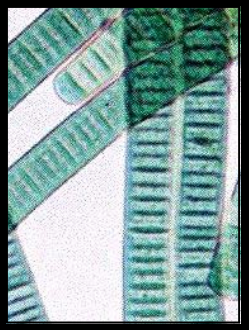
# *Good housekeeping has an impact*

especially when it comes to the responsible management of common chemicals — the kinds found at many municipal facilities and worksites.

The failure to properly handle, store or dispose of hazardous materials dramatically increases the probability that they will end up in local waterways. Proper management of hazardous materials can significantly reduce polluted runoff.

The most common pollutants that result from municipal operations are:

1. Oil and Grease
2. Sediment
3. Nutrients, including Fertilizers
4. Trash
5. Metals
6. Bacteria
7. Organics
8. Pesticides
9. Oxygen Demanding Substances
10. Degreasers and Solvents
11. Antifreeze



**Additional Resources**

Visit the Green Country Stormwater Alliance web site listed below for more details about stormwater protection, including municipal best management practices (BMPs), recycling and reuse, and more.

Green Country Stormwater Alliance
www.stormwaterok.net

**Contact Information**

For local information, contact your city or county stormwater coordinator.

For more information about stormwater protection, contact the Oklahoma Department of Environmental Quality (DEQ) Water Quality Division at 405-702-8100 or visit the DEQ web site at www.deq.state.ok.us/WQDnew/stormwater/index.html

For stormwater related complaints, call the DEQ statewide hotline at 1-800-522-0206. This number is answered 24 hours a day, 7 days a week. Citizens may fill out an online complaint form at the DEQ web site at www.deq.state.ok.us/ECLSnew/Complaints/onlncmpl.htm and submit it electronically to the DEQ. The site also provides contact links to DEQ.

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Green Country Stormwater Alliance
Give Clean Water a Helping Hand

# Handling & Disposal of Chemicals at Municipal Sites

*A Closer Look at*

# Proper Chemical Handling & Disposal

## Chemical Management Considerations

Best management practices (BMPs) associated with the maintenance of hazardous materials and chemicals should minimize the amounts of materials used and the wastes generated by municipal operations. BMPs might include simple processes, such as routine cleaning of work spaces, collecting and disposing of wastes properly, maintaining machinery, inspecting equipment and facilities regularly, and training employees to respond to spills or leaks. Proper BMPs have significant effects on reducing the potential to pollute stormwater runoff.

Conducting regular material inventories will reduce the occurrence of overstocking hazardous materials, increase knowledge about what hazardous materials are present and how they are stored, and document the proper handling of hazardous materials. A typical inventory of hazardous materials consists of three major steps:

- Identify all hazardous and nonhazardous substances present at a facility.
- Label all containers with the chemical name, unit number, expiration date, handling instructions, and health or environmental hazards. Much of this information is found on the Material Safety Data Sheets (MSDS) for the substance.
- Note on the inventory of hazardous chemicals which ones require special handling, storage, or disposal.

## Tips for Chemical Handling

The manner in which chemicals and hazardous substances are handled can have an impact on the control of polluted stormwater runoff.

- Use chemicals only as directed.
- Know your chemical: what it is and how to use it safely.
- If preparation of the chemical is required (for example, to mix a pesticide solution), follow precisely the recommended measurements.
- Do not overfill containers.
- Clean up all spills as soon as possible, following BMPs for spill containment and personal protection.

- Know the type(s) of personal protective equipment (PPE) required to handle the material.
- Never dispose of leftover or unused chemicals by washing them into storm drains, ditches, streams or creeks.
- Do not flush chemicals down an indoor drain or toilet.
- Know how to read MSDS, and know where they are located at the worksite.
- Know what to do in case of an emergency.

## Tips for Chemical Disposal

The expression “know what you throw” applies well here. As a matter of practice, NEVER assume it is safe to pour chemical waste down a drain, into a gutter or into a trash receptacle.

Other tips for safe chemical disposal include:

- Isolate broken, contaminated containers and take steps to dispose of them properly. Never put broken glass or other contaminated waste into the general trash.
- Follow safe chemical disposal methods for cleaning spills.
- Never combine chemicals by placing them together in a waste receptacle.
- Always refer to federal, state, and local guidelines for hazardous material disposal.
- When in doubt, ask before taking any step to dispose of chemicals or chemical waste.

## Information Sources

*Reed College, Portland, OR*
Environmental Health & Safety
http://web.reed.edu/ehs/index.html

*U.S. Environmental Protection Agency*
National Pollutant Discharge Elimination System
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/