Salt Lake County

STORMWATER MUNICIPAL OPERATIONS STANDARD OPERATING PROCEDURES (SOPS)

Revised 6/2025

Contents

Use, Storage, and Disposal of Chemicals

Purpose:

To protect stormwater by properly storing and disposing of chemicals.

Use:

a. Read the Label.
b. Follow the manufacturer's recommendations for mixing, applying, and disposal.

Storage:

a. Follow all storage instructions on the label.
b. Store chemicals in a cool, dry, well-ventilated area, protected from freezing temperatures and away from heat sources and direct sunlight.
c. Ensure safety and provide storage for flammable or combustible liquids.
d. Do not store chemicals in places where flooding or spills can carry chemicals into wells, drains, groundwater, or surface water (see SOP *IDDE Reporting and Response*).
e. Do not mix or prepare chemicals for application near storm drains.
f. Prepare chemicals inside an impervious secondary container.

Disposal:

a. Properly dispose of chemicals according to manufacturer's specifications and state and federal regulations**.**
b. Never pour chemicals down the sink, into the toilet, or down a sewer or storm drain.
c. Follow department SOPs for inspecting chemical storage areas for leaks and spills.
d. Immediately clean up spills to prevent the chemicals from reaching the storm drain system (see SOP *IDDE Reporting and Response*).

Application, Storage, and Disposal of Fertilizer, Pesticides, and Herbicides

Purpose:

To protect stormwater with the proper application, storage, and disposal of fertilizers, pesticides, and herbicides.

Application:

a. Check the calibration of application equipment to avoid excessive application.
b. Read the label and follow the manufacturer's directions.
c. Positively identify pests or weeds before application.
d. Check weather conditions to schedule the application of fertilizers, herbicides, or pesticides to coincide with the manufacturer's recommendations.
e. Do not mix or prepare pesticides for application near storm drains.
f. Prepare chemicals inside an impervious secondary container.
g. Employ techniques to minimize off-target application (e.g., spray drift, over broadcasting) of pesticides and fertilizers.
h. Sweep fertilizers and other solid chemicals from the pavement.

Storage:

a. Follow all storage instructions on the label.
b. Store chemicals in a cool, dry, well-ventilated area, protected from freezing temperatures and away from heat sources and direct sunlight (see SOP *Use, Storage, and Disposal of Chemicals*).
c. Ensure safety and provide storage for flammable or combustible liquids.
d. Do not store chemicals where flooding is possible or where they might spill or leak into wells, drains, groundwater, or surface water (see SOP *IDDE Reporting and Response*).

Disposal:

a. Properly dispose of chemicals according to manufacturer specifications and state and federal regulations**.**
b. Do NOT pour chemicals down the sink, into the toilet, or down a sewer or storm drain.
c. Follow department SOPs for inspecting chemical storage areas for leaks and spills.
d. SLCo Household Hazardous Waste (HHW) Facility accepts poisonous, flammable, corrosive, or toxic material. Call HHW at 385-468-4380 for approval and questions.
e. Immediately clean up spills to prevent the chemicals from reaching the storm drain system (see SOP *IDDE Reporting and Response*).

Documentation:

Keep copies of SDS sheets for all pesticides, fertilizers, and other hazardous products as required by OSHA and record pesticide application activities as required by pesticide license.

Cleaning Vehicles & Maintenance Equipment

Purpose:

To prevent stormwater pollution during vehicle and equipment cleaning.

Designated Wash Areas:

a. Wash all trucks, vehicles, and equipment in a designated area, with a drainage system attached to the sanitary sewer system or a holding tank.
b. Minimize water and soap used when washing vehicles.
c. When possible, use hoses with automatic shut-off nozzles to minimize water usage.
d. Clean solids from the settling pits as needed.

Exceptions:

Use the following alternatives when access to the designated wash area is not an option:

a. Use a commercial washing contractor that provides mobile washing services. The contractor must contain and remove all wash water.
b. Use a commercial washing facility.
c. Conduct washing on a flat, grassy area away from storm drains, stormwater conveyances, or natural waterways when the washing is limited to removing vegetative matter or soil and without using detergents. Do not use this practice to clean vehicles or equipment for salt, fuels, oil, etc.

Storage of Salt, Sand, Gravel, Landscaping Materials, Asphalt, and Other Materials

Purpose:

To prevent the discharge of pollutants into stormwater through the proper storage and maintenance of salt, sand, gravel, landscaping materials, asphalt, and other materials.

Storage Area Maintenance:

a. Keep the 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. Cover piles when possible and ensure that the cover is well maintained.
e. Ensure any drainage from uncovered salt piles is directed towards a secondary containment system and does not leave the site.
f. Sweep loading and track-out areas as needed.

Waste and Trash Management

Purpose:

To protect stormwater by properly managing waste and trash.

Storage Area Maintenance

a. Dumpsters should have lids and no open drain holes.
b. If the garbage bin leaks, have repairs made or request a new dumpster.
c. Keep lids closed when not in use.
d. Locate dumpsters where there is minimal risk of leaking into the storm drain system.
e. Keep areas around dumpsters clean.
f. Empty garbage bins to prevent them from overfilling per facility schedule.

Painting

Purpose:

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

Storage:

a. Follow all storage instructions on the label.
b. Store paint and solvent containers away from heat in a cool, dry, well-ventilated area.
c. Ensure safety & provide storage for flammable or combustible liquids.
d. Do not store paint and solvents in places where flooding is possible or in places where they might spill or leak into wells, drains, groundwater, or surface water (see SOPs *IDDE Reporting and Response,* and *Use, Storage, and Disposal of Chemicals*).
e. Keep paint containers closed and tightly sealed when not in use.

Use:

a. Follow the manufacturer's recommendations for application and disposal.
b. Common precautions include:
    i. good ventilation
    ii. protection against fire
    iii. using personal protective equipment (PPE)
c. When possible, use a drop cloth under any painting or preparation activity.
d. When possible, use techniques such as brushing and rolling to avoid overspray.

Disposal:

a. Never dispose of paint or waste paint products into the storm drain system, a water body, or onto the ground.
b. Dispose of old paint according to proper disposal requirements.
c. Treat solvent–based paints as hazardous waste and dispose of them according to approved procedures (See SOP *Disposal Methods of Waste and Wastewater Removed from the MS4 System*).
d. Never dispose of paint or waste paint products into the garbage unless the paint is dry, or there is no longer any paint in the can.

Sweeping Roads and Parking Lots

Purpose:

To prevent stormwater pollution by properly sweeping roads and parking lots.

Frequency:

Annually, Salt Lake County conducts routine street sweeping. County facilities are swept as necessary.

Process:

a. Drive the street sweeper safely and pick up debris.
b. Drive to the approved cleaning station at the Public Works yard when the sweeper is full.

Clean-up:

a. Clean sweepers 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 (See SOP *Disposal Methods of Waste and Wastewater Removed from the MS4 System*).
c. Follow Department SOPs for hauling dried solids to the local landfill.
d. Collect decant water and route to an approved wastewater collection system area only.

Documentation:

Maintain records of sweeping activities.

High Priority Road/Parking Lot Maintenance

Purpose:

To prevent stormwater pollution by properly sweeping high-priority facility parking lots.

Frequency:

High-priority facilities will be swept more frequently, at least twice a year. Additional sweeping will occur based on inspection results and identified needs.

Process:

c. Drive the street sweeper safely and pick up debris.
d. Drive to the approved cleaning station at the appropriate facility when the sweeper is full.

Clean-up:

e. Clean sweepers in a manner that does not allow debris to enter the storm drain system.
f. Street sweeping cleaning stations will separate the solids from the liquids (See SOP *Disposal Methods of Waste and Wastewater Removed from the MS4 System*).
g. Follow Department SOPs for hauling dried solids to the local landfill.
h. Collect decant water and route to an approved wastewater collection system area only.

Documentation:

Maintain records of sweeping activities.

Vehicle Fueling

Purpose:

To prevent stormwater pollution by properly fueling vehicles.

Spill Prevention:

a. Train employees on proper fueling methods and spill clean-up techniques.
b. Have absorbent spill clean-up materials and spill kits available in fueling areas.

Process:

a. Equip nozzles used in vehicle and equipment fueling with an automatic shut-off to prevent overfill.
b. Locate the emergency shut-off switch near the fuel island and use it - if necessary
c. Fuel the vehicle carefully to minimize drips to the ground.
d. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.

Clean-up:

a. Locate and block any storm drains and ensure that any spilled fuel does not reach the drains or waterways (see SOP *IDDE Reporting and Response*).
b. Always use dry methods to clean up fuel spills (see SOP *IDDE Removing Small Non-Hazardous Illicit Discharges*).
    i. Spread absorbent (e.g., kitty litter, sheets, pillows, or socks) on the spill, start around the perimeter, and work towards the middle.
    ii. Sweep up or pick up the absorbent materials.
    iii. Dispose of waste properly.
c. Contain large spills and notify the Health Department Emergency Response Team (385) 468-3862) as soon as possible (see *SOP IDDE Removing Large, Hazardous, or Storm Drain Impacting Illicit Discharges*).

Vehicle and Equipment Storage

Purpose:

To prevent stormwater pollution by properly storing vehicles and equipment.

Procedure:

a. Whenever possible, store vehicles and equipment inside.
b. Park vehicles away from storm drain inlets when inside storage is not available.
c. Maintain vehicles to prevent leaks.
d. Inspect parking areas for stains/leaks.
e. Address any known leaks or drips as soon as possible.
f. When a leak is detected, place a drip pan under the vehicle or equipment and schedule the repair(s).

Clean-up:

a. Always use dry methods to clean up fuel spills (see SOP *IDDE Removing Small Non-Hazardous Illicit Discharges*).
    i. Spread absorbent (e.g., kitty litter, sheets, pillows, or socks) on the spill, start around the perimeter, and work towards the middle.
    ii. Sweep up or pick up the absorbent materials.
    iii. Dispose of waste properly.
b. Contain large spills and notify the Health Department Emergency Response Team (385) 468-3862as soon as possible (see *SOP IDDE Removing Large, Hazardous, or Storm Drain Impacting Illicit Discharges*).

Vehicle Maintenance & Repair

Purpose:

To prevent stormwater pollution from vehicles and equipment during maintenance and repair.

Procedure:

a. Whenever possible, repair vehicles and equipment inside.
b. Repair equipment away from storm drains when inside repair is not available.
c. Before beginning maintenance or repair tasks, ensure the proper tools to complete the job are available, including fluid collection pans or portable waste oil collection tanks.
d. Address any known leaks or drips as soon as possible.
e. When a vehicle is leaking, place a drip pan under the leak while repairing it.

Clean-up:

a. Always use dry methods to clean up fuel spills (see SOP *IDDE Removing Small Non-Hazardous Illicit Discharges*).
    i. Spread absorbent (e.g., kitty litter, sheets, pillows, or socks) on the spill, start around the perimeter, and work towards the middle.
    ii. Sweep up or pick up the absorbent materials.
    iii. Dispose of waste properly.
b. Contain large spills and notify the Health Department Emergency Response Team (385) 468-3862) as soon as possible (see *SOP IDDE Removing Large, Hazardous, or Storm Drain Impacting Illicit Discharges*).

Transporting Dry Excavation Material, Soil, and Gravel

Purpose:

To prevent pollution of stormwater by ensuring proper transporting methods.

Loading and Delivery:

a. Check the vehicle tailgate to ensure it seals and latches properly.
b. Check the vehicle for leaks.
c. Make sure not to overfill materials when loading trucks.
d. Spray down dusty soil and gravel to minimize dust blowing during transportation.
e. Cover the truck bed with a secured tarp before transporting.
f. Understand the SWPPP requirements (if applicable) of the site and use a stabilized construction entrance to access or leave the site.

Clean-up:

a. Use a sweeper to clean up any materials tracked out on the roads from the site (see SOP *Sweeping Roads and Parking Lots*).
b. Wash out truck and other equipment in properly designated vehicle wash areas (see SOP *Cleaning Vehicles & Maintenance Equipment*).

Parks and Open Space Management

Purpose:

To prevent stormwater pollution with proper open space management.

Preparation:

a. Provide regular observation and maintenance of parks, golf courses, and other public open spaces.
b. Review inventory of municipal-owned or operated facilities for the potential to discharge pollutants and identify "high-priority" facilities.
c. Become familiar with potential pollutants at the site including E. coli.
d. Identify public open spaces that are used for stormwater detention and verify that detention areas are included on the stormwater system mapping, inspection schedules, and maintenance schedules.

Process:

a. Look for evidence of spills.
b. Look for evidence of other deficiencies including any potential pollutant discharge (i.e., garbage, debris, general maintenance of BMPs, etc.).
c. Look for potential E. coli contamination (i.e., pet waste, avian congregation, etc.).
d. Check the availability of pet waste bags.
e. Check the condition of signage.
f. Take the corrective actions necessary as necessary (watch, report, clean-up).
g. Ensure that stormwater or drainage system on the property are properly maintained.
h. 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.
i. Follow SOPs related to mowing, pet waste management, pesticide and herbicide application, pressure washing, and exterior surface cleaning.

Good Housekeeping:

a. Keep all outdoor work areas neat.
b. Clean by sweeping instead of washing whenever possible and ensure that wash water will enter a landscaped area rather than the stormwater.
c. Do not use soap for outdoor washing.
d. Follow department SOPs for trash removal schedule.

Mowing and Trimming

Purpose:

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

Procedure:

a. Check the oil and fuel levels of the mowers and other equipment and fill if needed.
b. Protect catch basins where applicable.
c. Use eye and hearing protection.
d. Mow and trim the lawn.
e. Do not blow grass clippings, dirt, sand, or debris into storm drains or stormwater conveyance structures.

Clean-up:

a. Collect all clippings, trimmings, and waste to the designated area. Do not hose down the outside area.
b. Only wash equipment using an approved method in an approved area (see SOP *Cleaning Vehicles & Maintenance Equipment*).

Pet Waste and E. coli

Purpose:

To protect stormwater quality from pet waste bacteria, specifically E. coli.

Outreach and Education:

a. Assist the SLCo Stormwater Coalition with developing educational materials on pollution prevention, E. coli, and pet waste.
b. Assist the SLCo Stormwater Coalition with distributing or posting educational materials related to pollution prevention, E. coli, and pet waste.

Involvement and Education:

a. Develop public signage about the importance of proper pet-waste management.
b. Assist communities in adopting pet-waste ordinances and leash laws.

Good Housekeeping:

a. Assist facilities with placing pet-waste supplies and disposal cans.

Inspections:

a. Review and maintain an inventory of areas that are potential sources of E. coli.
b. Add potential source areas to priority inventory and inspect annually.

BMPs:

a. Stock pet waste bag station and update signage as needed.
b. Wherever Possible, promote using low-impact development (LID) controls that have a medium or high pollutant-removal effectiveness for E. coli as identified in the Guide to Low-impact Development within Utah.

Documentation:

Submit a TMDL compliance report form with the annual report to DWQ.

Pressure Washing and Exterior Surface Cleaning

Purpose:

To prevent stormwater pollution from power washing exterior surfaces such as sidewalks, and building exteriors, and graffiti removal.

Preparation:

a. Use dry methods for surface pre-cleaning, such as using sorbent material on small oil spots and sweeping up trash, debris, dirt, and used sorbent before power washing.
b. Avoid using cleaning products that contain hazardous substances (e.g., hydrofluoric acid, muriatic acid, sodium hydroxide, etc.) that can turn wastewater into hazardous waste.
c. Identify the locations of all storm drains in the area and place inlet protection or drain covers at all locations, as needed.

Wastewater Collection:

a. Locate high and low spots on the property to determine the area where wastewater will pool for collection.
b. Pressure wash with minimal water and do not use chemicals or detergents.
c. Capture all wastewater for proper disposal (e.g., shop-vac, vacuum truck).

Wastewater Disposal:

a. Do not dispose of power washing wastewater into the storm sewer system.
b. Use an approved method to dispose of wastewater (see SOP *Disposal Methods of Waste and Wastewater Removed from the MS4 System*).
c. Discharge **uncontaminated** power washing wastewater to landscaped areas if:
    i. it is not harmful to vegetation,
    ii. there is no ponding and
    iii. there is no runoff from the site to the storm drain system.

Special Events Stormwater Best Management Practices

Events that attract many people (including, but not limited to, fairs, festivals, demonstrations, parades, "fun runs," and concerts) must adequately meet restroom, first aid, waste disposal, and other requirements.

Event sponsors are expected to adhere to all Salt Lake County Health Department regulations, obtain all necessary permits from municipal and regulatory agencies (i.e., UDOT, SLC Watershed, etc.), and comply with permit conditions.

Preventative Maintenance:

a. Locate storm drain inlets and protect them as necessary.
b. Have spill kit(s) labeled and easily accessible.

Materials Storage and Handling:

a. Store soaps, detergents, and solvent materials in covered areas away from storm drains and waterways.
b. Clean up spills or contaminated surfaces immediately using dry clean-up measures. Do not clean contaminated surfaces by hosing down the area.

Waste Management:

a. Empty waste receptacles often and do not allow them to overflow.
b. Promptly clean up spills or leaks near waste receptacles.
c. Place trash containers 25 feet away from storm drains or waterways.

Food Preparation:

a. Locate food and drink stations 25 feet away from storm drains or waterways.
b. Clean up spills immediately using dry clean-up measures only (see SOP *IDDE Reporting and Response*).

Temporary Restroom Stations:

a. Secure portable toilets to prevent them from tipping over.
b. Locate portable toilets 25 feet away from storm drains and waterways.
c. If 25 feet of distance is not possible, use secondary containment and/or inlet covers.
d. Provide adequate toilet facilities for the number of attendees.

Post-Event Cleanup:

a. Return all streets, sidewalks, and public areas to pre-event conditions.
b. After the site has been cleaned, remove any storm drain protection devices.

New/Replacement Concrete Work

Purpose:

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

Storage:

a. Store bags of concrete in an indoor storage area, protected from contact with water.
b. Immediately clean up any loose material and dispose of it properly.

Preparation:

a. Determine how much concrete is needed.
b. Designate washout activities away from open water and stormwater inlets.
c. Locate or construct an adequately sized leak-proof concrete washout facility.
d. Install inlet and waterway protection as needed.

Process:

a. Set the forms and place any reinforcing steel as required.
b. Prepare and compact the sub-base. Moisten the sub-base before placing the concrete to keep the soil from wicking moisture out of the concrete into the ground.
c. Place new concrete in forms.
d. Let concrete obtain its initial cure and apply the appropriate surface finish.
e. Remove the forms.

Clean-up:

Wastewater from washing and cleanout of concrete is a prohibited discharge. If concrete wastewater spills into a storm drain or waterway, notify the Health Department Emergency Response Team, at (385) 468-3862, as soon as possible (see *SOP IDDE Removing Large, Hazardous, or Storm Drain Impacting Illicit Discharges*).

a. Direct wash water into a leak-proof container or leak-proof and lined pit.
b. Ensure that the container is large enough that no overflow can occur.
c. Ensure that concrete truck and equipment wash-out occurs in designated concrete washout areas only.
d. Remove and dispose of the hardened concrete waste.
e. Ensure that cement and concrete dust is swept up and removed from the site.
f. Sweep dirt or debris from the street and gutter and dispose of it appropriately (see SOP *Sweeping Roads and Parking Lots*).

Overlays and Patching

Purpose:

To protect stormwater from pollution during overlay and patching activities.

Preparation:

a. Check weather conditions and avoid working in rain or any precipitation.
b. Cover any manholes and catch basins to prevent oil and materials from entering the structures or stormwater system.
c. If milling is required, install inlet protection as needed.

Process:

d. Apply the emulsion at the recommended rate.
e. Spread chips closely behind the emulsion distributor. Slowly spread the chips to prevent rolling when they hit the surface.
f. Roll chips as recommended. Rollers should follow closely behind the chip spreader.
g. The maximum recommended speed is five (5) mph.

Clean-up:

a. Remove asphalt spills with shovels and scraping tools.
b. Sweep gutters to remove loose aggregate (see SOP *Sweeping Roads and Parking Lots*).
c. Remove protective manhole and inlet coverings.

Crack Seal

Purpose:

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

Preparation:

Cover manholes, catch basins, and inlets, as needed, to prevent oil and materials from getting inside the structures or stormwater system.

Process:

Maintain and apply crack seal according to the manufacturer's specifications.

Clean-up:

a. Use shovels or scrapers to remove excess sealant or spills and dispose of them properly.
b. Sweep all loose debris from the pavement and dispose of it properly (see SOP *Sweeping Roads and Parking Lots*).
c. Remove protective manhole and inlet coverings.

Slurry Seal

Purpose:

To prevent pollution of stormwater from slurry sealing activities.

Preparation:

a. Remove weeds from the roads and (see SOP *Sweeping Roads and Parking Lots*).
b. Inspect existing pavement for poor drainage.
c. Cover and protect catch basins, manholes, and valves as needed.

Process:

Apply materials smoothly and uniformly. Slurry material should not run onto adjacent pavement surfaces, curbs, gutters, or waterways.

Clean-up:

a. Sweep up remaining loose aggregate (see SOP *Sweeping Roads and Parking Lots*).
b. Remove excess emulsion materials from the site.
c. Remove protective manhole and inlet coverings.

Chip Seal

Purpose:

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

Preparation:

a. Clean and dry area application areas.
b. Apply temporary covers to manholes and catch basins, as needed, to prevent oil and materials from getting inside of them.

Process:

a. Apply the emulsion at the recommended rate.
b. Spread the chips slowly behind the emulsion distributor to prevent them from rolling when they hit the surface.
c. Roll the chips behind the chip spreader multiple times.
d. The maximum recommended speed is five (5) mph.

Clean-up:

a. All loose aggregate is removed from the roadway by sweeping it up (see SOP *Sweeping Roads and Parking Lots*).
b. Remove excessive asphalt applications and spills with shovels and scraping tools.
c. Remove the temporary covers from manholes and catch basins.
d. If any chip seal materials have entered the inlet boxes, remove the material according to the SOP for catch basin cleaning (see SOP *Catch Basin Cleaning*).
e. Properly dispose of or recycle the swept-up waste material.

Snow Removal and De-Icing

Purpose:

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

Storage:

Store de-icing material under a covered storage area or an approved storage method that prevents runoff from entering the storm drain.

Process:

a. Load the de-icing material into trucks carefully to minimize spillage.
b. Periodically dry sweep loading area.
c. Turn the spreader off while loading.
d. Park trucks loaded with de-icing material inside, when possible.

Clean-up:

a. Sweep up all spilled de-icing material around the loading area.
b. Inspect the vehicle for leaks and address them as appropriate (see SOP *Vehicle and Equipment Storage*).

Snow Storage and Disposal

Purpose:

To protect stormwater from snow pile runoff that commonly contains sand, salt, and trash.

Storage:

a. Store snow away from storm sewer inlets and waterways.
b. Clear debris in the storage area every year.
c. Plow the snow to a previous area when possible.
d. Distance from water source requirements for snow piles:
    i. at least 25 feet from surface water,
    ii. at least 75 feet from a private water supply,
    iii. at least 200 feet from any community water supply, and
    iv. at least 400 feet from municipal wells.
e. Store snow in areas above the groundwater table and away from well-head protection areas (Drinking Water Source Protection Zones).

Disposal and Clean-up:

a. When possible direct snowmelt runoff through a permanent stormwater control (e.g., extended detention basin, oil/water separator, vegetated buffer) to treat, prevent, or reduce water pollution before reaching a natural water body.
b. Avoid disposal in sensitive ecosystems. Never dispose of snow in wetlands, lakes, streams, rivers, mudflats, or near drinking water sources.
c. Sweep or vacuum impervious snow storage areas once the snow has melted.

ROW Maintenance: Mowing, Pesticide, and Herbicide

Purpose:

To protect stormwater quality by properly sweeping, cleaning, and disposing of grass clippings and the application, storage, and disposal of fertilizers, pesticides, and herbicides.

ROW Mowing

Procedure:

a. Check the oil and fuel levels of the mowers and other equipment; fill if needed.
b. Protect catch basins where applicable.
c. Use eye and hearing protection.
d. Mow and trim the lawn.
e. Do not blow grass clippings, dirt, sand, or debris into storm drains or stormwater conveyance structures.

Clean-up:

a. Collect and deposit all grass clippings, trimmings, and waste to the designated areas. Do not hose down the outside area.
b. Only wash equipment in an approved wash station.

ROW Pesticide and Herbicide

Application:

a. Check the calibration of application equipment to avoid excessive application.
b. Read the label and follow the manufacturer's directions.
c. Positively identify pests or weeds before application.
d. Use pesticides only if there is an actual pest problem.
e. Check weather conditions to schedule the application of fertilizers, herbicides, or pesticides to coincide with the manufacturer's recommendations.
f. Do not mix or prepare pesticides for application near storm drains.
g. Prepare chemicals inside an impervious secondary container.
h. Employ techniques to minimize off-target application (e.g., spray drift, over broadcasting) of pesticides and fertilizers.
i. Sweep fertilizers and other solid chemicals from the pavement before watering.

Storage:

a. Follow all storage instructions on the label.

b. Store chemicals in a cool, dry, well-ventilated area, protected from freezing temperatures and away from heat sources and direct sunlight.
c. Ensure safety and provide storage for flammable or combustible liquids.
d. Do not store chemicals where flooding is possible or where they might spill or leak into wells, drains, groundwater, or surface water (see SOP *IDDE Reporting and Response*).

Disposal:

a. Properly dispose of chemicals according to manufacturer's specifications and state and federal regulations**.**
b. Do NOT pour chemicals down the sink, into the toilet, or down a sewer or storm drain.
c. Regularly inspect chemical storage areas for leaks and spills.
d. Immediately clean up spills to prevent the chemicals from reaching the storm drain system (see SOP *IDDE Reporting and Response*).

Documentation:

Keep copies of SDS sheets for all pesticides, fertilizers, and other hazardous products as required by OSHA and record pesticide application activities as required by pesticide license.

Storm Drain System Maintenance

Purpose:

Prevent storm drain pollution by maintaining storm drains.

Inspection and Cleaning:

a. Visually inspect for illegal connections (E. coli), sediment, debris, cracks, sags, and missing or broken pieces.

Process:

a. Inspect the stormwater system for structural integrity and evidence of illicit discharges, and to determine areas prone to fast sediment accumulation, illegal cross-connections, or confirmed contamination.
b. Use a Vactor truck to collect the flush water downstream while jetting and flushing the inlets and lines upstream.
c. Ensure flush water is not discharged into the storm system.
d. Clean the inlets and outlets.
e. Repair as needed.

Clean-up:

When the cleaning operation is complete, or the vacuum truck is full take the sediment to the designated dewatering or drying area.

Documentation:

Document maintenance process.

Catch Basin Cleaning

Purpose:

To protect stormwater quality by maintaining catch basins that trap sediments, organic matter, and litter.

Frequency:

Salt Lake County performs routine maintenance, cleaning, and repairs of the storm drain system. Catch basins are cleaned as needed.

Preparation:

a. Visually inspect the outside of the grate and check for needed repairs.
b. Inspect the catch basin for structural integrity and evidence of illicit discharges.
c. If contamination is present (e.g., sewage or oil), stop cleaning, notify a supervisor, and call the Health Department at (385) 468-3862 (see SOP *IDDE Reporting and Response*).
d. When the drain needs service contact the Public Works Operations Manager.
e. Remove accumulated trash and sediment from the grate.

Process:

a. Remove standing water and sediment from the catch basin using a vacuum truck.
b. When a high-pressure washer is used to break up the remaining material in the catch basin, always capture the slurry with the vacuum truck (see SOP *Pressure Washing and Exterior Surface Cleaning*).
c. After the catch basin is clean, clean out any sediment that might have entered the storm drainpipe (see SOP *Storm Drainpipe Maintenance*).
d. Sweep the areas as needed (see SOP *Sweeping Roads and Parking Lots*).

Disposal:

a. Dispose of solids in a sealed waste container for transfer to a solid waste landfill or other solid waste treatment facility.
b. Discharge fluids collected to a sanitary sewer or buffered detention area.
c. When the cleaning operation is complete, or the vacuum truck is full take the sediment to the designated dewatering or drying area.

Documentation:

Document maintenance process.

Detention Pond Cleaning

Purpose:

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

Preparation:

a. Schedule the pond cleaning work during dry weather.
b. Remove any sediment and trash from the 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.
d. Remove accumulated trash and sediment from the outlet.
e. If feasible, install outlet protection during the cleaning process.

Process:

a. Clean the basin using a backhoe or front-end loader to remove debris and sediment from the bottom.
b. Complete the structure cleaning by sweeping and shoveling as necessary.
c. Put all material removed from the pond into a dump truck.
d. Some structures may require the use of a vacuum truck (see SOP *Catch Basin Cleaning*).

Clean-up:

Clean off the concrete pads using dry methods (sweeping and shoveling).

Disposal:

a. Dispose of solids in a sealed waste container for transfer to a solid waste landfill or other solid waste treatment facility.
b. Discharge fluids collected during detention pond cleaning to a sanitary sewer or buffered detention area.

Documentation:

Document maintenance process.

Ditch and Irrigation Canal Management

Purpose:

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

Preparation:

a. Do not apply pesticides or fertilizers in drainage ditches or canals.
b. Respond to service request problem areas identified in canals.
c. Identify access and easements to the area requiring maintenance.
d. Contact affected property owners, utility owners, and irrigation companies.

Maintenance:

a. Determine the least damaging maintenance method regarding the channel and adjacent properties or utilities.
b. Clean debris as necessary ditches and canals.

Clean-up:

a. Stabilize any disturbed soils by seeding with the appropriate native seed mix.
b. Remove all tracking from paved surfaces near the maintenance site, if applicable (see SOP *Sweeping Roads and Parking Lots*).
c. Haul removed debris and sediment to an approved dumping site.

Documentation:

Document maintenance process.

Creek Management

Purpose:

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

Notification:

If debris is interrupting the stream flow, notify SLCo Flood Control at (385)-468-6600.

Determinations and Maintenance:

a) Respond to service request problem areas identified in the stream.
b) Do not apply pesticides or fertilizers in riparian areas.
c) Whenever possible, do not disturb creeks, wetlands, or sensitive wildlife habitat areas.
d) When needed, install temporary erosion and sediment controls to prevent sediments, organic material, and debris from releasing downstream.
e) Determine the least damaging maintenance method regarding the channel and adjacent properties or utilities.
f) Clean the debris from channels and culverts.

Clean-up:

a. Stabilize any disturbed soils by seeding with appropriate native seed mix.
b. Remove all tracking from paved surfaces near the maintenance site, if applicable.
c. Haul all debris or sediment removed from the area to an approved dumping site.

Documentation:

Document maintenance process.

Disposal Methods of Waste and Wastewater Removed from the MS4 System

Purpose:

To protect stormwater quality by properly disposing of all waste and wastewater removed during cleaning and maintenance of the stormwater conveyance system as contracted.

Designated Wash Areas:

a. Wash all trucks, vehicles, and equipment in a designated area, with a drainage system attached to the sanitary sewer system or a holding tank.
b. Street sweeping cleaning stations will separate the solids from the liquids.

Dewatering:

a. Dewater materials removed from the MS4 in a contained area and discharged to the local sanitary sewer (with approval of local authorities) where feasible.
b. Collect street sweeper decant water and route to an approved wastewater collection system area only.

Uncontaminated water:

a. Discharge uncontaminated power washing wastewater to landscaped areas only if:
    i. it is not harmful to vegetation,
    ii. there is no ponding and
    iii. there is no runoff from the site to the storm drain system.

Dry Waste:

a. Cover piles when possible and ensure that the cover is well maintained.
b. Dispose of solid material according to federal, state, and local laws.
c. Follow department SOPs when hauling dried solids to the local landfill.
d. Disposal of some materials removed from storm drains and open channels may require special handling or disposal methods. Check with a Supervisor if there are questions.

Hazardous Waste:

Salt Lake County Household Hazardous Waste (HHW) Facility accepts poisonous, flammable, corrosive, or toxic material. Call HHW at 385-468-4380 for approval and questions.

Municipal Facility Inspection – Monthly Visual

Preparation:

a. Develop an inventory of municipal-owned or operated facilities.
b. Assess inventory of municipal-owned or operated facilities for the potential to discharge pollutants and identify “high-priority” facilities.
c. Become familiar with potential pollutants at the site including E. coli.

Process:

a. Look for evidence of spills.
b. Look for evidence of other deficiencies including any potential pollutant discharge (i.e., garbage, debris, general maintenance of BMPs, etc.).
c. Look for potential E. coli contamination (i.e., pet waste, avian congregation, etc.).
d. Check the availability of pet waste bags.
e. Check the condition of signage.
f. Take the corrective actions necessary as necessary (watch, report, clean-up).

Documentation:

Fill out the Monthly Visual Inspection Form for the facility.

a. Identify the inspector and the date the inspection was completed.
b. Identify the date the corrective action was completed or verified.
c. Provide any additional comments, as necessary.

Municipal Facility Inspection – Semi-Annual Comprehensive

Preparation:

a. Develop an inventory of municipal-owned or operated facilities.
b. Review inventory of municipal-owned or operated facilities for the potential to discharge pollutants and identify “high-priority” facilities.
c. Become familiar with potential pollutants at the site including E. coli.

Process:

a. Look for evidence of spills on premises.
b. Inspect every storm drain inlet for evidence of spills, debris, or potential E. coli sources.
c. Look for evidence of other deficiencies including any potential pollutant discharge (i.e., garbage, pet waste, debris, general maintenance of BMPs, etc.).
d. Check the availability of pet waste bags.
e. Check the condition of signage.
f. Take the corrective actions necessary as necessary (watch, report, clean-up).

Documentation:

Fill out the Semi-Annual Comprehensive Inspection Form for the facility.

a. Identify the inspector and the date the inspection was completed.
b. Identify the date the corrective action was completed or verified.
c. Provide any additional comments, as necessary.

Municipal Facility Inspection – Annual Visual

Preparation:

a. Designate a location on site where stormwater discharges can be observed.
b. Ensure the location is marked on the SWPPP facility map.

Process:

a. Within the first half hour of a measurable storm, if possible, observe the quality of stormwater discharges.
b. Any observed problems (color, foam, sheen, smell, turbidity) that can be associated with pollutant sources (notably E. coli) or controls should be noted.
c. Take the corrective actions necessary as necessary (watch, report, clean-up).

Documentation:

Fill out the Annual Visual Inspection Form for the facility.

a. Identify the inspector and the date the inspection was completed.
b. Identify the date the corrective action was completed or verified.
c. Provide any additional comments, as necessary.