

Save money and prevent costly utility increases by protecting our environment and our Publicly Owned Treatment Works. Read this pamphlet to find out how.



Vehicle Service Facility

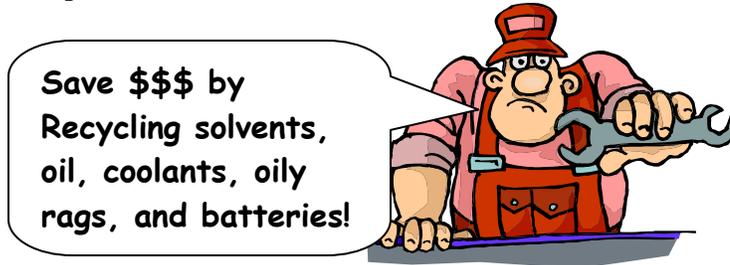
Best Environmental Management Practices

Whether your business is two blocks or 20 miles from the water, it has two connections to the Monterey Bay. Indoor drains such as sinks, toilets, and most floor drains convey wastewater through the sanitary sewer system to a treatment plant where the water is treated before it is discharged into the Bay. Outside your business, rainwater, wash water from buildings, road surfaces, vehicles, and equipment pick up oil, grease, cleaning compounds, pesticides, paint, garbage and other pollutants. Storm drains carry these pollutants through the storm drain system directly into local creeks and the Bay. They are not filtered or treated in any way.

Vehicle service facilities such as repair shops, body shops, gas stations, car and truck rental companies, car dealerships, and car washes have a high potential to impact storm water and sewer wastewater with contaminants. These contaminants can damage sensitive creek habitats and eventually pollute our bay and ocean, yet these industries are important to our community. The good news is that implementing the best management practices detailed in this pamphlet can drastically reduce environmental impacts from vehicle service facilities. This pamphlet has been prepared to familiarize vehicle service shop owners and their employees with the best management practices for dealing with typical wastes generated in the industry. It also details the County of Santa Cruz Industrial Wastewater Pretreatment requirements specific to your facility. Use this pamphlet as a tool to ensure that your business is compliant, to save money on costly spill cleanups and waste disposal, and to train all shop employees. Leave it posted in a visible location.

Purchase reusable or recyclable products whenever you can. Reduce or eliminate the hazardous materials that you use. Materials that have the potential to be recyclable include the following: oil, coolants, cleaning solvents, oily rags, and batteries. Some materials can be reused for energy, such as fuels, paints, and absorbents. Recycling is not only good for the environment, it is good for business. Often times, it is cheaper to recycle and you may even be able to get a return on your recycled goods.

Consider switching to water based cleaners instead of chlorinated solvents. Spent water based cleaners may not be discharged to the storm drain or sanitary sewer. Also consider buying rags for spill cleanup, rather than absorbents, because rags may be cleaned by an industrial laundry and reused. Saturated absorbents, however, must generally be disposed of as hazardous waste. These absorbents can often be reused as energy.



Reuse and Recycling

Pollution Prevention Tips: Paint is expensive to buy and even more expensive to dispose of. Don't buy excess! Also, use a recirculating cleaning system to clean paint guns while reusing solvent.



- Carefully calculate the amount of paint and paint thinner needed to reduce the amount of waste paint. More paint can be obtained if needed whereas having a surplus could result in hazardous material hauling and treatment costs. Be sure to use the appropriate sprayer cup size.
- Wastewater emanating from painting operations including paint gun cleaning wastes is prohibited from being discharged to the sewer or storm drain. Clean spray guns in a self-contained cleaner. Recycle the cleaning solution when it becomes too dirty to use. Do not use water to control over-spray or dust in the paint booth unless you collect this wastewater. The water should then be treated prior to discharge into the sanitary sewer.
- Wherever possible, conduct all body repairs, sanding, and painting work indoors.
- When receiving damaged vehicles, inspect for leaks. Use drip pans if necessary.
- When wet sanding, place a pan under the car panel being sanded to catch any drips. Pour the collected water back into the wet sanding bucket.
- Clean up wet sanding drips with a rag, or let the drips dry and sweep or vacuum up the dust.
- Sweep shop floors instead of mopping.
- When cleaning auto body parts before painting, do not use hose-off degreasers.



Body Repair and Painting

Discharge of any wastewater other than storm water directly or indirectly to a storm drain, a creek, an underground percolation sump, or other water body is strictly prohibited. No vehicle fluids are permitted to be discharged.

Floor drains in an area where vehicle fluids are changed are prohibited.

- Drip pans and adequate spill prevention and clean-up materials must be kept on-site and readily available for use. See Spill Prevention and Control for more details on spill control.
- Changing fluids must be done in bermed or contained areas, or using drip pans. The ideal location to change fluids is over an epoxy-sealed concrete shop floor.
- Do not change fluids over asphalt or blacktop because these surfaces are absorbent, meaning contaminants can get through these surfaces and into the soil and eventually in our waterways.
- Drip pans and open containers containing vehicle fluids must not be left unattended unless they are covered securely and within secondary containment.
- Transfer fluids using pumps wherever possible to prevent discharges due to spills or leaks.
- Contain all fluids in secondarily contained waste drums for waste removal and treatment. Keep manifest records for their removal, transport, and final disposition to demonstrate that your facility is disposing of waste appropriately. Most vehicle fluids are recyclable. Make sure your waste vendors are renewing these resources appropriately.
- Drain all fluids from wrecked vehicles and parts cars into appropriate containers as soon as possible. Be sure to park wrecked vehicles and parts cars over concrete, not asphalt or dirt.



Changing Vehicle Fluids



Even biodegradable soaps are toxic to many forms of aquatic life!
Never discharge vehicle wash waters to the street or storm drain
if detergents or cleaners are used.

Discharge of vehicle wash water to the storm drain is limited to water from the washing of vehicle exteriors with plain water only.

Some Best Management Practice to consider while car washing are the following:

Exterior vehicle washing using detergents and/or cleaners must be conducted in a County approved wash pad area. The area must be sloped and bermed to drain the rinse water to a clarifier. The area may also need to be covered to prevent storm water from entering the sanitary sewer.

- Minimize the use of acid-based wheel cleaners. If these are used, the rinse water must discharge to the sanitary sewer and it may need to be treated to comply with pH and other limits prior to discharge.
- When removing the protective coating (i.e., cosmolene) from a new car, be sure not to discharge any materials to the storm drain. If a solvent is used, the waste fluids may not be discharged to the sanitary sewer either.
- Recycle wash water by running it through an oil/water separator and reusing it in washing operations. If only washing cars occasionally, take the vehicle to a commercial car wash facility that has a water recycling and treatment systems.
- If using a steam cleaner, discharge must be routed through an oil/water separator.
- **Cleaning engines, parts, and flushing radiators can only be done in self-contained areas. None of the waste from these operations can be released to either the storm drain or sanitary sewer.** Even if your car wash bay has a water recycling system that uses an oil/water separator, you are still not permitted to clean engines, parts, or flush radiators unless you are collecting all wastes from these operations in a self-contained system and hauling off all wastewater.



Car Washing

Pollution Prevention Tip: Switch from solvent parts and brake cleaners to aqueous parts washers and brake cleaners. Solvent cleaners are hazardous to your health!



Never discharge wastewater, solvents, or aqueous cleaners from engine, brake cleaning, and parts cleaning or radiator flushing to the storm drain or sanitary sewer!

- Designate specific area 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 and aqueous cleaners, allowing parts to drain and dry over tanks. Rinse and drain parts over the sink or tanks. If rinsing is required, rinse over the tank as well, using static or countercurrent rinsing to reduce rinse water quantity. Use drip boards or pans to catch excess solvent solutions and divert them back to a sink or tank. Keep solvent sinks and tanks covered when not in use.
- Regularly inspect containment tanks and degreasing solvent sinks for leaks, and make necessary repairs immediately.

Parts washing and brake cleaning is typically accomplished with either organic solvents or aqueous cleaning solutions.

- Spent organic solvents should be recycled or disposed of as a hazardous waste. If possible, contract with a recycling service that will provide fresh solution.
- Aqueous cleaners, in general, are less toxic than organic solvents. Aqueous cleaners range from mild soap and water to concentrated chemical solutions. If mild soap and water solutions are used to clean parts, both the cleaning solution and the rinse water **may** be discharged to the sanitary sewer. When using concentrated cleaning solutions (these may be caustic, acidic or chelated solutions), only the rinse waters **may** be discharged to the sanitary sewer. The concentrated cleaning solutions may not be discharged directly without pretreatment. It is the responsibility of the user to demonstrate that treated cleaning solutions are acceptable to the sanitary sewer.
- Collect and reuse parts cleaning solvent solutions and water used in flushing and testing radiators. When reuse is no longer possible, these solutions are hazardous wastes unless otherwise determined, and must be disposed of properly.
- Certain types of solvents and aqueous cleaners can be recycled through a service vendor. This can cut down on treatment costs and is a better renewable resource option.
- Many brake cleaning solvents contain n-hexane, which has been proven to cause serious health problems for mechanics. Switch to an aqueous, recirculating brake-cleaning system to avoid these problems.

Parts Washing, Brake Cleaning, Engine Cleaning, Radiator Flushing



Pollution Prevention Tip: Use a hydrophobic mop to clean up oil spills and a dedicated coolant mop for coolant spills. Use a mop squeegee and place the recovered fluids into dedicated waste oil or waste coolant drums for recycling

Discharge of any wastewater other than storm water directly or indirectly to a storm drain, a creek, an underground percolation sump, or other water body is strictly prohibited. All indoor floor drains and/or sumps that are connected to the storm drain system must be permanently plugged.

Floor drains in work areas are prohibited, unless the work area is only used for washing of vehicles' exterior, in which case the drain must connect to the sanitary sewer.

Utilize dry clean-up methods wherever possible. Clean up spills by using a shop vacuum, sweeping, special oil mops, and/or by using rags or dry absorbents. Remove all unnecessary hoses to discourage employees from washing down floors and outdoor paved areas. Once the dry clean up is complete, floor and paved areas may be mopped.

Take the following steps while mopping floors:

- Clean up spills with rags, hydrophobic mops, or dry absorbent.
- Sweep the floor. Collect all metal filings, dust, and paint chips from grinding, shaving, and sanding and dispose of properly. Collect all brake pad dust and dispose of properly. Never discharge brake pad dust to the storm drain or sanitary sewer.
- Mop the floor using a bucket of non-corrosive cleaner and water diluted as specified on the label. If possible, only spot mop the area that requires cleaning.
- Discharge the mop water to the sanitary sewer via a sink or toilet. Alternatively, place the mop water in your aqueous cleaner.
- If an oil or coolant spill can be cleaned up with 3 or fewer shop rags, use the shop rags to clean up the oil and launder the rags off-site. If it is a larger spill, use a hydrophobic mop and designated oil mop bucket to soak up the oil and ultimately place it into the "used oil only" container for recycling. This will save the costs of disposing of absorbent pads or "kitty litter" as hazardous waste. See Spill Prevention Control and Response for more details.

Cleaning of fuel dispensing islands and adjoining areas must be done using dry methods.

Floor Drains and Floor Cleaning

The best spill control is prevention! Spills are cheaper to clean up when quickly contained! Write a Spill Response Plan. Train employees on the plan annually. During the required annual training, perform drills to ensure that employees can put the Plan into action safely. Adequate spill prevention and clean-up materials must be kept on-site and readily available for use. Examples of such materials are the following:

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| <ul style="list-style-type: none">• Vermiculite (kitty litter)• Rags (for laundering)• Absorbent mats - When obtaining mats, ensure that the material you have chosen will absorb the appropriate fluids. Some only absorb water-based fluids, or solvents, while others absorb oil and grease. There are also absorbents that neutralize as well as absorb for acids or bases.• Portable berms and dikes• Drain blockers - These are rubber mats that are generally stored on the walls and can be quickly thrown down to cover a drain to prevent a spill from going into the drain. | <ul style="list-style-type: none">• Absorbent “socks” - These can be used as a temporary berm.• Consider using an oleophilic (oil absorbing) mop for cleaning up oil leaks and spills. This enables the oil to be more easily recycled.• Waste containers – Drums or other UN-rated, DOT approved containers for any wastes generated during cleanup.• Personal protective equipment such as gloves, bunny suits, safety goggles, face shields, etc.• Dry sweep brush and scoop.• Hydrophobic mops |
|--|---|



Spill kits are available that contain a combination of the above-mentioned materials and are put together based on the quantity of liquid your facility has the potential to release in a worst-case scenario. Plan on getting enough material to clean up the largest quantity of material your shop has onsite. There are several commercial vendors that cater to vehicle service facilities that distribute these materials. They can usually be found on the Internet. Some of the larger suppliers are Lab Safety Supply (www.labsafety.com) and New Pig (www.pigalog.com 1.800.hot.hogs).

Minimize the distance between waste collection points and storage areas and, when transferring wastes, keep lids and containers secured. Attempt to use secondary containment “carboys” when transferring wastes so that if there is a spill, it will hopefully be contained in the carboy. Always use both hands when carrying wastes.

Spill Prevention Control and Response

Posted Example Spill Control Plan

Spill Response Procedures:

1. Protect yourself first. Be sure and put on the appropriate personal protective equipment: gloves, goggles, and an apron.
2. Contain the spill with trays, or absorbent materials. Do not allow the material to reach storm or sewer drains.
3. Check the MSDS for the spilled substance for safe handling and disposition.
4. Clean up the spill as directed on the MSDS.
5. Use dry clean-up methods first, then wet clean-up methods. Do not send any wash water to the storm drain!
6. Package and label all contaminated materials (absorbents, PPE, liquids) for off-site disposal.
7. Notify the manager/owner that a spill has occurred (see below).
8. Notify the appropriate government agency (see below)

Spill Response Personnel

Manager Name:	Pager/Phone:
Owner Name:	Pager/Phone:
<i>Government Entities</i>	<i>Phone</i>
Santa Cruz County Sanitation District	831.477.3907
Fire Department	
Environmental Health Services	831.454.2022

Posted Spill Control Plans do not need to be elaborate. They should be short and to the point so that they are just enough information to quickly and efficiently prevent a spill from spreading. However, if your facility has an Industrial Wastewater Discharge permit, a written Spill Control Plan is required. Call the County of Santa Cruz Industrial Wastewater Pretreatment Program (831) 477-3907 if you would like an example template.

No hazardous materials or waste may be discharged to the sanitary sewer or storm drain!

Keep a record of disposal of hazardous waste to their final resting place. You are liable for these wastes after they leave your facility!

Hazardous Materials typically used by vehicle service facilities include the following:

- Solvent
- Fuels
- oil and coolants
- Paint
- Batteries

Hazardous wastes typically generated by vehicle service facilities include the following:

- Waste oil and coolants
- Excess paints and fuels
- Used shop rags
- Waste solvent
- Jet spray waste
- Clarifier sludge
- Waste batteries

All hazardous materials and waste must be secondarily contained, or placed in a bin that can contain up to 110% of the entire contents of the containers should there be a leak. Store all batteries within secondary containment and locate them either on the floor or on the lower levels of shelving that has been secured to the wall for earthquake protection.

Keep these items stored indoors or in a covered area outdoors. Do not store these items near a sanitary sewer drain or near a storm drain. If these items are stored near a drain, a spill has the potential to travel off of your property, making cleanup more costly and exposing poor business practices to the public. If storage near storm drains is unavoidable, keep drain blockers (rubber mats that seal a drain) in close proximity to the drain at all times and place berms around the storage areas.

Check all containers on a regular basis for potential holes and leaks. Leaks on steel drums can appear as rusted out spots or indentations initially. If a leak is discovered, place drip pans or absorbent material under the leak and then attempt to repair the leak immediately. Keep lids, bungs, and tops secured on waste barrels and containers at all times, excepting when adding waste to containers or dispensing product.

In areas where hazardous materials are stored, make sure there are adequate spill cleanup materials (see the section on Spill Prevention, Control, and Response). Hazardous waste containers must be labeled and stored according to hazardous waste regulations. For more information on Best Management Practices for Hazardous Materials Storage, contact the County of Santa Cruz Environmental Health Services Department at 831.454.2022.

Hazardous Materials Storage and Management

Make sure that all employees understand and follow Best Management Practices. Mistakes and misunderstandings can lead to violations and costly cleanups!

The following page can be used as a training log. Ensure that all employees are trained on Best Management Practices upon hiring and annually thereafter. Use the following as training and education tools:

- This Best Management Practice pamphlet.
- Your written Spill Response Plan.
- Drills on emergency spill cleanup.

Post and/or label the following:

- Post multiple copies of this pamphlet throughout your facility.
- Emergency telephone numbers to your local Fire Department and Wastewater Treatment Facility (831.420.6050).
- Post signs above all sinks prohibiting the discharge of vehicle fluids and wastes.
- Label all drains within your facility indicating whether they flow to a treatment system, directly to the sanitary sewer, or to the storm drain.
- Stencil or post signs near all storm drains on your property with a message- “No Dumping-Flows to Ocean.”

How do you know you're complying? Use the Green Wrench Inspection Checklist at the end of this pamphlet. Enlist a different employee to perform this inspection every month so that they familiarize themselves with the Best Management Practices and solidify their training.



Training

Your facility may be required to have a county approved clarifier to prevent oil and grease and other contaminants from entering sanitary sewer pipes. The size and type of clarifier is based on the quality and quantity of wastewater flowing from your facility.

Your facility is required to have a _____ type clarifier. Clarifiers need to be pumped out in order to maintain contaminant removal efficiency. The length of time between cleanings will vary with the type and size of the unit and the type of establishment.

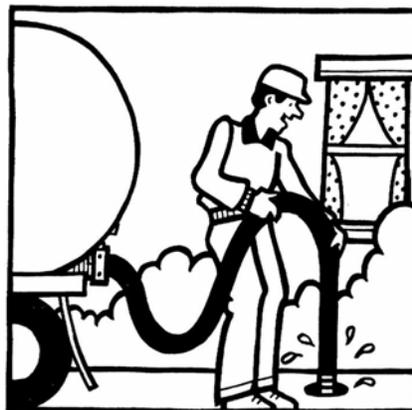
Your facility is required to remove the sludge from the clarifier every _____ days (365 days minimum). You must maintain at least 3 years worth of manifests to prove that you have been disposing of your sludge correctly. **You must send a copy of the manifest for the sludge removal to:**

County of Santa Cruz, Department of Public Works
 Attn: Industrial Wastewater Pretreatment
 2750 Lode Street
 SANTA CRUZ, CA 95062

All paved areas must be swept and outdoor sumps and catch basins must be cleaned out between September 1st and October 15th each year. There are several commercial vendors that service clarifiers and can clean out sumps and catch basins. Not all of the vendors are licensed and approved to dispose of the sludge. Be sure to ask the vendor if they are licensed and if they recycle their waste. Your business is liable for the ultimate disposition of the sludge. Ensure that you know where it is going. All sludge must be transported as a hazardous waste and manifested accordingly. See below for a list of vendors to remove sludge.

Company Name	Phone Number
All Chemical Disposal	408.363.1660
Bayside Oil II Inc.	831.427.3773
Evergreen Environmental Services	949.757.7770
Frank Lovelace Mechanical Services	408.699.2835
One Earth Environmental	831.637.8509
Clearwater Environmental	510.976.1786

This list is not inclusive. To be included on the list call the County at 831.477.3907.



Clarifiers

GREEN WRENCH INSPECTION CHECKLIST

All items marked "NO" will require corrective action. Items marked "N/A" do not apply to this area.

Yes	No	INSPECTION ITEM	CORRECTIVE ACTIONS/COMMENTS/DATES OF COMPLETION
<input type="checkbox"/>	<input type="checkbox"/>	1. Are waste oil, coolants, solvents and batteries being sent to a recycling vendor?	
<input type="checkbox"/>	<input type="checkbox"/>	2. Are employees carefully calculating paint and chemical needs to reduce the amount of excess waste?	
<input type="checkbox"/>	<input type="checkbox"/>	3. All waste containers are properly labeled.	
<input type="checkbox"/>	<input type="checkbox"/>	4. Only appropriate containers are used for hazardous wastes and all containers are in good condition.	
<input type="checkbox"/>	<input type="checkbox"/>	5. Wastewater emanating from painting operation is being treated prior to discharge to the sanitary sewer. No wastewater is entering storm drains.	
<input type="checkbox"/>	<input type="checkbox"/>	6. Dry clean up methods are being used in preference or always before wet clean up methods (those using water).	
<input type="checkbox"/>	<input type="checkbox"/>	7. Parts washing, engine cleaning, and radiator flushing is done indoors only in self-contained systems.	
<input type="checkbox"/>	<input type="checkbox"/>	8. Are solvent sinks/tanks self-contained? Are all parts allowed to drain and dry over the sinks/tanks? Are sink/tanks kept covered at all times?	
<input type="checkbox"/>	<input type="checkbox"/>	9. Spill cleanup material is available in the immediate area. Employees are trained appropriately to cleanup spills and are familiar with the Spill Response Plan.	
<input type="checkbox"/>	<input type="checkbox"/>	10. Are all chemical and waste containers (in storage or in use) in secondary containment?	
<input type="checkbox"/>	<input type="checkbox"/>	11. Vehicle fluids are not being changed in the vicinity of floor drains or over asphalt.	
<input type="checkbox"/>	<input type="checkbox"/>	12. Wrecked vehicles are parked on concrete and are not leaking fluids. Fluid from wrecked vehicles is being drained off immediately after arrival into the shop.	
<input type="checkbox"/>	<input type="checkbox"/>	13. Car washing and steam cleaning is done in a county approved wash area only. Wastewater drains to a clarifier for recycling and/or treatment. Steam cleaning is done in self-contained areas only.	
<input type="checkbox"/>	<input type="checkbox"/>	14. There are no indoor floor drains and/or sumps that are connected to the storm drain system.	
<input type="checkbox"/>	<input type="checkbox"/>	15. Only non-corrosive cleaners are being used to mop floors and they are being diluted appropriately. The mop bucket water is being poured into a drain going to the sanitary sewer. Floors are not being hosed down.	
<input type="checkbox"/>	<input type="checkbox"/>	16. Cleaning of fuel dispensing islands and adjoining areas is done using dry methods.	
<input type="checkbox"/>	<input type="checkbox"/>	17. All hazardous wastes are secondarily contained and are stored indoors away from floor and storm drains.	
<input type="checkbox"/>	<input type="checkbox"/>	18. Lids, bungs, and tops are secured on containers at all times, excepting when adding waste to containers or dispensing product.	
<input type="checkbox"/>	<input type="checkbox"/>	19. The clarifier is working correctly, is not exposed to storm water, and sludge is being removed/pumped according to the time interval set forth by the county.	
<input type="checkbox"/>	<input type="checkbox"/>	20. Sludge removal invoices or manifests have been sent to the Industrial Wastewater Pretreatment Program with the County.	
<input type="checkbox"/>	<input type="checkbox"/>	21. Ask an employee if they know what Best Management Practices are. Can they list an example Best Management Practice? Have they been trained on BMPs in the last year?	



Green Wrench Inspection Checklist