



<b>EMW</b>
<b>Equipment Maintenance and Washing</b>

## 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 wastewater from being discharged to surface or ground waters.

## Selection Criteria

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 service and wash areas are properly contained and treated before discharge 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

## Design Considerations

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. 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.

## Maintenance

Note that vehicle maintenance operations may produce some 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.

## 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. Considering a potential volume of wastewater created, vehicle wash areas should be part of the SWPPP. Using detergents for cleaning is not allowed.

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.

## 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.