

STANDARD OPERATING PROCEDURES

City of Centerton



Public Works Division

Street Department

Parks Department

Code Compliance

INTRODUCTION

The following City of Centerton Standard Operating Procedures (SOPs) are standards governing the protection of our storm water within City of Centerton, including, but not limited to, the construction and installation of roads, streets, curbs, gutters, sidewalks, drainage systems, water systems and landscaping applicable to employees and contractors which contract with the City, and those who perform such work by contract with others.

These SOPs are in compliance with the Clean Water Act of 1972, which authorized the Environmental Protection Agency (EPA) to protect the water quality throughout the United States (US). In 1987, Congress passed the Water Quality Act, which established a phased approach for storm water discharges to the Waters of the US. The State of Arkansas currently administers the Arkansas Pollutant Discharge Elimination Systems (APDES) program, which requires each municipality, large industrial user, and certain other entities that discharge substantial quantities of storm water to the Waters of the US, to have a permit to discharge and to have an organized and authorized management plan to address the issues that arise from implementing the APDES. City of Centerton has adopted a Storm Water Management Plan (SWMP) and part of this plan includes developing and maintaining these SOPs.

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BUILDINGS – DUMPSTERS/GARBAGE STORAGE

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 entering / leaving storage areas.
 - e. Whenever possible store garbage containers beneath a covered structure or inside to prevent contact with storm water.
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. Have garbage bins emptied regularly to keep from overflowing.
 - c. Wash out bins or dumpsters as needed to keep odors from becoming a problem.
4. Documentation to be done with each inspection

BUILDINGS – PARKING LOT MAINTENANCE

1. Preparation
 - a. Conduct regular employee training to reinforce proper housekeeping.
 - b. Restrict parking in areas to be swept prior to and during sweeping using regulations as necessary.
 - 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 (appropriate 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 a storm drain.
 - c. Swept materials will not be stored in locations where storm water could transport fines into the storm drain system.
4. Documentation
 - a. Keep work orders to track swept parking areas and approximate quantities.

CATCH BASIN CLEANING (PUBLIC UTILITIES)

1. Preparation

- a. Clean sediment and trash off grate.
 - b. Do visual inspection on outside of grate.
 - c. Make sure nothing needs to be replaced.
 - d. Do inside visual inspection to see what needs to be cleaned.
2. Process
 - a. Clean using a high powered vacuum truck to start sucking out standing water and sediment.
 - b. Use a high pressure washer to break up any remaining material in the catch basin, while capturing the slurry with the vacuum.
 - c. After catch basin is clean, clean out any sediment that might have entered the pipe.
 - d. Systematically clean catch basins per maintenance plan.
3. Clean-up
 - a. When vacuum truck is full of sediment take it to the designated location to dump all the sediment out of truck into a drying bed.
 - b. Wash down area before leaving the designated dump location.
4. Documentation
 - a. Keep logs of number of catch basins cleaned.
 - b. Record the amount of waste collected and number of catch basins cleaned and the area they were cleaned in. Keep any notes or comments of any problems.

CHEMICAL APPLICATION PESTICIDES, HERBICIDES, FERTILIZERS (PARKS & RECREATION)

1. Preparation
 - a. Make sure your state Chemical Handling Certification is complete and up-to-date before handling any chemicals.
 - b. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
 - c. Use pesticides only if there is an actual pest problem.

- d. Time and apply the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendation for best results (Read the Label).
- e. 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 use (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.

3. Clean-up

- a. Sweep or blow pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
- b. Triple rinse pesticide and herbicide containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- c. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label")

4. Documentation

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

CHEMICAL HANDLING/TRANSPORTING AND SPILL RESPONSE (PUBLIC UTILITIES)

1. Preparation
 - a. Understand MSDS sheets for handling of product.
 - b. Supervisors insure that employees handling and transporting chemicals are trained on the proper procedures.
 - c. Determine proper place of handling.
 - d. Have necessary containment and spill kits at handling place
 - e. Have proper PPE available and wear it prior to handling chemicals as necessary or as required.

2. Process
 - a. Wear proper PPE for the chemical being used, transported or handled.
 - b. Begin transfer or handling process.
 - c. Discontinue process if spills occur.
 - d. Disconnect and store handling equipment.

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

4. Documentation
 - a. Report spills to City of Centerton Public Utilities or Fire Department if necessary.

5 gallons of hydro fluoride acid

CHIP SEAL (PUBLIC WORKS)

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 for 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 gotten into the inlet boxes, remove the material according to the SOP for inlet boxes.
 - d. Dispose of the waste material that has been swept and scraped up by taking it to the landfill.

4. Documentation
 - a. Record location and date on the maintenance database and map.

CRACK SEAL (PUBLIC WORKS)

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.

4. Documentation
 - a. Record location and date on the maintenance database and map.

CREEK MANAGEMENT (PUBLIC UTILITIES)

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.

- 2. Process
 - a. Clean debris as necessary from channels and culverts.

- 3. Documentation
 - a. Keep log of actions performed including date and individuals involved.

CURB/PAVEMENT MARKINGS (PUBLIC UTILITIES, PUBLIC WORKS)

- 1. Preparation
 - a. Calculate the amount of paint required for the job.
 - b. Use water based paints.
 - c. Determine whether the wastes will be hazardous or not and designate the proper disposal of said wastes.
 - d. Determine locations of storm drain inlets and sewer inlets that may need to be protected.
 - e. Prepare surfaces to be painted without generating wastewater by scraping.
 - f. Thoroughly sweep up all paint scrapings and place them in the appropriate solid waste facilities.
 - g. If paint stripping is needed, use a citrus-based paint remover whenever possible, which is less toxic than chemical strippers.
 - h. 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 accident

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.

4. Documentation

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

DETENTION POND CLEANING (PUBLIC UTILITIES)

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. Do 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 off 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 up and clean.
 - c. Take the material that was removed to the landfill for final disposal.

4. Documentation
 - a. Keep a log of each detention basins/pond cleaned including date, individuals involved in cleaning, and a description of the type of debris removed.
 - b. Record the amount of waste collected.

- c. Keep any notes or comments of any problems.

DITCH MANAGEMENT (PUBLIC UTILITIES)

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.

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.

4. Documentation
 - a. Keep log of actions performed including date and individuals involved.
 - b. Record the amount of materials removed or imported.
 - c. Keep any notes or comments of any problems.
 - d. Use “before” and “after” photographs to document activities as applicable.

GARBAGE STORAGE/SCRAP METAL CONTAINERS/TRASH PILES (PARKS & PUBLIC UTILITIES)

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. Have garbage bins emptied as often as needed to keep from overflowing.
 - c. Wash out bins or dumpsters as needed to keep odors from becoming a problem. Wash out in properly designated areas only.

IDDE - CALL-IN INSPECTIONS

1. Preparation

- a. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.
2. Process
 - a. Use the call log to collect the appropriate information from the caller. Then, transfer the information to the proper authority (ie. department head, storm water specialist, construction inspector, code enforcement officer, or other assigned personnel).
 - b. Promptly investigate reported incidents.
 - c. If an illicit discharge of unknown source is confirmed, follow the procedure of SOP IDDE - Tracing Illicit Discharges.
 - d. If an illicit discharge known source is confirmed, follow the procedure of SOP IDDE - Removing Illicit Discharges.
3. Clean- up
 - a. Clean or cause to be cleaned the catch basin, and/or storm drain or initiate the spill response as needed. Follow relevant SOPs.
4. Documentation
 - a. File all completed forms (ie. Call log, catch basins cleaning, storm drain cleaning).
 - b. Document any further action taken.
 - c. Review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

IDDE - OPPORTUNISTIC ILLICIT DISCHARGE OBSERVATION

1. Preparation
 - a. Be alert for potential illicit discharges to the municipal storm water system while going about normal work activities.
2. Process
 - a. Call the appropriate authority (ie. department head, storm water specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.
 - b. Assess the general area of the illicit discharge to see if you can identify its source.
 - c. Whenever possible, take photographs of the suspected illicit discharge.

- d. Responding storm water department personnel or code enforcement officer will complete the following:
 1. Use the inspection form or call log to document observations.
 2. Obtain sample for visual observation and document findings, if applicable.
 3. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.
3. Clean-up
 - a. Clean or cause to be cleaned the catch basin, and/or storm drain or initiate the spill response as needed. Follow relevant SOPs.
4. Documentation
 - a. File all completed forms (ie. Call Log, and Inspection Form).
 - b. Document any further action taken.

IDDE - OUTFALL INSPECTIONS

1. Preparation:
 - a. Know the past and present weather conditions. Conduct inspections during dry weather periods.
 - b. Gather all necessary equipment including: tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).
 - c. Obtain maps showing outfall locations and identifiers.
 - d. Obtain outfall description and observations from previous inspections, so the outfall can be accurately identified and observations compared.
2. Process
 - a. Perform an inspection of each outfall at least once per year. Whenever, possible use the same personnel for consistency in observations.
 - b. Identify each outfall with a consistent and unique identifier. For example "M100". Use maps and previous inspection reports to confirm the outfall identity and location.

c. If dry weather flow is present at the outfall, then document and evaluate the discharge by completing the following steps:

4. Collect field samples for visual observations in a clean, clear container and in a manner that avoids stirring up sediment that might distort the observation.
5. Characterize and record observations on basic sensory and physical indicators (e.g., outfall condition, flow, odor, color, oil sheen).
6. Compare observations to previous inspections.
7. If the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (groundwater, intermittent stream, etc.)

d. If an illicit discharge (such as raw sewage, petroleum products, paint, etc.) is encountered or suspected, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Cleanup - as necessary

4. Documentation

- a. File completed outfall inspection records and information.
- b. Update maps if new outfalls are observed and inspected.

IDDE - REMOVING ILLICIT DISCHARGES

1. Preparation
 - a. Obtain available property ownership information for the source of the illicit discharge.
2. Process
 - a. Determine who is financially responsible; and follow associated procedures as given below.
 - For Private Property Owner:
 - Contact Owner,
 - Issue Notice of Violation for violations of the municipal ordinance, and
 - Determine schedule for removal.
 - For Municipal Facility:
 - Notify appropriate municipal authority or department head,
 - Schedule removal, and
 - Remove illicit connection.
 - b. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.
 - c. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.
 - d. Repair/correct cause of discharge if municipality is responsible. Schedule the work through the appropriate municipal authority or department head..
 - e. Seek technical assistance from the Salt Lake Valley Health Department or Utah Department of Water Quality, if needed.
3. Clean-up
 - a. Confirm illicit discharge is removed or eliminated by follow-up inspection.
4. Documentation
 - a. Maintain records of notice of violation and penalties.
 - b. Document repairs, corrections, and any other actions required.

IDDE - TRACING ILLICIT DISCHARGES

1. Preparation
 - a. Review/consider information collected when illicit discharge was initially identified and document.
 - b. Obtain storm drain mapping for the area of the reported illicit discharge.
 - c. Gather all necessary equipment including: tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).
2. Process
 - a. Survey the general area/ surrounding properties to identify potential sources of the illicit discharge as a first step.
 - b. Trace illicit discharges using visual inspections of upstream points as a second step. Use available mapping to identify tributary pipes, catch basins, etc.
 - c. If the source of the illicit discharge cannot be determined by a survey of the area or observation of the storm drain system, then consider the following additional steps:
 1. Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
 2. Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
 3. Dye test individual discharge points within suspected buildings.
 4. Consider collecting bacterial samples of flowing discharges to confirm/refute illicit discharge.
 - d. If the source is located, follow SOP IDDE - Removing Illicit Discharges.
 - e. If the source cannot be found, add the location to a future inspection program.
3. Clean-up
 - a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.
4. Documentation

- a. Document tracing results for future reference.

MOWING AND TRIMMING (PARKS & RECREATION)

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. Put on 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.

NEW/REPLACEMENT CONCRETE WORK (PARKS, PUBLIC UTILITIES & PUBLIC WORKS)

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 set .
- 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 areas only.
- b. 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.

OPEN SPACE MANAGEMENT

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 storm water or drainage system components on the property are properly maintained.
- b. Avoid placing bark mulch (or other floatable landscaping materials) in storm water detention areas or other areas where storm water runoff can carry the mulch into the storm drainage system.
- c. Follow all SOPs related to irrigation, mowing, landscaping, and pet waste management.

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 storm water. Do not use soap for outdoor washing.
- b. Pick up trash on a regular basis.

4. Documentation

- a. Document any observed deficiencies for correction or repair.

OVERLAYS AND PATCHING (PUBLIC UTILITIES & PUBLIC WORKS)

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.
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- 2. Process
 - a. Check hot asphalt mix for proper temperature, percentage asphalt, 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.
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- 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.
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- 4. Documentation
 - a. Record location and date on the maintenance database and map.

PET WASTE

- 1. Preparation
 - a. Adopt and enforce ordinances that require pet owners to clean up pet wastes and use leashes in public areas. If public off-leash areas are designated, make sure they are clearly defined. Avoid designating public off-leash areas near streams and water bodies.
 - 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.

PLANNED WATERLINE EXCAVATION REPAIR/REPLACEMENT (PUBLIC UTILITIES)

- 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 water from pipeline from entering the excavation
 - b. Direct any discharge to pre-determined area
 - c. Backfill and compact excavation
 - d. Haul of 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
4. Documentation
- a. Complete paperwork

PLANTING VEGETATION -STARTERS (PARKS & RECREATION)

1. Preparation
 - a. Call one call 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 dug for it.
 - 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.

PLANTING VEGETATION - SEEDS (PARKS & RECREATION)

1. Preparation
 - a. Call the Blue Stakes Center 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 rate). 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, seed, and any cover material from surrounding pavement(s) into the planter area.
 - b. Transport spoils to their designated fill or disposal area.

SHOULDERING AND MOWING (PUBLIC WORKS)

1. Preparation
 - a. Set up temporary traffic control devices according to part VI of the Manual on Uniform Traffic Control Devices (MUTCD).

2. Process
 - a. Place import material as needed and perform grading to achieve proper drainage.
 - b. Mulch clippings to help reduce the amount of supplemental fertilizer required.

3. Clean-up
 - a. Clean any loose material off asphalt or gutter.

4. Documentation
 - a. Record location and date on the maintenance database and map.

SLURRY SEAL_(PUBLIC WORKS)

1. Preparation
 - a. Remove weeds from the roads. Sweep areas where materials are to be applied, and allow to dry, if necessary. Verify that existing pavement has been inspected for detrimental effects of poor drainage.
 - 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 waterways.

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.

4. Documentation
 - a. Record location and date on the maintenance database and map.

SNOW REMOVAL AND DE-ICING (PARKS, PUBLIC UTILITIES & PUBLIC WORKS)

1. Preparation
 - a. Store de-icing material under a covered storage area.
 - 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. Supervisor vehicles have 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.
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.
 - ~~d.e.~~ Park trucks loaded with de-icing material inside when possible.
3. Cleanup
- 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.

STREET SWEEPING (PUBLIC WORKS)

1. Preparation
- a. Prioritize cleaning routes to use at the highest frequency 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 city. Street maps are used to ensure all streets are swept at a specified interval.

2. Process
 - a. Drive street sweeper safely and pickup debris.
 - b. When full, take the sweeper to an approved street sweeper cleaning station at either the Public Works or Public Utilities facilities.

3. Clean-up
 - a. Street sweepers are to be cleaned out in a manner that does not allow debris to enter the storm drain system.
 - b. Street sweeping cleaning stations shall separate the solids from the liquids.
 - c. Once solids have dried out, 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.

TRANSPORTING DRY EXCAVATED MATERIALS & SPOILS (PARKS, PUBLIC UTILITIES & PUBLIC WORKS)

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.

TRANSPORTING EQUIPMENT

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. Wash equipment, if needed, according to the SOP for that equipment.
4. Documentation
- a. Report any leaks, defects or other problems to immediate supervisor that are noticed during pre- or post-trip inspections.

TRANSPORTING SOIL AND GRAVEL (PARKS & PUBLIC UTILITIES)

1. Preparation
- a. Dry out wet materials before transporting.
 - b. Spray down dusty materials to keep from blowing.
 - c. Make sure you know and understand the SWPPP requirements for the site you will be working at.
 - d. Determine the location that the truck and other equipment will be cleaned afterwards.
 - e. Check vehicle tailgate to make sure they seal and latch 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 areas.

TRANSPORTING WET EXCAVATED MATERIALS & SPOILS (PARKS, PUBLIC UTILITIES & PUBLIC WORKS)

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.

SOP - Waste Oil Storage & Disposal

This Standard Operating Procedure (SOP) outlines the procedures workers are responsible for following to ensure consistency with the Coulson Group of Companies Environmental Management System (EMS) and Safety Policies. This SOP has been developed to promote safe work and responsible environmental practices, including compliance with regulations and reducing the potential for pollution and other negative environmental impacts. All employees and contractors must fully understand and adhere to this SOP. Any alterations to standard operating procedures or related problems arising during work must be brought to the immediate attention of the supervisor. Note that waste oil is a hazardous waste and procedures must be consistent with the *BC Hazardous Waste Regulation*.

General Procedures

<ul style="list-style-type: none"> • Participate in all training sessions and discussions that related to the EMS and safety policy • Know the working condition of all fire protection and spill control equipment, notifying your supervisor of any problems • Review all Pollution Control procedures. • Keep your work area free of litter • All lockout procedures must be followed and adhered to. 	<ul style="list-style-type: none"> • All portable and vehicle mounted fuel and oil containers must be inspected daily for leaks • If a fire or spill occurs, use all onsite resources to prevent damage to life, environment and property (in that order). Contact your supervisor as soon as possible. • All equipment is to be inspected daily for improper operation and leaks, any problems must be reported
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Applicable Environmental Aspects

<ul style="list-style-type: none"> • Soil / Water Contamination • Fire hazard 	<ul style="list-style-type: none"> • Toxicity to fish and aquatic life • Compliance with regulations
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Mechanics

<ul style="list-style-type: none"> • Mechanics must understand any special considerations when working within a site. • Mechanics must visually inspect equipment for any wear or leaks that may impact the environment. • Mechanics must ensure that in the event of a spill, follow the Spill Response Plan. • Mechanics must correct any abnormal fluid leaks • Mechanics must ensure that spill kits are on hand whenever they may be needed. • Mechanics must ensure that spill kits supplies are replenished as needed, and that contaminated recovery supplies are properly disposed of as hazardous wastes. 	<ul style="list-style-type: none"> • Mechanics must prevent runoff while servicing by using drip trays and drop sheets. • Mechanics must ensure all waste oils at all work sites are stored in designated areas in a contained, covered and environmentally safe manner • Mechanics must ensure waste oil is drained into special container 5 gallon buckets and transferred as soon as possible to clearly marked drums for appropriate disposal. • Mechanics must ensure that specials wastes are segregated from other wastes and are transferred to appropriate storage containers for subsequent disposal.
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Managers, Supervisors and Chargehands

<ul style="list-style-type: none"> • Will ensure that this SOP is reviewed with all operators on a yearly basis, and documented in the employee training forms • Will ensure that employees understand any special considerations before entering a work site • Will ensure spill response and prevention training is up to date for each employee • Will ensure that maintenance areas in work settings are appropriate to prevent environmental damage • Will ensure that environmentally sound waste oil storage areas are properly maintained with adequate spill recovery supplies on hand. 	<ul style="list-style-type: none"> • Will make arrangements for qualified contractors to remove, transport and dispose of hazardous wastes. • Will ensure the transportation company and Coulson shipper complete the hazardous waste manifest documenting amounts, date and destination, and ensure that one copy of the manifest is retained and a 2 nd copy accompanies the waste material. • Will ensure the Coulson shipper has current TDG certification • Will ensure that Coulson Waste Generator number BCG06411 (Coulson Forest Products) or BCG08320 (Coulson Air crane). is indicated on
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	all waste manifests.
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