any cracks in the asphalt using crack and slurry sealing methods.

Documentation

- All retention ponds, brine storage tanks, and brine tank filling stations must be identified on the site map in the facility SWPPP.

Dumpster Maintenance SOP

Purpose

- This SOP is designed to mitigate discharges of pollutants from waste receptacles and dumpsters.

Pollutants and BMPs

- Pollutants associated with dumpsters: litter, debris, petroleum products, sediments, total suspended solids, and chlorides
- List of BMPs in place: dumpster with a lid, concrete pad

Site Considerations

- Do not overfill dumpsters and waste receptacles.
    - Separate landfill waste from other recyclable waste to save space in dumpsters.
    - Keep enough dumpsters onsite to contain the volume of waste that is generated at or brought to the facility.
- All dumpsters must have lids, and any dumpsters with drain openings in them are required to have plugs.
    - Lids must be undamaged and be able to cover the opening of the dumpsters.
    - Lids must be on dumpsters and closed while not in use.
    - Plugs for dumpster drains must be inserted and seal the drain while the dumpster is not being emptied. Only drain dumpsters so that the wastewater enters a BMP, such as an oil/water separator, before the sanitary sewer or other containment to be disposed of.
- Dumpsters must be clearly identified and accessible onsite.
    - Any bins that are dedicated to recycling materials must be labeled as such.
- This facility has one, 30 yard open top garbage dumpster onsite
    - They can be found at the following locations: southwest side of property on west side of salt shed.
    - The site also contains the following dedicated recycling containers: one open top metal dumpster.

Inspection

- While performing the weekly and quarterly facility inspections, inspect all dumpsters and recycling containers onsite.
    - Look at the condition of the dumpsters. If there are holes, warping, punctures, or other defects, replace the container.
    - Look at the area surrounding dumpsters. If there is trash, debris, staining, or other waste around the dumpster areas, clean the affected area. It may be necessary to train staff on proper waste disposal procedures.
    - Inspect the lids of the dumpsters. If they are damaged or missing, replace them. If the lids are not covering the dumpster, close the lids.
    - Inspect dumpsters for drain plugs. If the plugs are damaged or missing, replace the plugs.

- Are the dumpsters and recycling containers labeled? If not, label them.

Documentation

- All dumpsters and recycling containers must be identified on the site map of the facility Stormwater Pollution Prevention Plan (SWPPP)
- Keep documentation of all training in the SWPPP; utilize the training records sheet located in Attachment E: Training Information.

Hazardous Materials and Waste Management SOP

Purpose

- Hazardous materials and wastes can pose a serious threat to water quality if it enters the storm drain system. Ensuring that the proper containers and appropriate procedures are used to store and dispose of hazardous wastes is a crucial Best Management Practice (BMP) to mitigate threats to water quality.
- UDOT maintenance facilities frequently contain hazardous materials and wastes as a part of normal maintenance operations. Specific classes of hazardous materials are found in Attachment D: Hazardous Materials References of the facility Stormwater Pollution Prevention Plan (SWPPP).

Pollutants and BMPS

- Pollutants associated with hazardous materials and waste activities: petroleum products, solvents, degreasers, chlorides, heavy metals
- List of BMPs in place: spill pallets, drip pans, concrete containment, berms, containers with secure lids, spill kit

Facility Considerations

- Hazardous materials and waste should have a dedicated storage area on the site, which removes potential contact with stormwater.
    - Keep hazardous wastes in a secured area where access to the material is limited to non-UDOT personnel.
    - Keep different types of hazardous waste separated from contact with each other and do not mix hazardous wastes.
    - Storage areas must have some form of secondary containment, such as lipped trays, berms, drip pans or concrete containment structures. Design BMPs to prevent any stormwater run-on to the area.
- This facility normally stores the following hazardous materials and waste:
    - Used Oil
- All storage containers or containment systems should meet the United States Department of Transportation (USDOT) specifications for storing the waste.
    - All containers must be marked clearly as “hazardous waste” and also identify the type of waste stored in the container.
- All containers for hazardous waste must have lids that can be sealed, and only should be opened when adding or removing waste from the container.
    - There are types of containers that do not need to be opened to add or remove wastes, but are instead pumped, or filled. For these containers, ensure that the nozzles, pumps, or hoses are secured, closed, and not leaking after use.
- Keep an emergency spill response kit located near the storage areas for hazardous waste in case of spills or leaks.

Inspection

- During stormwater inspections, all areas where hazardous materials are stored must be inspected. The areas onsite which store hazardous waste include:
    - N/A
- While inspecting hazardous waste storage areas, consider the following features.
    - Are the storage containers in good condition, free from any defects?
    - Is the area where wastes are stored free from drips, leaks, or staining?
    - Do all containers have lids, and are the lids secured and closed on the containers?
    - Is the secondary containment full, or almost full of spilled material?
    - Is an emergency spill kit stored near the hazardous waste? Does it contain enough material to mitigate the flow of the waste stored there?
    - Are the containers labeled with the appropriate names of the waste stored in them?

Documentation and Training

- The facility must include, in its facility SWPPP Safety Data Sheets (SDS), each type of hazardous waste stored onsite.
    - Keep the SDS in a location where any personnel who is responsible to handle, transport, inspect, or dispose of hazardous waste has access.
    - Update the SDS any time that the facility begins to accept new or different hazardous wastes. If the facility stops accepting a type of hazardous waste, it is acceptable to remove the SDS for that chemical.
- All personnel who handle, inspect, or dispose of hazardous waste must be trained on the proper handling, disposal, and spill response procedures for the hazardous wastes stored at the facility.
    - Log and store training records in the facility SWPPP in Attachment E: Training Information.
    - Include any certifications that personnel obtain within the SWPPP.
- A hazardous waste manifest must be used for all hazardous waste shipments. The manifest must be completed before shipping and transferring custody of hazardous waste to another operator. Keep a copy of the manifest onsite.
- The facility site map contained in the SWPPP must identify all areas where hazardous materials are stored onsite. If the facility accepts new hazardous wastes, or changes the location onsite where they are stored, the SWPPP must be updated.

Liquid Waste Control SOP

Purpose

- The purpose of this Standard Operating Procedure (SOP) is to identify stormwater threats from UDOT operations and the storage of liquid wastes at UDOT facilities.
- There are multiple types of liquid wastes, and certain materials have particular storage, discharge, or disposal requirements. This SOP will outline general storage, disposal and maintenance strategies to prevent liquid wastes from entering the storm drain system.
- UDOT facilities commonly use and store hazardous materials, a list of hazardous materials can be found in Attachment D: Hazardous Materials References of the facility Stormwater Pollution Prevention Plan (SWPPP). Consult any Safety Data Sheets (SDS), local disposal authorities, or manufacturer's specifications on specific hazardous materials for particular storage or disposal requirements.
- This SOP is not meant to address dewatering discharges. For more information on dewatering wastes and requirements, consult the General Permit for Construction Dewatering and Hydrostatic Testing, found on the DEQ website at: https://documents.deq.utah.gov/water-quality/surface-water/updes/DWQ-2013-011661.pdf

Pollutants and BMPs

- Pollutants associated with liquid waste activities: petroleum products, sediments, total suspended solids, heavy metals, nutrients,
- List of BMPs in place: concrete containment area, containers with sealed or secure lids, spill kit, oil/water separator

Site Considerations

- If any liquid waste has a SDS, the facility must have those included with the SWPPP. Any personnel who handle, transport or dispose of SDS listed materials must know the location of the SDS onsite.
    - This facility stores the following liquid wastes onsite: used oil
    - The following liquid wastes have SDS stored in the facility SWPPP: N/A
- All liquid waste areas must have an emergency spill kit accessible, and the kit should have the appropriate materials to deal with the types of spills from materials stored onsite.
- All liquid waste should be stored in a designated area. The area should have no contact with stormwater precipitation or run-on.
    - Areas that are under cover provide the best protection from stormwater.
    - If the area receives sheet flow from other areas, the storage area should have Best Management Practices (BMPs) that either prevent runoff from entering the storage area or diverts the flow away from it.
- Wherever possible, all stored liquid waste must have a secondary containment units available to capture any leaks or spills that may occur during the disposal of waste, or because of deteriorating containers.
    - Ensure that containers are sized to hold an appropriate amount of liquid.
    - Different sized containment systems serve different functions; smaller secondary containment is better at containing drips or spills from the storage container, where

large containment units are better suited to catch container failure, damage, or substantial spills.

- All storage containers must have a lid that completely closes and seals the liquid waste inside. Open topped containers such as 55-gallon drums with the lids removed pose a high risk for tipping, spilling, or sloshing.
- When transporting liquid waste containers, seal all lids properly, and verify that the container is in good condition.
    - If possible, transport liquid in small, manageable containers, especially if transporting them by hand. Larger, heavier containers have a higher risk of spills and a larger volume of spilled material.

Inspections

During the weekly visual and quarterly comprehensive inspections of UDOT facilities, inspect each liquid waste storage area.

- Look at the area surrounding the waste storage area:
    - Is there evidence of any staining, or spilled material from the waste storage area? If so, determine whether the problem is from a defective container, loose lids on the container, or if it is the result of spills from filling or emptying the waste container.
        - Replace all defective containers
        - Put all lids onto the containers and verify that they seal properly. If they do not, replace the lids.
        - If spills are the result of filling or emptying the waste containers, clean the affected areas and retrain personnel on proper disposal and clean-up procedures.
    - Is the area separated from stormwater contact? Is there evidence that sheet flow from other areas has entered the waste storage areas?
        - If so, repair or replace any deficient BMPs in the area.
        - Look for other areas on the site where the waste can be stored to prevent contact with stormwater.
        - Add additional BMPs to prevent contact with stormwater.
- Look at the liquid waste container:
    - Is the container in good condition? Does it have any holes, rust, punctures, or other defects that may cause a spill or discharge from the container?
        - If so, repair the container, or if that is not possible, replace the container.
        - Lift the container, or check the areas around the container to make sure there are no defects at the base that may not be visible at first glance.
    - Does the container have a lid?
        - If not, get one.
        - Verify that the lid fits the container.
        - Verify that the lid is on and seals the container.

Documentation

- All liquid storage areas must be identified on the site map in the facility Stormwater Pollution Prevention Plan (SWPPP).
    - If the site changes the location of the liquid waste containers, or adds additional containers, those changes must be reflected in the site map within seven days of the change.
- Any SDS for liquid waste that are stored onsite must be kept available and in a location for personnel to access in case of emergency.
- Keep records of all staff members who have been trained on the proper storage, transport, and disposal procedures in the SWPPP. Use the Attachment E: Training Information for the log, which can be used to track training sessions.

Material Handling and Storage SOP

Purpose

- This Standard Operating Procedure (SOP) will lay out procedures to minimize stormwater contact with materials that are brought to, used, and stored in UDOT facilities.
- Since different facilities have different functions, tools, and materials stored onsite, the procedures in this SOP are concerned with general Best Management Practices (BMPs) to prevent pollutant discharges.

Pollutants and BMPs

- Pollutants associated with material handling and storage: petroleum products, chlorides, heavy metals, pesticides
- List of BMPs in place: temperature controlled storage, covered storage, cabinets for containment

Site Considerations

- If site conditions allow, keep all materials stored under cover, or inside of a building.
    - If this is not feasible, store materials off the ground and under temporary forms of cover.
        - This can be accomplished by placing materials on pallets to store them, and keeping them shrink wrapped until used, or by providing a tarp or other cover.
    - Provide perimeter control around areas that are exposed to runoff or sheet flow.
        - Berms, dikes, or other elevated platforms for storage will prevent sheet flow from coming into contact with stored materials.
- In locations where equipment is loaded to and from the storage area, keep an emergency spill kit in place in case of drips, spills, or other fluid discharges from vehicles.
- Keep all stored materials away from channelized stormwater conveyances and storm drain inlets.
- Keep the storage area clean, with proactive sweeping or cleaning routines to prevent the buildup of trash and debris.
- After unloading and storing materials, dispose of all packaging, transportation waste, containers, or other materials which could come in contact with stormwater and be transported to the storm drain system.
- Minimize the amount of materials stored onsite.
    - Consider surplussing old stock.
    - Consider limiting amounts of items or material until sufficient space is available to store more materials, or until the current supply is exhausted.
- This facility stores materials and supplies in the following locations
    - In a shed labeled herbicide storage on the west side of the main building
    - The following materials have special storage needs N/A
        - Those storage requirements include N/A

Inspection

- During the facility stormwater inspections, inspect all material storage areas.
- Are materials stored inside?

    - Is there litter and debris in the storage area that could be carried or tracked outside and come into contact with stormwater? If so, clean the affected area and properly dispose of any waste.
    - Is there a spill kit, or other containment measure to assist with the cleanup of any spills or leaks that occur in the delivery and loading process? If not, or if the kit has insufficient materials, replace the spill kit.
- Are materials stored outside?
    - If so, are materials covered and kept off the ground? Any materials that could come in contact with stormwater should be placed on pallets, or otherwise kept out of contact with stormwater.
    - Are the materials stored in an area that can come into contact with stormwater? Are there perimeter controls in place to prevent contact with stormwater? If the area has a tendency to flood, receive runoff, or is in the path of a channelized conveyance, consider moving the storage area to an area where those risks are minimized.
    - Does the type of material stored pose a threat to runoff? Inert materials that do not pose a risk to stormwater, and cannot be carried by runoff do not need the same level of BMP attention as materials that do.
        - For example, it is more important to store bags of dry mix cement off the ground and keep them under cover than it would be to keep PVC pipe off the ground and covered.
    - Is the area around the stored material free of debris, waste or other potential pollutants? Clean all affected areas and properly dispose of the waste.

Documentation

- All storage areas should be identified on the site map located in the facility Stormwater Pollution Prevention Plan (SWPPP).
    - If the site handles and stores hazardous materials in these areas, or has potential pollutants that are not inert materials stored there, identify what those materials are on the map.
    - If the site changes the location or type of materials stored onsite, update the map to reflect those changes.

Salt Storage SOP

Purpose

- The purpose of this Standard Operating Procedure is to assist maintenance staff in reducing salt and deicing agent pollution from entering the stormwater system at UDOT facilities.

Pollutants and BMPs

- Pollutants associated with salt storage: salt, chlorides, sediments, total suspended solids, heavy metals, nutrients
- List of BMPs in place: salt shed, retention basin, sweeping,

Site Considerations

- All UDOT facilities must store road salt and deicing agents under a covering. All UDOT facilities that store salt and deicing agents onsite must have constructed sheds.
    - Only salt and/or grit should be stored in salt storage buildings.
    - Salt and deicing agents must be stored completely within their covered storage area except when adding or removing material from the piles. Avoid overfilling salt sheds.
    - Keep piles well groomed, and free from contact with other materials.
- Any salt piles that are stored outside must be covered.
    - The Utah Division of Water Quality (DWQ) may allow exceptions to this rule for areas where residual salt levels are high enough that salt runoff does not cause an additional threat. If this is the case, document all communications and agreements with DWQ and keep those records in the facility Stormwater Pollution Prevention Plan (SWPPP). Verify this information with the Station Supervisor or Region Stormwater Program Coordinator: Travis Jeppsen (435) 730-3740
- Loading sanding trucks is a source of spills and track-out from salt storage areas. Proactive housekeeping of these areas will substantially reduce salt discharges from the facility.
    - This facility loads salt into the sanders on the uphill side of pond.
    - While loading, refrain from overfilling the loader bucket or shake off any excess salt at the salt pile to prevent spills.
    - Reduce the speed of loading for salt and deicing agents into trucks to decrease spills. When leaving the station with loaded sanders, prevent spills by making slow turning movements within the yard and when exiting onto a public streets.
    - Do not overfill trucks while loading them for operation.
    - When loading activities are finished, sweep any excess salt back into the storage sheds, and/or dispose of any salt or deicing agent that has been contaminated by contact with other materials.
    - After loading salt into or out of the covered storage area, ensure that salt tracked out of the storage area is pushed back into the storage shed.
- Salt and deicing piles must be stored on impervious surfaces, if feasible.

Inspection

- During the Weekly and Quarterly Comprehensive Inspections, inspect salt storage areas and the surrounding loading areas.

    - Look for any salt or deicing materials that have been spilled or tracked out of the storage area. Sweep any clean salt back into the shed to ensure that the salt pile in the shed has no possibility of contact with precipitation.
- Look at the surrounding area where salt is loaded into the sanding trucks. Is salt staining or runoff from the loading area present?
    - Clean the affected areas using dry methods such as sweeping. Return any salt or deicing agents that are uncontaminated to the storage area.

Documentation

- All salt storage sheds must be identified on the site map of the facility SWPPP.
    - If the facility has a dedicated loading area or a structure to load salt trucks, identify it on the site map.
- Keep records on the Training Information log in Attachment E of the SWPPP for all staff members who have been trained on the proper handling of salt and deicing materials.

Detention and Retention Basin SOP

Purpose

- This Standard Operating Procedure (SOP) is intended to help maintain detention and retention basins found on UDOT maintenance shed properties.

Pollutants and BMPs

- Pollutants associated with activities involving detention and retention basins: petroleum products, sediments, total suspended solids, litter, debris, heavy metals, nutrients, chlorides, salt.
- List of BMPs in place: retention basin, detention basin, decant pad, berms, pumping and proper disposal of pond waste

Site Considerations & Procedures

- The flow of stormwater runoff should be known in order to see what inlets receive or where the stormwater flows into the detention or retention basin.
    - This facility has these inlets that receive stormwater flows to the southeast towards the road
    - This facility has a detention basin located none.
    - This facility has a retention basin located on the north west corner of the property
    - This facility's retention basin is this type of basin pond rubber liner and dirt.
- Look at the depth of the basin. If it is close to overflowing, identify any inlets the overflow would flow to, install inlet protection, and block inlets.
- If the basin overflows, create a berm using sandbags to contain the flow.
- Contact pumping contractor to pump out pond and inform Region Stormwater Coordinator
- When cleaning out the basin, provide outlet protection to minimize the debris that might leave the basin during cleaning.
- Clean the basin of sediment by using a backhoe or front-end loader from the bottom if basin is lined with zero-void asphalt or concrete. Otherwise, use a vactor truck to clean the basin if it is plastic-lined.
    - This facility has a rubber lined pond that is maintained by vactor truck
- Clean the concrete pads when finished using dry methods like sweeping and shoveling.
- Properly dispose of sediment and waste in properly contained areas on site. Decant waste at the decant pad onsite located N/A. Dispose off-site at the Box Elder Landfill.

Inspections

- During the weekly visual and quarterly comprehensive inspection, inspect all areas of the detention and or retention basin.
    - Look for any trash or blockages near any of the inlet and outflow structures.
        - If there are any blockages or trash, remove and dispose of trash and debris.
    - Inspect the height of the vegetation if applicable. Schedule mowing if necessary.
    - Inspect the basin for any buildup of sediment. Schedule removal sediment if needed.

- Inspect the riprap around the outlet to determine if it is providing sufficient outlet protection. If not, notify the engineer for further inspection.
- Inspect the forebay and any pretreatment diversion structures for any sediment build-up. If so, remove and dispose of the sediment.
- Inspect any head gates in the basins to ensure they are function and do not require maintenance.
- Inspect the leak detection mechanism (if present) for any water leaking from the pond. If there is a leak, notify the Region Stormwater Coordinator for further inspection.
- If the basin has a liner, inspect the liner to make sure it is functional and sufficient. If damaged or found inoperable, notify Region Stormwater Coordinator for further inspection.

Documentation

- All detention and retention basins should be identified on the site map and located in the facility Stormwater Pollution Prevention Plan (SWPPP).
  - If the site makes any changes to the detention and or retention basin, update the map to reflect those changes.

Used Oil, Solvent and Cleaner SOP

Purpose

- This Standard Operating Procedure (SOP) is intended to reduce and eliminate spills and discharges of used oil, solvents and cleaners at UDOT facilities.

Pollutants and BMPs

- Pollutants associated with used oil, solvents and cleaners: petroleum products, solvents, degreasers, chlorides, pesticides, nutrients, heavy metals, sediments, total suspended solids
- List of BMPs in place: used oil tank, concrete containment bin, metal cabinets, indoor storage, oil containers with secure or sealed lids, spill kit

Site Considerations

- All used oil must be stored in secure containers that must have secondary containment.
- Make sure all used oil is properly disposed of in a used oil tank that has the proper containment liners. The tank should also be in its own containment bay that is closed off and doesn't allow for leaks.
    - This facility has a used oil storage tank located on the west side of the main building.
    - This facility has used oil containers located inside the main building.
- Ensure all used oil storage from all truck maintenance is stored in a covered location.
- If used oil containers are stored outside, they must be under a covered area away from storm drains, with secondary containment measures in place.
- When transferring any oil, make sure it's done over an impervious surface or that a tarp be placed on the ground to catch any spills.
- Clean any used oil spills as soon as possible using dry methods.
- Store all cleaners and solvents indoors with secondary containment methods.
    - This facility storage of cleaners and solvents are located inside the main building.
- Treat all solvent and cleaner waste as hazardous waste and dispose of waste in the facility hazardous waste area or transfer to another facility for proper disposal.
    - This facility has a hazardous waste storage area located N/A
    - This facility sends hazardous waste to N/A

Inspections

- During the weekly and quarterly inspections, inspect all used oil, solvent and cleaner storage areas and containers
- Inspect the containment area of the used oil.
    - Is there any evidence of oil leaks outside of the containment bay? If so, clean the spill using dry methods and report the faulty containment bay to the supervisor for repairs.
    - Make sure a spill kit is nearby and that the spill kit is sufficient. If not, replace the spill kit.
- Inspect the oil containers

    - Is the lid to the container shut properly and air tight? If not, replace the oil container.
    - Check the container for signs of leaks or rust. If there are leaks and rust, replace the container.
- Inspect the storage area where the cleaners and solvents are stored.
    - Is there any evidence of leaks or spills? If so, clean the spill as soon as possible and inspect the containment area. Replace the containers if damaged or not sealed properly.
    - Check the secondary containment area. Is there any evidence of leaks? If so, replace or repair the secondary containment measure.

Documentation

- All used oil and storage areas should be identified on the site map located in the facility Stormwater Pollution Prevention Plan (SWPPP).
    - If the site changes the location of the used oil or storage of the solvents or cleaners, the site map must be updated to reflect those changes.

Spill Prevention and Response SOP

Associated Activity Codes: 7M03, 7M07

Purpose

- This SOP will outline procedures and concerns to reduce and potentially eliminate discharges from maintenance operations and material storage at UDOT facilities.
- For hazardous materials, or materials that have specific disposal requirements, follow any manufacturer's guidelines or specifications to contain and cleanup spills.

Pollutants and BMPs

- Pollutants associated with spill prevention and control activities: petroleum products, solvents, pesticides, sediments, total suspended solids, litter, debris, heavy metals, nutrients, chlorides
- List of BMPs in place: oil/water separator, spill kit, berms, secondary containment

Spill Response Procedures

- If a spill occurs, utilize an appropriate spill kit to contain the material as soon as the spill occurs.
    - If the volume of the spill causes runoff, cover or dam any storm drain inlets that could receive flows from the spill. Do not allow the spill to enter the storm drain system.
    - If feasible, repair or remove the cause of the spill before cleaning the spilled material.
- Do not use hoses or other equipment to wash or spray down the spilled material. Washing material into a storm drain system, or into a Water of the State, is a violation of the UDOT MS4 permit. Washing certain material into the sanitary sewer system may not be allowed. Contact local sanitary sewer district manager or local government engineer for guidance.
    - If the spill occurs in a work bay, cleaning area, storage shed, or other area with a sanitary sewer connection, or into another treatment BMP, verify that the BMP can accept and remove the spilled material before washing down the area.
        - This facility has sanitary sewer connections located in the main building.
    - The preferred cleanup method is always to use dry methods to clean the spill.
- When using absorbent materials to clean a spill, allow time to let the material be completely absorbed. Remove all the material and properly dispose of it afterwards.
    - Do not let the absorbed material stay in place for longer than necessary, or let it contact stormwater, or other runoff.
- If pollutants enter the storm drain system or the sanitary sewer system, it may be necessary to report the spilled material to the Division of Water Quality (DWQ) the Area Supervisor, Region Stormwater Program Coordinator, or the local entity in charge of the sanitary sewer system. **You must immediately contact the Brigham Sewer Department for any spill that violates sanitary sewer pretreatment standards or a slug discharge.** For purposes of this subsection, a Slug Discharge is any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, local limits or Permit conditions. These notifications cannot immediate notification to the community cannot be made to voicemail. **Additionally, written notification must be made to the Brigham Sewer Department within 5-days.**

- This facility must report any spills of oils, lubricates, gas or diesel fuel, spray chemical, solvents.

Responding to Spills in the Right of Way

- If a spill occurs in the right of way due to a recoverable or no damage accident, it is required to notify the Region Stormwater Coordinator of the location and the nature of the spill, as well as the Utah Highway Patrol and Utah DWQ should the spill enter a waterway.
  - The Region Stormwater Coordinator may ask to have the spill logged and filled out in the UDOT Stormwater Survey123 IDDE Investigation form.

Site Considerations

- The site should designate areas to store liquids, wastes, and other materials that have a potential to cause spills, discharges, or leaks that are designed to reduce or eliminate contact with stormwater or the sanitary sewer system, and prevent runoff.
  - All storage areas should have cover.
  - Secondary containment, berms, or other barriers to prevent runoff are good ways to reduce the risk of discharge.
  - Any wastes or liquids that are stored inside must be in secondary containment to prevent any spills to the sanitary sewer system. All containers must be labeled correctly.
- Each storage area, fueling station, or other area where potential spills, leaks or discharges may occur must include a spill kit.
  - Spill kits should be tailored to clean the types of pollutants that are present in the area.
    - For example, around fueling areas all spill kits should have hydrocarbon absorbent materials.

Inspections

- During the weekly visual and quarterly comprehensive inspections, inspect all areas where materials or operations with a potential for spills, leaks, or discharges are onsite.
  - Look for any signs of spills, leaks, or other material.
    - Clean all leaks and spills immediately.
    - Remove or repair any sources of pollutants, which are causing or could cause a discharge.
    - Look for any leaks in secondary containment measures near any sanitary sewer drains and connections. Clean any leaks and spills. Note any deficiencies to the Region Stormwater Program Coordinator or the Area Supervisor.
  - Look at the spill kits.
    - Do the spill kits have the appropriate material to address the potential pollutant sources that are present where they are stored?
    - Are the spill kits full? Replace or refill any kits that are empty or partially empty.

Sweeping and Vacuuming Operations SOP

Associated Activity Codes: 7S69, 7M70, 7S51, 7D61, 7M62, 7M89

Purpose

- Sweeping and vacuuming waste materials from the right of way is an effective means to reduce pollutants present on the right of way which can originate from the public or UDOT operations such as de-icing.
- Sweeping and vacuuming waste often contains contaminated stormwater that has commingled with contaminate wastes. It is important to note that the liquid waste is as important to contain as the solid waste from sweeping and vacuuming.

Pollutants and BMPs

- Pollutants associated with sweeping and vacuuming operations: sediments, total suspended solids, litter, debris, heavy metals, nutrients, chlorides, solvents, degreasers, petroleum products
- List of BMPs in place: concrete containment bin, indoor garage storage for vehicle and equipment

Operations and Waste Storage Considerations

- Whenever possible, sweeping and vacuuming waste should be transported to an approved facility that accepts it, instead of bringing it back to the maintenance facility. If the waste can be taken immediately to a receiving facility, it will prevent the need to set up other BMPs at the UDOT facility to contain the solid and liquid waste.
    - Facilities that choose to bring vacuuming and sweeping waste back to the facility must have the appropriate means to store the waste, and a plan to dispose of it properly.
        - Decanting wastewater into a retention pond is acceptable only if the facility does not use the receiving retention pond as makeup water for brine making operations.
    - If the site has a dedicated facility that was constructed for the sole purpose of storing or decanting vacuum and sweeping waste, the facility Stormwater Pollution Prevention Plan (SWPPP) should identify that facility on its site map.
        - On the pavement, next to the pond
    - The disposal location of all wastes associated with regular maintenance activities should be recorded using the UDOT Waste Disposal Tracking Form in Survey123. For more info on how to download and use this form, see the “Using UDOT’s Waste Disposal Tracking Form” SOP.
- Waste storage must be in an area where there is minimal to no exposure to stormwater, and where there is no risk of having runoff enter the storm drain system.
    - Berms can be used to prevent run-on to the storage area. Those berms must be watertight, and cannot allow any liquid that may be present in the waste to runoff from the area and create a discharge from the site.
        - Jersey barriers are insufficient to contain the waste storage.
    - If waste is stored on an impermeable surface such as asphalt, make sure there are no cracks, holes, defects, or other issues where it is stored. Discharges of pollutants to

groundwater is a violation of the UDOT MS4 permit.
    - The following areas onsite can store waste from vacuuming and sweeping:
        - On the pavement, next to the pond
- UDOT maintenance facilities are also responsible for preventing salt, sediment, or other pollutant track out from the facility onto the right of way.
    - If feasible, use dry methods such as hand brooms to clean any tracking off the site.
- Sweeping and vactor vehicles are stored at the following locations onsite
    - Vactor in the Hot Springs shed and outside on pavement back of the main shed
- This station does sweeping and vactoring of facility and field infrastructure annually
- Regularly clean and maintain all vehicles or equipment used in sweeping and vacuuming operations after use.
    - All maintenance and cleaning should be done in the appropriate areas of the facility to capture washwater runoff or any potential leaks or spills.
    - If vehicles leak or drip fluids, provide drip pans or other BMPs to contain any potential pollutants from leaving the area.

Inspection

- During Weekly Visual and Quarterly Comprehensive Inspections, inspect all areas of the site where vacuum and sweeping equipment and/or waste is stored.
- While inspecting waste storage areas onsite, look for the following:
    - Is the waste storage area separated from stormwater run-on and runoff? If there is potential contact between stormwater run-on and the waste storage area, additional BMPs may be needed.
    - Are the berms or other perimeter BMPs in good condition? Repair or replace any perimeter controls that are defective.
    - Is there evidence of the waste decanting to an inappropriate location such as a storm sewer connection? If runoff from the waste pile is not draining to the appropriate place such as the retention pond, it may be necessary to move the waste pile, or change the site conditions to ensure runoff reaches the appropriate destination.
    - Have winds or other conditions caused debris from the waste pile to erode and pose a risk to stormwater? If precipitation, wind, or other weather conditions are anticipated, or have caused erosion of the waste pile to occur, utilize cover or other BMPs to prevent contact and reduce erosion.
        - Leaving the waste pile exposed for long periods of time will increase the risk of erosion. Decreasing the amount of time the pile is left to decant will decrease the risk of creating pollutant runoff.
- While inspecting vehicle and equipment storage areas, look for the following:
    - Are the vehicles stored in such a way to minimize contact with stormwater?
    - Is there evidence of leaks, spills, or other drips from the vehicles?
    - Is there any evidence of damaged vehicle parts that may cause a leak while the vehicle is in operation?
    - Are there drip pans and an emergency spill response kit in the storage area?

Vehicle and Equipment Fueling SOP

Purpose

- This SOP is designed to identify methods to reduce and eliminate pollutants associated with fueling vehicles and equipment at UDOT facilities.

Pollutants and BMPs

- Pollutants associated with vehicle and equipment fueling: petroleum products, litter, debris,
- List of BMPs in place: spill kit, automatic shut off valves on fuel pumps

Site Considerations

- Facilities that have state fueling islands incorporated into their sites have a different set of Best Management Practices (BMPs) to eliminate pollutant discharges than other fueling operations do.
    - This facility has a fuel island/ fueling area located in the southeast corner of the site.
    - All fuel nozzles should have automatic shutoff valves installed to prevent overfilling and spills.
    - All fueling stations should have an emergency spill kit present that contains adequate supplies to address a typical small vehicular fuel spill.
        - The spill kit at this facility is located next to the fuel pumps
    - Fuel stations should be designed to prevent runoff from the station during a spill or run-on of stormwater through the fueling station.
        - If the fueling station was not designed to prevent stormwater contact with any oils or other pollutants, identify areas where potential run-on or runoff can occur, and install additional BMPs in the area to minimize the contact the fueling station has with stormwater.
    - Ensure that emergency shutoff switches and valves are clearly labeled, and that they are easy to identify, even to users who are not trained or familiar with the fuel island.
    - Do not use hoses to wash or spray down the fueling area. Only use dry methods to clean any debris or material.
- Fueling vehicles or equipment from portable containers has a similar set of concerns to fuel islands, but with a few additional conditions:
    - Be aware of where the vehicle or equipment is being fueled. Do not fuel vehicles and equipment over channelized conveyances (gutters) or storm drain inlets.
        - If fueling over those areas is unavoidable, cover all storm drain inlets that could receive liquid, and berm or dam any channelized conveyance to prevent runoff from the area.
        - Do not overfuel or top off vehicles while fueling.
    - Keep an emergency spill kit onsite to assist with an accidental leak or spill.
- Keep fueling areas free from any litter or debris that could be contaminated by oil if a leak or spill were to occur. Use dry methods to keep the area clear; do not use hoses to spray or wash down the area.
    - Provide trash containers in the area for waste and debris.

- Oil absorbent materials, such as socks, pads, or ground material, can be disposed of to the landfill so long as they do not have oil flowing freely or dripping off the used material. Do not mix used oil absorbent materials with other listed hazardous materials.
    - Listed hazardous materials are found in Attachment D: Hazardous Materials References of the facility's Stormwater Pollution Prevention Plan (SWPPP).

Inspections and Maintenance

- During the Weekly Visual and Quarterly Comprehensive Stormwater Inspections, inspect all fueling areas, islands, or fixed vehicle and equipment fueling areas, and fuel storage areas.
    - Look for any drips, spills, staining around these areas. If any exist, look for the source of the spills and correct the problem.
        - If there is evidence that the fuel containers, waste bins, or hose nozzles are leaking, they will need to be repaired or replaced. Contact State Fuel for any problems regarding the fuel island. Clean the affected areas using oil absorbent material. Properly dispose of the absorbent.
        - If there is no evidence that indicates a source, spills may be from overfilling, or leaking vehicles. Clean the affected area using oil absorbent material, then properly dispose of the absorbent.
    - Look for any evidence of runoff or run-on to the fueling station. If there is staining present that leads off, or onto the fueling area, it can indicate a need to manage BMP's around the fueling area and to redirect stormwater away from the area.
    - Check for a spill kit near the fueling area. If the spill kit is missing, or depleted, refill or replace the spill kit.
    - Look for drip pans or other containment for oil leaks at the fueling site. If they are damaged or missing, replace them.
- During the Weekly Visual and Quarterly Comprehensive Stormwater Inspections, inspect all areas where vehicles or equipment are stored.
    - If the site fuels vehicles where they are stored instead of fueling them at a fueling station, inspect the area for any leaks, spills, or drips. Clean any leaks or drips that may have occurred from fueling.
    - If the vehicles appear to be leaking or dripping fluid, use an oil absorbent to clean the area and place drip pans under the vehicles to collect leaked fluids.
    - Check the vehicle storage area for an emergency spill kit. If there is no spill kit, or it is depleted, refill or replace it.

Documentation

- The locations of any vehicle or equipment fueling stations should be identified on the site map within the SWPPP.
- If a spill or leak of vehicle fluids, fuel, or oil leaves the fueling area and enters the storm drain system, it is a violation of the UDOT MS4 permit, and must be documented.
    - Immediately stop the flow of the pollutants and prevent the source from discharging more material. Then clean the area using available emergency spill kits.

- Using the Weekly Visual Inspection form, you may document the incident and its resolution.

Vehicle and Equipment Maintenance SOP

Purpose

- The purpose of this SOP is to identify methods to reduce and eliminate pollutants associated with maintenance of vehicles and equipment at UDOT facilities.

Pollutants and BMPs

- Pollutants associated with vehicle and equipment maintenance: oil and petroleum products, heavy metals, nutrients, solvents and degreasers
- List of BMPs in place: oil/water separator, spill kit, drip pans

Facility Considerations

- Wherever feasible, all maintenance done on vehicles and equipment should be done under cover.
    - If the maintenance facility does not have cover to perform maintenance on vehicles and equipment, the facility should consider only performing maintenance on dry days with no chance of precipitation and/or coordinate with a nearby UDOT facility to use their covered bays.
    - If not feasible to perform the work elsewhere, use secondary containment like drip pans and oil pans.
- Before any maintenance is done on vehicles and equipment, ensure that they are empty of any fluids that they may be holding in the tank.
    - Check any tank volume gauges and ensure that they read at zero or empty and conduct a physical inspection of the tank to view if any fluids are still in the tank.
    - If there is still fluid in the tank of the vehicle, dispose of that fluid in the proper holding tank or disposal location.
        - This facility has a holding tank or area for disposal of fluid located none onsite.
- Certain oils, when combined with water, can pass through an oil/water separator. Ensure that the vehicle or equipment that requires maintenance does not contain any emulsion fluids that can pass through an oil/water separator.
    - Oils and products that emulsify and pass through an oil/water separator include: TSS-1 oil, tack coat oil, chip oil, asphalt polymer treatment, flush oil
- During the course of maintenance, ensure that pollution prevention measures are in place.
    - Drip pans, containment units, or other measures must be in place before work begins.
    - Emergency spill control measures such as oil absorbent, berms, and hydrocarbon mats must be on hand during maintenance so that response to any kind of spill or leak can be immediate and minimize pollutant discharges.
- If maintenance is performed outside, cover nearby storm drain inlets that could receive runoff from oil and other fluids. Do not perform maintenance on top of channelized conveyances or on top of a storm drain inlet for any reason.
- While cleaning vehicle or equipment maintenance areas, use dry methods unless the area is connected to an oil water separator and a sanitary sewer and that connection has been confirmed and documented as part of the facility SWPPP.
    - The main building can be used for this purpose.

    - Some facilities may have a vault that can contain and hold any liquid and a switch that can pump that liquid to sanitary sewer when turned on.
        - This facility has no vault with a pump or switch for waste liquid.
        - If the spilled material passes through the oil water separator, turn the switch off in order to stop the pumping of waste oil to the sanitary sewer system and ensure the proper cleaning is conducted.
- All waste fluid generated during the course of maintenance should be stored in a leak proof container, with a lid and stored in the proper covered location when maintenance activities are finished.
    - Waste containers are stored in the used oil containment area.

Inspections

- During the Weekly Visual and Quarterly Comprehensive Stormwater Inspections, inspect all vehicles and significant equipment to assess their condition.
    - For certain types of vehicles, such as diesel vehicles, drips and leaks are inevitable and not always a sign that something is broken. For such vehicles, drip pans, bibs, or other oil containment units should always be in place. This does not exempt these vehicles from being inspected, as the drips and leaks can cause a potential illicit discharge.
    - Any vehicles and equipment that are prone to leaks must never be stored near or on stormwater conveyance systems, or in areas that are prone to flooding. The ideal location for such vehicles should be under cover, or in a building with a sanitary sewer connection or a treatment BMP.
    - All vehicle and equipment maintenance areas should be inspected during each inspection. Look for:
    - Fresh, wet staining in the area from any maintenance performed. This is typically caused by leaks and drips from vehicles, or small spills that occur during maintenance. Apply absorbent, and allow it to soak up the material, then dispose of the absorbent material properly.
    - A spill kit in the area that is stocked with sufficient materials. If the spill kit is empty or missing, refill or replace the kit.
    - Tracking of any potential pollutants out of the area. Apply absorbent to tracked oil, sweep up any debris that may be present, and provide drip pans to collect any future drips or leaks in the area.
    - Any waste fluid containers that are leaking, missing lids, or have rust, defects, or punctures. If there are any defects in the containers or missing lids, replace them and clean any liquid that may have spilled using absorbent.
- Before using any equipment or vehicles, perform a pre-trip or walkaround inspection.
- Any spills discovered, whether it be to the storm drain system or the sanitary sewer system, proper spill control procedures must be implemented and notification to the Region Stormwater Program Coordinator and Area Supervisor via the Weekly Inspection Form or direct contact is necessary. **If the spill reaches the storm drain system or sanitary system, notification to the Brigham Sewer Department is necessary and must be done**

immediately. Additionally, the Brigham Sewer Department must be notified in writing within 5 days after the immediate notification.

- **Inspect oil water separators monthly to make sure they are in working condition. Clean them at a minimum of every six months or as directed by the approved pretreatment program in your area if applicable.**
- Inspect and maintain any treatment BMPs and make sure they are in proper working condition.
- Inspect and maintain any pumps that are associated with treatment BMPs.

Documentation

- The facility SWPPP should contain the locations of all dedicated vehicle maintenance areas and the location of all emergency spill kits in the facility.
    - If the site adds, removes, or changes the locations of spill kits and maintenance areas, those changes must be reflected in the SWPPP.
- All spills and leaks should be contained and cleaned up. A Weekly Visual Inspection form should then be filled out and include the corrective actions to remedy the spill or leak.
- Document and maintain records of when the facility's oil water separator has been pumped out and cleaned by either UDOT staff or contracted professionals. These records must be maintained for at least a minimum of 5 years.

Vehicle and Equipment Washing SOP

Purpose

- This Standard Operating Procedure will lay out operational notes and site considerations to eliminate illegal/illicit discharges from vehicle and equipment washing operations at UDOT facilities.
- Vehicles used in UDOT Maintenance Operations may accumulate a variety of pollutants during their use in the right of way. It is important to ensure that during the process of washing vehicles and equipment that any pollutants brought back to the facility are only discharged to approved locations such as the sanitary sewer or retention pond.

Pollutants and BMPs

- Pollutants associated with vehicle and equipment washing: petroleum products, sediment, total suspended solids, heavy metals, litter, and debris
- List of BMPs in place: retention pond, oil/water separator, berm

Site Considerations

- In order to wash vehicles at UDOT facilities, the appropriate sanitary sewer connection or retention pond must be in place to receive the contaminated washwater. Vehicle washwater cannot be allowed to enter the storm drain system or groundwater as a result of UDOT activities. All vehicle washwater must be captured and contained.
    - Many UDOT facilities either have a retention pond, or a dedicated sanitary sewer connection that receives washwater from vehicle washing operations. This facility utilizes a retention pond to capture washwater.
- If the facility has a wash rack installed to assist with vehicle washing, ensure that it is sited so that all washwater from washing operations flows into the retention pond to capture the contaminated washwater.
    - For wash racks, ensure that vehicles are parked in the appropriately designated location of the wash rack. Oftentimes, wash racks are sited at grade breaks that drain towards the sanitary sewer connection or retention pond on one side of the rack. Ensure that the vehicle is parked on the correct side to direct flow into properly. This facility's wash rack is located between the salt shed and pond. Vehicles must be washed on under wash rack, on the north side of the wash rack.
- If the facility allows washwater runoff to enter a retention pond as a means of containment, the facility is responsible for keeping the pond from overflowing. Runoff from a retention pond that leaves the facility, or enters groundwater (by settling on dirt or vegetation) is an illegal discharge and a violation of UDOT's MS4 permit. A need to wash vehicles is not an acceptable reason to allow retention ponds to overflow.
    - If the pond is at risk of overflowing, reduce the volume of water that is used in vehicle washing, or consider washing vehicles at an alternate location until the water level drops.
    - If climate conditions prevent evaporation, and vehicle washing cannot be reduced or suspended, water can be pumped from the retention pond and taken to another UDOT facility that can accept the wastewater, or disposed of at an appropriate licensed waste

facility. If pumping is necessary, it is advisable to drain and clean the pond during the summer season if possible to avoid further costly occurrences.

- Keep all wash rack areas free of trash, salt, sand, and sediment. This will reduce the amount of solids that enter the sanitary sewer or the retention pond and will reduce its maintenance.
- Do not wash vehicles or equipment on pervious surfaces, like dirt or vegetation. Non-stormwater discharges to groundwater are a violation of the UDOT MS4 permit.

Inspections

- During the weekly and quarterly inspections, inspect all vehicle and equipment washing stations onsite.
- Inspect the vehicle wash area for the features specific to the facility:
    - Is all washwater draining from the wash area to the retention pond? If washwater is either not reaching or not captured by the retention pond, it will be necessary to wash vehicles in a different location, or install BMPs to change the washwater flow path to ensure it reaches the retention pond.
        - Berms can be a simple way to change the flow path of washwater.
    - Is the wash rack situated in such a way that it drains to the appropriate receiving body?
        - If the runoff from the wash rack is not completely captured by either the retention pond or the sanitary sewer connection, it will be necessary to change the location of the wash rack, or to change the location where vehicles are washed in the wash rack.
    - Is the retention pond overflowing, or close to overflowing? If so, immediately notify your Area Supervisor and suspend or reduce vehicle washing until a solution can be implemented.
- Is there waste, salt, sediment, debris, or other pollutants on the wash pad? If so, clean the area, and properly dispose of the waste. Minimizing the amount of pollutants that is allowed to enter the pond or the sanitary sewer will make maintenance of those systems easier, less costly, and more effective.

Documentation

- All vehicle and equipment wash areas must be identified on the site map in the facility Stormwater Pollution Prevention Plan (SWPPP)
    - If the site changes the setup for vehicle washing, the SWPPP must be updated to reflect that change. Contact your region Stormwater Program Coordinator to notify them of needed changes to the SWPPP map.
- Any agreements to pump washwater from overflowing, or nearly overflowing, retention ponds must be documented and kept with the SWPPP. Records of where the washwater is disposed or transported to must be kept with the SWPPP, as the facility is responsible for ensuring that the contaminated water is disposed of correctly.
- Keep records of all staff members who have been trained on the proper washing procedures in the SWPPP and record in the Training Log section of the SWPPP.

ATTACHMENT C:
Inspection Documentation

Information Recorded in UDOT Facility Weekly Visual Inspection

Inspection and Facility Information

- Time and Date of Inspection
- Inspector Name
- Email
- Username
- UDOT Region
- UDOT Facility

Weekly Visual Inspection

- Did this facility have any spill(s), leak(s), or other deficiencies?
- Please select the type of deficiency that occurred.
    - If other, 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?
    - If no, 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?

Notes, Photos, and Signature

Information Recorded in UDOT Facility Quarterly Stormwater Discharge Inspection

Inspection and Facility Information

- Time and Date of Inspection
- Inspector Name
- Email
- Username
- UDOT Region
- UDOT Facility

Stormwater Discharge Questions

- What is the source of runoff?
- Stormwater discharge odor:
    - If "other" odor, please describe:
- Stormwater discharge color:
    - If "other" color, please describe:
- Stormwater discharge clarity:
    - If "other" clarity, please describe:
- Stormwater discharge floatables:
    - 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?

Completion Previous Quarter

- Did this maintenance station perform the Quarterly Visual Observation of Stormwater Discharge Inspection during last quarter?
    - Please choose the reason why an inspection was NOT completed last quarter.

Notes, Photos, and Signature

Information Recorded in UDOT Facility Quarterly Comprehensive Stormwater Inspection

Inspection and Facility Information

- Time and Date of Inspection
- Inspector Name
- Email
- Username
- UDOT Region
- UDOT Facility

General Facility Information

- 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:
- 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 cleanup kits or materials:
- If this facility has a salt shed or salt storage, is all salt contained within the structure?
    - If no, please describe:

Sanitary Sewer and Septic System

- Select the sanitary waste system of this facility.
- 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 the impervious surfaces (asphalt/concrete) free of spills or leaks from pollutants?
    - If no, please describe:
- Are the pervious surfaces (dirt/vegetation) free of spills or leaks from pollutants?
    - If no, please describe:

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?
- 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:
- 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?
- 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?
- 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?
- Do hazardous materials and wastes have spill containment BMPs?
- Are there spills or leaks in the area surrounding the spill containment?
    - If yes, please describe:
- Are there spills or leaks in the area surrounding the hazardous materials or waste?
    - If yes, please describe:
- 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?
- 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?
- 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?
- 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:

Similar Pollutant Generating Areas

- If this facility has any other similar areas that may generate pollutants, have these areas been thoroughly inspected?
    - If no, please describe:
- Please note any issues or deficiencies found.

Illicit Discharges

- Are the facility buildings and grounds, and perimeter free of illicit discharges originating from within this facility?
    - If no, please describe:

Notes, Photos, and Signature

Using the Survey123 App for Stormwater Inspections
Downloading and Submitting Public Surveys

Purpose:

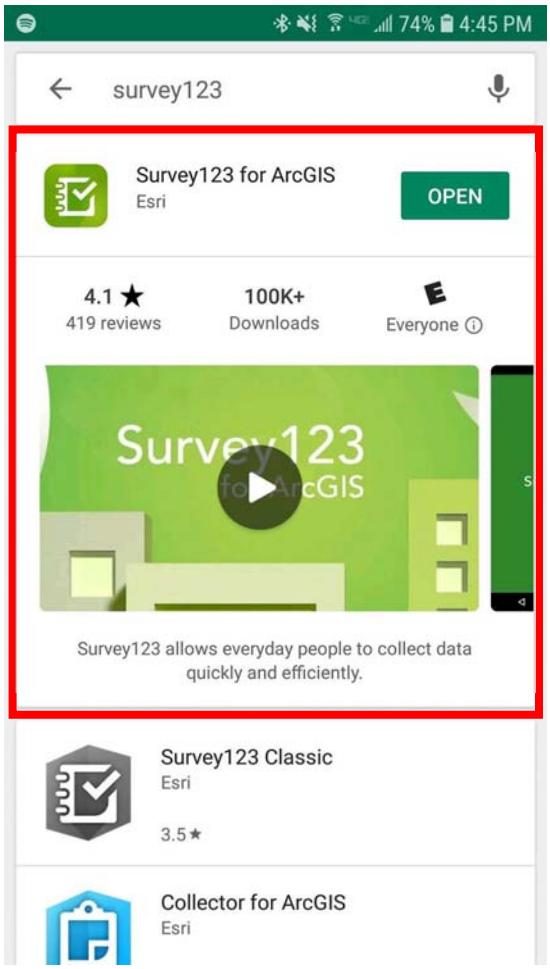
The stormwater team uses Survey123 app for Weekly Visual, Quarterly Comprehensive, and Quarterly Discharge stormwater inspections. Survey123 is compatible with mobile devices and allows you to complete inspections in areas without a reliable internet connection. Survey123 also allows you to add pictures, location, and other features not available in the Google Forms platform. This SOP has two sections:

A. Getting Started with Survey123: Downloading the Survey123 app and Downloading Inspection Forms
B. Completing and Submitting Inspections in Survey123

A. Getting Started with Survey123

Downloading the Survey123 app

1. Open the App Store or Google Play Store and search "Survey123". Install the Survey123 app.

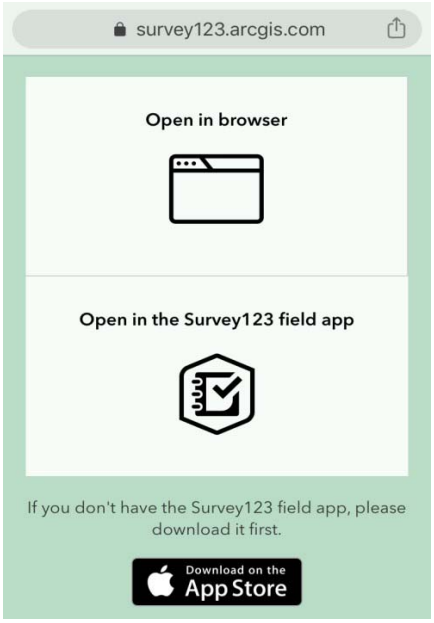


Accessing Forms in Survey123

1. All Maintenance Station and POE SWPPP inspections can be accessed at the following links.
    a. **Maintenance Station SWPPP Inspections**
        i. Weekly Visual Inspection: https://arcg.is/GK548
        ii. Quarterly Stormwater Discharge Inspection: https://arcg.is/5SXbD
        iii. Quarterly Comprehensive Inspection: https://arcg.is/eCP41

    b. **POE SWPPP Inspections**
        i. POE Weekly Visual Inspection: https://arcg.is/0q0GW5
        ii. POE Quarterly Stormwater Discharge Inspection: https://arcg.is/0DWzzj
        iii. POE Quarterly Comprehensive Inspection: https://arcg.is/1W9uH

2. The links will bring you to a webpage that looks like this:



- If you are using a **phone or tablet, select "Open in the Survey123 field app".** It will bring you to the following page:

- **Select Open in the Survey123 field app again.**

3. **Your device will open the Survey123 app** and **download the survey to your phone**. The survey will now be in your "My Surveys" homepage in the Survey123 app. **Next time you need to submit an inspection, you can go directly to the app.**

4. Make sure that the inspections that you have downloaded have the correct logos.

Maintenance Station Inspections have all BLUE logos

POE Inspections have all RED logos

Downloading Updates to Survey Forms in Survey123

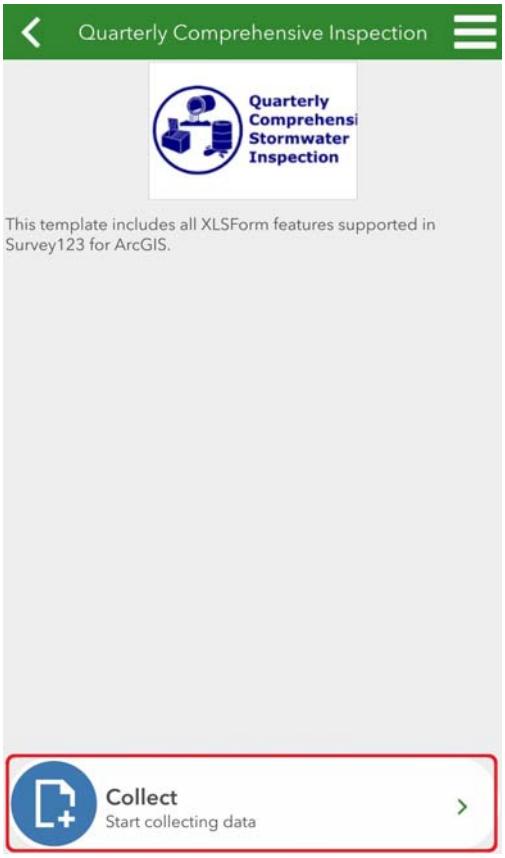
Occasionally, there may be improvements made to the Survey123 forms. When this happens, you will need to **download updates to the form** so that you are using the updated version. **If you fill out an old version when a form has been updated, you will be unable to submit the old version of the form**.

You will be notified by **email or text message when there is a new version** that needs to be updated. **A new link will be provided** along with the email or text. **Click the new link and follow steps 2-4 above to download the updated form.**

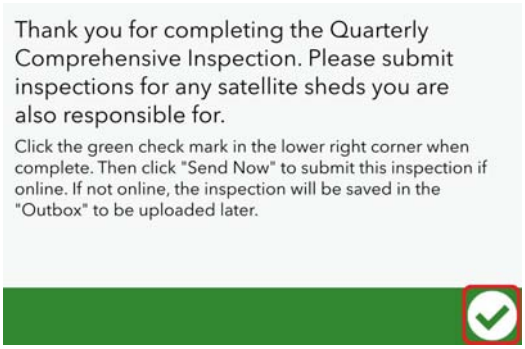
B. Completing and Submitting Inspections in Survey123

Completing an Inspection Form in Survey123

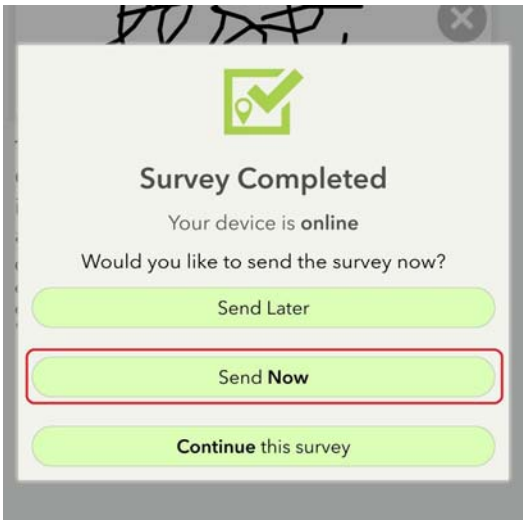
1. From the "My Surveys" page, **tap the icon of the inspection that you need to complete**.
2. Tap the **"Collect" button** at the bottom of the page.



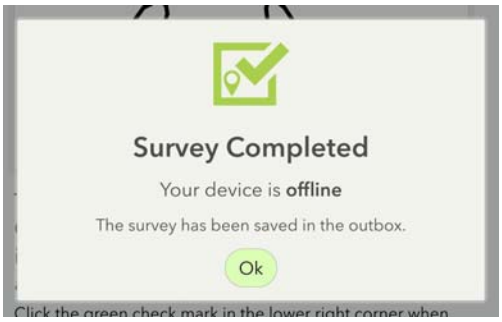
3. Fill out the information requested on the form. **Fields that are required have a red asterisk (*)**. You will not be able to submit the form if these fields are not complete. The date and time that you are filling out the form is automatically recorded.
4. Once you have **completed the form**, tap the **green check mark** in the lower right corner to submit the inspection form.



5. If you are connected to cellular data or Wi-Fi, you should click the **"Send Now" button**.

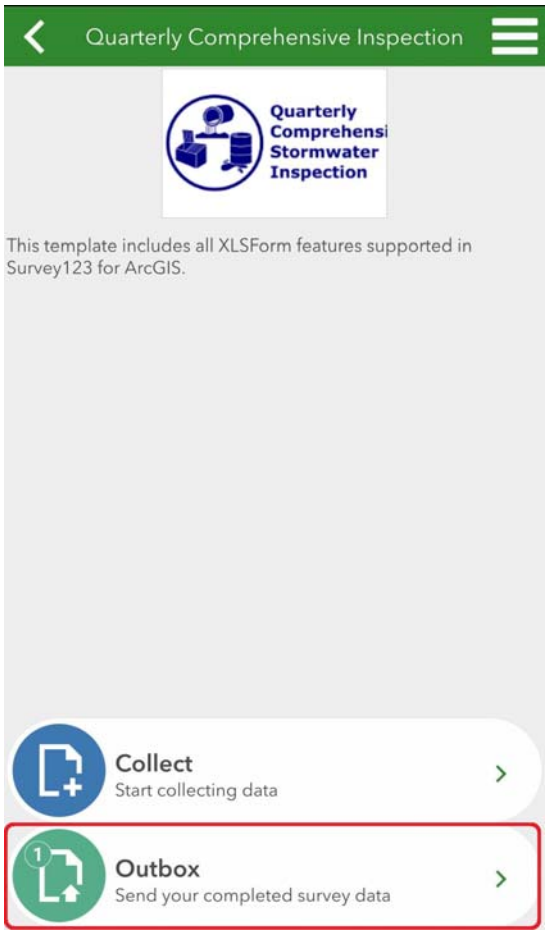


6. If your device is **not connected to cellular data or Wi-Fi**, you will get a message telling you that the device is offline and the form will be **saved to your outbox**.



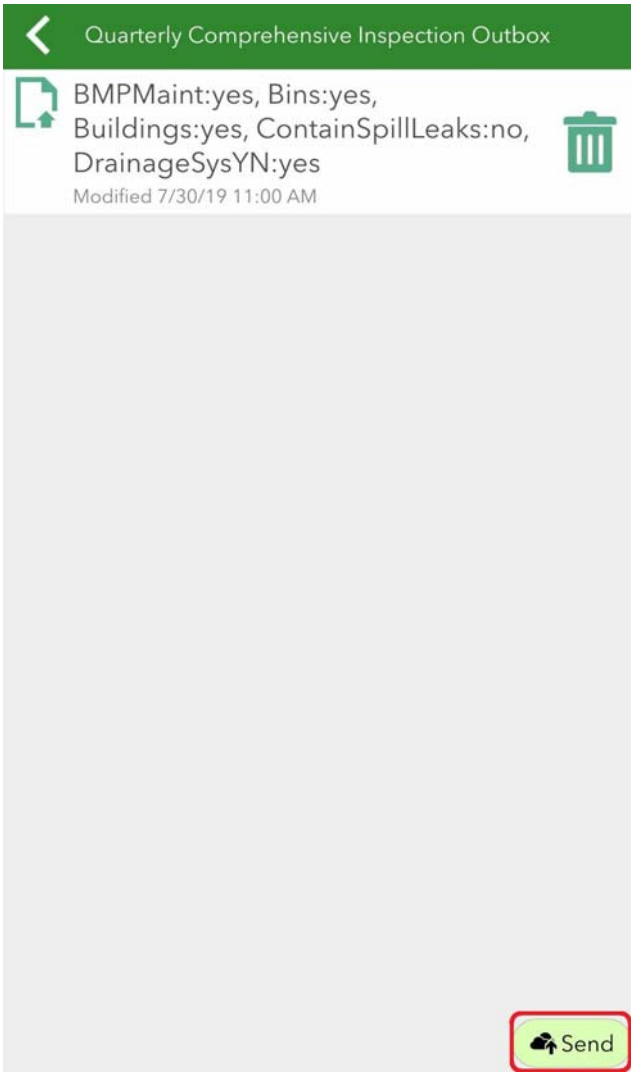
7. Back on your home "My Surveys" screen, in the top right corner of the inspection form icon, you will see a **small green circle with a number in it**. This means that **you have a survey in the Outbox that is waiting to be submitted**.

8. When you are connected to Wi-Fi or have cellular data coverage, you will need to **submit any inspections that are in this outbox**. To do this, tap the survey icon, and **tap the "Outbox" icon at the bottom of the survey page**.



9. **If you need to go back and edit** anything you entered in the form, **tap the entry**.

10. **To submit from the Outbox**, tap the green **"Send" button** in the bottom right corner. When your outbox is empty, you should no longer see the outbox icon on the Inspection form page and there will be no green circle with numbers on your home page.



ATTACHMENT D:
Hazardous Materials References

DOT Definition of Hazardous Material:

Any substance that poses an unreasonable risk to life, the environment, or property when not properly contained. A hazardous material is further defined as any substance or material that could adversely affect the safety of the public, handlers, or carriers during transportation.

There are nine classes of hazardous materials:

Hazard Class 1: Explosives	1.1 mass explosion hazard 1.2 projectile hazard 1.3 minor blast/projectile/fire 1.4 minor blast 1.5 insensitive explosives 1.6 very insensitive explosives
Hazard Class 2: Compressed Gases	2.1 flammable gases 2.2 non flammable compressed 2.3 poisonous, toxic
Hazard Class 3: Flammable Liquids	Flammable (flash point below 141°) Combustible (flash point 141°-200°)
Hazard Class 4: Flammable Solids	4.1 flammable solids 4.2 spontaneously combustible 4.3 dangerous when wet
Hazard Class 5: Oxidizers and Organic Peroxides	5.1 Oxidizer 5.2 Organic Peroxide
Hazard Class 6: Toxic Materials	6.1 Material that is poisonous 6.2 Infectious Agents
Hazard Class 7: Radioactive Material	Radioactive I Radioactive II Radioactive III
Hazard Class 8: Corrosive Material	Destruction of the human skin Corrode steel at a rate of 0.25 inches per year
Hazard Class 9: Miscellaneous	A material that presents a hazard during shipment but does not meet the definition of the other classes

ATTACHMENT E:
Training Information

TRAINING SIGN-IN SHEET	
Topic:	**Date:**
Trainer:	**Place/Room:**

Name	Signature	Phone