



Salt Lake County
Stormwater Standard Operating Procedures



Ben McAdams
Salt Lake County Mayor

January 25, 2016

Lori Bays
Deputy Mayor &
Chief Administrative Officer

Dear Employees,

Salt Lake County has the responsibility and opportunity to operate and maintain our storm drain system, and to protect all waterways from contamination and pollution. We have a great team dedicated to keeping stormwater that discharges to our creeks, the Jordan River, and the Great Salt Lake clean.

The Stormwater Team has successfully developed exceptional Standard Operation Procedures as well as an employee Training Program. Staying in compliance with the law requires educated and cooperative residents, in addition to County employees leading by example. Therefore, it is essential that all County departments adopt these two programs. Employees make all the difference, and the SOP's and training program will prepare our employees to do their part in helping us meet these requirements.

We continually strive to provide excellent services to the people of Salt Lake County, and this program helps us to reach that goal. I commend our Stormwater Team for their hard work and dedication.

Salt Lake County is committed to providing a healthy environment for its residents. I wish us all success as we protect our aquatic ecosystem and environment.

Sincerely,

Ben McAdams
Salt Lake County Mayor

INTRODUCTION

In 1987, as an amendment to the 1972 Federal Clean Water Act), Congress passed the Water Quality Act that established a phased approach to regulating the discharge of municipal storm water to waters of the United States. This Act led to Salt Lake County being designated as a Phase 1 Municipal Separate Storm Sewer System (MS4) based on its population in 1993. As a Phase 1 MS4, Salt Lake County is authorized to discharge municipal storm water in accordance with seven control measures outlined in the Utah Pollutant Discharge Elimination (UPDES) Jordan Valley Municipalities Permit No. UTS000001. A link to the permit can be found in **Appendix A** of this document.

This permit is administered by the State of Utah Division of Water Quality with oversight from the EPA. Pursuant and in compliance with the current permit, Salt Lake County is required to develop and follow Standard Operating Procedures (SOPs) to prevent pollutants from entering Salt Lake County's storm water drainage system. The County through its Office of Township Services has adopted a Storm Water Management Plan (SWMP) that addresses the implementation of the seven control measures: Public Education and Outreach, Public Involvement, Construction Site Run-off Control, Post-Construction storm water controls, Illicit Discharge Detection and Elimination (IDDE), Good Housekeeping, and the Industrial/Commercial oversight Program. A copy of the SWMP can be found at:

<http://slco.org/pweng/stormwater/pdf/2014-SLCo-Stormwater-management-report.pdf>

Enclosed within the document below are the SOPs developed by the Salt Lake County Stormwater Agency to meet the requirements of the permit. These SOPs are not intended to replace all SOPs that may presently exist in the various County Organizations, but are meant to supplement and accompany those SOPs. In cases where these SOPs may conflict with existing SOPs, the most rigorous related to protecting water quality shall govern. Each County Agency and Organization shall implement the applicable SOPs in their operations and business practices.

It is the responsibility of Agency Managers and/or Supervisors to train employees as required, including temporary employees, on these SOPs and report this training and send documentation on the Training Form 100 (found in Appendix B of this document) to the County Stormwater Program Manager or the County Stormwater Program Supervisors for purposes of data management, reporting, and compliance tracking.

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DEFINITIONS

1. **40 CFR:** Refers to Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government.
2. **Act:** Means the Utah Water Quality Act.
3. **Analytical monitoring:** Refers to monitoring of water bodies (streams, ponds, lakes, etc.) or of storm water, according to UAC R317-2-10 and 40 CFR 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants," or to State or Federally established protocols for biomonitoring or stream bioassessments.
4. **Beneficial Uses:** Means uses of the Waters of the State, which include but are not limited to: domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.
5. **Best Management Practices (BMPs):** Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
6. **CWA:** Means The Clean Water Act of 1987, formerly referred to as the Federal Water Pollution Control Act.
7. **Co-Permittee:** Means any operator of a regulated small MS4 that is applying jointly with another applicant for coverage under the MS4 Permit. A Co-Permittee owns or operates a regulated Small MS4 located within or adjacent to another regulated MS4. A Co-Permittee is only responsible for complying with the conditions of this Permit relating to discharges from the MS4 the Co-Permittee owns or operates. See also § 40 CFR 122.26(b)(l).
8. **Control Measure:** Refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to Waters of the State.
9. **Common plan of development or sale:** Means one plan for development or sale, separate parts of which are related by any announcement, piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, plat, blueprint, contract, Permit application, zoning request, computer design, etc.), physical demarcation (including contracts) that identify the scope of the project. A plan may still be a common plan of development or sale even if it is taking place in separate stages or phases, is planned in combination with other construction activities, or is implemented by different owners or operators.
10. **Division:** Means the Utah Division of Water Quality.
11. **Discharge:** For the purpose of the Permit and this document, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).
12. **Drinking Water Source Protection Zones:** These are hereby established use districts to be known as zones one, two, three, and four, of the drinking water source protection area,

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

13. **Dry weather screening:** Is monitoring done in the absence of storm events to discharges representing, as much as possible, the entire storm drainage system for the purpose of obtaining information about illicit connections and improper dumping.
14. **Eprocess 360 v.2015:** The current database and tracking system used by the Salt Lake County Planning and Development agency.
15. **Escalating enforcement procedures:** Refers to a variety of enforcement actions in order to apply as necessary for the severity of the violation and/or the recalcitrance of the violator.
16. **Entity:** Means a governmental body or a public or private organization.
17. **EPA:** Means the United States Environmental Protection Agency.
18. **General Permit:** Means a Permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual Permits being issued to each discharger.
19. **Ground water:** Means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.
20. **High quality waters:** Means any water, where, for a particular pollutant or pollutant parameter, the water quality exceeds that quality necessary to support the existing or designated uses, or which supports an exceptional use.
21. **Illicit connection:** Means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
22. **Illicit discharge:** Means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.
23. **Impaired waters:** Means any segment of surface waters that has been identified by the Division as failing to support classified uses. The Division periodically compiles a list of such waters known as the § 303(d) List.
24. **Large MS4:** Large municipal separate storm sewer system means all municipal separate storm sewers that are located in an incorporated place with a population of 250,000 or more as determined by the current Decennial Census by the Bureau of the Census.
25. **Low Impact Development (LID):** is an approach to land development (or re-development) that works with nature to more closely mimic pre-development hydrologic functions. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements.
26. **MS4:** Is an acronym for "municipal separate storm sewer system".
27. **Maximum Extent Practicable (MEP):** Is the technology-based discharge standard for Municipal Separate Storm Sewer Systems established by paragraph 402(p)(3)(B)(iii) of the

Federal Clean Water Act (CWA), which reads as follows: "Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants."

28. **Medium MS4:** Medium municipal separate storm sewer system means all municipal separate storm sewers that are located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census
29. **Monitoring:** Refers to tracking or measuring activities, progress, results, etc.;
30. **Municipal separate storm sewer system:** Means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) pursuant to paragraphs R317-8-1.6(4), (7), & (14), or designated under UAC R317-8-3.9(l)(a)5:
 - a. that is owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to Waters of the State;
 - b. that is designed or used for collecting or conveying storm water;
 - c. which is not a combined sewer; and
 - d. which is not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR 122.2.
31. **NOI:** Is an acronym for "Notice of Intent" to be covered by this Permit and is the mechanism used to "register" for coverage under a general Permit.
32. **Non-analytical monitoring:** Refers to monitoring for pollutants by means other than UAC R317-2-10 and 40 CFR 136, such as visually or by qualitative tools that provide comparative or rough estimates.
33. **Operator:** Is the person or entity responsible for the operation and maintenance of the MS4.
34. **Outfall:** Means a point source as defined by UAC R317-8-1.5(34) at the point where a municipal separate storm sewer discharges to Waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other Waters of the State and are used to convey waters of the State.
35. **Owner:** Is the party responsible for all operations and meeting all permit requirements.
36. **Priority construction site:** Means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges and past record of non-compliance by the operators of the construction site.

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

OTHER ACRONYMS USED WITHIN THIS DOCUMENT

- BMP Best Management Practices
- DEQ Division of Environmental Quality
- HHW Household Hazardous Waste
- ICFSWPPP Industrial/Commercial Facility Storm Water Pollution Prevention Plan
- IDDE Illicit Discharge Detection and Elimination
- SDS Safety Data Sheet
- MOU Memorandum of Understanding
- NOT Notice of Termination
- NOV Notice of Violation
- PPE Personal Protective Equipment
- RSI Registered Storm Water Inspector
- RSR Registered Storm Water Reviewer
- SLCO HD Salt Lake County Health Department
- SLCO Salt Lake County
- SOP Standard Operating Procedure
- SWMA Storm Water Maintenance Agreement
- TCLP Toxicity Characteristic Leaching Procedure
- UDEQ Utah Department of Environmental Quality
- UPDES Utah Pollutant Discharge Elimination System

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GOOD HOUSEKEEPING

Buildings – Dumpsters/Garbage Storage Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater from improper handling of garbage and maintenance of dumpsters.

PROCEDURE:

1. Preparation:
 - a. Train employees on proper trash disposal.
 - b. Locate dumpsters and trash cans in convenient, easily observable areas.
 - c. Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
 - d. Where feasible, install berms, curbing, or vegetation strips around storage areas to control water from entering and leaving storage areas.

2. Process:
 - a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
 - b. Request/use dumpsters, and trash cans with lids and without drain holes.
 - c. Locate dumpsters on a flat, hard surface that does not slope or drain directly into the storm drain system.

3. Clean-up:
 - a. Keep areas around dumpsters clean of all garbage.
 - b. Ensure garbage bins emptied regularly to keep from overfilling.
 - c. Wash interior of bins or dumpsters, as needed, in properly designated areas.

GOOD HOUSEKEEPING

Buildings – Parking Lot Maintenance Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater run-off from parking lots.

PROCEDURE:

1. Preparation:
 - a. Conduct regular employee training to reinforce proper housekeeping.
 - b. Restrict parking in areas to be swept prior to and during sweeping.
 - c. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.

2. Process:
 - a. Sweep parking areas, as needed, or as directed.
 - b. Hand sweep sections of gutter if soil and debris accumulate.
 - c. Pick-up litter as required to keep parking areas clean and orderly.

3. Clean-up:
 - a. Dispose of sweepings properly (designated solid waste facility).
 - b. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into the storm drain.
 - c. Swept materials will not be stored in locations where stormwater could transport fines into the storm drain system.

4. Documentation:
 - a. Retain work orders to track swept parking areas and approximate quantities.
 - b. Log training activities along with regular required safety training.

GOOD HOUSEKEEPING

Chemical Application Pesticides, Herbicides, & Fertilizers Standard Operating Procedure

PURPOSE:

To protect stormwater by properly applying pesticides, herbicides, & fertilizers.

PROCEDURE:

1. Preparation:
 - a. Make sure your state Chemical Handling Certification (i.e. Hazwoper) is complete and up-to-date before handling any chemicals.
 - b. Make sure all pesticide application is conducted or supervised by personnel certified by Utah Department of Agriculture.
 - c. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
 - d. Use pesticides only if there is an actual pest problem.
 - e. Time and apply the application of fertilizers, herbicides or pesticides according to the manufacturer's recommendation for best results ("Read the Label").
 - f. Know the weather conditions. Do not use pesticides if rain is expected within a 24-hour period. Apply pesticides only when wind speeds are low (less than 5 mph).

2. Process:
 - a. Follow the manufacturer's recommendations for mixing, applying, and disposing of pesticides ("Read the Label").
 - b. Do not mix or prepare pesticides for application near storm drains, preferably mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
 - c. Employ techniques to minimize off-target application (e.g. spray drift, over broadcasting) of pesticides and fertilizers.
 - d. Whenever possible spot treat affected areas only instead of entire location.
 - e. Choose the least toxic pesticides that still achieve results.
 - f. Never apply controlled pesticides unless certified to do so.
 - g. Never apply pesticides before a heavy rainfall.

3. Clean-up:
 - a. Clean up any spilled chemicals (see SOP #7 Spill Cleanup and Response and #8 Petroleum and Chemical Disposal).
 - b. Sweep or blow pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.

- c. Rinse equipment only when necessary. Triple rinse pesticide and herbicide containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
 - d. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers ("Read the Label").
 - e. Never discharge rinse water or excess chemicals to storm drain, sewer or ground surface.
4. Documentation:
- a. Retain copies of SDS sheets for all pesticides, fertilizers and other hazardous products.
 - b. Record fertilizing and pesticide application activities, including date, individual who performed the application, the amount of product used and the approximate area covered.

GOOD HOUSEKEEPING

Storage and Disposal of Fertilizer and Pesticides Standard Operating Procedure

PURPOSE:

To protect stormwater by properly storing and disposing of fertilizers and pesticides (herbicides and fungicides).

PROCEDURE:

1. Always:
 - a. Store fertilizers and pesticides in high, dry locations, according to manufacturer's specifications and applicable regulations.
 - b. Clearly label secondary containers.
 - c. Properly dispose of fertilizers and pesticides according to manufacturer's specifications and applicable regulations.
 - d. Regularly inspect fertilizer and pesticide storage areas for leaks and spills.
 - e. Clean up spills and leaks of fertilizers and pesticides to prevent the chemicals from reaching the storm drain system (see SOP #7 Spill Cleanup and Response and #8 Petroleum and Chemical Disposal).

2. Whenever Possible:
 - a. Store pesticides in enclosed areas or in covered impervious containment, preferably in a locked cabinet.
 - b. Order fertilizers and pesticides for delivery as close to time of use as possible to reduce amount stored at facility.
 - c. Order only the amount needed to minimize excess or obsolete materials requiring storage and disposal.
 - d. Use ALL fertilizers and pesticides appropriately to minimize the amount of chemicals requiring disposal.
 - e. Conduct annual review of storage areas and dispose of old, unusable or "obsolete" fertilizers or pesticides in accordance with applicable regulations.

3. Never:
 - a. Dispose of fertilizers or pesticides in storm drains.
 - b. Leave unlabeled or unstable chemicals in any storage area.

GOOD HOUSEKEEPING

Alternative Products Use/Storage/Disposal Standard Operating Procedure

PURPOSE:

To protect storm water by using alternative products that are more environmentally friendly.

PROCEDURE:

1. Always:
 - a. Ask product suppliers, peers, or regulatory agents if there is a more environmentally friendly alternative, when ordering any product.

2. Whenever Possible:
 - a. Use alternative products when deemed appropriate:
 - i. Instead of solvent-based parts cleaners use citrus-based cleaners or steam/pressure wash to an oil/water separator/holding tank. Use alternative products when deemed appropriate.
 - ii. Instead of herbicides use bark mulch.
 - iii. Instead of fertilizer use compost or manure.
 - iv. Instead of pesticides plant marigolds, onion, or garlic as deterrents; release or attract beneficial insects.
 - v. Instead of synthetic adsorbents, use corncob or cellulose products for petroleum spills that can be burned for energy recovery.
 - b. Train employees on the benefits of using alternative products.
 - c. Minimize waste by purchasing recyclable products that have minimal packaging.
 - d. Use less harmful de-icers such as calcium magnesium acetate, potassium acetate, or organic de-icers.
 - e. Use a "pre-mix" of 4 to 1 sodium chloride and calcium chloride, which is the most cost-effective alternative to straight salt.
 - f. Substitute synthetic fertilizers with natural compost and organic fertilizers to improve soil pH, texture and fertility, and cause less leaching to groundwater:
 - i. Use no-phosphorus lawn fertilizer.
 - g. Reduce or eliminate mown lawn in areas that are not actively used:
 - i. Consider converting unused turf to meadow or forest.
 - h. Use slow-release nitrogen fertilizers.

GOOD HOUSEKEEPING

Chemical Handling and Transporting Standard Operating Procedure

PURPOSE:

To prevent the discharge of pollutants into stormwater from buildings and grounds maintenance activities through proper chemical handling and application.

PROCEDURE:

1. Preparation:
 - a. Make sure your state Chemical Handling Certification (i.e. Hazwoper) is complete and up-to-date before handling any chemicals.
 - b. Supervisors ensure that employees handling and transporting chemicals are trained on the proper procedures.
 - c. Ensure there is a spill kit onsite for containment and prevention of pollutants from discharging into stormwater systems.
 - d. Have proper PPE available and wear it prior to handling chemicals as necessary or as required.
 - e. Understand and follow SDS for handling of chemicals and other hazardous products.

2. Process:
 - a. Wear proper PPE for chemical being used, transported or handled.
 - b. Begin transfer or handling process.
 - c. Stop process if spills occur (Refer to SOP #7 Spill Cleanup and Response).
 - d. Disconnect and store handling equipment as required.

3. Clean-up:
 - a. Clean up any spills with proper material.
 - b. Dispose of contaminated material at appropriate facility.

4. Documentation:
 - a. Report spills to **Salt Lake County Health Department 801-580-6681** as necessary.

Spill Cleanup and Response Standard Operating Procedure

PURPOSE:

To protect stormwater by educating employees on proper spill cleanup procedures, state reporting requirements, and preventative actions.

PROCEDURE:

1. Always:
 - a. Stop the source of the spill, if possible to safely do so.
 - b. Contain any liquids, if possible to safely do so.
 - c. Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Do not use straw or water (See SOP #8 Petroleum and Chemical Disposal).
 - d. Petroleum spills involve, but are not limited to: crude oil, gasoline, various fuel oils, lubricating oil, hydraulic oil, asphaltic residuals.
 - e. Report a petroleum spill (801)-580-6681 if:
 - i. The spill is greater than 25 gallons, or
 - ii. The spill cannot be immediately contained, or
 - iii. The spill and/or contamination cannot be completely removed within 24 hours, or
 - iv. There is an impact or potential impact to ground/surface water.
 - v. **IF IN DOUBT, REPORT THE SPILL!**
 - f. Hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
 - i. Report any discharge of hazardous waste immediately (within one hour) to local emergency officials (fire department), then contact Health Department Emergency Response Team (801)-580-6681.
 - ii. Contact local fire department _____ (phone #)
 - iii. Develop and maintain a Spill Prevention, Control, and Countermeasure (SPCC) Plan if the facility stores more than 1,320 gallons of petroleum.
 - g. Fit petroleum and chemical storage containers with secondary containment structures.
 - h. Keep a spill kit in areas where petroleum or hazardous materials are stored.
 - i. Train employees in spill response procedures and equipment.
 - j. Deploy containment booms if spill could potentially reach a storm drain or water body.
 - k. Position mats to contain drips from equipment or vehicles until they can be repaired.

2. Whenever Possible:
 - a. Seal the floor with paint to prevent absorption of fluids into concrete.
 - b. Install low-level or low-pressure alarms and/or cut-off systems on hydraulic equipment.

3. Never:
 - a. Never wash a spill into the storm drain or a water body.
 - b. Never leave a spill without cleaning it up.

GOOD HOUSEKEEPING

Petroleum and Chemical Disposal Standard Operating Procedure

PURPOSE:

To protect stormwater from petroleum and chemical products due to improper disposal practices.

PROCEDURE:

1. Always:
 - a. Maintain tracking and a manifest, where necessary, of chemicals and petroleum products being disposed or recycled off-site.
 - b. Transport used petroleum and chemical products with a licensed transporter and maintain records.
 - c. Train employees on proper disposal practices.
 - d. Analyze floor drain solids (from sediment trap) for TCLP to determine if hazardous waste or not.

2. Whenever Possible:
 - a. Minimize the number of solvents used to reduce the variety of waste generated and to make recycling easier.
 - b. Use safer alternatives (see SOP #5 Alternative Products Use/Storage/Disposal).

3. Never:
 - a. Never place hazardous waste in solid waste dumpsters.
 - b. Never pour hazardous waste down floor drains, sinks, or outdoor storm drain inlets.
 - c. Never mix petroleum waste and chemical waste.
 - d. Never dispose of any gasoline-contaminated waste in the regular trash. Dispose of it only as a hazardous waste.
 - e. Never mix incompatible chemicals such as acids and bases.

GOOD HOUSEKEEPING

Garbage Storage/Scrap Metal Containers/Trash Piles Standard Operating Procedure

PURPOSE:

To protect stormwater by properly inspecting, maintaining, and cleaning garbage collection areas.

PROCEDURE:

1. Preparation:
 - a. Locate dumpsters and trash cans with lids in convenient, easily observable areas.
 - b. Locate scrap metal bin under cover if there is no lid or tarp to provide cover.
 - c. Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
 - d. Provide training to employees to prevent improper disposal of general trash.
 - e. Control run-off of sediments and debris from trash storage areas. Provide silt traps or oil water separators at run off entry points into the storm drain system.

2. Process:
 - a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
 - b. Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.
 - c. Control run off leaving storage areas.
 - d. Keep lids closed when not actively filling dumpster.

3. Clean-up:
 - a. Keep areas around dumpsters clean of all garbage.
 - b. Ensure garbage bins are emptied as often as needed to keep from overfilling.
 - c. Wash out interior of bins or dumpsters, as needed, in properly designated areas only.

GOOD HOUSEKEEPING

Open Space Management Standard Operating Procedure

PURPOSE:

To protect stormwater by ensuring open space areas are kept free of trash and debris, stormwater controls are properly maintained and inspected.

PROCEDURE:

1. Preparation:
 - a. Provide a regular observation and maintenance of parks, golf courses, and other public open spaces.
 - b. Identify public open spaces that are used for storm water detention and verify that detention areas are included on the storm water system mapping, inspection schedules, and maintenance schedules.

2. Process:
 - a. Ensure that any stormwater or drainage system components on the property are properly maintained.
 - b. Avoid placing bark mulch (or other floatable landscaping materials) in stormwater detention areas or other areas where stormwater runoff can carry the mulch into the storm drainage system.
 - c. Follow all SOPs related to mowing, planting vegetation, and pet waste management (See SOP #38 Mowing and Trimming, #14 Planting Vegetation – Starters, #15 Planting Vegetation – Seeds, and #11 Pet Waste).

3. Clean-up:
 - a. Keep all outdoor work areas neat and tidy. Clean by sweeping instead of washing whenever possible. If areas must be washed, ensure that wash water will enter a landscaped area rather than the stormwater. Do not use soap for outdoor washing.
 - b. Pick up trash on a regular basis.

GOOD HOUSEKEEPING

Pet Waste Standard Operating Procedure

PURPOSE:

To protect stormwater from pet waste bacteria.

PROCEDURE:

1. Preparation:
 - a. Enforce regulations that require pet owners to clean up pet waste and use leashes in public areas (Regulation #7, General Sanitation, 4.8.2). If public off-leash areas are designated, make sure they are clearly defined. Avoid designating public off-leash areas near streams and water bodies.
 - b. Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet waste has been a problem. Provide signs with instructions for proper cleanup and disposal.
2. Process:
 - a. Check parks and trails for pet waste as needed.
 - b. Check public open space for pet waste prior to mowing.
 - c. Provide ordinance enforcement as needed.
3. Clean-up:
 - a. Remove all pet waste; provide temporary storage in a covered waste container, and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.
4. Documentation:
 - a. Document problem areas for possible increased enforcement and/or public education signs.

GOOD HOUSEKEEPING

Snow Removal and De-Icing Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater from all snow removal and de-icing activities.

PROCEDURE:

1. Preparation:
 - a. Store de-icing material under a covered storage area, or other approved storage method that prevents runoff from entering the storm drain (See SOP #19 Salt and Sand/Aggregate Storage).
 - b. Wash out vehicles (if necessary) in approved washout area before preparing them for snow removal.
 - c. Calibrate spreaders to minimize amount of de-icing material used and still be effective.
 - d. Equip supervisor vehicles with spill cleanup kits in case of hydraulic line rupture or other spills.
 - e. Train employees in spill cleanup procedures and proper handling and storage of de-icing materials (See SOP #7 Spill Cleanup and Response).

2. Process:
 - a. Load material into trucks carefully to minimize spillage.
 - b. Periodically dry sweep loading area to reduce the amount of de-icing materials exposed to runoff.
 - c. Distribute the minimum amount of de-icing material to be effective on roads.
 - d. Turn spreader off while loading and any other time the vehicle is not moving in the forward position.
 - e. Park trucks loaded with de-icing material inside when possible.

3. Clean-up:
 - a. Sweep up all spilled de-icing material around loading area.
 - b. Clean out trucks after snow removal duty in approved washout area.
 - c. Provide maintenance for vehicles in covered area.

GOOD HOUSEKEEPING

Snow Disposal Standard Operating Procedure

PURPOSE:

- a. To protect stormwater by minimizing the impact of snow piles which contain sand, salt, and trash which generate concentrated releases of pollutants during spring snowmelt conditions. For public Right-of-Way snow disposal, see Public Works, Operations Division Storm Water Protection SOP.

PROCEDURE:

2. Always:
 - a. Identify sensitive ecosystems prior to disposal and avoid disposal in these areas.
 - b. Store snow at least 25 feet from the high water mark of a surface water.
 - c. Store snow at least 75 feet from any private water supply, at least 200 feet from any community water supply, and at least 400 feet from any municipal wells.
 - d. Clear debris in storage area each year prior to snow storage use.
 - e. Clear debris in snow storage area and immediately after snowmelt occurs of each year the storage area is in use.
3. Whenever Possible:
 - a. Select storage locations that do not drain into surface waters, but rather where environmental impacts of spring melt are minimal.
 - b. Store snow on areas that are well above groundwater table on a flat, vegetated slope.
 - c. Avoid disposal on pavement, concrete, and other impervious surfaces.
 - d. Do not pile snow in wooded areas, around trees or in vegetative buffers.
 - e. Divert water run-off from areas outside the snow piles.
 - f. Use less harmful deicers such as calcium magnesium acetate, potassium acetate, or organic de-icers such as *Magic Salt*.
4. Never:
 - a. Never dispose of snow in wetlands, lakes, streams, rivers, mudflats, or near drinking water sources.
 - b. Never store snow in well-head protection areas (Drinking Water Source Protection Zones).

GOOD HOUSEKEEPING

Planting Vegetation – Starters Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater when planting vegetation.

PROCEDURE:

1. Preparation:
 - a. Call the Blue Stakes Center (<http://www.bluestakes.org>) of Utah at 811 or 1-800-662-4111 at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Transport spoils to their designated fill or disposal area.

2. Process:
 - a. Dig holes; place spoils on tarps or plastic near the hole where they may easily be placed back around roots. Avoid placing spoils in the gutter.
 - b. Bring each plant near the edge of the hole.
 - c. Check the depth of the hole, and adjust the depth if necessary. The depth of the hole for a tree should be 2" less than the root flare to the bottom of the root ball, so that the root flare is 2" above the finish grade.
 - d. Carefully remove pot or burlap.
 - e. Place the plant in the hole.
 - f. Backfill the hole with existing spoils, compost, and a little fertilizer if desired. Do not use excessive amendments.
 - g. Thoroughly water the plant to remove any air pockets that may be in the soil.
 - h. Stake the plant, if necessary, to stabilize it.
 - i. Provide erosion control on slopes where necessary using tackifiers, erosion mats, soil stabilizers or other appropriate methods.

3. Clean-up:
 - a. Sweep dirt from surrounding pavement(s) into the planter area.
 - b. Transport spoils to their designated fill or disposal area.

GOOD HOUSEKEEPING

Planting Vegetation – Seeds Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater when planting seeds.

PROCEDURE:

1. Preparation:
 - a. Call the Blue Stakes Center (<http://www.bluestakes.org>) of Utah at 811 or 1-800-662-4111 at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Determine the application rate, method, water source, and ensure adequate materials are on hand.
 - c. Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

2. Process:
 - a. Place the seed and any cover using the pre-determined application method (and rake).
 - b. Lightly moisten the seed.
 - c. Ensure that the regular watering method is working properly and limit amount of over spray on paved areas.
 - d. Provide erosion control on slopes where necessary using tackifiers, erosion mats, soil stabilizers or other appropriate methods.

3. Clean-up:
 - a. Sweep dirt, seeds, and any cover material, from surrounding pavement(s), into the planter area.
 - b. Transport spoils to their designated fill or disposal area.

GOOD HOUSEKEEPING

Vehicles – Fueling Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during maintenance of vehicles.

PROCEDURE:

1. Preparation:
 - a. Train employees on proper fueling methods and spill cleanup techniques.
 - b. Where possible, install a canopy or roof over above-ground storage tanks and fuel transfer areas.
 - c. Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on mobile fueling vehicles, and shall be disposed of properly after use.

2. Process:
 - a. Shut off the engine.
 - b. Ensure that the fuel is the proper type of fuel for the vehicle.
 - c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overfill.
 - d. Fuel vehicle carefully to minimize drips to the ground.
 - e. Fuel tanks shall not be topped off.
 - f. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the facilities area.
 - g. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.

3. Clean-up:
 - a. Immediately clean up spills using dry absorbent material (e.g., kitty litter, sawdust, etc.). Sweep up absorbent material and dispose of properly.
 - b. Large spills shall be contained as best as possible and the Health Department Emergency Response Team (801-580-6681) should be notified as soon as possible.

GOOD HOUSEKEEPING

Vehicles – Vehicle and Equipment Storage Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by vehicles and equipment in storage.

PROCEDURE:

1. Preparation:
 - a. Inspect parking areas for stains/leaks on a regular basis.
 - b. Provide drip pans or adsorbents for leaking vehicles.

2. Process:
 - a. Whenever possible, store vehicles inside where floor drains have been connected to sanitary sewer system.
 - b. When inside storage is not available, vehicles and equipment shall be parked in the approved designated areas and away from storm drain inlets as much as possible.
 - c. Maintain vehicles to prevent leaks as much as possible.
 - d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle to collect the drip.
 - e. The shop will provide a labeled location to empty and store drip pans.
 - f. If any leaks are discovered, a drip pan will be used to collect the fluids and vehicle will be scheduled for repairs.
 - g. Clean up all spills using dry methods.
 - h. Never store leaking vehicles over a storm drain.

3. Clean-up:
 - a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent; the dry absorbent will be swept up and disposed of in the garbage.
 - b. The paved surfaces around the building will be swept as needed, weather permitting.

GOOD HOUSEKEEPING

Vehicles – Washing Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during cleaning of vehicles and equipment.

PROCEDURE:

1. Preparation:
 - a. Trucks, vehicles, and equipment shall be washed in a designated area, with a drainage system that is attached to the sanitary sewer system.
 - b. No vehicle washing will be done where waste water will enter the storm drain system.

2. Process:
 - a. Minimize water and soap use when washing vehicles.
 - b. Use hoses with automatic shut off nozzles to minimize water usage.
 - c. Never wash vehicles over or near a storm drain.

3. Clean-up:
 - a. Clean solids from the settling pits on an as-needed basis.

GOOD HOUSEKEEPING

Salt and Sand/Aggregate Storage Standard Operating Procedure

PURPOSE:

To prevent the discharge of pollutants into stormwater through the proper storage and maintenance of salt and aggregate piles.

PROCEDURE:

1. Preparation:
 - a. Keep general area clean and free from general debris and potential hazards
 - b. Keep salt piles and other aggregate piles well-groomed and consolidated.
 - c. Keep salt piles and other aggregate piles together and away from stormwater controls.
 - d. If piles are covered, ensure that the cover facility is well maintained and in good repair. Cover piles where possible.
 - e. Ensure any drainage from uncovered salt piles is directed towards a secondary containment system and does not leave the site.
2. Clean-up:
 - a. Regularly sweep loading areas and track-out areas to reduce the amount of salt exposed to run-off as required.
 - b. Inspect secondary containment systems following storm events and keep these areas clean and well maintained.
3. Documentation:
 - a. Inspections and maintenance activities will be recorded as per requirements of the applicable SWPPP or MS4 permit.

GOOD HOUSEKEEPING

Spare Parts Storage Standard Operating Procedure

PURPOSE:

To protect storm water by properly storing spare parts. Improper storage of materials can result in pollutants and toxic materials entering ground and surface water supplies.

PROCEDURE:

1. Always:
 - a. Store spare parts in a designated area.
 - b. Use drip pans for any parts that are dripping.

2. Whenever Possible:
 - a. Store spare parts inside or under cover.
 - b. Monitor storage areas for staining/leaks on a schedule decided on by the appropriate personnel.
 - c. Clean the majority of petroleum products from the parts that are to be stored.

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CONSTRUCTION SITE RUN-OFF CONTROLS

Chip Seal Standard Operating Procedure

PURPOSE:

To protect stormwater by protecting stormwater controls from chip seal pollutants entering the storm drain system.

PROCEDURE:

1. Preparation:
 - a. Clean and dry areas where materials are to be applied.
 - b. Apply temporary covers to manholes and catch basins, as needed, to prevent oil and materials from getting inside of them.

2. Process:
 - a. Apply emulsion at recommended rate.
 - b. Spread chips closely behind emulsion distributor, slowly such that the chips do not roll when they hit the surface.
 - c. Roll chips. Rollers follow closely behind the chip spreader. Roll entire surface twice.
 - d. Maximum speed 5 mph.

3. Clean-up:
 - a. All loose aggregate is removed from the roadway by sweeping it up (see SOP #40 Street Sweeping).
 - b. Excessive asphalt applications and spills are removed with shovels and scraping tools.
 - c. Remove the temporary covers from manholes and catch basins. If it appears that any chip seal materials have entered the inlet boxes, remove the material according to the SOP for catch basin cleaning (See SOP #35 Catch Basin Cleaning).
 - d. Properly dispose of, or recycle, any waste material that has been swept and scraped up by taking it to the landfill, or other designated location.

CONSTRUCTION SITE RUN-OFF CONTROLS

Crack Seal Standard Operating Procedure

PURPOSE:

To protect stormwater by protecting stormwater controls from crack seal pollutants entering the storm drain system.

PROCEDURE:

1. Preparation:
 - a. Cover manholes, catch basins and valves, as needed, to prevent oil and materials from getting inside the structures or system.
 - b. Remove weeds from the road.
 - c. Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.
 - d. Ensure that surface is clean and dry.

2. Process:
 - a. Proper temperature of material should be maintained.
 - b. Sufficient material is applied to form the specified configuration.

3. Clean-up:
 - a. Use shovels and/or scrapers to remove excessive sealant application or spills and dispose of them properly.
 - b. Sweep all loose debris from the pavement and dispose of it in the local landfill.

CONSTRUCTION SITE RUN-OFF CONTROLS

Curb/Pavement Markings Standard Operating Procedure

PURPOSE:

To protect stormwater by properly storing, using, and disposing of paint and preparation materials. For public Right-of-Way curb/pavement markings, see Public Works, Operations Division SOPs.

PROCEDURE:

1. Preparation:
 - a. See SOP #24 Painting.
 - b. Calculate the amount of paint required for the job.
 - c. Use water based paints whenever possible.
 - d. Determine whether the wastes will be hazardous or not and designate the proper disposal of said wastes.
 - e. Determine locations of storm drain inlets and sewer inlets that may need to be protected.
 - f. Prepare surfaces to be painted without generating wastewater by scraping.
 - g. Thoroughly sweep up all paint scrapings and place them in the appropriate solid waste containers.
 - h. If paint stripping is needed, use a citrus-based paint remover whenever possible, because it is less toxic than chemical strippers.
 - i. If wastewater will be generated, use curb, dyke, etc. around the activity to collect the filter and collect the debris.

2. Process:
 - a. Paint curb/pavement.
 - b. Prevent over-spraying of paints and/or excessive sandblasting.
 - c. Use drip pans and drop clothes in areas of mixing paints and painting.
 - d. Store latex paint rollers and brushes in air tight bags to be reused later.
 - e. Have available absorbent material and other BMP's ready for an accidental paint spill.

3. Clean-up:
 - a. Paint out brushes and rollers as much as possible. Squeeze excess paint from brushes and rollers back into the containers prior to cleaning them.
 - b. Pour excess paint from trays and buckets back into the paint can containers and wipe with cloth or paper towels. Dispose of the towels according to the recommendations on the paint being used.

- c. Rinse water-based paint brushes in the sink after pre-cleaning. Never pour excess paint or wastewater from cleanup of paint in the storm drain.
- d. Upon completion of the painting project, a five-gallon bucket of clean water is used to clean the paint sprayer until the water comes out clear. The mixture of sprayed water/paint is directed at a pile of waste material. The material is allowed to dry before it is taken to the landfill.

CONSTRUCTION SITE RUN-OFF CONTROLS

Painting Standard Operating Procedure

PURPOSE:

To protect stormwater by properly storing, using and disposing of paint and preparation materials.

PROCEDURE:

1. Always:
 - a. Store waste paints, brushes, solvents, and rags in sealed containers.
 - b. Perform abrasive blasting and spray painting in accordance with regulations.
 - c. Properly clean, store, and dispose of paint and associated waste materials.
 - d. Train employees on Best Management Practices concerning painting activities, cleanup, and disposal.

2. Whenever Possible:
 - a. Replace solvent-based paint with less toxic paints such as latex or water-based paints.
 - b. Practice "source reduction" – buy only the paint that is needed.
 - c. Use up, donate or recycle unused paint. Dispose of unusable paint at the HHW facility.
 - d. Use drop cloths under any painting or preparation activity such as scraping or sandblasting.
 - e. Use techniques such as brushing and rolling to avoid overspray.
 - f. Use vacuum sanders to collect paint dust.
 - g. Perform abrasive blasting and spray painting in an enclosed or covered area that is safe for personnel.
 - h. If solvent is used to clean equipment, dispose of at the HHW facility.

3. Never:
 - a. Never dispose of paint or waste paint products into the storm drain system, a water body, or onto the ground.
 - b. Never dispose of paint or waste paint products into the garbage unless paint is dry, or there is no longer any paint in the can.
 - c. Never clean paint brushes or equipment outside.

CONSTRUCTION SITE RUN-OFF CONTROLS

New/Replacement Concrete Work Standard Operating Procedure

PURPOSE:

To protect stormwater from concrete construction activities and resulting waste products.

PROCEDURE:

1. Preparation:
 - a. Store dry and wet materials under cover, away from drainage areas.
 - b. Remove any damaged concrete that may need to be replaced.
 - c. Prepare and compact sub-base.
 - d. Set forms and place any reinforcing steel that may be required.
 - e. Determine how much new concrete will be needed.
 - f. Locate or construct approved concrete washout facility.

2. Process:
 - a. Install inlet protection as needed.
 - b. Moisten sub-base just prior to placing new concrete. This helps keep the soil from wicking moisture out of the concrete into the ground.
 - c. Place new concrete in forms.
 - d. Consolidate new concrete.
 - e. Screenshot surface.
 - f. Let concrete obtain its initial cure.
 - g. Apply appropriate surface finish.
 - h. Remove forms when concrete will not slump.

3. Clean-up:
 - a. Perform washout of concrete trucks and equipment in designated concrete washout areas only.
 - b. Insure that cement and concrete dust from grinding activities is swept up and removed from the site.
 - c. Sweep dirt or debris from street and gutter and dispose of in appropriate solid waste facilities.

CONSTRUCTION SITE RUN-OFF CONTROLS

Overlays and Patching Standard Operating Procedure

PURPOSE:

To protect stormwater by utilizing proper techniques and controls during overlay and patching activities.

PROCEDURE:

1. Preparation:
 - a. Check weather conditions and avoid working in rain or any precipitation.
 - b. Set up /establish a traffic control for road with necessary detours, etc.
 - c. Measure and mark locations of manholes and valves on the curb.
 - d. Manholes and catch basins are to be covered as needed to prevent oil and materials from getting inside the structures or system.
 - e. Cracks should be properly sealed. Alligator cracks and potholes should be removed and patched. Rutting should be milled.
 - f. Surface should be clean and dry.
 - g. Uniform tack coat applied and cured prior to placement of overlay.
 - h. If milling is required, install inlet protection as needed.

2. Process:
 - a. Check hot asphalt mix for proper temperature, asphalt percentage, gradation, air voids and any other agency requirements.
 - b. Raise manhole lids and valves to elevation of new asphalt surface with riser rings.
 - c. Surface texture should be uniform, no tearing or scuffing.
 - d. Rolling should be done to achieve proper in-place air void specification.

3. Clean-up:
 - a. Covering should be removed as soon as the threat of imported materials entering the system is reduced and prior to a storm event.
 - b. After pavement has cooled, sweep gutters to remove loose aggregate.

CONSTRUCTION SITE RUN-OFF CONTROLS

Shouldering and Mowing Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater from shouldering and mowing activities.

PROCEDURE:

1. Preparation:
 - a. Locate all storm drain collection structures and inlets in the right-of-way.
 - b. Place import material as needed and perform grading to achieve proper drainage.
 - c. Mulch clippings to help reduce the amount of supplemental fertilizer required.
 - d. Install temporary catch basin protection as required.

2. Clean-up:
 - a. Clean any loose material off asphalt or gutter in order to prevent material from entering the storm drain.
 - b. Transport to and dispose of materials at approved facility.
 - c. Wash equipment in approved wash station.

CONSTRUCTION SITE RUN-OFF CONTROLS

Slurry Seal Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater from slurry sealing activities.

PROCEDURE:

1. Preparation:
 - a. Remove weeds from the roads. Sweep areas where materials are to be applied, and allow drying, if necessary. Verify that existing pavement has been inspected for detrimental effects of poor drainage.
 - b. Cover/protect catch basins, manholes, and valves as needed.
2. Process:
 - a. Apply materials in a smooth and uniform manner. Slurry material should not run onto adjacent pavement surface, curb and gutter or waterway.
3. Clean-up:
 - a. If loose aggregate is remaining in street or curb, sweep it up.
 - b. Ensure that excess emulsion materials are removed from the site and stored for later use in an area or container that is not exposed to the weather.
 - c. Remove covers/protection from catch basins, manholes and valves etc.

CONSTRUCTION SITE RUN-OFF CONTROLS

Transporting Equipment Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by ensuring proper transporting methods.

PROCEDURE:

1. Preparation:
 - a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.
 - b. Conduct pre-trip inspection of equipment to ensure any loose material is removed, that there are no leaking fluids and all equipment is secure.
 - c. Make sure dirt and debris that may fall from equipment is removed before transport.

2. Process:
 - a. Load and secure equipment on trailer or truck.
 - b. Load and secure fuel containers for equipment usage.

3. Clean-up:
 - a. Off load equipment.
 - b. Store equipment and trailer in proper location.
 - c. Conduct post-trip inspection of equipment.
 - d. If equipment needs to be washed, conduct cleaning according to manufacturer's SOP, and only in an approved area with a sanitary sewer connection.

CONSTRUCTION SITE RUN-OFF CONTROLS

Transporting Dry Excavated Materials & Spoils Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by ensuring proper transporting methods.

PROCEDURE:

1. Preparation:
 - a. Utilize truck with proper containment of materials.
 - b. Determine disposal site of excavated materials.
 - c. Determine the path of travel to and from disposal site.

2. Process:
 - a. Load.
 - b. Check truck after loading for possible spillage.
 - c. Transport in manner to eliminate spillage & tracking.
 - d. Utilize one route for transporting.

3. Clean-up:
 - a. Clean loading area.
 - b. Clean transporting route.
 - c. Wash off truck and other equipment in a designated vehicle wash area.

CONSTRUCTION SITE RUN-OFF CONTROLS

Transporting Soil and Gravel Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by ensuring proper transporting methods.

PROCEDURE:

1. Preparation:
 - a. Dry out wet materials before transporting.
 - b. Spray down dusty materials to minimize blowing.
 - c. Make sure you know and understand the SWPPP requirements of the site where work will be performed.
 - d. Determine the location where the truck and other equipment will be cleaned afterwards.
 - e. Check vehicle tailgate to make sure it seals and latches properly.

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

3. Clean-up:
 - a. Use sweeper to clean up any materials tracked out on the roads from site.
 - b. Wash out truck and other equipment when needed in properly designated vehicle wash areas.

CONSTRUCTION SITE RUN-OFF CONTROLS

Transporting Wet Excavated Materials & Spoils Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by ensuring proper transporting methods.

PROCEDURE:

1. Preparation:
 - a. Utilize truck with containment for material.
 - b. Determine disposal site of excavated material.
 - c. Determine the path of travel to and from disposal site.

2. Process:
 - a. Load and transport in manner to minimize spillage & tracking of material.
 - b. Check truck for spillage.
 - c. Utilize one route of transport.

3. Clean-up:
 - a. Clean route of transport to provide cleaning of any spilled material.
 - b. Wash out equipment truck and other equipment in designated vehicle wash area.

CONSTRUCTION SITE RUN-OFF CONTROLS

Pre-Construction, Pre-SWPPP & SWPPP Review Site Inspections & Enforcement Response Standard Operating Procedure

PURPOSE:

Outline the procedures and responsibilities for meeting the construction sediment and erosion control requirements in Salt Lake County's storm water discharge permit for County personnel. The stormwater permit requirements apply for construction activities that:

- Disturb one acre or more of land,
- Disturb less than one acre of land, but are part of larger common plan of development that disturb one acre or more, or
- Disturb land of any size if the site is adjacent (within 100 ft.) to regulated wetlands or surface waters or located in the Salt Lake City watershed.

PROCEDURE:

1. Permit Application
 - a. Owner must obtain a UPDES Storm Water General Permit for Construction Activities from the UDEQ. The UDEQ construction permit application and related guidance are on the UDEQ website at: [Stormwater Discharge Permit Associated with Construction Activities](#), Permit UTRC00000. Owner must have State Login and obtain online.
 - b. Owner must complete and submit a County Building Permit Application to the County. The County permit application and related information are on the County website at: [EProcess Building Permit](#). The application must be completed online.
 - c. The application must designate the parties responsible for complying with the County requirements. The Owner will submit a signed copy of UDEQ NOI permit with Development Permit Application.
 - d. Owner must prepare and submit a SWPPP that includes site plans and construction details for proposed BMPs to be used for erosion and sediment control on the site during construction. The State of Utah Department of Environmental Quality construction permit application and SWPPP requirements are on the State of Utah DEQ website at: <http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm>. Must have State Login and be obtained online.
2. SWPPP Review and Approval
 - a. Salt Lake County (RSR or equivalent) shall review the SWPPP and associated information for compliance with the Jordan Valley Municipal MS4 permit UTS0000001 and Salt Lake County standards and construction specifications by

- making a site visit during the planning application review process to evaluate the site and the proposed construction.
- b. Salt Lake County (RSR or equivalent) shall complete the pre-construction SWPPP review, which includes evaluation of the site design, the planned operation at the construction site, planned BMP's during the construction phase, and the planned BMP's to be used to manage runoff created after development. Considerations for potential water quality impact shall be included in the review procedures; the use of LID and Green Infrastructure should be encouraged. Identify the priority construction sites (i.e. those which discharge directly into waters of the State), and implement the use of the SWPPP check list. See **Appendix C**.
 - c. Salt Lake County (RSR or equivalent) shall inform the applicant in writing of any deficiencies in the SWPPP through the most expedient method (usually by email) and insure that the applicant responds to and addresses those deficiencies before the SWPPP is approved, and any permits are issued for the construction.
 - d. The County Reviewer, in conjunction with the County Urban Hydrology Engineer, shall verify that the ownership and maintenance responsibilities for permanent (long-term) BMPs are understood by the owner. They shall be recorded against the property in a Document required by §17.22 of Salt Lake County Ordinance, known as a Stormwater Maintenance Agreement and Management Plan (SWMA & SWMP) as part of the subdivision or other required approval being recorded and prior to permits being issued for Construction.
3. Permit approval and issuance
- a. Once the SWPPP is reviewed and meets the County's requirements, The Reviewer shall upload a copy of the approved SWPPP and the associated documents into the Permit for the applicant using the current computer permit software. (Eprocess 360, v.2015).
 - b. The Construction Supervisor or Plans Examiner shall stamp & sign the plans for approval under the grading review portion of the Development Application. (electronically or wet stamp), and shall enter the quantities of cut and fill to be permitted, along with the area to be disturbed for permitting under the SWPPP land disturbance permit, using the current computer permit software (Eprocess 360, v.2015).
 - c. Administrative staff shall confirm approval using the current computer Permit software (Eprocess 360, v.2015) program, then collect the applicable fees, and issue the relevant County Permit.
4. Pre-Construction Meeting: A pre-construction meeting shall be held on-site after BMP's are observed and implemented, and prior to groundbreaking.
- a. Required Attendees
 - i. Owners Special Construction Inspector
 - ii. Owner/Applicant

- iii. Owners Construction Supervisor and Foreman
 - iv. Owners Special Inspector - SWPPP (third party if contracted)
 - v. County Inspector, RSI
 - vi. County Construction Inspection Supervisor, (if deemed necessary)
 - vii. County Project Grading Inspector
 - viii. County Offsite Inspector
 - ix. County Hydrology or Traffic Engineer (if deemed necessary)
 - x. County Building Inspection Supervisor (if deemed necessary)
- b. At the meeting, the Owner shall provide evidence that the person responsible for supervising and inspecting installation and maintenance of BMPs for the duration of the project is a certified RSI (or equivalent) that has been trained in a program acceptable to the County.
 - c. At the meeting, the Owner shall provide documentation that SWPPP has been approved by Salt Lake County (to be maintained on site)
 - d. At the meeting, the Owner shall provide copies of storm water permits for construction issued by the State of Utah DEQ and Salt Lake County (permits shall be maintained on site)
 - e. At the meeting, the Salt Lake County Stormwater Inspector shall explain the storm water requirements which include but are not limited to:
 - i. Expectations and requirements for erosion and sediment control practices and Enforcement consequences in accordance with §17.22 of Salt Lake County Ordinance
 - ii. Assurance that the SWPPP shall remain an approved SWPPP. These assurances are contingent on the owner/operator updating the SWPPP to reflect any changes in the BMPs if those changes become necessary.
 - iii. Requirements for maintaining a certified stormwater inspector on the project.
 - iv. Enforcement procedures for stormwater violations. **See Appendix D.**
 - v. Annual renewal requirements for the State of Utah and County Stormwater Discharge Permit.
 - vi. The State of Utah inspection checklist that shall be used by Salt Lake County or approve/agree to use checklist form proposed by owner/operator.
 - vii. Any additional documents that maybe required before the issuance of the County's permit (if the permit has not been issued), such as 404 permits, wetland or floodplain permits, etc.
 - viii. Requirements and forms for the transfer of ownership and Notice of Termination of permit.

5. Inspections

- a. The Owner shall maintain a copy of the approved SWPPP onsite at all times. The SWPPP shall be maintained and updated per Salt Lake County requirements and

made available to Salt Lake County, The State of Utah and EPA inspectors upon request.

- b. The Owner shall install and maintain all BMPs as specified in the approved SWPPP.
- c. The Owner will update the SWPPP, including the site map and any procedures, and include any changes in BMPs.
- d. The Owner shall inspect all BMPs every fourteen (14) days and immediately after any significant rainfall (0.5 or greater) and snowfall and snowmelt or as required by SWPPP.
- e. The Owner shall maintain a record of inspections records of BMPs onsite with the SWPPP. Copies of records of inspections will be made available to the County Inspectors at the time of their storm event and other scheduled and non-scheduled Inspections.
- f. The Owner shall keep an onsite copy of the certification in erosion and sediment control for the person responsible for supervising installation and maintenance of sediment and erosion control practices.
- g. The Owner's Inspector shall inspect the erosion and sediment BMPs for compliance with the approved SWPPP. The County Inspector will meet on the site with the erosion and sediment control supervisor to inspect the site (using the State Construction Stormwater inspection form) in accordance with the Approved SWPPP and address any changes or improvements to the installed BMPs. At the same time, the County Inspector reviews the inspection records and revisions to the SWPPP.
- h. The Owner's Inspector shall document inspections in writing using Erosion and Sediment Control Field Inspection Report approved with the SWPPP
- i. The County Inspector shall discuss all inspections, penalties and fines with the Construction Inspection Supervisor, including those immediately after any significant rainfall (0.5 or greater) and snowfall and snowmelt. The County Inspector shall schedule, enter inspections, including relevant discussions, into the data base using the current computer software (Eprocess 360, v.2015).
- j. The County Construction Inspection Supervisor shall report all corrective actions and issued fines, Notice of Violations, etc. to the County Stormwater Management staff, at the weekly Stormwater Mangers staff meeting.
- k. The County Development Services Administrative staff shall collect and file hard copies of the active SWPPP documents and permits in a central location at the County Development Services Office and on the latest software (Eprocess 360, v.2015).
- l. The County Construction Stormwater Supervisor shall respond to stormwater-related requests and complaints submitted by the public. The complaints are then forwarded to the correct division and or agency (when applicable). The subsequent complaints are entered and tracked by the applicable agency or the County as required. The County uses the current software (Eprocess 360, v.2015).

6. Change of Ownership/Transfer of Permit
 - a. The Owner shall submit transfer of ownership forms to Salt Lake County and the State of Utah DEQ when there is a change in ownership of the site or project.
 - b. The County Inspector shall insure that transfer of ownership application and Notice of Termination (NOT) forms are submitted by the Owner. He will sign the forms submitted, complete field inspections and report to the Construction Inspection Supervisor, findings of NOT inspection.
 - c. Salt Lake County Inspection Supervisor or Inspector shall record changes or project inactivation or Termination on the State of Utah DEQ Administration Access Stormwater Permits page.

7. Project Closeout
 - a. The Owner shall submit NOT forms to the County and UDEQ when the project is complete (70% Stabilized).
 - b. The Owner shall provide evidence that the NOT application has been submitted to UDEQ to the Salt Lake County Inspector.
 - c. The Owner shall prepare and submit to the Salt Lake County Construction Inspection Supervisor a certification signed by a Professional Engineer verifying that the permanent BMPs have been installed per approved plans and specifications (when applicable). The Construction Inspection Supervisor uploads the certification in the current computer software project file and send a copy to the Salt Lake County Stormwater Program Manager.
 - d. The site project manager and County Inspector shall inspect the permanent BMPs and final stabilization prior to deactivation of the Salt Lake County building and or grading permits by the permitted.
 - e. Salt Lake County Inspector shall certify, in writing, that all requirements for construction acceptance have been met and uploads the final documents into the current computer software (Eprocess 360, v.2015).
 - f. Salt Lake County Inspector shall submit the NOT, verbal or written, to the Salt Lake County Construction Inspection Supervisor.

8. Violations and Enforcement
 - a. The Salt Lake County Inspector shall initiate enforcement actions in accordance with Enforcement Response Plan (**Appendix D**) in response to actual or potential waste or sediment discharges to the storm drain system.
 - b. The Salt Lake County Inspector shall provide information for possible follow-up action to the Salt Lake County Construction Inspection Supervisor or to the Salt Lake County Health Department.
 - c. The Salt Lake County Inspector or Supervisor or The Salt Lake County Health Department staff shall issue NOVs, penalty assessments or takes other actions per Enforcement Response Plan or forward the violation to the Salt Lake County District Attorney.

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POST CONSTRUCTION STORMWATER CONTROLS

Catch Basin Cleaning Standard Operating Procedure

PURPOSE:

To protect stormwater by maintaining the ability of catch basins to trap sediments, organic matter and litter. This reduces clogging in the storm drain system as well as the transport of sediments and pollutants into receiving water bodies.

PROCEDURE:

1. Preparation:
 - a. Always inspect catch basins for structural integrity and evidence of illicit discharges. If gross contamination is present (sewage or oil) stop cleaning and report to supervisor for follow-up and **Health Department at (801) 580-6681**.
 - b. Remove accumulated trash and sediment from the grate.
 - c. Conduct visual inspection on outside of grate.
 - d. Make sure nothing needs to be replaced.
 - e. Conduct inside visual inspection to verify what needs to be cleaned.

2. Process:
 - a. Contact Facilities Manager if drain appears to be clogged or in need of service. Facilities Manager will give direction to follow the procedures below or arrange with Public Works to service the system.
 - b. Clean using a high powered vacuum truck to start vacuum standing water and sediment.
 - c. Use a high pressure washer to break up any remaining material in the catch basin, while capturing the slurry with the vacuum. Sweep parking areas, as needed, or as directed.
 - d. After catch basin is clean, clean out any sediment that might have entered the pipe.
 - e. Systematically clean catch basins per maintenance plan.
 - f. If cleaning by hand (shovel etc.), stockpile and cover catch basin residuals on an impermeable surface until it can be properly disposed.
 - g. Dispose solids in a sealed waste container that will be transferred to a permitted, lined solid waste landfill or other solid waste treatment facility. Fluids collected during catch basin cleaning shall be discharged to a sanitary sewer, or buffered detention area.

3. Clean-up:
 - a. When the vacuum truck is full of sediment, take it to the designated location to dump all sediment out of truck and into a drying bed.

- b. Wash down area before leaving the designated dump location.
4. Documentation:
- a. Keep records of number of catch basins cleaned, date cleaned and any other issues resolved.
 - b. Record the amount of waste collected and number of catch basins cleaned and the area in which they were cleaned.

POST CONSTRUCTION STORMWATER CONTROLS

Creek Management Standard Operating Procedure

PURPOSE:

To protect creeks from sediment and pollution resulting from creek maintenance activities.

PROCEDURE:

1. Preparation:
 - a. Check creek channels prior to spring runoff and identify potential problem areas.
 - b. Monitor creeks on a regular basis.
 - c. Check culverts and crossings before spring runoff and after every storm.
 - d. Identify areas requiring maintenance.
 - e. Employ best management practices (e.g. check dams, waddles, gravel socks, silt fences) as required to prevent sediments, organic material, from releasing further downstream.
 - f. Properly remove and dispose of material collected when maintenance activities are completed.

2. Process:
 - a. Clean debris as necessary from channels and culverts.
 - b. Notify **Salt Lake County Flood Control at (385)-468-6600**.

POST CONSTRUCTION STORMWATER CONTROLS

Detention Pond Cleaning Standard Operating Procedure

PURPOSE:

To protect stormwater by removing trash and debris from detention ponds.

PROCEDURE:

1. Preparation:
 - a. Schedule the pond cleaning work for a time when dry weather is expected.
 - b. Remove any sediment and trash from grates, placing it in a truck for disposal.
 - c. Conduct a visual inspection to make sure any grates, structures, manholes, boxes, and pipes are in good working order. Remove manhole covers and grates as necessary for inspecting.

2. Process:
 - a. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.
 - b. Clean basin by using backhoe or front-end loader to remove debris and sediment from the bottom.
 - c. Continue cleaning structures and pond bottom as necessary by sweeping and shoveling.
 - d. Put all material removed from the pond into a dump truck.
 - e. Some structures may require use of a vactor truck. If so, use the same procedures described for cleaning catch basins.

3. Clean-up:
 - a. After cleaning basins, clean off the concrete pads using dry methods (sweeping and shoveling).
 - b. Make sure they are swept and clean.
 - c. Take the material that was removed to the landfill, or other designated area, for final disposal.

POST CONSTRUCTION STORMWATER CONTROLS

Mowing and Trimming Standard Operating Procedure

PURPOSE:

To protect stormwater by properly sweeping, cleaning, and disposing of grass clippings.

PROCEDURE:

1. Preparation:
 - a. Review the overall process with all employees.
 - b. Check the oil and fuel levels of the mowers and other equipment; fill if needed.

2. Process:
 - a. Protect catch basins where applicable.
 - b. Use eye and hearing protection.
 - c. Mow and trim the lawn.
 - d. Sweep or blow clippings to grass areas.

3. Clean-up:
 - a. Wash equipment in approved wash station.

POST CONSTRUCTION STORMWATER CONTROLS

Ditch Management Standard Operating Procedure

PURPOSE:

To protect stormwater by removing trash and debris from ditches and canals.

PROCEDURE:

1. Preparation:
 - a. Monitor ditches on a regular basis.
 - b. Maintain access to ditch channels wherever possible.
 - c. Contact affected property owners, utility owners, and irrigation companies.

2. Process:
 - a. Identify areas requiring maintenance and determine responsible party/agency.
 - b. Determine what manpower or equipment will be required.
 - c. Identify access and easements to area requiring maintenance.
 - d. Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.
 - d. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.

3. Clean-up:
 - a. Stabilize all disturbed soils.
 - b. Remove all tracking from paved surfaces near maintenance site, if applicable.
 - c. Haul all debris or sediment removed from area to approved dumping site.

POST CONSTRUCTION STORMWATER CONTROLS

Street Sweeping Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater by establishing effective street sweeping procedures.

PROCEDURE:

1. Preparation:
 - a. Prioritize cleaning routes with the highest frequency usage and in areas with the highest pollutant loading.
 - b. Increase sweeping frequency just before the rainy season, unless sweeping occurs continuously throughout the year.
 - c. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.
 - d. Streets are to be swept as needed or specified by the County. Street maps will be used to insure all streets are swept at a specified interval.

2. Process:
 - a. Drive street sweeper safely and pick up debris.
 - b. When full, take the sweeper to an approved street sweeper cleaning station at the Public Works yard.

3. Clean-up:
 - a. Street sweepers are to be cleaned in a manner that does not allow debris to enter the storm drain system.
 - b. Street sweeping cleaning stations will separate the solids from the liquids.
 - c. Once solids have dried, haul them to the local landfill.
 - d. Decant water is to be collected and routed to an approved wastewater collection system area only.
 - e. Haul all dumped material to the landfill.

4. Documentation:
 - a. Keep accurate logs to track streets swept and streets still requiring sweeping.
 - b. Log the amount of debris collected and hauled off.

POST CONSTRUCTION STORMWATER CONTROLS

Inspection Reporting Post Construction Private Stormwater BMP Standard Operating Procedure

INSPECTION PROCEDURE:

These instructions and inspection report can serve as a SOP to facilitate compliance with the DEQ. DEQ requires facilities- that discharge to Salt Lake County MS4- to be inspected annually. At the discretion of the Public Works Engineer, some sites will require additional site-specific SOPs in addition to the following:

Site evaluation– Submit a copy of the inspection report to Salt Lake County Township office by July 31st of each year.

1. **Dumping Evidence:** Evaluate catch basins, inlets, manholes, gutters etc. for the presence of stains from dumping or paints, thinners, oils, or other hazardous substances. **Spill Evidence:** Evaluate pavements and soils for spills, particularly for evidence of neglected spills.
2. **General Site Exposure:** Evaluate materials, devices, and operations that are exposed to weather. Inspect to verify that BMPs are in place or that there are practices that will contain or minimize pollutants and pollutant sources. Look for uncontained waste material, oil, antifreeze, cleansers and other materials and chemicals that could seep into the ground, enter the storm drain system, or affect water quality.
3. **Other Pollution Sources:** Evaluate any activity or operations that are polluting, or may pollute, the environment.
4. **Stormwater Storage:** Inspect for proper maintenance and condition of detention/retention ponds. Check for proper capacity of sediment accumulation, presence of debris or sediment accumulation, and that overflow devices are in place and in good condition, etc.
5. **Inlets and catch basins:** Inspect for proper maintenance and function of storm water inlets and catch basins. Inspect for pollutants, debris, and excessive amounts of dirt and sediment. Inlets, basins, and covers should be in good working order.
6. **Conveyance Systems:** Inspect for proper maintenance, condition, and function of stormwater pipes, catch basins, swales, ditches and other conveyances.
7. **Manholes:** Inspect manholes for condition, debris, excessive amounts of sediment, proper maintenance, and function.
8. **Parking:** Inspect parking areas for proper maintenance and condition. Inspect for pollutants, spills, etc. Pavement areas should indicate regular sweeping activity and

maintenance.

9. Waste Collection: Inspect for proper maintenance and function of waste collection facilities. Inspect for stains and leaks from containers. Ensure that lids are kept closed.
10. Landscaping: Inspect for condition, maintenance, and function. Inspect for excessive debris. Insure proper application of chemicals by looking for accumulation of excess fertilizers, herbicides, insecticides, etc.
11. Pre-Treatment Devices: Inspect pre-treatment devices for proper maintenance and condition. Pre-treatment devices are devices such as hooded outlet cover (Snout), grease/sand interceptors, or other devices designed to remove pollutants from stormwater.
12. Sumps: Inspect for proper maintenance and condition of sumps, class-v injection wells, and other similar underground devices designed to collect stormwater and percolate it to the ground.
13. Flow Control Devices: Inspect for proper maintenance and function of weirs, orifice plates and other similar flow control devices.
14. Site Specific SOP Items: Certain land uses require site specific stormwater management SOPs to ensure the quality of stormwater that is discharged from a site. Review site inspections for compliance with site SOPs. Evaluate the current SOPs and modify, update, or amend them as needed.
15. Other: Inspect other post construction stormwater items for proper function. This could include pumps, vaults, backflow devices, bio-filters, bio-retention areas, permeable pavement, green roofs, etc.
16. See **Appendix I** for the Stormwater Management BMP Schedule of Long Term Maintenance Activities in Salt Lake County.
17. Refer to **Appendix J** for the SMP Operation and Maintenance Inspection Report

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Illicit Discharge Detection and Elimination (IDDE)

For Office Staff Receiving Calls of Incidents Standard Operating Procedure

PURPOSE:

To follow a procedure for dispatching IDDE incidents to the proper authority so the issue can be quickly identified, traced, ceased, and cleaned to prevent further contamination and protect receiving waters.

PROCEDURE:

Incident Report Standard Operating Procedures for office staff receiving a first report phone calls/emails, of an incident:

1. First, using sound judgment, determine whether the call is a serious Environmental threat to Humans or the Environment. If so, have the caller dial 911, or the **Salt Lake County Health Department Hotline for Environmental Health Emergency Response 801-580-6681**. You should also offer to make these calls for them if necessary.

If the call is not an emergency, continue as described below.

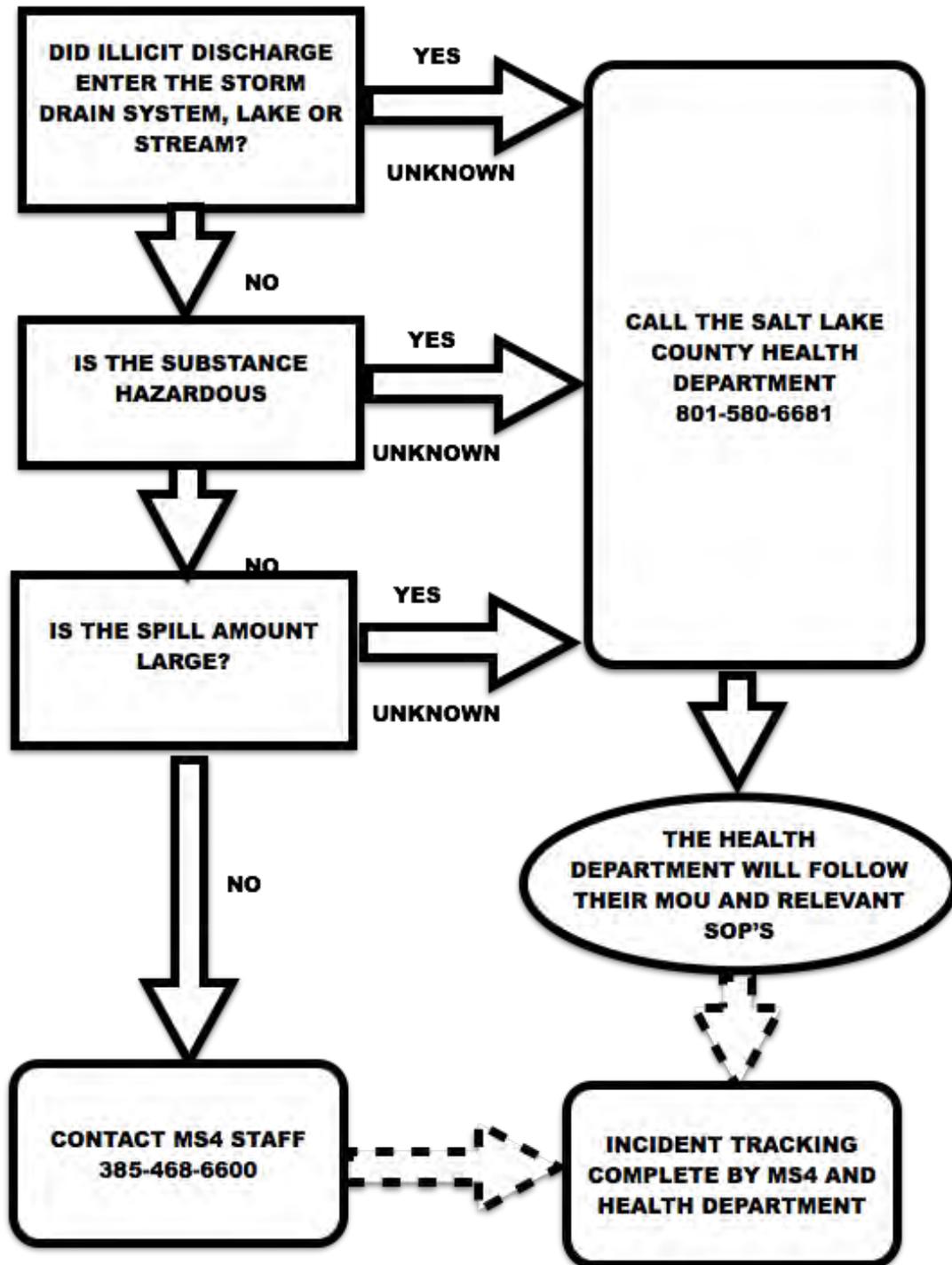
2. Begin filling out the IDDE Incoming Call Report Form (**see Appendix F**). If you don't have a Call Report Form at hand, gather the information below in written form as follows:
 - a. Ask the person if they have taken a picture: Yes No
 - b. Date of Illicit Discharge:
 - c. Time:
 - d. Duration:
 - e. Address of Discharge:
 - f. Name and phone Number of Caller:
 - g. Chemical name or Identity (any description given) of any substance involved:
 - h. Is the substance hazardous?
 - i. Estimate of Quantity Spilled:
 - j. Did the illicit discharge enter a waterbody (lake/stream/river/creek/canal)?
 - k. Which waterbody (if known)?
 - l. Did the illicit discharge enter the storm drain system (manhole, inlet curb)? Yes No
3. Now, follow the Incident Response Flow chart (see Figure 1 on following page) as follows:
 - a. Did the illicit discharge enter the storm drain system or a waterway? Is it hazardous material or was there a large amount of material?
 - b. If yes, call the Salt Lake County Health Department 801-580-6681

- c. If no, call Salt Lake County MS4 Staff 385-468-6600 and provide the information or Incident Sheet as directed.

4. Health Department will follow their SOP's and the Memorandum of Understanding we have for the MS4 permit IDDE Plan.

Salt Lake County MS4 Staff (IDDE staff) will fill out the proper IDDE incident forms tracking and documentation as described in the IDDE Plan herein.

INCIDENT RESPONSE FLOWCHART



Illicit Discharge Detection and Elimination (IDDE)

For Field Staff Receiving Calls of or Observing an Incident Standard Operating Procedure

Incident Report Standard Operating Procedures for **FIELD STAFF** receiving or witnessing a first report of an illegal discharge or Incident by Phone calls/emails or in person:

1. First, using sound judgment, determine whether the call is a serious threat to humans or the environment. If so, have the caller dial 911, or the **Salt Lake County Health Department Hotline for Environmental Health Emergency Response 801-580-6681**. You should also offer to make these calls for them if necessary.

If the call is not an emergency, continue as described below.

2. Begin filling out the IDDE Incoming Call Report Form (**see Appendix F**). If you don't have a Call Report Form at hand, gather the information below in written form as follows:
 - a. Ask the person if they have taken a picture or take a picture?: Yes No
 - b. Date of illicit discharge:
 - c. Time:
 - d. Duration:
 - e. Address of discharge:
 - f. Name and phone number of caller:
 - g. Chemical name or Identity (any description given) of any substance involved:
 - h. Is the substance hazardous?
 - i. Estimate of quantity spilled:
 - j. Did the illicit discharge enter a water body (lake/stream/river/creek/canal)?
 - k. Which water body (if known)?
 - l. Did the illicit discharge enter the storm drain system (manhole, inlet curb)?: Yes No
3. Follow the Incident Response Flow chart on the previous page as follows:
 - a. Has the illicit discharge entered the storm drain system or a waterway? Is it hazardous material or was there a large amount of material?
 - b. If yes, call the Salt Lake County Health Department 801-580-6681.
 - c. If no, call the Salt Lake County MS4 Staff 385-468-6600 and give them information collected in regards to the incident.
4. The Health Department will follow the SOPs and the Memorandum of Understanding for the MS4 permit IDDE Plan.

Salt Lake County MS4 Staff will fill out the proper IDDE incident forms tracking and documentation as described in the IDDE Plan SOP herein.

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Miscellaneous

Planned Waterline Excavation Repair/Replacement Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater from water line repair/replacement activities.

PROCEDURE:

1. Preparation:
 - a. Determine where discharge flow will go.
 - b. Place inlet protection at nearest downstream storm drain inlet.
 - c. Clean gutters leading to inlet.
 - d. Isolate waterline to be worked on.
 - e. Neutralize any chlorine residual before discharging water.

2. Process:
 - a. Make efforts to keep pipeline water from entering the excavation.
 - b. Direct any discharge to pre-determined area.
 - c. Backfill and compact excavation.
 - d. Haul off excavated material or stock pile nearby.

3. Clean-up:
 - a. Clear gutter/waterway where water flowed.
 - b. Clean up all areas around excavation.
 - c. Clean up travel path of trucked material.

Miscellaneous

Unplanned Waterline Excavation Repair/Replacement Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during unplanned waterline repairs.

PROCEDURE:

1. Preparation:
 - a. Make sure service trucks are equipped with, and workers are able to deploy, wattles, gravel bags, de-watering bag, or other materials for inlet protection and sediment control.

2. Process:
 - a. Slow the discharge.
 - b. Inspect flow path of discharged water.
 - c. Protect water inlet areas by placing inlet protection devices around or up stream of inlet.
 - d. Follow planned repair procedures.
 - e. Haul off spoils of excavation.
 - f. Use dewatering bags on pumps and check hourly for effectiveness.

3. Clean up:
 - a. Repair eroded areas as needed.
 - b. Follow planned repair procedures.
 - c. Remove any inlet protection and dewatering bags and discard appropriately.
 - d. Clean up the travel path of trucked excavated material.

Miscellaneous

Waterline Flushing After Construction/System Disinfection with Discharge to Storm Drain (Public Utilities & Contractors) Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during waterline flushing activities.

PROCEDURE:

1. Preparation:
 - a. Determine chlorine content of discharged water, and select de-chlorination equipment to be used.
 - b. Determine flow path of discharge.

2. Process:
 - a. Protect inlets in flow path.
 - b. Install de-chlorination equipment.
 - c. Sweep and clean flow path
 - d. Use diffuser to reduce velocities.

3. Clean-up:
 - a. Pick up inlet protection.
 - b. Clean flow paths.
 - c. Remove equipment from flush point.

Miscellaneous

Waterline Flushing After Construction/System Disinfection with Discharge with Haul Off (Used for Dust Control/Compaction) Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during waterline flushing activities.

PROCEDURE:

1. Preparation:
 - a. Determine chlorine content of discharged water.
 - b. Determine appropriate construction activity for treatment.

2. Process:
 - a. Flush to tanker and use for dust control or compaction on unpaved construction activity.
 - b. Confirm that application of water is in appropriate location.

3. Clean-up:
 - a. Remove equipment from flush point.

Miscellaneous

Waterline Flushing for Routine Maintenance Standard Operating Procedure

PURPOSE:

To prevent pollution of stormwater during waterline flushing activities.

PROCEDURE:

1. Preparation:
 - a. Determine flow path of discharge to inlet of waterway.

2. Process:
 - a. Clean flow path.
 - b. Protect inlet structures
 - c. Use diffuser to dissipate pressure to reduce erosion possibilities.

3. Clean-up:
 - a. Clean flow path.
 - b. Remove inlet protection.

Miscellaneous

Industrial and Commercial Facilities Stormwater Pollution Prevention Program and Inspection Standard Operating Procedure

PURPOSE:

The Salt Lake County Industrial/Commercial Facility Stormwater Pollution Prevention Program (IFCSWPPP) is designed for the purpose of inspecting Industrial Facilities. Salt Lake County has developed this IFCSWPPP in compliance with its 2013 Utah Municipal Storm Water Pollutant Discharge Elimination System ("UPDES") permit (Part 4 § 4.3) The program will outline the procedures for identification, inspection and enforcement of those industrial facilities discharging into the Salt Lake County MS4. The Jordan Valley Municipal permit UTS0000001 identifies an "Industrial Facility" as one that discharges to: the County MS4 from municipal landfills; hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to § 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); facilities that hold, or are required to hold a UPDES storm water permits; and each other industrial or commercial discharger that Salt Lake County determines is contributing a substantial pollutant load to the Salt Lake County MS4.

The IFCSWPPP and Inspection Standard Operating Procedures (SOPs) are designed not only for the inspection and enforcement of Industrial Facilities but may also be used for the inspection of facilities with the potential to discharge substantial pollutant loads to the County's MS4. In most cases, the inspection of non-permitted facilities may be initiated by the commercial inspections of the facilities; or when pollution problems or complaints are brought to the County's attention by concerned citizens, alerts from other Cities or government agencies, reported spills, and/or problems discovered through the IDDE program, Fats Oil Grease (FOG) program, Cross Connection program, construction site inspections and general construction inspection.

1. Authority to Conduct Inspections: The authority to conduct inspections is provided in Chapter § 17.22 of the Salt Lake County Code of Ordinance and the Utah Clean Water Act, §§ 19-5:101-124, Utah Code Ann. (2014)
 - a. Right of Access
 - i. Duly authorized representatives of Salt Lake County may inspect the property or facilities of any user (including facilities under construction) to ascertain compliance with the **Jordan Valley Municipal Permit UTS000001** and the County's Stormwater Quality Ordinance.
 - ii. Owners or occupants of premises where storm water or wastewater is either generated or discharged shall allow properly-identified Salt Lake County representatives safe and ready access, at all reasonable times during normal business hours and at such other times as Salt Lake County reasonably

suspects that a violation of the Jordan Valley Municipal UTS0000001 or the County's Stormwater Quality Ordinance may be occurring.

- iii. Access shall be allowed to all such parts of the premises as would enable Salt Lake County personnel to inspect, observe, measure, sample and test:
 1. Internal plumbing;
 2. Pretreatment facilities;
 3. Internal discharge points or connections;
 4. Exterior connections;
 5. Building sewers or building storm drains;
 6. Oil traps and grease traps;
 7. Any other facilities required by the County and/or the Salt Lake County Health Department to be constructed, installed or utilized.
 - iv. Measurement, sampling and testing facilities and procedures that have been required by Salt Lake County and/or the Salt Lake County Health Department and;
 - v. Such other facilities as Salt Lake County reasonably believes may be contributing to a violation of these Regulations or a permit issued pursuant to these Regulations.
 - vi. Salt Lake County, by itself or in conjunction with the Salt Lake County Health Department, may conduct routine, periodic inspections of certain types of facilities. It is anticipated that restaurants, other food handling or food processing establishments, service stations, and other entities which deal with grease or petroleum products are particularly likely to be subject to such an inspection program.
 - vii. Other industrial users may also be so inspected as Salt Lake County deems appropriate. Owners or occupants shall provide any labor or equipment needed by Salt Lake County or Salt Lake County Health Department personnel to open, inspect, and operate oil and grease traps and other facilities.
- b. Right of Entry
- i. Upon proper identification and at reasonable times during normal business hours (and at such times as Salt Lake County reasonably suspects that a violation of the Jordan Valley Municipal Permit UTS0000001 and Salt Lake County Storm water Quality Ordinance may be occurring) duly-authorized representatives of Salt Lake County shall be permitted to enter all private property through which Salt Lake County holds an easement for the purposes of inspection, observation, measurement, sampling, testing, maintenance, repair, or reconstruction of any portion of Salt Lake County storm drainage systems lying within said easement. All entry and subsequent work, if any, shall be done in full accordance with the terms of said easement.

2. Pre-Inspection Procedures

- a. General Procedures: These procedures apply to all field activities and include the following:
 - i. All field personnel entering private properties as part of facility inspections including building and site areas are required to carry photo identification issued by Salt Lake County and a copy of the Salt Lake County Facility Inspection Notification Letter to show facility owners, owner's representatives and tenants identification, if requested while conducting the inspections as evidence that they have authorization from Salt Lake County to perform the work.
 1. Vehicles must be clearly labeled with the Salt Lake County Logo.
 2. All field personnel will wear safety gear.
 3. Field activities within public streets may require a police detail. Salt Lake County personnel or designated representative shall notify the Unified Police Department at least 24 hours in advance of the need for a police detail to allow time to schedule the detail. Roads under the jurisdiction of Utah Department of Transportation (UDOT) require state police details which require notification of the local state police barracks to schedule a detail. Salt Lake County personnel or designated representative shall obtain and sign detail slips and add project identification number. Weekly police detail tracking reports of detail usage shall be prepared with detail cards attached. The detail slips and log are to be submitted by mail to Salt Lake County project manager. The project identification number is to be shown on and written in with signing all detail slips and logs.
 4. Field personnel are to act in a professional manner at all times while conducting field activities and in dealing with the public. Field personnel shall not engage in any confrontation with the public regardless of the circumstances. Any problems that the field personnel encounter during the execution of their work shall be reported to Salt Lake County for resolution.
 5. Advanced notice should be provided to Salt Lake County and public safety officials (if applicable) of the proposed locations and type of work to be performed at each site daily.

3. Facility Inspections

- a. Prior to the start of the facility inspections including building and site areas, Salt Lake County or designated representative will distribute the Facility Inspection Notification Letters to property owners and/or business owner of each property to be inspected. Notification shall be at least two (2) days prior to the start of site inspections.

- b. If the inspection requires interior inspection of the building, field personnel shall only enter the building if permitted access by the property/business owner, or property/business owner's representative. If the property/business owner or property/business owner's representative declines access, the field personnel shall cancel the proposed building inspection and inform Salt Lake County of the refusal by the property/business owner, or property/business owner's representative to permit entry.
- c. The property/business owner, or property/business owner's representative must be present prior to any building entry by field personnel.
- d. Field personnel shall take care to not disturb or damage the property being inspected.
- e. Information gathered during the building and site inspection shall be recorded on the data collection device standard inspection form or printed hard copy. This will include information such as a sketch of the property and structure showing on site drainage features, flow of surface run-off and any storm water infrastructure on the property, Data from each site inspection will be uploaded to the current computer software each evening after the completion of inspections.
- f. Prior to the inspection of a facility, inspectors should also perform the pre-inspection procedures listed below to ensure that each inspection is conducted proficiently and in a professional manner. The pre-inspection procedures include the following:
 - i. Prioritization of facilities to be inspected (by project manager)
 - ii. Review of guidance materials for inspection of industrial facilities
 - iii. Review of guidance materials for inspection of commercial facilities
 - iv. Review of maps for drainage patterns and outfall locations
 - v. Review of files for prior correspondence
 - vi. Facility contact and notification of inspection
 - vii. Proper inspection and safety equipment for entering the facility

4. Manhole Inspections

- a. Field personnel shall fully comply with the requirements of the Occupational Safety and Health Act (OSHA) for entering the storm drains (*inspections will be from the surface*).
- b. Prepare the site for the work and set up appropriate equipment and traffic safety cones. Mark and protect the work area with traffic safety cones prior to opening the manhole.
- c. Personal Protective Equipment is required as defined by OSHA Regulations § 1910.120 Appendix B.
- d. Immediately report to the Associate Director of Engineering any significant defects observed from the manhole inspection including flow blockages or severe structural deficiencies that pose the risk of collapse or other major failure of the structure.

- e. Close the manholes and move to next location or store equipment and begin cleanup.
 - f. Private manholes will be opened by a facility representative.
5. Prioritization of Inspections
- a. The Salt Lake County currently maintains an inventory of 4500 industrial facilities and commercial facilities, which must be inspected a minimum of once every five (5) years. In order to meet the requirements of the permit, Salt Lake County will need to inspect 900 facilities per year including high risk facilities once per year during the permit cycles. That is three (3) commercial/industrial inspections per day for 360 days of the year.
6. Salt Lake County will identify high risk facilities (see the definitions below in § 7f) based upon the potential for water quality, including pollutants of concern, proximity to a water body and violation history. The program will prioritize facilities into high, medium, and low categories. This prioritization process will be developed and maintained in the latest computer software (Eprocess 360, v.2015).
7. The Project Manager having oversight of the Industrial/ Commercial Facility Storm Water Pollution Prevention Program (IFCSWPPP) shall prioritize and assign a list of facilities for inspection to each field person.
- a. Field personnel will then be responsible for organizing his or her list of sites and set up an inspection schedule to comply with the priority established by the Project Manager.
 - b. In order to efficiently conduct the inspections, field personnel should prioritize the list of industrial facilities by reviewing maps and other information and also by driving by and doing a brief visual observation of the sites just prior to meeting with the facility representative. Review of maps will allow for the field personnel to group or organize sites within the same local area(s). The driving by and brief visual observation practice will give the field personnel a good idea of the general layout of the site(s), and more importantly, the range of associated outdoor activities.
 - c. In addition, visiting facilities prior to the official inspection will provide an opportunity to observe some potential concerns, such as stressed or dying vegetation due to spills or leaks, improper discharges, and/or evidence of previous spills and adjust ranking of facilities due to actual conditions.
 - d. Facilities have been ranked based on their industrial classification types and risk of pollution prior to field inspections.
 - e. Facilities in the high category, based on their industrial activities, would have greater potential for pollutants entering Salt Lake County MS4 and receiving waters and should be inspected first.

- f. After all the high priority sites are inspected, then the field personnel should inspect facilities ranked medium and low priorities respectively. The three rankings are as follows:
- i. High: Industrial Facilities in this category have a large amount of outdoor processing activities and/or material storage on-site or obvious poor housekeeping issues. An example of a high priority site would be a metal scrap yard or large manufacturer where materials and stored chemicals are in potentially uncovered areas without containment and in direct contact with the elements (i.e., precipitation).
 - ii. Medium: A medium level site would be similar to a freight carrier facility that receives and delivers materials via tractor trailer trucks. Most activities involve the loading and unloading of materials under a covered loading dock. However, these facilities usually have a vehicle maintenance area which can be problematic in terms of releasing oil and grease products.
 - iii. Low: A facility in low level ranking would have limited or no outdoor processing areas. After inspection and review with Salt Lake County, a "Certificate of No Exposure" could be issued by the state if it is determined to not present substantial pollutant loading from the site. Salt Lake County will send out an inspection letter to the Commercial/Industrial facility as well as copy the State of Utah DEQ by hard copy or email that the facility may qualify for the "No Exposure Certificate." The file will then be placed back into rotation for inspection in the next permit cycle to confirm the No Exposure Certification is still applicable. Industrial facilities may be re-ranked based on results from the findings of fact during the field inspections, and discussions with the County Inspection Supervisor and/or the State of Utah DEQ Industrial Program personnel.

8. Review of Guidance/Resource Material

- a. Field personnel should familiarize themselves with several guidance and resource materials before conducting facility site inspections. The materials are provided to give beneficial information on the types of general storm water permits, material handling and storage activities associated with the different industries, industry terminology, equipment and structures which could be helpful to industries in regards to mitigating pollution concerns, and the components contained in a Stormwater Pollution Prevention Plan.
- b. The resource materials will be housed near the IFCSWPPP site inspections file and the Project Manager will also have copies available for review by field personnel.
- c. The list of in-house guidance and resource materials includes (but not limited to) the following:
 - i. Stormwater discharges from Industrial Facilities, EPA Website:
<http://water.epa.gov/polwaste/npdes/Industrial-and-Commercial-Facilities.cfm>

- ii. North American Industry Classification System (NAICS) Manual (US Census Bureau 2012): <http://www.census.gov/eos/www/naics/>
 - iii. Salt Lake County Sampling Plan for Representative Storm Monitoring
 - iv. Salt Lake County Dry Weather Screening Plan
 - v. Salt Lake County IDDE Plan
9. Review of Drainage and Storm Sewer Outfall Maps
- a. As a condition of the UPDES stormwater permit, a permitted facility should have a site map that displays on-site drainage patterns and storm drain outfalls. However, prior to the visiting an Industrial or Commercial Facility site, the inspectors should review in-house Salt Lake County drainage maps from its system.
10. Salt Lake County and Governmental Record(s) Review
- a. Coordination with and a review of Salt Lake County and governmental agency records (including records from:
 - i. Salt Lake County Assessor,
 - ii. Unified Fire Authority,
 - iii. UDOT,
 - iv. EPA, etc.)
 - b. Information and records collected can potentially provide information on the property ownership, uses, drainage facilities, possible records of spills, manufacturing processes and material storage, permit information, past water quality violations, and other reports that may give the inspector background history on the industrial or commercial facility site.
 - c. A list of Salt Lake County and governmental agency records that could be beneficial for field personnel to review includes the following:
 - i. Spill and Complaint Database
 - ii. Assessing Records & Latest Computer Software (EProcess 360 v.2015)
 - iii. Enforcement files (IDDE & SLCO Health Department)
 - iv. Pretreatment inspections
 - v. Inspections performed by the Fire Department or Building Inspector
 - vi. NOVs
 - d. Any Industrial or Commercial Facility that has a history of noncompliance, the field personnel performing the inspection should check for any records from the following:
 - i. State of Utah DEQ
 - ii. Salt Lake County Environmental Health
 - iii. The EPA's website for Industrial Facilities:
<http://water.epa.gov/polwaste/npdes/Industrial-and-Commercial-Facilities.cfm>

11. Facility Notification

- a. Initial facility notification will be by Facility Inspection Notification Letter mailed out to each facility on the inventory list. The letters will include a general description of the program, identification of authorized representatives to perform the inspections on behalf of Salt Lake County activities to be performed and contact information should a facility have any questions. Notification letters will be mailed in batches so that inspections can be completed no later than three (3) months after notifications have been mailed out to the perspective facilities.
 - i. Field inspectors will perform inspections no sooner than two (2) days after notification letters are mailed out.
 - ii. Inspectors will arrive with copies of the notification letters, authorization materials and photo identification and inspection equipment and gear.
 - iii. When arriving at the facility, the field personnel will ask to speak to the person who handles environmental matters for the site. (It is common for Industrial Facilities to have one primary contact person who deals with all environmental issues, in Commercial facilities the primary contact person will most often be the business owner or the office manager.)
 - iv. The representative will be advised that Salt Lake County, is conducting the inspection and what pertinent areas the inspection will focus upon (i.e., SWPPP review and physical walkthrough of the facility and site).
 - v. In some cases, it may be required to schedule an inspection with the facility owner, representative or tenant.
- b. Business License Information should have the relevant contact information for each facility site to be inspected. However, in some cases this information could be incorrect or out of date. Inspectors will record any updates to the contact information with the property/business owner, or property/business owner's representative.
- c. Business License information should have the relevant contact information for each facility site. If for some reason the property/business owner, or property/business owner's representative questions or is hesitant to allow the inspection, cordially explain the provisions of the applicable Salt Lake County Ordinance § 17.22 and the Jordan Valley Municipal UTS0000001 that allows for access by the Salt Lake County or its representatives to conduct an inspection of the Industrial and Commercial Facility and its discharges within Salt Lake County.
- d. In addition, if entry to a facility is denied and the issues cannot be resolved at the facility, the field personnel should leave the scene and discuss the matter with Salt Lake County Project Manager for further direction.

12. Inspection and Safety Equipment

- a. When making initial contact with the Industrial or Commercial Facility, it is also important to ask the company representative what necessary equipment is needed for a safe entrance to the facility. **Table 1** below includes a list of personal

protective equipment and additional materials that may be needed to properly complete the inspection.

Documents and Inspection Tools <ul style="list-style-type: none"> • Salt Lake County ID and business cards • Facility file (records and maps) • Field notebook • Clipboard • Cell phone • Digital camera • Flashlight/mirror • Manhole pick • Tape measure • Field computer with inspection application 	Safety Equipment and Protective <ul style="list-style-type: none"> • Hard hat • Hearing protection • Safety shoes (steel toe) • Reflective safety vest • Safety glasses • Gloves
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Table 1

b. On-Site Inspection Procedures

- i. Upon arrival at the Industrial or Commercial Facility, the field personnel should introduce himself or herself as a Salt Lake County authorized representative and offer the appropriate credentials (i.e., Salt Lake County issued ID and/or business card ID). After introductions, the field personnel should communicate to the company representatives the reason and extent of the inspection, which include the following:
 1. On-site records review
 2. Physical walkthrough of the facility
 3. Wrap-up meeting with company official

c. On-Site Records Review

- i. Field personnel should begin the on-site records review with an evaluation of the facility's SWPPP. As a requirement of the EPA UPDES program for permitted Industrial or Commercial Facilities, the SWPPP is a document utilized by the facility to manage and minimize the likelihood of pollution due to storm water runoff and spills. The Stormwater Industrial Inspection form should be used during the review of documents. It is important to document any pertinent notes about the plan on the inspection form or in a field notebook.
- ii. The SWPPP consists of five major components:
 1. Site Plan,
 2. Stormwater Management Plan,
 3. Spill Prevention and Response Plan,
 4. Preventative Maintenance and Good Housekeeping Plan and,
 5. Training Schedules.
- iii. When properly applied, all five elements of the SWPPP perform an important part in reducing pollution from stormwater runoff.

- iv. Once the review of the SWPPP is complete, the field personnel should have a good working knowledge of the Industrial or Commercial Facility site and overall layout of any processing areas.
 - v. In addition to the SWPPP, the field personnel should evaluate records that are relevant to the management of stormwater on the facility. Other relevant records may include items such as:
 - 1. Maintenance logs on facility equipment,
 - 2. Prior correspondence with Salt Lake County or other government agencies,
 - 3. Stormwater sampling data,
 - 4. Documentation from any reportable spills, and
 - 5. Any other relevant documents.
- d. Physical Walkthrough of the Facility
- i. After review of the on-site records, the next phase of the inspection will be the physical walkthrough of the Industrial or Commercial Facility site. A thorough inspection of the entire facility should be completed. A list of general things an inspector should look for is as follows:
 - 1. On-site BMPs.
 - 2. Indicators or presence of illicit connections and improper disposal.
 - 3. Evidence of past spills.
 - 4. Material handling and storage areas, including loading/unloading areas.
 - 5. Equipment fueling and maintenance areas.
 - 6. Storm drain structures and receiving streams.
 - 7. Ground disturbance and contamination.
 - 8. Good House Keeping (is site free of trash, debris, organized and clean?)
 - ii. When conducting the on-site inspection, it will be beneficial to have the owner or owner's representative supply a copy of the site map that shows all areas of concern.
 - iii. In regards to impacts to stormwater runoff, field personnel shall pay close attention to outside processing and manufacturing areas. Notice where and how materials are stored (materials should be properly labeled and located out of high traffic areas).
 - iv. Examine storm drains, drainage swales, and outfalls for debris and evidence of spillage. Document any non-stormwater (dry weather) flows in the storm drains and outfalls.
 - 1. If dry weather overflow is present, note presence of pollutant indicators like oily sheens, odors, flow discoloration, or unnatural algae blooms.
 - 2. Inspectors should also note whether to recommend those dry weather flows for further investigation to the Salt Lake County IDDE

Manager and the Salt Lake County Health Department as part of the MOU dated January 15, 2015 with Office of Engineering.

- v. The inspection data will be uploaded to a current database no less than on a weekly basis (once completed).
- vi. It is appropriate for the field personnel to have a field notebook and camera to document any findings and perform sketches while doing the walk through.
 - 1. In some cases, the facility owner or owner's representative may convey concerns about allowing the inspector to take photographs. If this situation occurs, cordially talk about the concerns and attempt to come up with a solution satisfactory to both parties.
 - 2. Allowing the owner or owner's representative to view the pictures on the camera's display or avoiding pictures of sensitive areas that have no relevance to the inspection may mitigate this problem.
- vii. Not all scenarios that field personnel may encounter in the field can be covered in this document. Each site will be unique and will have different processes that have the potential to impact storm water runoff.
- viii. Field personnel need to keep the big picture scenarios in mind (e.g., noting where materials will go and how Salt Lake County storm drains and water quality may be affected during a rainfall event or if there is a spill).
- ix. Field personnel should note whether the strategies outlined in the SWPPP are being implemented successfully and whether appropriate BMPs are in place. Remember that being on the site is the most opportune time to discuss the facility's operations with the owner's representative. When in doubt, ask for clarification; being hesitant may cause the inspector to miss a potential problem area.
- e. Wrap-Up Meeting
 - i. A wrap-up meeting with the property/business owner, or property/business owner's representative will provide a final opportunity to answer questions, gather information, and present findings.
 - ii. Field personnel should be prepared to discuss the preliminary findings of the inspection. However, it is not necessary to share all findings of the inspection with the facility owner or owner's representative, especially if advice or direction is needed on a particular issue.
 - iii. Explain the next steps in the process and what further communications Salt Lake County may have with the company, such as sending the inspection form/letter or the possibility of a follow-up inspection.

13. Water Sampling

- a. During the walkthrough of the facility, if evidence exists to warrant sampling and monitoring, then Salt Lake County may require that the property/business owner, or property/business owner's representative to perform future monitoring of

industrial or commercial discharges to Salt Lake County Storm drain systems, on an as-needed basis.

- i. The collection of water samples will utilize sampling techniques similar to those employed in Salt Lake County Sampling plan for Representative Storm Monitoring and the Salt Lake County Dry Weather Screening Plan for monitoring storm water programs.
- ii. The chemical analyses to be conducted on the water samples should be done by a contracted state certified lab and include the parameters most often required of industrial sites that have an UPDES storm water discharge permit.
- iii. Extra parameters may need to be analyzed in the water samples depending on the materials used and stored on the site. Here is a common list of parameters:
 1. Oil and grease
 2. BOD
 3. COD
 4. Total Kjeldahl nitrogen (TKN)
 5. Nitrate + nitrite nitrogen
 6. Total phosphorus
 7. TSS
 8. PH
 9. DO
 10. VOC's
 11. Heavy metals
 12. Tier 2 chemicals
 13. Conductivity
 14. Temperature
- iv. Samples obtained for use by Salt Lake County as part of the Industrial and Commercial Inspection program will be collected by the IDDE team from Salt Lake County Engineering Section or the Salt Lake County Health Department. They will be collected when it is determined by the inspector in the field that a potential source or discharge has entered the Salt Lake County storm drain system.
- v. This and other data will be used to ensure compliance with discharge limits and help the facility mitigate future non-storm water discharges.

14. Contact Information:

- a. Salt Lake County and/ or Salt Lake County Engineering Division will report to the Salt Lake County Health Department any incidents involving spills, releases or the discharge of pollutants, contaminants, or waste into gutters and storm drains covered by the UPDES Storm water permit.

- b. Incidents will be reported immediately to the Salt Lake County Health Department 24-hour hotline at (801) 580-6681 or during business hours to the Salt Lake County Health Department Office at (385) 468-3862.
 - i. Salt Lake County Stormwater Program Supervisor: (385)-468-6645
 - ii. Salt Lake County Stormwater Program Supervisor: (385)-468-6648
 - iii. Salt Lake County Stormwater Program Manager: (801) 554-1396
15. Project database and documentation of the Inspection
- a. An Industrial Facility SWPPP tracking database will be created for this project.
 - b. The database contains tables that will be used for entering facility details, tracking inspections, and inspection details.
 - i. The IFCSWPPP database includes a unique facility identification number that is linked to the building address stored with Salt Lake County.
 - ii. This number will be used to track specific sites and file information regarding them.
 - iii. The database is being developed, which takes into consideration the requirements of casework, site specific information collected from the inventory, Salt Lake County input, and specific information related to the physical site inspection. The database shall have the capability of:
 - 1. Integrating with casework, three (3) primary tables will be used.
 - 2. Integrating with the facilities addresses that have been used related to the GIS building identifier of the primary building at a facility.
 - 3. Within the database, the facility table will contain site information, contacts, associated primary building identifiers from GIS, and the status of the facility.
 - 4. The inspection table will include information specific to the site inspections. Attributes for this table are defined by the inspection checklist. The inspection detail table will contain details collected during inspections. A list of potential attributes of the database can be found in **Table 2** below.

Business License Number	Inspector
Site Address	Site Activities (land use)
NAICS	Site Plan
Site Owner	Existing SWPP Plan
Contact Name	Presence of Storm Sewers
Contact Phone	Drainage Areas
Contact Email	Illicit Discharges to Stormwater System
Inspection Type	On-site BMPs
Inspection Status	Water Quality Monitoring Plan
Inspection Schedule Date	Chemical Storage
Inspection Results	Current Monitoring Initiatives
Enforcement Activities	Existence of Existing UPDES Permit
Enforcement Resolutions	Chemical Transfer Procedures
Inspection Photos	Spill Prevention Countermeasure Control
	Potential Risks
	Employee Training

Table 2

- iv. An important final step in the inspection procedures is the documentation of observations made during the facility inspection.
- v. Field personnel should refer to the Salt Lake County ICFSWPPP assigned to the project to generate the necessary form letters to be submitted to the facility contact. This is to inform them of the findings of the inspection, contact log, inspection and inspection form letters, which are stored on the project.
- vi. These documents, as well as field notes & photos, will serve as the main tools to record the findings of the inspection.
- vii. A general description of the documentation forms is listed below.
 1. Inspection Forms: This will be completed by field personnel while conducting the Industrial and Commercial facility site inspection. It has been designed to give users a checklist of items to cover while doing the inspection. In addition, there is blank space below each section for comments.
 2. The Inspectors may also find it beneficial to carry a field notebook if extra space is needed for notes and/or sketches for subsequent transfer to the database. Photos taken during the Inspection will be logged and included in the final report, which will be uploaded into the Latest computer software.

3. Inspection Letters 1, 2, and 3: These form letters will be used to communicate the findings of the inspection to the facility owners.
 - a. Letter 1 will be used when no or only minor issues are discovered during the compliance inspection.
 - b. When more serious deficiencies at a facility are noted, inspectors will use Letter 2. The use of Letter 2 will also alert the facility owners that a follow-up inspection by Salt Lake County will be conducted and the County may notify The Salt Lake County Health Department and the State of Utah Department of Environmental Quality.
 - i. If major water quality violations are observed during the inspection, the findings will be discussed with the Project Site Manager. Based on the seriousness of the situation, formal enforcement protocols may warrant implementation. If this occurs, inspectors will contact the **County Stormwater Program Supervisor: (385)468-6600** or **(801)554-1396**, who will report the incidents to the **Salt Lake County Health Department via the 24-hour hotline at (801) 580-6681 after hours or during business hours at (385)468-3862** in accordance with the County Engineering MOU with the Salt Lake County Health Department dated January 15, 2015.
 - c. Letter 3 will be used for facilities with no exposure where materials or activities are not exposed to stormwater.
 - d. Contact Log for Industrial Inspections: Field personnel will use contact logs to document correspondence with the facility contact representative and/or owner. This would include emails, phone messages, voicemail, and letters. The keeping of a contact log will be especially helpful if questions are raised during the inspection notification process.
 - e. Filing of Documents: The goal is to track and file all information within an Industrial/Commercial Facility Stormwater Pollution Prevention Plan (ICFSWPPP) database, however, if other documents are stored externally they will be organized by the business license facility number. Salt Lake County will prepare semi-annual reports in February of each year. The reports will document the facility inspections and summarize findings and recommendations.

16. Enforcement Procedures

- a. Salt Lake County will pursue enforcement action against non-complying industrial facilities.
- b. Every facility required to be covered under a UPDES Permit for Stormwater Discharge Associated with Industrial Activity is required to submit a Notice of Intent and Obtain required permits with Salt Lake County, as set forth in the Salt Lake County Ordinances § 17.22 and the Jordan Valley Municipal UTS0000001 permit.
- c. Salt Lake County Inspectors and or representatives are authorized to commence enforcement activities if a facility fails to comply with the Salt Lake County and the requirements of the Jordan Valley Municipal UTS0000001 permit, including but not limited to Compliance orders or Requests for access to subject facilities.
- d. Any post-inspection violations discovered by field personnel or others must be reported to the appropriate Salt Lake County Stormwater Supervisor.
- e. Initial enforcement may be commenced by Salt Lake County Engineering Staff and additional enforcement matters may be referred to the Salt Lake County Health Department and the Salt Lake County Attorney's Office.
 - i. WRITTEN NOTICE OF VIOLATION:
 1. As a first step to enforcement, the field personnel will inform the Owner or the Owner's on-site representative of any acts or evidence of non-compliance at the facility. Salt Lake County Inspector will then provide a written warning notice to the Owner or the Owner's on-site representative to document the offense(s) and instruct the facility to remediate the violation(s).
 2. The first written notice will inform the industrial facility of the violation(s), order the Owner or the Owner's representative to correct the violation(s) within a specified deadline, refer the operator to its SWPPP, and warn that failure to act may result in imposition of fines or other actions pursuant to Salt Lake County Ordinance § 17.22 and the Jordan Valley Municipal UTS0000001 permit.
 - ii. Fines:
 1. If issues of non-compliance exist after site meeting and written warning, then fines may be assessed. Salt Lake County may assess fines or penalties on a case-by-case basis; however, all repeat violations will be subject to fines.
 - a. Un-permitted discharges or illegal industrial discharges may result in fines up to \$20,000.00 per day, with each day constituting a separate violation.
 - b. Illegal discharges into a storm drain catch-basin violate several sections of the Salt Lake County Ordinance § 17.22 and the Jordan Valley Municipal UTS0000001 permit, as well as state and federal law and may result in fines up to

- \$20,000.00 per day, with each day constituting a separate violation in accordance with the Utah Clean Water Act.
- c. Failure to permit access and failure to discharge pursuant to a permit can result in violations up to \$20,000.00 per day. Other violations can result in additional fines in amounts set forth in the Schedule of Penalties adopted by Salt Lake County from The Utah Clean Water Act and Solid Waste Act.
2. A second notice or subsequent enforcement letter will be sent to the Owner or the owner's representative by the Salt Lake County District Attorney's office, The County may take other steps reasonable and necessary to ensure compliance, including but not limited to: issuance of fines and penalties in accordance with Salt Lake County Ordinances and the Utah Clean Water Act and Solid Waste Act, issuance of a cease and desist order, notification of appropriate regulators (Utah DEQ & Federal EPA) and revocation of necessary permits and approvals Including Business Licenses.
 3. Salt Lake County may also take other necessary legal action to prevent illicit industrial discharges to the storm water system that may impact public health or the environment. Enforcement data collected for each industrial facility will be entered into and maintained in the Industrial facility tracking database.

17. Training

- a. Salt Lake County Storm Water Construction, Industrial, and Commercial Inspection Supervisor will conduct training regarding Industrial, Commercial Facility stormwater runoff control for personnel carrying out the Salt Lake County ICFSPPP. All personnel performing Industrial and Commercial Facility site inspections will be trained within sixty (60) days of commencing their employment or assignment to perform inspections. Refresher training for all personnel performing inspections will occur on an annual basis.
- b. Initial Training will include:
 1. Introduction to EPA's Clean Water Act and Industrial Stormwater Pollution Prevention Program.
 2. Overview of inventory list development.
 3. Case studies of industry inspections presented in real life examples and situations experienced by other local agencies.
 4. Field inspection best practices for accessing facilities.
 5. Field inspection process and checklist including how to conduct an Industrial Facility inspection.
 6. Overview of electronic data collection methods and use of the information management portal.

7. BMP inspections with examples to cover how to review best management practices ranging from programmatic (non-structural) to structural.
 8. Post Inspection procedures.
 9. Introduction to enforcement.
 10. Training will be documented (who, when, what) and saved to training database.
 11. Specific consideration for inspection of a broad range of BMPs (from simple to complex) will be presented. The training will be provided in a one on one environment, utilizing a PowerPoint presentation, trainer/student active interaction on presentation topics and a post-presentation Q&A session. The workshop will last approximately 1 hour.
- ii. Field Training will include:
1. How to use and optimize the Information with real time entry of data into checklist and the latest computer database,
 2. How to conduct Industrial Facility Inspection, and integrate field exercises of various industrial sites representing different industrial activities.
 3. New inspectors will "shadow" field crews to learn inspection process and data collection procedures.
 4. The field training will be provided with a pre-inspection briefing on the workshop topics followed by hands-on learning through actual field inspections.

Appendix A

Utah Pollutant Discharge Elimination (UPDES) Jordan Valley Municipalities Permit No. UTS000001

<http://www.deq.utah.gov/Permits/water/updes/docs/2013/09Sep/JordanValMunicSWPermitUTS000001.pdf>

Appendix B

Training Tracking Form**PURPOSE:**

To ensure annual training is provided to all County employees who have responsibilities as it relates to the Stormwater Protection SOPs contained in this booklet.

Date of Training: _____

Who Conducted the Training

Agency/Employee: _____

SOPs that were covered in Training:

Who attended this training: (may also submit/attach a sign-in sheet)

Please send completed form (scanned electronic document is preferred) to the County Stormwater Program Manager or the County Stormwater Program Supervisor.

Stormwater Form 100

Appendix C

SWPPP Checklist



SWPPP Checklist

Planning & Development Services

2001 South State Street, #N-3600

Salt Lake City, Ut 84190-4050

Office: (801) 468-2516

Cell: (801) 381-1455

Fax: (801) 468-2169

Greg Baptist

Grading Review Specialist &

Storm Water Inspector

GBaptist@slco.org

Date: _____

This checklist needs to be filled out prior to work commencing on any construction site disturbing 1 acre or more in size, or is part of a development that is greater than 1 acre in size.

Item	Answer / Page Number		YES	NO
General:				
Development Name:	<input style="width: 95%;" type="text"/>		<input type="radio"/>	<input type="radio"/>
Did owner and all "operators" sign the SWPPP?			<input type="radio"/>	<input type="radio"/>
Did the signatures include the certification statement?			<input type="radio"/>	<input type="radio"/>
Were the signatories authorized to sign?			<input type="radio"/>	<input type="radio"/>
Site Description:				
Is there a site description?			<input type="radio"/>	<input type="radio"/>
Nature/sequence of construction activity?			<input type="radio"/>	<input type="radio"/>
Major Grading Activities			<input type="radio"/>	<input type="radio"/>
Total area of site & total are to be disturbed?			<input type="radio"/>	<input type="radio"/>
Pre/post runoff coefficient/soils description?			<input type="radio"/>	<input type="radio"/>
Name of receiving water(s) or MS4 listed?			<input type="radio"/>	<input type="radio"/>
Is the receiving water a tributary to waters of the U.S.?	<input style="width: 95%;" type="text"/>		<input type="radio"/>	<input type="radio"/>
Is there a site map?			<input type="radio"/>	<input type="radio"/>
Drainage patterns/outfalls on map?			<input type="radio"/>	<input type="radio"/>
Area of soil disturbance on map?			<input type="radio"/>	<input type="radio"/>
Location of major structural controls on map?			<input type="radio"/>	<input type="radio"/>
Location of storm water discharges to a surface water on map?			<input type="radio"/>	<input type="radio"/>
Location of materials or equipment storage on map (on-site or off-site)?			<input type="radio"/>	<input type="radio"/>

2001 South State Street, #N-3600

Salt Lake City, Ut 84190-4050

Appendix D

ENFORCEMENT RESPONSE PLAN - Construction Activity

PURPOSE:

Salt Lake County is required to implement State and Federal storm water regulations for construction activities in accordance with the requirements of the storm water discharge permit issued by the State of Utah Department of Environmental Quality. The regulations require the owners or operators of construction activities that disturb one acre or more of land (including activities on less than one acre if part of a larger project or located within the Salt Lake City Watershed) to obtain permits from both Salt Lake County and the UDEQ. A County grading permit is also required for construction activities of any size that may affect water quality. To insure that construction activities are in compliance with the regulatory requirements, enforcement provisions are included in the Salt Lake County Ordinances. The County use this Enforcement Response Plan and the attached Enforcement Response Guide to insure enforcement actions are conducted in accordance with regulations and are applied in a consistent manner. The County objectives are to achieve compliance as quickly as possible and to make sure that violations do not continue.

LEGAL AUTHORITY:

The legal authority for enforcement of the stormwater requirements is contained within the Salt Lake County Ordinances Chapter § 17.22, Stormwater Illicit Discharges and Permit Requirements, § 17.22.180 Enforcement and Penalties. The Ordinance describes the types of enforcement actions that can be applied to violations of the requirements. The State of Utah, Federal Clean Water Act of 1987 and the Stormwater Phase I regulations (40CFR122) also provide legal authority for the Salt Lake County Stormwater Quality Program.

RESPONSIBILITIES:

The Mayor or the Mayor's designee, are the responsible officials for all enforcement actions outlined in the Ordinance. The Mayor's designees, for the purpose of construction activities, are the listed below, by title, for Salt Lake County:

- County Stormwater Construction Supervisor
- County Inspector
- County Industrial and Commercial Inspector
- County Grading Review Specialist
- County Stormwater Program Manager and County Stormwater Program Supervisors
- other positions that have enforcement authority with respect to Ordinance provisions are Code Enforcement Officers, the Chief Building Official, Building Code Inspectors and the Salt Lake County Health Department.

If litigation is necessary, enforcement will become the responsibility of the Salt Lake County District Attorney's Office. Some or all of these positions may be involved in determining the

gravity of the specific violations, the type of enforcement action to be taken, and the timing of escalating enforcement.

ENFORCEMENT ACTIONS:

The Ordinance provides the authority for specific actions to deal with the enforcement of violations. The purpose of these enforcement actions is to bring the violator back into compliance as quickly as possible and minimize the negative impacts on the stormwater system, surface waters and the general public.

1. THE TYPES OF ACTIONS INCLUDE:

- a. **COMPLIANCE ORDER:** This is a written notification served to the owner/operator informing them of work that is out of Compliance with the approved Stormwater Pollution Prevention Plans, or other development approved plans. The notice is posted on the site, work is allowed to continue for the time limit identified on the order to correct the deficiencies identified. Failure to correct the identified deficiencies will result in a STOP WORK ORDER being issued. Copies of the Compliance Order are included in the project inspection files and the Process360 inspection reports or the latest computer software.
- b. **STOP WORK ORDER:** This is a written notification served to the owner/operator directing them to stop work immediately. The notice is also posted on the construction site. Work can only be resumed after the conditions and requirements of the stop work order have been met. Copies of the stop work order are included in the project inspection files and Process360 inspection records or the latest computer software.
- c. **NOTICE OF VIOLATION (NOV):** This is formal written notification of violation(s) which serves as an official record of the violations and may include any remedies required by Salt Lake County. The time frame for responding to an NOV will be based on the seriousness of the violation and whether or not immediate actions are required to address imminent or ongoing violations. The NOV shall state the nature of the violation(s) and may refer to the specific section of the Ordinance or the Utah Clean Water Act that has been violated. The NOV is sent via certified mail or personal delivery.
- d. **REFERRAL TO CODE ENFORCEMENT -- PUBLIC NUISANCE:** This action is taken in response to a threatened discharge or public nuisance conditions that are not specifically related to construction requirements.
- e. **REFERRAL TO SALT LAKE COUNTY DISTRICT ATTORNEY:** This action is taken in response to conditions that are a threat to public health, safety, or welfare, and are not corrected immediately by the owner/operator.
- f. **REVOCAION OF PERMIT:** Based on the seriousness of the violations and responsiveness of the permitted, Salt Lake County may revoke the stormwater permit and require that the permittee resubmit a permit application and revised SWPPP that addresses and remedies the cause of the violations.

- g. **ABATEMENT:** Whenever a violation is identified which will result in an immediate danger to public health or safety and the violation is not immediately corrected by the responsible party, Salt Lake County and Salt Lake County Health Department can take whatever measures are necessary to abate the violation. The cost of the abatement shall be charged to the responsible party.

2. PENALTY AND FINES:

- a. Whenever an Infraction is identified which violates Salt Lake County Ordinances §17.22, the **State of Utah Federal Clean Water Act of 1987** or the Stormwater Phase I regulations (40CFR122) for Salt Lake County Stormwater Quality Program, the Inspectors in the field shall determine whether to issue a penalty or fine in accordance with requirements of the SWPPP or Common Plan of Development permit (when applicable) or in accordance with this document and/or to contact the **Salt Lake County Health Department Emergency IDDE hot line (801) 580-6681** for sampling and testing for egregious Acts.

3. LEVEL OF ENFORCEMENT AND ESCALATION:

- a. The following guidelines are considered when determining the level of enforcement and the need to escalate enforcement:
- i. Whether or not there are or have been recurring or chronic violations.
 - ii. The diligence of the owner/operator in responding to and solving the problem which caused the violation(s) and how quickly compliance is achieved.
 - iii. Seriousness of the violation. For example, pollutants entering the storm drain or surface waters are more significant than pollutants that have a potential to leave the site but are currently contained. Pollutants that endanger the public, workers or the environment due to lack of proper BMPs or poor BMP maintenance are serious problems whether or not the pollutants have left the site. Serious violations must be addressed immediately to prevent additional problems and to keep the County in Compliance with its stormwater permit requirements. Less serious violations require enforcement that rapidly brings the construction activities into compliance and sustains compliance.
 - iv. Economic benefit – If the violation is the result of avoiding the costs of complying with regulatory requirements, or operating in an environmentally responsible way, this can be taken into account when determining enforcement actions and penalties.

Appendix E

ENFORCEMENT RESPONSE GUIDE - Construction Activity

ENFORCEMENT RESPONSE

Violations of the construction activities in the stormwater requirements generally fall into the following areas:

1. Administrative Violations:
 - a. County or State permits not current,
 - b. Working *without County* or State permit,
 - c. SWPPP not on site, SWPPP not up to date,
 - d. No designated or certified on-site erosion control specialist,
 - e. Stormwater inspection records missing, not completed according to requirements or not up to date,
 - f. County and/or State Notice of Inactivation not submitted,
 - g. County and/or State Transfer of Ownership not submitted.

2. Best Management Practices (BMPs) Violations with no discharge off site:
 - a. BMPs not maintained in accordance with best practices or SWPPP,
 - b. Improperly stored materials on site,
 - c. BMPs in use on the site not shown/not covered in SWPPP,
 - d. Site changes requiring new or modified BMPs not covered in SWPPP,
 - e. Improperly maintained or located vehicle storage or maintenance areas.

3. Best Management Practices (BMPs) Violations with discharge from site:
 - a. Sediment or other pollutants leaving site,
 - b. Potential discharge to storm drain,
 - c. Discharge to storm drain or channel.

Each of these violations may result in varying enforcement actions, a series of enforcement actions, or a combination of enforcement actions, depending on the severity and duration of the violation. In addition, the following circumstances will be evaluated when determining appropriate actions or escalating enforcement for continued violations:

- Magnitude of the violation (type and severity);
- Duration of the violation;
- Effect of the violation on the environment and public health;
- Effect of the violation on surface waters;
- Economic benefit realized because of noncompliance

Appendix G

VIOLATIONS LIST AND ENFORCEMENT ACTIONS

1. County or State permits not current:
 - Compliance Order: The County Inspector gives owner/operator a Compliance Order with schedule to obtain updated permit(s). The County Inspector documents the date and conditions creating the Compliance Order in inspection records.
 - Stop Work Order: The County Inspector will issue Stop Work Order if permits are not obtained within time frame. Date and conditions of Stop Work Order are recorded on the Stop Work order and in Eprocess 360 v.2015.
 - Referral to County Attorney: If work continues at the site, the County will be informed and will refer this issue to Salt Lake County District Attorney for action.
 - NOV and Penalty Assessment: Salt Lake County will prepare and issue an NOV with a compliance schedule and penalty assessment (if appropriate) if there is no response to the Stop Work Order or if permits are not obtained in a timely manner.
2. Working without County or State permit:
 - Stop Work Order: Inspector issues Stop Work Order. Date and conditions of Stop Work Order are recorded in inspection records. Inspector refers case to the County for further action.
 - NOV and Penalty Assessment: The County prepares and issues an NOV with a compliance schedule and penalty assessment (if appropriate) if there is no response to the Stop Work Order or permits are not obtained in a timely manner.
 - Referral to County Attorney: If work continues at the site, The County is to be informed and will refer this issue to Salt Lake County District Attorney for action.
3. Stormwater Pollution Prevention Plan not on site or Stormwater Pollution Plan is not current:
 - Compliance Order: The County Inspector will give owner/operator a Compliance Order with schedule for correcting SWPPP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing and upload into the Compliance Order in Eprocess 360 v.2015.
 - NOV and Penalty Assessment: The County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or if the SWPPP deficiencies are not corrected in a timely manner. Also, see Stop Work Order.
 - Stop Work Order: The County Inspector can issue a Stop Work Order if there is no response to the Compliance Order and/or NOV.
 - Referral to the County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
4. No designated or certified on-site erosion control specialist, Stormwater inspection records missing, incomplete or not current:

- Compliance Order: The County Inspector will give owner/operator a Compliance Order with schedule for correcting SWPPP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing and upload into the Compliance Order in Eprocess 360 v.2015.
 - NOV and Penalty Assessment: The County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or if the SWPPP deficiencies are not corrected in a timely manner. Also, see Stop Work Order.
 - Stop Work Order: The County Inspector can issue a Stop Work Order if there is no response to the Compliance Order and/or NOV.
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
5. County and/or State Notice of Inactivation not submitted:
- Compliance Order: The County Inspector shall give owner/operator a Compliance Order with schedule for correcting SWPPP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing and upload into the Compliance Order in Eprocess 360 v.2015.
 - NOV and Penalty Assessment: County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or if the SWPPP deficiencies are not corrected in a timely manner. Also, see Stop Work Order.
 - Penalty Assessment: County will prepare and issue a penalty assessment if NOV is disregarded.
 - Revoke Permit: A Permit will be terminated by County if NOV is disregarded.
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
6. County and/or State Transfer of Ownership not submitted:
- Compliance Order: County Inspector will give owner/operator a Compliance Order with schedule for correcting SWPPP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing and upload into the Compliance Order in Eprocess 360 v.2015.
 - NOV and Penalty Assessment: County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or if the SWPPP deficiencies are not corrected in a timely manner. Also, see Stop Work Order.
 - Stop Work Order: County Inspector can issue a Stop Work Order if there is no response to the Compliance Order and/or NOV and work continues on site
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
7. Best Management Practices Violations - Discharge from Site:

- NOV and Compliance schedule: County Inspector will give owner/operator a Compliance Order with schedule for correcting SWPPP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing. Violations are referred to County if violations are not corrected. A NOV or a Stop Work Order may be issued.
 - Stop Work Order: County Inspector can issue a Stop Work Order if there is no response to the Compliance Order and/or NOV and work continues on site.
 - Penalty Assessment: County prepares and issues a penalty assessment if NOV or Stop Work Order is disregarded.
 - Revoke Permit: County Permit will be terminated by County if violations continue.
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
8. BMPs in Use On the Site Not Shown or Not Covered in SWPPP Site Changes Requiring New or Modified BMPs Not Covered in SWPPP:
- Compliance Order: County Inspector will give owner/operator a Compliance Order with schedule for correcting SWPPP or BMP deficiencies. The Inspector will document the date and conditions of Compliance Order in writing and upload into the Compliance Order in Eprocess 360 v.2015.
 - NOV and Penalty Assessment: County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or SWPPP deficiencies are not corrected in a timely manner. Also see Stop Work Order.
 - Stop Work Order: County Inspector can issue Stop Work Order if there is no response to the Compliance Order and/or NOV.
 - Penalty Assessment: County will prepare and issue a penalty assessment if NOV or Stop Work Order is disregarded.
 - Revoke Permit: The County Permit will be terminated by County if violations continue.
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
9. Best Management Practices Violations: Discharge from Site: Sediment or Other Pollutants Leaving Site; Potential Discharge to Storm Drain
- NOV and penalty assessment: County will prepare and issue an NOV and penalty assessment (if appropriate) if there is no response to Compliance Order or SWPPP deficiencies are not corrected in a timely manner. Also see Stop Work Order.
 - Stop Work Order: County Inspector can issue Stop Work Order if there is no response to the Compliance Order and/or NOV.
 - Penalty Assessment: County will prepare and issue a penalty assessment if NOV or Stop Work Order is disregarded.
 - Revoke Permit: County Permit will be terminated by County if violations continue.

- Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.
10. Sediment or Other Pollutants Leaving Site, Discharge to Storm Drain or Channel:
- Stop Work Order: County Inspector will issue Stop Work Order, documents the violation and requires owner/operator to mitigate the problems immediately. Project Inspector will consult with County on further actions.
 - Abatement: If the violation is a potential hazard to public health or safety and is not immediately corrected by the owner/operator, the inspector will document the situation and refer it to County and Salt Lake County Health via the 24-hour hotline. County will also determine who will arrange for abatement of the violation. The cost of the abatement shall be charged to the owner/operator.
 - NOV and compliance schedule: If the discharge caused minimal impact or was quickly mitigated by the owner/operator, County will prepare and issue an NOV and compliance schedule.
 - Revoke Permit: Depending on the severity of the violation, the owner/operators permit may be revoked.
 - Penalty assessment: County will prepare and issue penalty assessment, including costs of any abatement.
 - Referral to County Attorney: If work continues at the site, Salt Lake County will be informed and in turn, refer the matter to Salt Lake County District Attorney for further action.

Appendix H

NOTICE OF VIOLATION FORM

Date

Contact

Name

Address1

Address2

RE: Notice of Violation - Stormwater

Permit for Construction Activity #Permit number

Dear [Contact Name](#):

Pursuant to Chapter § 17.22 of the Salt Lake County (the "Ordinance") you are hereby notified of the following violations of the terms and conditions of the above-referenced permit:

During a monthly site inspection by the County on xxxxxx it was found that your Stormwater Pollution Prevention Plan (SWPPP) has not been updated to include recent changes in the site and in the Best Management Practices (BMPs) used on the site. The SWPPP must be correct and up to date per the requirements of your permit.

You have ___ days from receipt of this Notice to complete the following:

1. Correct the violations and schedule an inspection with the County Project Inspector to confirm that the violations have been addressed.
2. Submit a written description to the County Office of the steps you will take to insure that there will be no future violations of the type listed above.

This Notice does not constitute a waiver or election by Salt Lake County to forego any civil or criminal action to seek penalties, fines or other relief as it may deem appropriate under Chapter § 17.22 of the Ordinance. Be advised that § 17.22.180 of the Ordinance authorizes the imposition of penalties of up to \$10,000.00 per day for each violation of the Ordinance. Nothing in this Notice shall be construed to preclude Salt Lake County of further action under the Ordinance for those violations cited herein or to relieve you from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State or County laws or regulations. Please call if you have any questions. The County appreciates your efforts to comply with the terms and conditions of your discharge permit and operate your construction activities in an environmentally responsible manner.

Sincerely,



2001 S. State Street • Salt Lake City, UT 84190
Phone: (385) 468-6600 • www.slco.org

Name

Salt Lake County County SWPPP Inspector

cc:

Name,

Construction Inspection Supervisor

Appendix I

STORMWATER MANAGEMENT BMP SCHEDULE OF LONG TERM MAINTENANCE IN SALT LAKE COUNTY

Activity	Frequency	Notes
Inspection	Annually	It is recommended that the SMP Operation and Maintenance Inspection Report, referenced by this agreement, be used as a guiding document. This annual inspection should be submitted to Salt Lake County upon completion.
Mowing and maintenance of vegetation	Variable, depending on vegetation and desired aesthetics	Landscaping and vegetation should be cared for throughout the year to ensure proper sediment removal and infiltration is maintained and the facilities remain aesthetically appealing.
Remove trash and debris	As needed or following each storm	Trash and debris should be removed regularly to ensure that the Facilities function properly and operate effectively. Trash often collects at inlet and outlet structures.
Inspect and maintain inlet and outlet structures	Annually	The inlet and outlet structures should be inspected for damage and proper operation.
Sediment removal	Variable (5-10 years is typical)	The removal of sediment is necessary if the Facilities begin to lose capacity or effectiveness.

Appendix J

SMP OPERATION AND INSPECTION MAINTENANCE REPORT SAMPLE

Site Name:		Date of Evaluation					
Site Address:							
Facility Contact information							
		NAME and MAILING ADDRESS			Phone		E- MAIL ADDRESS
SITE CONTACT:							
INSPECTOR CONTACT:							
BUSINESS TYPE: INSTITUTIONAL COMMERCIAL INDUSTRIAL OTHER _____							
Circle Business type							
Are SOP's for Stormwater Post Construction Inspections implemented and available for review? YES NO							
Circle Answer							
Orifice Required for site YES NO		Orifice Size:		Hooded outlet cover (snout) Required for site YES NO			
Circle Answers							
Items Inspected	Checked		Maintenance Req'd?		Is there excessive accumulation of		Observations and Remarks
	Yes	No	Yes	No	Yes	No	
1. Dumping Evidence							
2. Spill Evidence							
3. General Site Exposure							
4. Other Pollution Sources							
5. Stormwater Storage condition and capacity (detention/retention ponds)							
6. Inlets and catch basins							
7. Conveyance System							
8. Manholes							
9. Parking							
10. Waste Collection							
11. Landscaping							
12. Pre-Treatment devices							
13. Sumps							
14. Flow Control devices							
15. Site Specific SOP Items							
16. Other							
Notes:							
Print Name:					Date:		
Signature:					Title or Position		

References:

1. Utah Department of Environment Quality: General Permit for Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4s), Authorization to Discharge under the UPDES Discharge Permit – Jordan Valley Municipal permit UTS0000001
2. Utah Department of Environment Quality: Stormwater Discharges Associated with Construction Activity – Construction General Permit Application UPDES permit UTRC000000 and The Stormwater Management Plan Preparation Guide
3. Salt Lake County Ordinances Chapter § 17.22, Stormwater Illicit Discharges
4. Salt Lake County Engineering: Public Improvement Design Standards and Construction Specifications (current revision)
5. International Building Code and International Residential Code (current)