Best Practices to Minimize Pollution at Automotive Service and Wash Facilities

Changing Oil and Other Fluids

Waste oil, antifreeze, and other vehicle fluids contain toxic chemicals and heavy metals from wear and tear of engine parts.

- Whenever possible, change vehicle fluids indoors and only on floors constructed of nonporous materials. Avoid working over asphalt and dirt floors (surfaces that absorb vehicle fluids).
- If vehicle fluids must be removed outside, always use a drip pan. Prevent spills from reaching the street or storm drain by working over an absorbent mat and covering nearby storm drains or working in a bermed area. Note: absorbent socks can help create a bermed area.
- When draining fluids into a pan, place a larger pan (that is 3 ft x 4 ft) under the primary drain pan to catch spilled fluids.
- Transfer fluids drained from vehicles to a designated waste-storage area as soon as possible. Drain pans and other open containers of fluids should not be left unattended unless covered and within secondary containment.
- Never pour vehicle fluids or other hazardous wastes into sinks, toilets, floor drains, outside storm drains, or in the garbage. These substances should be kept in designated storage areas for eventual recycling or safe disposal.
- Drain fluids from leaking or wrecked vehicles as soon as possible to avoid leaks and spills.
- Consider using a vacuum pump, or drain pan with a built-in pump to transfer fluids.

Washing Vehicles

Even biodegradable soaps can be toxic to fish and wildlife when they reach a creek or the Bay. Consider the following when washing cars and other vehicles:

- If no soap is used when washing the exterior of new vehicles, discharge wash water to the storm drain directly. If soap is used in washing, wash water must be collected, preferably treated, and discharged to the sanitary sewer. This wash water cannot be discharged to a storm drain.
- Always protect storm drains from solvents used to remove protective coatings from new cars. Discharging these solvents to the sanitary sewer must receive adequate pretreatment and approval of the DSRSD Wastewater Treatment Facility (925-846-4565).
- Whenever possible, take vehicles to a commercial car wash.
- If car washing is a central activity of the business, preferably treat and recycle wash water to reduce discharge to the sewer system.
- Designate a vehicle-washing area and wash cars and trucks only in that area. The “wash pad” should have a berm around it so fluids are prevented from draining into storm drains and instead drain to an oil-water separator before discharging to the sewer.
- Cover outside wash pads or minimize the area of uncovered pads. For guidance, consult the DSRSD Wastewater Treatment Facility (925-846-4565).
- Minimize the use of acid-based wheel cleaners. These products require additional treatment (beyond oil-water separation) before discharge to the sewer. Never allow rinse water from spray-on, acid-based wheel cleaners to flow to a street, gutter, or storm drain.

Cleaning Engines and Parts, Flushing Radiators

Solvents are hazardous to employees and can ignite sewers.

- Do not discharge hazardous solvents and radiator fluids to the sanitary sewer and storm drains. Use a licensed service to haul and recycle or dispose of these wastes.
- Designate specific areas or service bays to clean engine, parts, or radiators. Do not wash or rinse parts outdoors.
- Use self-contained sinks and tanks when working with solvents. Keep sinks and tanks covered when not in use.
- Inspect degreasing solvent sinks regularly for leaks and make necessary repairs immediately.
- Avoid soldering over dip tanks. Sweep up drippings and recycle or discard as hazardous waste.
- Rinse and drain parts over the solvent sink or tank so that solvents cannot drip or spill onto the floor. Use drip boards or pans to catch excess solutions and divert them back to a sink or tank.
- Allow parts to dry over the hot tank. If rinsing is required, rinse over the tank as well.
- Collect and reuse parts, cleaning solvents, and water used to flush and test radiators. Cleaning solutions may be hazardous and must be disposed of properly when reuse is no longer possible.
- Never discharge cleaning solutions used for engines or parts into the sewer system without adequate treatment. Most facilities have these solutions hauled off-site as hazardous waste because of the permits necessary for on-site treatment.
- Discharge rinse water to the sanitary sewer only with adequate pretreatment and approval of the DSRSD Wastewater Treatment Facility (925-846-4565).
- Never discharge wastewater from cleaning engines and parts—even steam cleaning—to a street, gutter, or storm drain.
- Sweep or vacuum dust and debris from scraping or bead-blasting radiators.
- Use static tanks for rinsing to reduce the volume of discharged rinse water.

Body Repair and Painting

- Whenever possible conduct all body repair and painting work indoors or under cover.
- When receiving damaged vehicles, inspect them for leaks. Use drip pans if necessary.
- When cleaning automobile body parts before painting, minimize use of hose-off degreasers. Brush off loose debris and use rags to wipe down parts.
- Use dry cleanup methods such as vacuuming or sweeping to clean up dust from sanding metal or body filler. Debris from wet sanding can be allowed to dry overnight on the shop floor then swept and vacuumed. Liquid from wet sanding should not be discharged to the sanitary sewer without receiving adequate pretreatment and approval from the District's Wastewater Treatment Plant (925-846-4565). Never discharge the wastewater to the storm drain.
- Do not use water to control over-spray or dust in the paint booth unless the water is collected. The wastewater should not be discharged to the sanitary sewer without receiving adequate pretreatment and approval from the DSRSD Wastewater Treatment Facility (925-846-4565).
- Clean spray guns used with solvents and oil-based paints in a self-contained cleaner. Reuse the cleaning solution until it becomes too dirty. Never discharge cleaning waste that contains solvents or oil-based paints to the sewer or storm drain. Spray guns containing only latex paint may be washed in a sink with sufficient water and discharged to the sewer, not to a storm drain.
- Use sanding tools equipped with a vacuum to pick up debris and dust.

Keeping a Clean Shop

Good housekeeping practices minimize liability, reduce costs, and make it easier to detect spills and identify problems.

- Post instructional and informational signs around the shop for customers and employees. Put signs above all sinks prohibiting discharges of vehicle fluids and wastes. Put signs on faucets (including hose nozzles) reminding employees and customers to conserve water and not use water to clean up spills.
- Label drains in and around the shop to indicate whether they flow to an oil-water separator, directly to the sewer (sinks, toilets, cleanouts, most inside floor drains, and wash pad drains) or to a storm drain (streets, gutters, catch basins, storm drain inlets, and open channels).
- Use drip pans under leaking vehicles to capture fluids.
- Sweep or vacuum the shop floor frequently. If mopping is still needed, mop and discharge mop water to the sanitary sewer. The mop water must meet the District's wastewater discharge requirements.
- Mop floors instead of hosing down work areas. While mopping, spot clean any spilled oil or fluids using absorbents, rags, or oleophilic mops (absorbs oil, but not water). Do not pour mop water into the parking lot, street, gutter, or storm drain.
- Remove unnecessary hoses to discourage washing down of floors and outside paved areas. Regularly sweep parking lots and areas around the facility instead of washing them with water.
- Clean fuel-dispensing areas with absorbents instead of water.
- Collect all metal filing, dust, and paint chips from grinding, shaving, and sanding and dispose of the waste properly. Collect all dust from brake pads separately and dispose of the waste properly. Never discharge these wastes to the storm drain or sanitary sewer.
- Send rags to an industrial laundry.

Spill Control

Spills cause safety hazards for employees and can spread if not cleaned up immediately. The best spill control is prevention.

- Reduce the distance between waste collection points and storage areas.
- Contain and cover all solid and liquid wastes, especially during transfer.
- Purchase and maintain proper absorbent materials for containing and cleaning up different spills and make sure they are easily accessible anywhere in the shop. Saturated absorbents typically must be disposed of as hazardous waste.
- Clean up spills immediately and completely, including the absorbent materials.
- Cover nearby storm drains when transferring fuel from tank truck to fuel tank.
- Seal or remove floor drains to prevent accidental discharge to the sewer system.
- The air and water supply area at gas stations is vulnerable to fluid spills and radiators that boil over. Inspect this area daily and clean up spills immediately.

Storage

- Store hazardous materials and wastes in areas protected from rain and in a manner that prevents spills from reaching the sanitary sewer or storm drain.
- Keep lids on waste barrels and containers and store them indoors or under cover to reduce exposure to rain.
- Label all hazardous waste according to hazardous waste regulations. Consult the fire department or local hazardous waste agency for details.
- Keep wastes separate to increase waste recycling and disposal options and reduce costs.
- Never mix waste oil with fuel, antifreeze, or chlorinated solvents. Consult a hazardous waste hauler for details.
- Double-contain all bulk fluids to prevent accidental discharge to the sewer or storm drain. Consult the fire department for details or the DSRSD Regional Wastewater Treatment Facility (925-846-4565).
- Keep storage areas clean and dry. Conduct regular inspections to detect leaks and spills as soon as possible.
- Carefully transfer fluids from drip pans or collection devices to a designated waste-storage area as soon as possible.
- Park vehicles for scavenging or parting on a paved surface and properly drain and collect gasoline and other fluids.
- Drain all fluids from components, such as engine blocks, being stored for reuse or reclamation. Keep them under cover and on a drip pan or sealed floor.
- Store new batteries securely to avoid breakage and acid spills during earthquakes. Shelving should be secured to the wall. Store used batteries indoors and in plastic trays to contain potential leaks. Recycle old batteries if they are not damaged. Damaged batteries must be hauled off-site and disposed of as hazardous waste.

Recycling and Treatment

Recycling and properly treating wastes protects the environment and saves money.

- Recycle solvents, paints, oil filters, antifreeze, motor oil, batteries, and lubricants.
- Set up a system (separate, well-labeled containers in a convenient location) to simplify separating and recycling waste.
- Choose treatment systems that are easy to maintain and repair.
- Properly maintain and service all pretreatment equipment including sumps, separators, and grease traps. Follow each manufacturer's maintenance instructions and consider using a licensed service to perform maintenance regularly.
- Frequently inspect equipment for malfunctioning parts, leaks, and the accumulation of pollutants such as oil and grease. Because pretreatment equipment is supposed to remove pollutants, a lack of accumulation may be a sign of a malfunction.
- Retain only a licensed company to haul away and dispose of wastes.
- If possible, install self-contained, zero-discharge treatment systems that recycle wastewater.