



Midwest Research Institute



FLORIDA
COMMUNITY
COLLEGE



CONSORTIUM
for POLLUTION
PREVENTION
EDUCATION

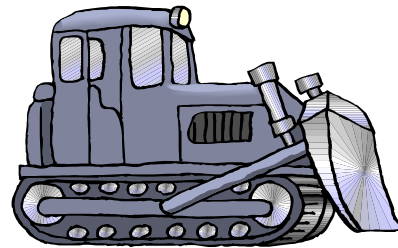
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Stormwater Best Management Practices (BMP's)

Heavy Equipment



Safe Environmental Habits and Procedures for:

Bulldozer, Backhoe & Gardening Machine Operators

Developers

Dump Truck Drivers

General Contractors

Home Builders

Site Supervisors

Pollution Prevention It's Up to Us

The storm drainage systems of Florida lead to our local water bodies, and eventually to the Gulf of Mexico or the Atlantic Ocean. Storm drains were designed to prevent flooding by carrying excess rainwater away from streets out to Florida waterways. Because the system contains no filters, it now serves the *unintended* function of carrying stormwater runoff, also referred to as *Pointless Personal Pollution*, straight to these waterways.

When it rains, water mixes with pollutants creating *Pointless Personal Pollution*. The pollutants include oil and other automotive fluids, paint and construction debris, yard and pet wastes, pesticides and litter.

Pointless Personal Pollution flows to our waterways through the storm drain system. Each day, polluted runoff enters the water untreated, leaving toxic chemicals and trash in our water.

Pointless Personal Pollution contaminates the waterways, harms aquatic life and increases the risk of inland flooding by clogging gutters and catch basins.

This pamphlet tells you how to prevent *Pointless Personal Pollution* through Best Management Practices (BMPs). Using these BMPs will ensure cleaner waterways.



Environmental Awareness Saves Our Planet!

This is one in a series of pamphlets describing storm drain protection measures. Other pamphlets include:

Painting

Roadwork & Paving

Concrete & Mortar Application

General Construction & Site Supervision

Food Service Industry

Automotive Maintenance & Car Care

Landscaping Gardening & Pest Control

Heavy Equipment Operation Problems

Soil excavation and grading operations often contribute to **Pointless Personal Pollution**. By loosening large amounts of soil and sediment, earthmoving activities can cause sediment to flow into gutters, storm drains and Florida's waterways.

Sediment is the most common pollutant washed from work sites, creating multiple problems once it enters the water. Sediment clogs the gills of fish, blocks light transmission and increases water temperature, all of which harm aquatic life, disturbing the food chain upon which both fish and people depend.

Sediment also carries with it other work-site pollutants such as pesticides, cleaning solvents, cement wash, asphalt and car fluids like motor oil, grease and fuel. Thus, poorly maintained vehicles and heavy equipment leaking fuel and oil at the construction site also contribute to water pollution.

Solutions

Best Management Practices that include the proper handling, storage and disposal of materials can prevent pollutants from entering waterways through the storm drain system.



Solutions for Heavy Equipment Operation Problems

General Business Practices

Schedule excavation and grading work for dry weather.

Use as little water as possible for dust control.

Equipment Maintenance

Maintain all vehicles and heavy equipment. **Inspect frequently for leaks.**

Conduct all vehicle/equipment maintenance and refueling at one location—**away from storm drains.**

Perform major equipment / vehicle repairs and washings off-site.

Use gravel approaches where truck traffic is frequent to reduce soil compaction and limit the tracking of sediment into streets.

Use drip pans or drop cloths to catch drips and spills, if you drain and replace motor oil, radiator coolant or other fluids on-site. Collect all used fluids, store in separate containers and recycle whenever possible.

Do not use diesel oil to lubricate equipment or parts.

Cleaning Up

Sweep up dry spilled materials immediately. Never attempt to bury them or “wash them away” with water.

Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.

Report significant spills to the appropriate spill response agencies immediately. Use the telephone numbers provided on this pamphlet for further information.



Clean up leaks, drips and other spills immediately.

This will prevent contaminated soil or residue on paved surfaces.

Never hose down “dirty” pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.

Erosion Prevention

After clearing, grading or excavating, exposed soil poses a clear and immediate danger of stormwater pollution.

Re-vegetation (permanent or temporary) is an excellent form of erosion control for any site.

Avoid excavation and grading activities during wet weather.

Construct diversion dikes to channel runoff around the site. Line channels with grass or roughened pavement to reduce runoff velocity.



Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

Remove existing vegetation only when absolutely necessary. Large projects should be conducted in phases.

Consider planting temporary vegetation for erosion control in slopes or where construction is not immediately planned.

Plant permanent vegetation as soon as possible, once excavation and grading activities are complete.



Employee & Client Education

Educate your employees. Include water quality training in new employee orientations and conduct annual review sessions.

Post BMPs where employees and clients can see them. Showing customers you protect Florida's waterways is good public relations.

Contacts



To report a spill, learn about waste disposal or report illegal dumping please contact your local public works department.

For more information contact your local Water Management District.

Northwest Florida 850-539-5999

St. Johns River 386-329-4500

Southwest Florida 352-796-7211

South Florida 561-686-8800

Suwannee River 386-362-1001