

# MS4 Maintenance (Streets & Drainage Systems)

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Employee Training Series  
Green Country Stormwater Alliance  
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*PREPARED IN COOPERATION WITH THE Texas Commission on Environmental Quality , NCTCOG, INCOG  
and the U.S. ENVIRONMENTAL PROTECTION AGENCY.*

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# Streets and Drainage Maintenance

This presentation provides suggestions and ideas for controlling pollutants in storm water runoff for the following activities:

- Pavement Repair
- Paint Striping
- Storm Drain Inlet Cleaning
- Ditch Maintenance
- Reporting Pollution and Illegal Dumping Activities

# Pavement Repair

- Vacuum the slurry and cuttings from sawcutting operations. Don't allow the slurry to enter the storm drain or to remain on pavement to dry out.
- Properly dispose of the slurry to prevent a discharge into the storm water system or a water body.
- A Draft MS4 Audit Checklist asks:
  - “Are BMPs used during road maintenance activities?”
  - “Describe”



# Pavement Repair

- Require concrete trucks to wash out in a designated location where wash water will not drain to a storm drain, drainage ditch or creek.
- Locate stockpiles of asphalt patching material on a concrete or other paved surface. Cover to prevent contact with rain.



# Pavement Repair

- Mix only the amount of patching material necessary to complete the repair.
- Sweep up and properly dispose of all patching material that is not compacted or is left over from the repair.



# Pavement Repair

- Use a biodegradable release agent (not diesel) for asphalt patching and cleanup activities.
- Clean trucks, equipment and tools in designated equipment wash facilities where wash water will not drain to a storm drain, ditch or surface water.



# Pavement Repair

- If no wash facility is available, clean equipment over a layer of absorbent material spread on a paved surface and/or heavy plastic sheeting.
- Promptly sweep up the absorbent and dispose of properly.



# Paint Stripping

- Schedule painting and striping projects during dry weather only.
- Waste handling for water-based (latex) paint:
  - Pour small quantities of unused paint in open barrels and allow to dry. Dispose of dried paint in trash.
  - Contain wash water used for equipment cleaning and dispose in sanitary sewer.





# Paint Striping

Waste handling for oil-based paint:

- Unused oil-based paint must be disposed of in accordance with established procedures.
- Dispose of solvents used for equipment cleaning in accordance with established procedures.

**HAZARDOUS WASTE**  
**FEDERAL LAW PROHIBITS IMPROPER DISPOSAL**  
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY  
OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Generator's Name \_\_\_\_\_  
Generator's Address \_\_\_\_\_ Phone \_\_\_\_\_  
Generator's City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
EPA U.S. No. \_\_\_\_\_ Date of Generation/Incident \_\_\_\_\_  
DOT Proper Shipping Name \_\_\_\_\_  
Hazardous Material ( \_\_\_\_\_ )  
City or Zip Code \_\_\_\_\_

**HANDLE WITH CARE — THIS CONTAINER IS DANGEROUS AND CONTAINS HAZARDOUS OR TOXIC WASTE**

In the event of a spill or release of this hazardous waste, contact the  
U.S. Coast Guard National Response Center at (800) 424-8802  
for information and assistance.

# Hazardous Waste Disposal

- The State of Oklahoma has a contract with Environmental Management, Inc. (out of Guthrie, OK) to assist state agencies and municipalities in the proper disposal of hazardous waste.
- You can call them at 405-282-8510 for assistance with the handling, transport and disposal of hazardous waste.



# Hazardous Waste Disposal

- If you have a hazardous waste handling firm or individual you have been using and are comfortable with them, contact them with any questions you may have. Just make sure they have the equipment and expertise you need.



# Storm Drain Inlet Cleaning

- After dewatering, trash and debris removed from storm water systems can go to a sanitary landfill.
- Report suspected dumping or pollution problems to supervisory personnel.



# Storm Drain Inlet Cleaning

- Label inlets to the storm water system with a “Storm Water, NO DUMPING” message.



# Ditch Maintenance

If an unknown pollutant is discovered, call someone with hazardous material (Hazmat) experience that has the expertise to determine the best course of action. This will depend upon the type of pollutant, concentration and volume you are dealing with.



# Ditch Maintenance

Contaminated sediments must be properly disposed of in accordance with local, state and federal regulations.



# Ditch Maintenance

Uncontaminated soil may be used onsite, offsite, stockpiled, used as fill or for other land applications.



Cover soil stockpiles to prevent erosion and/or install a silt fence to capture sediment.



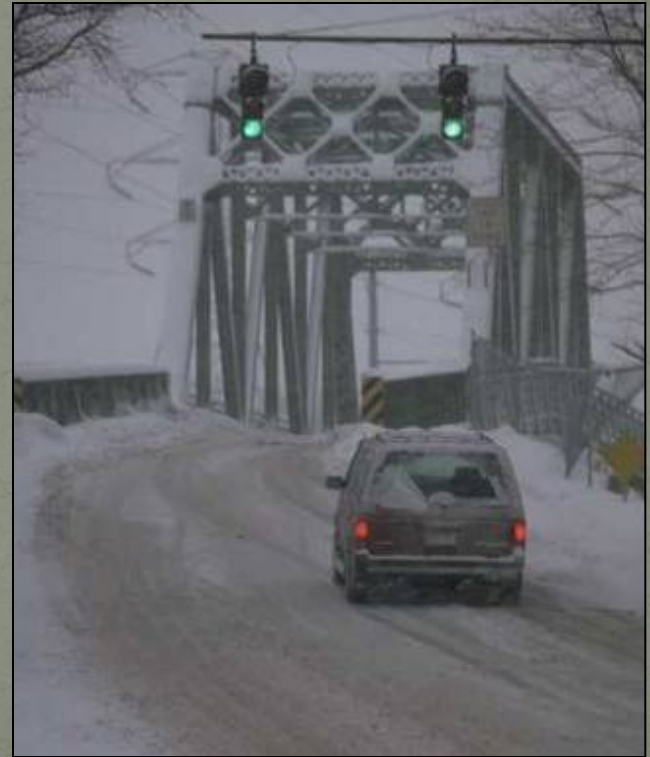
# Ditch Maintenance

- Apply grass seed to exposed soils. A compost/mulch mixture applied with seed speeds vegetation growth and prevents erosion.
- If the channel is likely to experience high velocities, sod, turf reinforcement mats and/or check dams should be used to protect the channel until vegetation is established.



# Salt and Sand

- Do not over-apply deicing salts and sand.
- Routinely calibrate spreaders.
- Alternative deicing agents are biodegradable, less toxic and less corrosive.
- Consider using calcium magnesium acetate (CMA), potassium acetate (KA) or another substitute for sodium or calcium chloride.



# Salt and Sand

- CMA or KA won't corrode metal structures as quickly as some of the cheaper deicing salts. Lower maintenance and repair costs on bridges and other structures could off-set the higher material costs and these are less toxic.

A Draft MS4 Audit Checklist asks:

- “Are deicers used by MS4?”
- “Is the type and amount of deicer tracked?”
- “If so, how?”
- “Is sand/salt swept up after application?”
- “How soon?”

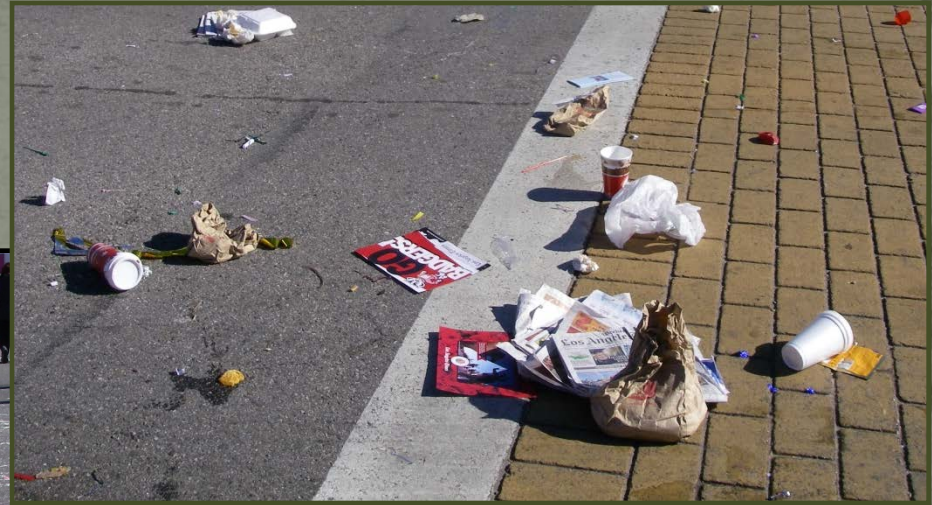
# Street Sweeping

- Sweeping streets after street fairs, art shows, parades, public events and street repairs can collect debris that would otherwise end up in the stormwater system.
- Collected debris can be taken to a permitted landfill.



# Street Sweeping

Don't let this end up in  
the local waterway.



# Street Sweeping

A Draft MS4 Audit Checklist asks:

- “Are streets swept regularly?”
  - “If so, at what frequency?”
  - “Is the frequency based on water quality factors (e.g. proximity to streams)?”
  - “How are spoils disposed of?”
- 
- Debris must pass a paint filter test and be deemed to not contain free liquids before going to a municipal landfill, so sweep and collect it before it gets wet or flushed to a storm system by rain.

# Report Pollution and Dumping

Look for signs of pollution at the jobsite and during travel:

- Pipes or hoses in stormwater drains
- Oil sheen on water surface
- Excess trash and debris
- Colored or cloudy water
- Dry weather flows
- Dead or dying fish
- Odor



# Report Pollution and Dumping

- Report suspected pollution problems to supervisory personnel or to the local ODEQ office.





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*Protecting water quality requires  
that all employees do their part to  
prevent storm water pollution.*



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