

STORMWATER BMPS: VEHICLE AND EQUIPMENT WASHING

AFFECTED FACILITIES

These Best Management Practices (BMPs) apply at all municipal facilities where washing, power washing, or steam cleaning is performed on vehicles or equipment.

BACKGROUND

Wastewater from vehicle or equipment cleaning performed outdoors can contribute toxic hydrocarbons and other organic compounds, oils and greases, nutrients, phosphates, heavy metals and suspended solids to storm water. These BMPs are designed to prevent or reduce the discharge of these pollutants to storm water.

BEST MANAGEMENT PRACTICES

- If possible, use off-site commercial car washing facilities.
- Wash vehicles and equipment indoors where the wastewater drains to a sanitary sewer.
- If power washing without detergents or soaps, wastewater may only drain to vegetated areas or areas where it can evaporate. Do not let wastewater enter storm drains.
- If detergents must be used pressure washing (including Hotsy's), use phosphate-free, biodegradable detergents and only use in locations where the wastewater will be discharged to the sanitary sewer.
- If washing small portable equipment like lawn mowers and where no soaps or detergents are used (plain water only), mowers or equipment may be washed on flat grassy areas that are not near surface water bodies or storm drain inlets. Wastes generated by cleaning such as grass clippings should be collected and disposed of by composting or in the trash.
- If vehicles or equipment are cleaned in the field (such as brushing off mowing equipment), collect the wastes and dispose properly.
- Do not store solvents or degreasers in the wash area.
- Keep all wash areas neat and orderly. See *BMP: Good Housekeeping* for details.

REQUIRED STRUCTURES AND EQUIPMENT

- Install curbs, berms or dikes around the wash area to control and contain wastewater. Plumb to the sanitary sewer (if approved).
- Install curbs, berms or dikes to divert run-on to the washing area.
- Cover the wash area to prevent run-on.
- Mark the wash area clearly. Post signs stating that only washing may be done in the designated area, that no oil changes or equipment maintenance may be performed in that area
- Post signage describing the acceptable washing procedures: e.g., which detergents (if any) may be used, and, if engine steaming is allowed, which spray settings are to be used.
- Use hoses or wands with nozzles that automatically shut-off when not in use. A simple trigger mechanism is often adequate.
- Provide a trash container nearby washing areas.

INSTALLATIONS REQUIRED FOR NEW CONSTRUCTION OR RENOVATIONS

- Where approved by the local sanitation district, plumb wash area floor drains to the sanitary sewer with a sump and/or oil/water separator in-line to remove sediments and oils or to a holding tank.
- Consider installing shut-off valves in discharge plumbing. Shut-off valves can be closed when washing is not being performed so that spill or leaks are captured before discharge.
- Design vehicle or equipment wash areas with curbs, berms, dikes, channels, trench drains, or sloping sufficient to contain all wastewater. Make sure the berms extend out at least four feet from the outermost edge of the equipment that will be washed there.
- Construct a cover or shelter over washing areas to avoid exposure to storm water.
- Consider installing wastewater filtering and recycling apparatuses.

REQUIRED EMPLOYEE AND CONTRACTOR TRAINING

- Train all current who perform vehicle or equipment washing on this BMP.
- Train all new employees and job transferees who will perform vehicle or equipment washing on this BMP.
- Conduct refresher training for all employees who perform vehicle or equipment washing as needed or required by permit.
- All contracts should stipulate that contracted employees are trained in stormwater pollution prevention BMPs.
- Train all employees and contractors who perform vehicle washing on good housekeeping. See *"BMP: Good Housekeeping and Spill Prevention."*

REQUIRED MAINTENANCE

- Perform monthly inspections and clean and maintain any sumps or oil/water separators installed at the wash area.
- Inspect and maintain washing equipment especially the hoses, wands and nozzles. Make sure they deliver the proper rate of water and shut-off automatically when not in use.
- For wash areas that are plumbed to a sanitary sewer, clean the sewer inlet at least weekly.

RECORDS

- Keep records of employee and contractor trainings.
- Keep records of oil/water separator cleaning and sewer inlet cleaning.

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)