

# STORMWATER BMPS: VEHICLE AND EQUIPMENT MAINTENANCE AND STORAGE

## **AFFECTED FACILITIES**

These BMPs apply at all municipal and county operations where vehicles or equipment are stored, maintained or repaired. This includes facilities that perform: oil changes and lubrication, engine and mechanical repair, transmission repair, steering and brake work; body work, fluid changes and routine maintenance.

## **BACKGROUND**

Automotive maintenance facilities are considered to be storm water “hot spots” where significant loads of hydrocarbons, trace metals and other pollutants can contaminate storm water. Some of the wastes generated include: solvents, antifreeze, batteries, oils, grease, gasoline, diesel fuel, and brake fluid. Common activities at maintenance shops that generate this waste include parts cleaning, fluid changing and replacement and repair of equipment. Fluid spills and improper disposal of materials result in pollutants, heavy metals and toxic materials entering surface waters, creating public health and environmental risks. Best management practices such as the clean up and storage of automotive fluids, conducting repairs indoors, and cleaning vehicle parts can help reduce the impact on stormwater runoff and local water supplies.

## **BEST MANAGEMENT PRACTICES**

- Move leaking vehicles or equipment indoors or under cover as soon as possible. If they cannot be moved indoors immediately drain the leaking fluids and place a tag on the steering wheel to alert drivers of leaks.
- Perform all maintenance activities involving fluids indoors only. In case of an emergency repair, maintenance work may be performed outdoors. Use drip pans and drop cloths underneath the vehicles or equipment to catch leaks and drips.
- Park vehicles under cover and on an impervious surface whenever possible.
- Transfer fluids from drip pans to the appropriate waste containers after the repair work is completed.
- Clean up any spills or leaks of any automotive fluids promptly. (*See: Spill Clean Up BMPs* for details.)
- Dispose of wastewater from tire leak check tubs in the sanitary sewer only (if allowed).
- Clean all parts indoors at a centralized station, parts cleaner or tub.
- Practice good housekeeping in all outdoor maintenance work areas. (*See Good Housekeeping BMPs* for details.)
- Store vehicles inside, under cover or on a paved surface if possible.

## **REQUIRED STRUCTURES AND EQUIPMENT**

- When maintenance work must be performed outdoors, it should be done in a contained area. Work under a roof overhang or temporary shelter and/or use curbs, berms or dikes to contain spills and runoff.
- Make sure spill kits or lockers are easily accessible by employees and located where spills of automotive fluids are possible.
- All service trucks that provide emergency repair service in the field must be equipped with an adequate spill kit.

## **INSTALLATIONS REQUIRED FOR NEW CONSTRUCTION OR RENOVATIONS**

- Design a dedicated work area for fluid draining and re-filling. Use curbs, berms or dikes to control spills and allow for easy clean up. Isolate the work area from all sanitary sewer inlets, storm drain inlets and drainage ditches.
- Design new vehicle storage areas to be covered and with an impervious floor surface.

## **REQUIRED EMPLOYEE AND CONTRACTOR TRAINING**

- Train all current employees who perform maintenance on vehicles or equipment (including mechanics who service equipment in the field) on this BMP.
- Train all new employees and job transferees who will perform maintenance on vehicles or equipment (including mechanics who service equipment in the field) on this BMP.
- Conduct refresher training as needed on this BMP for all employees who perform maintenance on vehicles or equipment.
- All contracts must stipulate that contracted employees are trained in stormwater pollution prevention BMPs.

## **REQUIRED MAINTENANCE**

- Clean and maintain any oil/water separators installed at the facility according to municipal ordinance.
- Conduct daily inspections of vehicle parking areas for leaks/spills.

## **RECORDS**

- Keep records of employee and contractor trainings.
- Keep records of contracts with disposal and recycling firms.
- Document major leaks or spill events to use for training purposes.
- Develop a formal Spill Response Plan.

## **REFERENCES**

1. Colorado's Phase II Municipal Guidance, October 2001
2. *California Stormwater BMP Handbook*, January 2003
3. *Knoxville (TN) BMP Manual, Activities & Methods*, January 2001
4. *City of Tacoma: Surface Water Management Manual (Vol. IV Source Control BMPs)*, January 2003
5. *Municipal Facility Runoff Control Plan* (City of Lakewood, CO)
6. *Best Management Practices for Industrial Storm Water Pollution Control* (Santa Clara Valley, CA)