



U.S. ENVIRONMENTAL PROTECTION AGENCY

National Pollutant Discharge Elimination System (NPDES)

[Recent Additions](#) | [Contact Us](#) | [Print Version](#) Search NPDES:
[EPA Home](#) > [OW Home](#) > [OWM Home](#) > [NPDES Home](#) > [Stormwater](#) > Menu of BMPs

Menu of BMPs Home

BMP Background

Public Education & Outreach on Stormwater Impacts

Public Involvement/ Participation

Illicit Discharge Detection & Elimination

Construction Site Stormwater Runoff Control

Post-Construction Stormwater Management in New Development & Redevelopment

Pollution Prevention/Good Housekeeping for Municipal Operations

Measurable Goals

Stormwater Home

Search BMPs

All of the words

Filter by Minimum Measure

All

Browse Search GO Fact Sheets Help



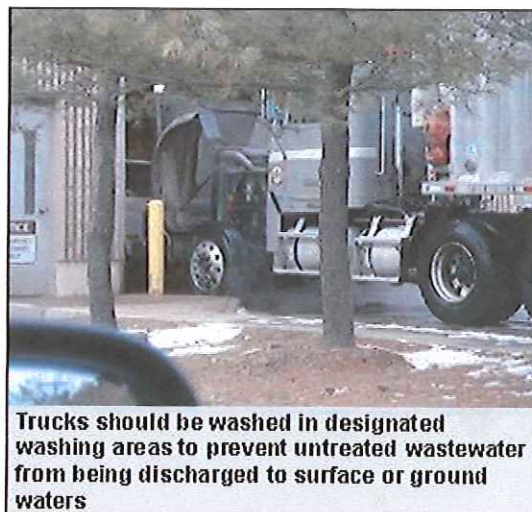
Vehicle Maintenance and Washing Areas at Construction Sites

[Click here to comment on this fact sheet](#)
Minimum Measure: Construction Site Stormwater Runoff Control

Subcategory: Good Housekeeping/Materials Management

Description

Ideally, vehicle maintenance and washing occurs in garages and wash facilities, not on active construction sites. However, if these activities must occur onsite, operators should follow appropriate BMPs to prevent untreated nutrient-enriched wastewater or hazardous wastes from being discharged to surface or ground waters. For information on washing down truck tires, see the [Construction Entrances](#) fact sheet.



Trucks should be washed in designated washing areas to prevent untreated wastewater from being discharged to surface or ground waters

Applicability

Vehicle maintenance and washing BMPs prevent construction site spills of wash water, fuel, or coolant from contaminating surface or ground water. They apply to all construction sites. Appropriate BMPs include the following:

- Using a covered, paved area dedicated to vehicle maintenance and washing
- Ensuring that the areas are properly connected to a storm drain system
- Developing a spill prevention and cleanup plan
- Preventing hazardous chemical leaks by properly maintaining vehicles and equipment
- Properly covering and providing secondary containment for fuel drums and toxic materials
- Properly handling and disposing of vehicle wastes and wash water

Implementation

Inspect construction vehicles daily, and repair any leaks immediately. Dispose of all used oil, antifreeze, solvents and other automotive-related chemicals according to manufacturer instructions. These wastes require special handling and disposal. Used oil, antifreeze, and some solvents can be recycled at designated facilities, but other chemicals must be disposed of at a hazardous waste disposal site. Local government agencies can help identify such facilities.

Designate special paved areas for vehicle repair. To direct washwater to sanitary sewer

systems or other treatment facilities, ensure that vehicle washing areas are impervious and are bermed. Use blowers or vacuums instead of water to remove dry materials from vehicles if possible. Because water alone can remove most dirt adequately, use high-pressure water spray without detergents at vehicle washing areas. If you must use detergents, avoid phosphate- or organic-based cleansers to reduce nutrient enrichment and biological oxygen demand in wastewater. Use only biodegradable products that are free of halogenated solvents. Clearly mark all washing areas, and inform workers that all washing must occur in this area. Do not perform other activities, such as vehicle repairs, in the wash area.

Limitations

Vehicle maintenance area limitations include connection costs to sanitary sewers; disposal costs for wash water (fees charged by hazardous waste disposal facilities); construction costs for an enclosed maintenance area; and labor costs for hazardous waste storage, handling, and disposal. Depending on the volume of wastewater created and the type of detergents used, vehicle wash areas may also require permits.

Maintenance Considerations

Vehicle maintenance operations produce substantial amounts of hazardous and other wastes that require regular disposal. Clean up spills and dispose of cleanup materials immediately. Inspect equipment and storage containers regularly to identify leaks or signs of deterioration. Maintenance of vehicle wash areas is minimal, usually involving repairs to berms and drainage to the sanitary sewer system.

Effectiveness

These techniques effectively reduce discharges of untreated automotive wastes and wash water to receiving waters. Their effectiveness highly depends on personnel's training and level of commitment to follow procedures.

Cost Considerations

Costs associated with vehicle maintenance and wash areas include building enclosed structures, establishing connections to the sanitary sewer system, grading wash areas to drain only to sanitary sewers, and increased labor associated with special handling of hazardous wastes.

References

NJDEPE (New Jersey Department of Environmental Protection and Energy). 1992. *Ground Water Protection Practices for Motor Vehicle Services*. New Jersey Department of Environmental Protection and Energy, Trenton, NJ.

Santa Clara Valley NPS Control Program. *Best Management Practices for Industrial Stormwater Pollution Control*. Santa Clara Valley Nonpoint Source Pollution Control Program, San Jose, CA.

USEPA (U.S. Environmental Protection Agency). 1992a. *Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices*. EPA 832-R-92-005. U.S. Environmental Protection Agency, Office of Water, Washington, DC. September 1992.

USEPA (U.S. Environmental Protection Agency). 1992b. *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. EPA 832-R-92-006. U.S. Environmental Protection Agency, Office of Water, Washington, DC. September 1992.

[Click here to comment on this fact sheet](#)

[Office of Water](#) | [Office of Wastewater Management](#) | [Disclaimer](#) | [Search EPA](#)

[EPA Home](#) | [Privacy and Security Notice](#) | [Contact Us](#)

Last updated on May 24, 2006

URL:<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>