

## 4.2-s VEHICLE WASHING

Alternative names: Car, Boat, Recreational Vehicles (RV), and Equipment Washing.

### DESCRIPTION

Vehicle and equipment washing can produce pollutant-laden water. The pollutants come from the vehicle itself (i.e. sediment, automotive fluids, dust, heavy metals) or from the cleaning agents involved (i.e. detergents, solvents, and disinfectants). When washes are conducted outside on impervious surfaces such as pavement, the pollutant-laden water will flow into the nearest storm drain and enter streams and lakes without treatment. For this reason, vehicle washing should be done at a commercial car or truck wash facility or at a designated and contained vehicle washing area that is connected to the sewer system, so that pollutant-laden water will be treated prior to discharge into natural water bodies.

For all boats planning to launch within the Lake Tahoe Basin, it required that all inspections take place at roadside inspection stations only. This program is overseen by the Lake Tahoe Aquatic Invasive Species Working Group (LTAISWG)<sup>21</sup>.



### APPLICABILITY

All vehicles, including boats, RVs, and heavy equipment.

### Advantages

- Prevents pollutants generated by vehicle washing from entering streams and lakes via storm drains.

<sup>21</sup> Check <http://www.tahoercd.org> for the latest information in inspection locations and requirements.

BMP DESIGN APPROACH	
<input checked="" type="checkbox"/>	Pollutant Source Control
<input type="checkbox"/>	Hydrologic Source Control
<input type="checkbox"/>	Stormwater Treatment
SCALE OF APPLICATION	
<input checked="" type="checkbox"/>	All SFR and MFR < 1 acre
<input checked="" type="checkbox"/>	MFR 1-5 Acre and CICU < 5 acres
<input checked="" type="checkbox"/>	MFR and CICU > 5 acres and all WQIPs
TYPE OF APPLICATION	
<input checked="" type="checkbox"/>	Temporary
<input checked="" type="checkbox"/>	Permanent

- Saves time and effort to clean vehicles at a commercial wash facility.
- Eliminates the need for washing equipment and space on the job site.

### Disadvantages

- May be higher cost, especially for municipal and commercial vehicle fleets, to use commercial wash facilities.
- Requires upfront costs with creating a designated vehicle washing area if commercial wash facilities are not available.

## DESIGN CONSIDERATIONS

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Vehicle washing procedures are outlined separately below for private vehicles, commercial vehicles, and boats.

### Washing Procedures for Private Vehicles:

- Use commercial vehicle washing facilities when available. These facilities are equipped to handle and properly dispose of pollutant-laden wash waters.
- When these facilities are not available, use a paved wash area ONLY IF all wash water will flow to an adjacent vegetated area and be completely infiltrated into the ground within the property.
- This wash water should not be discharged to natural streams, wetlands, streets, or storm drains.

### Washing Procedures for Commercial Vehicles (including boats):

- Use commercial vehicle washing and steam cleaning facilities when available. These facilities are equipped to handle and properly dispose of pollutant-laden wash waters.
- When these facilities are not available, install a designated contained vehicle washing area described in the “Installation Considerations” section below.
- Options for disposal of wash water:
  - Haul water off-site to appropriate disposal location.
  - Discharge to the sanitary sewer. Call the local sewer authority to find out if pretreatment is required.
  - Equip wash area with media filtration devices or oil/water separators and discharge to appropriate infiltration areas. This will require a TRPA permit.
- Recycle or re-use wash water where feasible.

### Additional considerations and procedures for boats:

- Thoroughly wash the hull of each watercraft and trailer once out of the water, removing all plant and animal material.
- Inspect all boat surfaces including hard-to-see areas in the bilge and at water intakes for aquatic invasive species.
- Drain any water through the vessel’s hull plug before leaving the immediate area of the lake, river, etc., and ensure the area is dry.
- Ensure the vessel’s lower outboard unit is drained and dry.

- Clean and dry any live-well aboard the vessel, empty, rinse and dry any buckets. Thoroughly dry all fishing tackle. Dispose of all bait in the trash.
- Any vessel traveling from one freshwater water body to another shall remain dry and out of water for 5 days.
- Portable boat wash systems are an alternative to permanent wash areas.

Please note that while the boat washing procedures outlined above may help with aquatic invasive species (AIS), it is not sufficient for AIS purposes. Decontamination requires a combination of high and low pressure output, hot water (140 degrees F minimum), ability to flush the engine and any through hull fittings such as those for generators, ballasts, tanks, etc., and the decontamination must be performed by a trained operator.

## INSTALLATION CONSIDERATIONS

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To install a designated contained vehicle washing area:

- Pave an area with concrete or asphalt that is sized to fit the largest vehicle that will use the wash area.
- Put in a containment berm at least 6 inches in height.
- The vehicle entrance/exit should be placed so that wash water will not be able to leave the area, and stormwater will not be able to flow in.
- Gently slope the wash area to collect wash water to an adequately sized sump for treatment and disposal of wash water.

## INSPECTION AND MAINTENANCE

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- Inspect wash system before use and on a regular basis. Make repairs as soon as possible.
- Inspect and maintain sumps, oil/water separators, and on-site treatment/recycling units. Maintain and repair as needed.
- Train employees on proper cleaning and wash water disposal at least annually. Train on spill prevention, containment, and cleanup.
- Minimize the use of water and detergents and do not use solvents. Utilize biodegradable, phosphate-free soaps for washing vehicles whenever possible.
- Use hoses with nozzles that automatically shut off when left unattended.
- Do not perform other vehicle or equipment maintenance in the wash areas.
- Mark vehicle and equipment wash areas with proper wash instructions. Clearly state that wash water is not allowed into any storm drain.
- Sweep washing areas frequently. Have a trash bin in the wash area.

## EFFECTIVENESS CONSIDERATIONS

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Following these procedures will prevent pollutant-laden wash water from entering freshwater streams and lakes. Designated vehicle wash areas must function to contain wash water and direct it for treatment in order for this best practice to work.