

Appendix

D

**Stormwater
Management Plan
Commercial Facility
BMPs**

Appendix-D COMMERCIAL FACILITIES' BMPS

D-1 Food Service Facilities

1. Dumpsters and loading dock areas

- Store and transfer all solid and liquid wastes, such as tallow, in watertight covered containers.
- To keep litter from accumulating around loading docks, provide trash receptacles and encourage employees to use them.
- Bag and seal solid and liquid food waste in leak-proof containers before placing in dumpster.
- Keep dumpster lids closed to keep out rainwater and to prevent trash from spilling out. If the dumpster regularly overflows, get a bigger one or arrange for more frequent collection.
- Do not hose out dumpsters. Apply absorbent material over any fluids spilled in dumpster. Absorbent material will usually be knocked out when the dumpster is emptied.
- Have the dumpster leasing company repair or replace leaky dumpsters and compactors, and clean out dirty dumpsters.
- Have spill cleanup materials handy near the dumpster and loading dock areas.
- Post employee reminder signs such as "Keep lid closed" near tallow bins and dumpsters.
- *Consider enclosing the dumpster in a roofed and bermed area to prevent exposure to rainwater, and draining the area to the sanitary sewer. Contact the local wastewater treatment plant or Monterey County Environmental Health Department for guidance.**
- *Keep dumpsters or the dumpster enclosure locked to prevent illegal dumping.**

2. Equipment and Outdoor Cleaning

- Clean equipment (floor mats, grease filters, grills, garbage cans, etc.) indoors or in a covered outdoor wash area that is plumbed to the sanitary sewer.
- Clean equipment in a mop sink if possible (never in a food preparation sink). If there is no mop sink, dedicate an indoor cleaning area where a drain is plumbed to the sanitary sewer.
- Dispose of water from cleaning floors in a mop sink, toilet or other drain that is plumbed to the sanitary sewer.
- Do not pour wash water outside or into a street, gutter, or storm drain.
- Block storm drain(s) when cleaning (hosing or steam/pressure washing) outside dumpster areas, sidewalks, and common areas with hot water, soap, or other cleaning agent. Collect water/waste and discharge to the sanitary sewer (with approval of the local sanitation district).

- Avoid using outside cleaning products that contain harsh ingredients such as phosphates.

3. Spill Cleanup

- Prepare a spill cleanup plan that includes:
 - Procedures for different types of spills
 - Schedule for initial and annual training of employees
 - Cleanup kits in well-marked, accessible areas
 - Designation of key employee who monitors cleanup
 - Posting the plan in the work area
- First, stop the spill at its source.
- Keep the spill from entering the street, gutter, or storm drain.
- Use dry methods for spill cleanup (sweeping, cat litter, etc.). Do not hose down spills.
- If wet cleaning (including high-temperature or high pressure washing) is required, dry clean first and then mop (or if it is absolutely necessary, wash) and collect the water.
- Dispose of water in sink or other indoor drain, not in the street, gutter, or storm drain.
- If a final rinse is necessary for health reasons, collect the rinse water and dispose it to the sink or indoor floor drain. If outdoors, block the storm drain before applying water. Mop up or wet-vacuum water, and dispose it to a sink or indoor drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

4. Waste handling and disposal

- Never pour oil, grease, or large quantities of oily liquids such as sauces or salad dressings or waste grease down a sink, floor drain, storm drain, or into a dumpster.
- Install screens and solid traps in sink and floor drains to catch larger solids. Clean these screens and traps frequently.
- Do not attempt to “dissolve” grease by adding hot water or emulsifying chemicals. Such attempts will only move the grease further down the building’s sewer line and make it harder to remove later.
- Recycle grease and oil. Do not pour it into sinks, floor drains, or onto a parking lot or street. Look in the phone book for “Renderers” or call the local recycling or household hazardous waste information line.
- Use tallow bins or sealed containers with tamper-proof lids. Keep the exterior of the container clean. Check for leaks. Ask the recycler for a leak-free tallow bin and replace any leaky grease containers. If grease is stored outside, keep it under a roof, if possible.
- Do not contaminate the recyclable oils and grease in the tallow bin with the waste grease from the grease trap or grease interceptor.
- Inspect and clean all waste grease removal devices (grease trap or grease interceptor) often enough to keep them functioning properly and efficiently.
- For disposal of waste grease from the grease trap or grease interceptor, see “Grease Traps” or “Septic Tanks” in the phone book.

5. Landscaping and Grounds Maintenance

- Never dispose of leftover pesticides in the gutter, street, or storm drain. Leftover pesticides must be either used-up or disposed of as hazardous waste.
- Do not blow or rake leaves, grass, or garden clippings into the street, gutter, or storm drain.
- If pesticides are used, do not over apply or apply when rain is forecast.
- Do not use copper-based algacides in pools or fountains. Control algae with chlorine or other alternatives to copper-based products.

6. Employee Education and Training

- Train employees on best management practices.
- Train staff on the proper facility maintenance.
- Train employees on proper spill containment and cleanup procedures.
- Establish a regular training schedule, train all new employees and conduct annual refresher training.
- Use a training log or similar method to document training.

7. Purchasing*

- *Use non-disposable products. Serve food on ceramic dishware rather than paper, plastic or Styrofoam, and use cloth napkins rather than paper ones. If you must use disposable products, use paper instead of Styrofoam.*
- *Buy the least toxic products available.*
 - *Look for “non-toxic,” “non-petroleum based,” “free of ammonia, phosphates, dye, or perfume,” or “readily biodegradable” on the label. Don’t assume biodegradable products are safe. Biodegradable means the product will eventually break down, but it may harm the environment in the meantime.*
 - *Avoid chlorinated compounds, petroleum distillates, phenols, formaldehyde, and caustic or acidic products.*
 - *Use water-based products.*
 - *Look for and purchase “recycled” and “recyclable” containers. This will help ensure a use for the recyclable materials that people collect and recycle.*

8. Recycling and Disposal*

- *Separate wastes. Keep recyclable wastes in separate containers according to the type of material. They are easier to recycle if separated.*
- *Recycle the following materials:*
 - *Food waste (non-greasy, non-animal food waste can be composted). Donate leftover, edible food whenever possible to local food banks.*
 - *Paper and cardboard*
 - *Container glass, aluminum, and tin*
 - *Pallets and drums*
- *Dispose of toxic waste properly. Toxic waste includes used cleaners and rags (soaked with solvents, floor cleaners, and detergents).*

D-2 Automotive Repair Facilities

1. Dry Sanding

- Conduct all sanding indoors.
- Sweep, vacuum, or use other dry cleanup methods routinely to pick up dust from dry sanding of primer, metal, or body filler. Make extra efforts to thoroughly sweep or vacuum dust prior to mopping.
- Use vacuum sanding equipment whenever possible in order to reduce the amount of airborne dust.

2. Wet Sanding (without wet bucket)

- Conduct all sanding indoors.
- Do not wet sand in a wash rack or in an area with a floor drain.
- If possible, reduce or eliminate need for a sanding bucket:
 - Use dent repair tools whenever practical for small dents.
 - Use vacuum sanding equipment whenever practical (for larger panels) in order to minimize the amount of wastewater.
 - Use spray bottle to squirt water onto the panel being sanded. This eliminates sanding bucket wastewater and also minimizes drips and spills.
- Place a pan under the car panel being sanded to catch drips. Pour the collected water back into the wet sanding bucket.
- Clean up drips with a rag, or let the drips dry and then sweep or vacuum up the dust.

3. Disposal of Wet Sanding Waste Water

Emptying the wet sanding bucket directly into a sink or other sanitary sewer drain is one of the primary causes of body shop wastewater discharge permit violations. Therefore, shops should seriously consider reducing or eliminating the need for a wet sanding bucket. However, if a sanding bucket must be used, there are three options for disposal of the contents:

Option 1: Settling

Up to 80 percent of the zinc in the sanding bucket would settle out if the bucket were simply left to stand undisturbed for 24 - 48 hours. This is the simplest and least costly method of achieving significant zinc reductions – assuming the shop has space for the buckets to be put aside during the workday. Sanding bucket wastewater may also be poured into a settling unit (see next section) prior to discharge to a sump or to the sanitary sewer.

Step 1: Remove sponge and sandpaper from water. Wring out the sponge over the bucket.

Step 2: Settle out zinc particles in one of two ways:

- a) Allow the wet sanding bucket to stand at least overnight – preferably longer – in a place where it will not be disturbed.
- b) Pour contents of the wet sanding bucket into a settling unit.

Devise a system to let shop employees know how long the bucket has been settling, and that it is not to be disturbed.

Step 3: Separate water from sludge:

Carefully bail the clear water from the top of the bucket, or remove the clear water from the settling unit after it has been allowed to sit at least overnight. Avoid any agitation of sludge on the bottom. The clear water on top may be discharged to the sanitary sewer through a drain or permitted treatment system (such a sump or oil/water separator).

Step 4: Dispose of sludge:

Dispose of non-hazardous dried sludge in trash. The California Department of Toxic Substances Control places responsibility on each shop owner for providing that such waste is non-hazardous. If the sludge is hazardous, it must be disposed of appropriately. (Contact the DTSC for more information) If the settling bucket is uncovered, make sure it's in secondary containment.

Option 2: Discharge to a Permitted Treatment System

A shop may elect to route contents of the wet sanding bucket through a treatment system or recycling unit prior to discharging to the sanitary sewer. An industrial waste discharge permit must be obtained in many jurisdictions for such a sewer discharge. In addition, the wastewater should first be allowed to settle overnight in the bucket or in a settling unit (see Option 1).

Option 3: Offsite Disposal

A shop may choose to collect and dispose of wet sanding wastewater offsite. This alternative may be attractive to those shops interested in reducing their waste streams or eliminating all wastewater discharges and becoming a "zero-discharger." Depending upon the hauler, it may be possible to dispose of the wet-sanding wastewater with waste paint rinse water or waste antifreeze. Check with the local hauler to see if this is acceptable. There are two possible methods for offsite disposal of wet-sanding bucket wastewater:

- a) Disposal with other collected wastes
- b) Disposal as a hazardous waste

Wet-sanding wastewater may be collected separately and hauled offsite for disposal as a hazardous waste, either by a licensed waste hauler or through a Very Small Quantity Generator (VSQG) hazardous waste collection program for small businesses.

4. *Settling Units for Wet Sanding and Mop Wastewater**

Settling units may be used to remove zinc and other metals from wastewater, generated by activities such as wet sanding and mopping. Even shops with a sump or oil-water separator may find it beneficial to settle out wet sanding and mop wastewater prior to discharge to the separator and /or sanitary sewer. Settling units can range from simple, compact containers to complex treatment systems. Unless the shop has a high volume of wastewater from sanding or mopping, it may want to consider one of the simpler units – since complex treatment systems can be very expensive to purchase, install, and maintain. In fact, the shop may be able to make its own simple settling unit using an empty plastic 30-gallon drum, for example, and a little creativity.

Select the Right Unit for the Shop

In choosing or designing a settling unit, several factors should be considered including:

- *Potential volume of wastewater and the size of a container that will ensure adequate settling time. In order to determine the appropriate size, the volume of wastewater should be calculated – wet sanding and/or mop water – that is generated each day. The settling unit should be able to contain at least double or triple this daily volume.*
- *A method for removing the clear wastewater from the unit without disturbing the sludge on the bottom. A valve or spigot should be located no lower than halfway down the side of the unit.*
- *Strategy (method and frequency) for removing sludge from the bottom of the unit. Sludge should be removed on a regular basis, and never allowed to build up higher than $\frac{1}{4}$ of the container's height. Remove sludge only after draining off the clear wastewater on top. Sludge can either be removed from the bottom of the settling unit or scooped out by hand from the top. Removal may require a large opening with a secure cap (as sludge may clog a valve or spigot). Some shops use a container with a conical bottom to facilitate both settling and sludge removal.*
- *Identify a location in the shop that is convenient but enough out of the way so that the settling unit will not be disturbed accidentally. The unit may be placed on the ground, or elevated.*
- *To settle wastewater for longer than overnight, consider a system comprised of several containers used in sequence.*

Consider Use of Multiple Settling Units in Series

A sequence of two or more settling containers is one way to increase settling time for the wastewater. For example, some shops construct their own tow-drum units. Wastewater is held in the first drum for 24 hours and allowed to settle; then the clear water on top is drained into the second drum for an additional 24 hours or more of settling prior to discharge to the sanitary sewer. (Be sure to follow sludge-removal precautions detailed in the previous section).

The decision to use a settling unit with a single container versus one with multiple containers may depend partly on the metals concentrations in the wastewater and the time required to allow the metals to settle out to acceptable levels. Also,

there must be adequate space in the shop, in a convenient location, where the unit(s) will not be disturbed.

Test Settled Wastewater

After installing a settling unit, be sure to have the settled wastewater tested at least twice to make sure the system allows for enough settling time. Overnight settling may be sufficient for some shops' wastewater, but others may require 48 or 72 hours of settling in order to comply with local discharge limits. An analytical lab should test the settled wastewater for zinc, nickel, and lead. The results should confirm whether or not enough there's settling time to ensure that the wastewater is acceptable for discharge.

5. Washing Cars and Other Vehicles

Washing can pose significant hazards to water quality. Detergents often used in car washing can present hazards to the ecosystem. Even biodegradable soaps can be toxic when they reach a creek or water body.

Regular Activity

- If car washing is a central activity of the business, the most desirable option is to treat and recycle the wash water.
- Designate a vehicle washing area and wash cars and trucks only in that area. This "wash pad" should be bermed or protected from storm drains and should drain to an oil/water separator before discharging to the sewer.
- Cover an outside wash pad or minimize the area of an uncovered pad to reduce the amount of rainwater reaching the sewer. Consult your local sewage treatment plant for guidance.
- Minimize the use of acid-based wheel cleaners. These products may require additional treatment (beyond oil/water separation) before discharge to the sewer.

Occasional Activity

Even biodegradable soap is toxic to fish and wildlife. Whenever possible, take vehicles to a commercial car wash.

- If soap is used in washing, the wash water must be collected and discharged, preferably with treatment, to the sanitary sewer. This water cannot be discharged to a storm drain.
- Never rinse off spray-on acid-based wheel cleaners where rinsewater may flow to a street, gutter, or storm drain.

Washing New Vehicles

- If cleaning the exterior of new vehicles with water only, the discharged water may go to the storm drain directly.
- Always protect the storm drains from solvents, used to remove protective coatings from new cars. Discharges of these solvents to the sanitary sewer must receive adequate treatment and approval of the sewage treatment plant.

6. Primers, Paints, and Painting

Primers in particular may contain significant amounts of zinc. Material Safety Data Sheets (MSDS) of primers show that certain primers contain as much as 40 percent zinc phosphate by volume. It doesn't take a large amount of these primers reaching the sanitary sewer for a shop to exceed local sanitary sewer discharge limits for zinc.

- Conduct all painting indoors, preferably in a paint booth.
- Review the MSDS of the products used and look for the zinc concentrations listed. Use primers and paints with lower zinc content if they work equally well.
- Befriend your vendor--they can be an invaluable source of information about new and versatile (low metal) paints, technologies, and industry trends.
- When cleaning auto body parts before painting, minimize use of hose-off degreasers. Brush off dirt and use rags to wipe down parts. If an acid-based metal cleaner or cleaner/conditioner is used to treat bare metal and rinse water is recommended to stop the chemical reaction, use as little water as possible and wipe down the area with a rag or towel.
- Reduce waste by using low-volume paint mixing equipment and high-efficiency painting tools.
- Minimize waste paint and thinner by carefully calculating paint needs based on surface area and using the proper sprayer cup size.
- Clean spray guns in a self-contained cleaner. The gun-cleaning solution, whether solvent or aqueous-based, should be recycled or disposed of properly when it becomes too dirty to use. Never discharge gun-cleaning solution to the sewer or storm drain.
- Do not use water to control overspray or dust in the paint booth unless it is sure to evaporate in the booth (so the dust can be swept up), or this wastewater is collected. The water should be treated prior to discharge into the sewer system.

7. 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 outdoors, 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. If necessary, you can use absorbent socks to create a bermed area.
- When draining fluids into a drain pan, place a larger drip pan (e.g., 3' x 4') under the primary drain pan to catch any 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 they are covered and within secondary containment.
- Store waste containers of antifreeze and oil within secondary containment. Antifreeze and waste oil should be stored separately and recycled, or disposed of as hazardous waste.

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- 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 until recycled or safe disposal.
 - Drain fluids from leaking or wrecked vehicles as soon as possible, to avoid leaks and spills.
 - Consider using a quarter barrel, vacuum pump, or drain pan with built-in pump to transfer fluids.

8. Cleaning Engines and Parts, and Flushing Radiators

Solvents are hazardous to employees and can ignite in sewers.

- Eliminate discharges from these operations to the sanitary sewer and storm drains. Use a licensed service to haul and recycle or dispose of wastes.
- Designate specific areas or service bays for engine, parts, or radiator cleaning. 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 drip tanks. Sweep up drippings and recycle or dispose as hazardous waste.
- Rinse and drain parts over the solvent sink or tank, so that solvents will not 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 in flushing and testing radiators. When reuse is no longer possible, these solutions may be hazardous wastes, and must be disposed of properly.
- Never discharge cleaning solutions used for engines or parts into the sewer system without adequate treatment. Most facilities have these solutions hauled offsite as hazardous waste because of the permits necessary for onsite treatment.
- Rinse water may only be discharged to the sanitary sewer with adequate treatment and approval of the sewage treatment plant.
- Never discharge wastewater from steam cleaning, or engine/parts cleaning to a street, gutter, or storm drain.
- Sweep or use a vacuum to clean up dust and debris from scraping or bead blasting radiators.
- Consider using static tanks for rinsing to reduce the volume of discharged rinse water.
- Consider using counter-current rinsing to reduce water usage and rinse water discharges.

9. Storage

Appropriate storage protects your shop from hazardous spills. Consult your local hazardous waste agency for details.

- Store hazardous materials and wastes where they are protected from rain and in a way 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.
- All hazardous wastes must be labeled according to hazardous waste regulations. Consult the Fire Department or the local hazardous waste agency for details.
- Keep wastes separate to increase your waste recycling/disposal options and to reduce your costs.
- Never mix waste oil with fuel, antifreeze, or chlorinated solvents. Consult the hazardous waste hauler for details.
- Double-contain all bulk fluids to prevent accidental discharges to the sewer and storm drain. Consult the Fire Department for details.
- Carefully transfer fluids from drip pans or collection devices to designated waste storage areas, as soon as possible.
- When receiving vehicles to be parted or scavenged, park them on a paved surface and immediately drain and collect gasoline and other fluids properly.
- Drain all fluids from components, such as engine blocks, which you may store for reuse or reclamation. Keep these components 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.

10. Spill Control

Spills cause safety hazards for employees and can spread if not cleaned up immediately.

- The best spill control is prevention.
- Maintain and keep current, as required by other regulations, a spill response plan and ensure that employees are trained on the elements of the plan.
- Minimize the distance between waste collection points and storage areas.
- Contain and cover all solid and liquid wastes – especially during transfer.
- Purchase and maintain the proper absorbent materials for containment and cleanup of different spills, and make sure they are easily accessible anywhere in the shop. Saturated absorbents generally must be disposed of as hazardous waste.
- “Spot clean” leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- Seal or remove floor drains to prevent accidental discharge to the sewer system.

11. Outdoor Waste Receptacle Area

A. Existing Facilities

- Spot clean leaks and drips routinely to prevent runoff of spillage.
- Minimize the possibility of storm water pollution from outside waste receptacles by doing at least one of the following:
 - Use only watertight waste receptacle(s) and keep the lid(s) closed, or
 - Grade and pave the waste receptacle area to prevent run-on of storm water, or
 - Install a roof over the waste receptacle area, or
 - Install a low containment berm around the waste receptacle area, or
 - Use and maintain drip pans under waste receptacles.

B. New or Substantially Remodeled Facilities

- The element listed below should be included in the design and construction of new or substantially remodeled facilities.
- Grade and pave the outdoor waste receptacle area to prevent run-on of storm water to the extent practicable.
- Note: Substantially Remodeled Facilities - The facility is considered substantially remodeled if the area around the waste receptacle area is being re-graded or repaved.

12. Air/Water Supply Area

A. Existing Facilities

Minimize the possibility of storm water pollution from air/water supply areas by doing at least one of the following:

- Spot clean leaks and drips routinely to prevent runoff of spillage, or
- Grade and pave the air/water supply area to prevent run-on of storm water,
- Install a roof over the air/water supply area, or
- Install a low containment berm around the air/water supply area.

B. New or Substantially Remodeled Facilities

- The element listed below should be included in the design and construction of new or substantially remodeled facilities.
- Grade and pave the air/water supply area to prevent run-on of storm water to the extent practicable.
- Note: Substantially Remodeled Facilities - The facility is considered substantially remodeled if the area around the air/water supply area is being re-graded or repaved.

13. Good Housekeeping Practices

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

- Use drip pans under leaking vehicles to capture fluids.
- Sweep or vacuum the shop floor frequently. Use mopping as an alternative to hosing down work areas.
- If shop floors are mopped:
 1. Spot clean any spilled oil or fluids using absorbents or rags.
 2. Use dry cleanup methods: Sweep the floor using absorbents.
 3. After steps 1 and 2 above (if mopping is still needed), mop and discharge mop water to the sanitary sewer.
- Do not pour mop water into the parking lot, street, gutter, or storm drain.
- Remove unnecessary hoses to discourage washing down floors and outside paved areas.
- Regularly sweep parking lots and areas around your facility instead of washing them down with water.
- Collect all metal filings, dust, and paint chips from grinding, shaving, and sanding, and dispose of the waste properly. Never discharge these wastes to the storm drain or sanitary sewer.

- 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.
- Inspect and clean if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.
- Consider using an oleophilic mop (picks up oil and not water) to reduce the volume of waste liquids you collect and reduce your cost for disposal.

14. Recycling / Wastewater 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 make it easy for employees to separate wastes and to recycle.*
- *Choose wastewater treatment systems that are easy to maintain and repair.*
- *Properly maintain and service all pretreatment equipment, including sumps, separators, and grease traps to ensure proper functioning. Follow manufacturer's maintenance instructions and consider using a licensed service to conduct maintenance on a regular basis.*
- *Frequently inspect equipment for malfunctioning parts, leaks, and the accumulation of pollutants such as oil and grease. Since pretreatment equipment is supposed to remove pollutants, a lack of accumulation may be a sign of a malfunction.*
- *Retain only a licensed service to haul away and dispose of wastes.*
- *Consider installing self-contained, zero-discharge treatment systems that recycle wastewater.*

15. Purchasing*

Purchasing decisions have a direct and long-term impact on the products used and disposed of by your shop. Make pollution prevention easier and reduce costs and liability by controlling the types and amounts of products purchased.

- *Ask suppliers for information on less toxic chemical cleaners and other products. There are alternatives to chlorinated solvents; chlorofluorocarbons; and 1,1,1, trichloroethane (TCA).*
- *Ask suppliers for information on the composition of brake pads. Recent studies have shown that brake dust washed off streets by rain may be the single biggest contributor of copper, a major pollutant, to waterways. Your awareness and understanding of this problem and the available alternatives will help us come up with solutions in the future.*
- *Minimize inventory by purchasing only as much product as you will need in the foreseeable future. This will reduce your storage space needs, inventory tracking costs, and liability for storing hazardous materials and waste.*
- *Use non-toxic chemicals for maintenance when possible.*
- *Use non-caustic detergents instead of caustic cleaning for parts cleaning.*
- *Use a water-based cleaning service and have tank cleaned. Use detergent-based or water-based cleaning systems in place of organic solvent degreasers.*

- *Replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less whether it contains chlorinated solvents.*
- *Choose cleaning agents that can be recycled.*

16. *Employee Education and Training*

The prospects for successful business compliance are related to an effective training program for employees.

- Train all employees upon hiring – and annually thereafter – on personal safety, chemical management, and proper methods for handling and disposing of waste. Make sure that all employees understand storm water discharge prohibitions, wastewater discharge requirements, and these best management practices. Use a training log or similar method to document training.
- Post instructional/informational signs around your shop for customers and employees. Put signs above all sinks prohibiting discharges of vehicle fluids and wastes. Put signs on faucets (hose bibs) reminding employees and customers to conserve water and not to use water to clean up spills.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain. Labels are not necessary for plumbing fixtures directly connected to the sanitary sewer.

D.3 Retail Gasoline Outlets

A. Existing Facilities

1. Fuel Dispensing Areas

- Maintain fuel-dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills. Fueling areas should never be washed down unless the wash water is collected and disposed of properly.
- Fit underground storage tanks with spill containment and overfill prevention systems meeting the requirements of Section 2635(b) of Title 23 of the California Code of Regulations.
- Fit fuel dispensing nozzles with “hold-open latches” (automatic shutoffs) except where prohibited by local fire departments.
- Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against “topping off” of vehicle fuel tanks.

2. Good Housekeeping

- “Spot clean” leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- Maintain and keep current, as required by other regulations, a spill response plan and ensure that employees are trained on the elements of the plan.
- Manage materials and waste to reduce adverse impacts on storm water quality.
- Train all employees upon hiring and annually thereafter on proper methods for handling and disposing of waste. Make sure that all employees understand storm water discharge prohibitions, wastewater discharge requirements, and these best management practices. Use a training log or similar method to document training.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain. Labels are not necessary for plumbing fixtures directly connected to the sanitary sewer.
- Inspect and clean if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.

3. Outdoor Waste Receptacle Area

- Spot clean leaks and drips routinely to prevent runoff of spillage.
- Minimize the possibility of storm water pollution from outside waste receptacles by doing at least one of the following:
 - Use only watertight waste receptacle(s) and keep the lid(s) closed, or
 - Grade and pave the waste receptacle area to prevent run-on of storm water, or
 - Install a roof over the waste receptacle area, or
 - Install a low containment berm around the waste receptacle area, or
 - Use and maintain drip pans under waste receptacles.

4. Air/Water Supply Area

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- Minimize the possibility of storm water pollution from air/water supply areas by doing at least one of the following:
 - Spot clean leaks and drips routinely to prevent runoff of spillage, or
 - Grade and pave the air/water supply area to prevent run-on of storm water, or
 - Install a roof over the air/water supply area, or
 - Install a low containment berm around the air/water supply area.

5. Spill Cleanup

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely. Use absorbent to remove leaks and drips then dispose of absorbent properly.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Keep the spill from entering streets, gutters, or storm drains.

6. Employee Training

- Train employees on these practices.
- Train staff on the proper maintenance of your facility.
- Train employees on your facility's spill control plan and spill containment/cleanup procedures.
- Establish a regular training schedule for all employees, and conduct annual refresher training.
- Use a training log or similar method to document training.

B. New or Substantially Remodeled Facilities

The elements listed below should be included in the design and construction of new or substantially remodeled facilities as needed. Please refer to the City's Engineering and Development Standards for guidance.

1. Fuel Dispensing Areas*

- *Fuel dispensing areas must be paved with Portland cement concrete (or, equivalent smooth impervious surface), with a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of stormwater to the extent practicable. The fuel dispensing area is defined as extending 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus 1 foot, whichever is less. The paving around the fuel dispensing area may exceed the minimum dimensions of the "fuel dispensing area" stated above. (Note: This best management practice is not specifically intended to apply to facilities that install a new canopy where no canopy existed.)*
- *The fuel dispensing areas must be covered, and the cover's minimum dimensions must be equal to or greater than the area within the grade break or the fuel dispensing area, as defined above. The cover must not drain onto the fuel dispensing area. (Note: This best management practice is not specifically intended to apply to facilities that:*

- *Are located in geographic areas not subject to federal or state storm water regulations discharge storm water either directly to surface waters or indirectly, through municipal separate storm drain systems*
- *Do not add fuel dispensers*
- *Replace, relocate, or add fuel dispensers within the parameters described in the BMP*
- *Increase their throughput of fuel dispensed without modifying their equipment*
- *Make only cosmetic or facial appearance changes to their existing canopy)*

*2. Outdoor Waste Receptacle Area**

- *Grade and pave the outdoor waste receptacle area to prevent run-on of storm water to the extent practicable.*

*3. Air/Water Supply Area**

- *Grade and pave the air/water supply area to prevent run-on of stormwater to the extent practicable.*

C. Substantially Remodeled Facilities

One of the following criteria must be met before a facility is deemed to be substantially remodeled and the design elements described above are required to be included in the new design and construction:

- The canopy cover over the fuel dispensing area is new or is being substantially replaced (not including cosmetic/facial appearance changes only) and the footing is structurally sufficient to support a cover of the minimum dimensions described above, or
- One or more fuel dispensers are relocated or added in such a way that the Portland cement concrete (or, equivalent) paving and grade break or the canopy cover over the fuel dispensing area do not meet the minimum dimensions as defined above. Replacement of existing dispensers or underground storage tanks do not by itself, constitute a substantial remodel.

D.4 Commercial Car Washes

1. Vehicle and Equipment Cleaning

- Have all vehicle washing done in areas designed to collect and hold the wash and rinse water or effluent generated. Recycle, collect or treat wash water effluent prior to discharge to the sanitary sewer system.
- If washing/cleaning must occur on-site, consider washing vehicle equipment inside the building or on an impervious surface to control the targeted constituents by directing them to the sanitary sewer.
- If washing must occur on-site and outdoor:
 - Use designated paved wash areas. Designated wash areas must be well marked with signs indicating where and how washing must be done. This area must be covered or bermed to collect the wash water and graded to direct the wash water to a treatment or disposal facility.
 - Do not conduct oil changes and other engine maintenance in the designated washing area. Perform these activities in a place designated for oil change and maintenance activities.
 - Cover the wash area when not in use to prevent contact with rainwater.
- Install sumps or drain lines to collect wash water for treatment.
- Use hoses with nozzles that automatically turn off when left unattended.
- Do not permit steam cleaning wash water to enter the storm drain.
- Pressure and steam clean off-site to avoid generating runoff with high pollutant concentrations. If done on-site, no pressure cleaning and steam cleaning should be done in areas designated as wellhead protection areas for public water supply.

2. Spill Response and Prevention

- Keep the Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Have an emergency plan, equipment, and trained personnel ready at all times to deal immediately with major spills.
- Collect all spilled liquids and properly dispose of them.
- Store and maintain appropriate spill cleanup materials in a location known to all near the designated wash area.

3. Wastewater Disposal

- Consider filtering and recycling wash water.
- Discharge equipment wash water to the sanitary sewer, a holding tank, or a process treatment system, regardless of the washing method used.
- Collect all wash water from vehicle cleaning operations and (1) discharge to a sanitary sewer, holding tank, or process treatment system or (2) run through an enclosed recycling system.
- Collect and treat wash water at the facility and either recycle or discharge to the sanitary sewer system or collect and dispose of as an industrial waste.

- Discharge wash water to sanitary sewer after contacting local sewer authority to find out if pretreatment is required.

4. Purchasing*

- *Use non-caustic detergents instead of caustic cleaning for parts cleaning.*
- *Use a water-based cleaning service and have tank cleaned. Use detergent-based or water-based cleaning systems in place of organic solvent degreasers.*
- *Replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check list of active ingredients to see whether it contains chlorinated solvents.*
- *Choose cleaning agents that can be recycled.*
- *Use biodegradable, phosphate-free detergents if possible.*

5. Employee Education/Training

- Train employees on proper cleaning and wash water disposal procedures and conduct “refresher” courses on a regular basis.
- Train staff on proper maintenance measures for the wash area.
- Train employees and contractors on proper spill containment and cleanup. The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.

D.5 Mobile Cleaners

1. Chemical Use

- Use only as much chemicals as needed for cleaning. Reuse or recycle chemicals, if possible.
- Collect wash water and dispose of properly. Do not discharge wash water into storm drains, gutters, or streets.
- Use a licensed service to dispose of hazardous waste. Hazardous wastes can include used rags soaked with solvents, floor cleaners and detergents.

2. Chemical Storage

- Clearly label all chemical containers.
- Store chemicals indoors if possible. If chemicals must be stored outside, construct a covered area with berms to protect the containers from contact with stormwater and to contain spills.
- Do not leave chemical containers uncovered. Use air-tight containers for chemical storage.

3. Equipment and Maintenance Repair

- Move maintenance and repair activities indoors, if possible. If it is not possible, cover the repair area with a roof and cover the ground with a tarp, ground cloth, or drip pans.
- Regularly inspect equipment for leaks. Collect leaking or dripping fluids in drip pans or containers.
- Use biodegradable, phosphate-free detergents for cleaning machines rather than solvents. Wastewater that is contaminated with any detectable amount of dry cleaning solvent is prohibited from being discharged into the sanitary sewer.

4. Spill Control Cleanup

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily accessible.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the streets, gutters, and storm drains.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

5. Wastewater Discharges

- Never discharge wash water to a street, gutter, parking lot, or storm drain. Either:
 - Empty the spent cleaning fluid tank into a utility sink or other indoor sewer connection at the service provider's home base, or
 - Arrange with the customer to discharge into a toilet or utility sink on their premises.

- Check the local wastewater authority's requirements for discharge.
- Filter wash water before discharging to the sanitary sewer to avoid clogging pipes. Dispose of filtered material in the garbage, provided the carpet was not contaminated with hazardous materials.
- These guidelines apply even to cleaning products labeled "nontoxic" and "biodegradable."

6. Training

- Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- Train employees on proper spill containment and cleanup.
 - Establish training that provides employees with the proper tools and knowledge to immediately begin cleaning up a spill.
 - Ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures.
- Establish a regular training schedule, train all new employees, and conduct annual refresher training.
- Use a training log or similar method to document training.