














# School Facilities Best Management Practices (BMPs)



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## **Background**

The San Francisco Bay Regional Water Quality Control Board (Regional Board) is responsible for implementing the Federal Clean Water Act. These statutes provide the Regional Board with authority to regulate the amount of pollutants entering surface water and groundwater. Local administration and enforcement is conducted by the Alameda Countywide Clean Water Program (ACCWP), a consortium of the cities and other local governments. The Clean Water Act requires the reduction of stormwater pollution to creeks and the San Francisco Bay from all facilities, including schools. Contaminated stormwater in urban runoff is currently the largest source of water pollution.

In Alameda County, stormwater flows untreated to municipal storm drains and into creeks, lakes, wetlands and the San Francisco Bay, unlike releases to the combined sanitary sewer such as in the case with the City of San Francisco, which flow to wastewater treatment plants for treatment prior to being discharged to the Bay.

Stormwater pollution can be toxic to aquatic life; can destroy the aesthetics of waterways; and can make swimming, fishing and other recreational contacts with lakes, streams and the estuary hazardous to health. Some sources of stormwater pollution are the results of school activities, such as the application of pesticides and fertilizers and the disposal of tree/grass clippings from ground maintenance, of food waste and litter from cafeterias and of shop and darkroom chemical wastes. The following are some of the potential dangers caused by contaminants once they enter the storm drain and become stormwater pollutants:

- ◆ Motor oil, gasoline and other petroleum products → Coat fish gills and block oxygen from entering the water.

- ◆ Antifreeze, pesticides, paints and solvents → Harmful to both people and wildlife, can kill fish. Some of these pollutants concentrate in the food chain as animals higher up the food chain eat lower level life forms that have been contaminated.
- ◆ Fertilizers, pet droppings and detergents (nutrients) → Create ugly algae blooms and unpleasant odors, can kill fish, and in the case of detergents prevent oxygen from dissolving in water.
- ◆ Tree and grass trimmings, soil and litter → Ruin the beauty of a waterway and can destroy aquatic habitats. As they deteriorate in the water, oxygen is consumed and aquatic life suffocates. Sediments also convey heavy metals and other serious contaminants to the water.

Many of these and other contaminants cause toxicity and are not readily removed by filtration technologies. Contaminants which bioaccumulate in the foodweb can potentially become hazardous to fish and humans in minute amounts. These circumstances significantly affect human health in the Bay Area. For example, in the case of contaminants which accumulate in fatty tissues, consumption of fish with high fat content, (striped bass, white croaker), will affect human health directly. Many of these potential impacts are preventable, and all can be minimized in a straightforward and inexpensive manner through the application of good housekeeping practices and appropriate management of maintenance activities, as described in this School Facilities Best Management Practices (BMP) Handbook. This School Facilities BMP Handbook will help schools reduce stormwater pollution and prepare for ACCWP inspections.

If your school district provides transportation and performs vehicle maintenance, you may need to obtain the Industrial Activities Stormwater General Permit. Please see the Appendix for further details.

## Outdoor Storage

### General Practices

1. Reduce the amount of materials stored on site at any one time.
2. Cap off or cover all storage containers (cans, barrels, drums, etc.) or move storage indoors, if possible.
3. Cover outdoor storage areas with a roof or move materials into a shed. OR  
Cover outdoor storage areas with plastic sheeting or a tarp, and secure it with weighted tires or sand bags.
4. Use secondary containment measures for liquids stored outside and for liquids stored inside near a drain. OR  
Store your containers so that if a leak or spill occurs, materials do not enter the storm drain system.
5. Prevent rain run-on/run-off from flowing to primary and/or secondary containment devices.

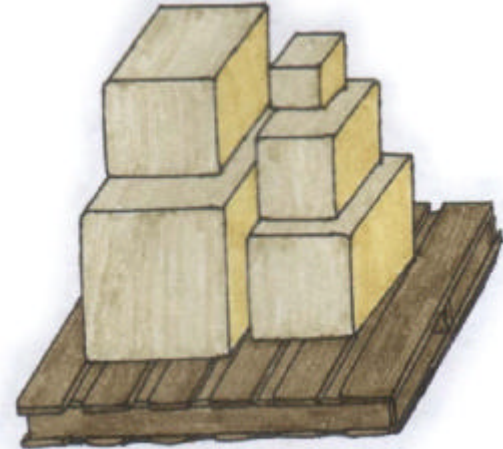
6. If rain is captured in secondary containment devices, dispose of the rainwater properly:

If there is a possibility that the rainwater is contaminated, the rainwater cannot be discharged to the storm drain. (Contact your local storm water representative for more information and guidance on disposal alternatives specific for your site.)

7. Store your school's dry materials on a mounded area, on a pallet, or in a bermed area to keep rain from running onto or through the storage area.
8. Store materials such as grease, paints, detergents, metals, and raw materials in appropriate, labeled containers.
9. Apply caution and control when transferring liquids to minimize the potential for a spill.
10. Keep containers out of pooled or standing water.
11. Regularly inspect liquid containers for cracks, corrosion, or leaky seams. *It is a good idea to keep a log of inspections. For example, write the name of the person who conducted the inspection, date, time, and observations in a recordable format (log book, electronic database, etc.).*
12. Organize and arrange containers so that they are accessible for inspection and/or clean up.
13. Clean up spills as soon as possible, preferably using dry cleaning techniques (such as sweeping, absorbent socks, wet/dry vacuum).

14. Sweep frequently and dispose of debris in the garbage.
15. Keep dumpster areas free of litter and keep lids closed.
16. Have spill clean up materials easily accessible.

~Store dry materials on a mounded area, a pallet, under cover, or in a bermed area -- stops rain from running through the materials~



## **Building Maintenance and Remodeling**

### **General Practices**

1. Eliminate illegal connections to the storm drain system. Pipes connecting wash areas, dumpsters and other contaminated areas to a inlet, pipe or other part of the stormdrain system is illegal. Nothing should enter the stormdrain, except storm water.
2. Identify all storm drains, drainage swales, and creeks located near your site.
3. Make sure all of your janitors, contractors and subcontractors are aware of the locations of storm drains, drainage swales, and creeks located near your site to prevent pollutants from entering them.
4. Secure bags of cement after they are opened. For example, place in a five-gallon bucket with a lid.
5. Clean up leaks, spills, litter, and other wastes daily from outside areas including in and around storm drain inlet grates.
6. Avoid performing messy work outdoors, particularly during wet and windy weather.
7. Protect all storm drain inlets using filter fabric cloth or other Best Management Practices (BMPs) to prevent sediments from entering storm drains, when performing maintenance and remodeling work.

8. Recycle leftover materials. *Concrete, asphalt, wood, changed fixtures, building materials, scrap metal, cleared vegetation, and rock are all recyclable.*

## **Floor Cleaning**

1. Dispose of any mop water, or stripping or rewaxing operations washwater, if non-hazardous waste to a mop sink, toilet, or other sanitary sewer connection.
2. Never discharge or dump cleaning washwater to a storm drain.

## **Carpet Cleaning**

1. Verify with your contractor or janitor that the spent carpet cleaning fluid tank is emptied into a utility sink or an indoor sewer connection or hauled off site and properly disposed of.
2. Never discharge cleaning wastewater to stormdrain.

## **Materials and Waste Handling**

1. Order and mix only the amount of materials you will need. *Mix only the amount of fresh concrete, mortar, or plaster that you will use in a day.*
2. When concrete is used, construct a bermed area for disposal of surplus concrete, let harden up and dispose of as solid waste.
3. Use recyclable materials, and recycle whenever possible.

4. Dispose of liquid residues from oil-based paints, thinners, solvents, glues, lubricants, old fuels, and cleaning fluids as hazardous wastes (see Alameda County Household Hazardous Waste in Appendix A). *Never bury waste materials or throw liquid wastes into trash. Never leave waste material in the street, gutter, or near a creek or streambed.*

### **Dumpster Area Cleaning**

Dumpster should *NEVER* be hosed out

1. Use dry-cleaning methods when possible, using rags, absorbents, and sweeping up debris in the dumpster area. Sweep up solids don't direct or allow them to flow into storm drain.
2. If using water or soap, avoid directing washwater to storm drains by vacuuming or pumping washwater to the sanitary sewer, but first contact local wastewater treatment agency for discharge approval. (see Sanitary Wastewater Authorities, Appendix A)
3. Inspect dumpsters periodically for leaks or stains (at least once/month) and sweep area regularly.
4. Cover dumpsters/waste containers to prevent stormwater from entering the container.
5. Eliminate or minimize the amount of liquid placed in dumpsters or compactors.
6. Apply absorbent over fluids that spill in dumpster, sweep and properly dispose of material.
7. Contact your garbage service to replace dumpsters, which have defective lids or are leaking.

## Spills/Clean-up

1. Clean up leaks, drips and other spills immediately so that they do not contaminate soil or ground-water or leave residue on paved surfaces.
2. Clean up all spills and leaks using “dry” methods (with absorbent materials and/or rags), and/or dig up and remove contaminated soil. Contaminated absorbent, rags, and soil may be hazardous waste. If so, manage appropriately (see Appendix - Household Hazardous Waste or Certified Unified Program Agencies).

## Painting/Removing Paint/Cleaning/Disposing of Paint

1. Use latex or the least hazardous paint.
2. Buy only the amount of paint needed for the job.
3. Mix paints indoors, if possible.
4. When possible, enclose paint operation with scaffolding close to the job. *Use drop cloths draped over scaffolding to reduce area of paint spray.*
5. Minimize overspray.

6. When necessary, delay spraying so as to avoid windy conditions.
7. When stripping or cleaning building exteriors with high-pressure water, prevent discharge to storm drains. For example, block the storm drains and/or direct wash water to a dirt or landscape area, or use a sump pump and protect stormdrain with sand bags.
8. Use plastic sheeting or drop cloths to collect chips and dust from non-hazardous dry stripping and sand blasting. *Sweep up and dispose in garbage.*
9. If removing marine paint or paint containing lead or tributyl tin, do not use a dry cleaning method unless a HEPA vacuum is attached to the tool being used. If HEPA tools are not available, lightly mist the area with a spray bottle and then sand or scrape with tarps down to collect chips. Sprayed water should be at a very low volume so as to not create runoff. Store and dispose of chips as a hazardous waste.
10. When cleaning rain gutters, use a sock or geotextile fabric at downspouts to filter out chips and particles.
11. Quickly clean up any sealing spills. *Remove excess liquid with absorbents or rags.*
12. For water-based (latex) paints:
  - First paint out brushes as much as possible, then rinse in a sink.
  - Dispose of empty dry cans, rags, and brushes used with water-based paints in the trash.

13. For oil-based paints:

- Manage and dispose of excess liquids and residue as hazardous waste (see Alameda County Household Hazardous Waste, in the Appendix).
  - Hazardous Materials must comply with hazardous materials storage and disposal requirements.
  - If possible, filter and reuse thinners and solvents, and when completely spent, dispose of as hazardous waste.
15. Place empty and dry paint cans, dry rags, spent brushes, and drop cloths in the garbage and recycle leftover paint.
16. Dispose of unusable paints and thinners at hazardous waste collection sites/events (see Alameda County Household Hazardous Waste, in the Appendix).
17. *Chemical paint stripping residue is a hazardous waste!* Collect and dispose of residue appropriately.
18. If hiring painters, make sure they follow all of the above best management practices.



## Landscape and Grounds Maintenance

### General Practices

1. Schedule excavation and grading projects for dry weather periods (between April 15th and October 15th).
2. Use the least hazardous product for each job.
3. Divert rainspout runoff from pavement onto grass or landscaped areas.
4. Recycle leftover materials whenever possible. *Do not dispose of any plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drains.*
5. Sweep up any leaves and litter in the gutters, and any residue left on the street. Contain leaves for pickup or dispose of debris in the garbage.
6. Make sure your landscaper protects stockpiles and materials from wind and rain. For example, materials can be stored inside a building, under a roof, or covered with a secured tarp or sheeting to prevent contact with wind and rain.

## Litter Control

1. Make sure there are an adequate number of trash receptacles that are easily accessible to maintenance staff, faculty, and students.
2. Pick up litter and other wastes regularly from outside areas including storm drain inlet grates.
3. Pick up animal wastes and dispose of in garbage cans or toilets.
4. Use dry clean-up methods, such as sweeping, to protect water-quality.
5. Clean storm drain inlets at least annually before winter rains starts.

## Irrigation

1. Use water efficiently. East Bay Municipal Utility District and other local water suppliers can provide assistance.
2. Minimize irrigation runoff to the storm drain system. *Irrigation runoff may contain chemicals from tap water, pesticides, or fertilizers that can harm wildlife.*

## Pesticides and Fertilizers

1. Use integrated pest management (IPM) practices. Contact your local stormwater program or UC Cooperative Extension office for additional information on applicable IPM practices for your site (see Appendix).

2. Choose disease-resistant, drought tolerant, native plants that do well in your local area.
3. Encourage beneficial insects with a variety of flowering plants.
4. Remove the following conditions to prevent bug infestations:
  - Ivy, standing water, and woodpiles;
  - Animal waste, rotting fruit, and debris.
5. If you must use lawn and garden chemicals:
  - Use them both sparingly and as directed.
  - Limit their use to major problem areas.
  - Read and follow pesticide and fertilizer labels carefully.
  - Avoid applying them before rainstorms because they may be washed into the storm drain.
  - Do not over water during and after application.
6. Limit fertilizer applications to twice a year (fall and spring).

## Equipment/Vehicle Maintenance

1. Maintain regularly, equipment and vehicles used for landscaping and grounds maintenance. For example, check for and fix leaks.
2. Perform maintenance in covered, impervious areas.
3. Use drip pans to collect leaks or spills in long-term parking or storage areas and during maintenance activities. Dispose of collected liquids properly.
4. If discharge to pavement when washing vehicles/equipment, then

Best: Use wash pads to capture washwater and discharge to sanitary sewer. Contact your local wastewater treatment agency before connecting to the sanitary sewer.

Second Best: Seal stormdrains; collect washwater and discharge to sanitary sewer.

5. If discharge to unpaved area when washing vehicles/equipment, then

Only discharge infrequently, at a low volume, during the dry season when soil is not saturated. Do not use the same area repeatedly or discharge excessive waste volume, because such activity may contribute to soil contamination. Finally, be aware that washwater may adversely affect landscaping.

## Personnel and Student Training

### General Practices

1. Assign responsibility to specific employees for implementing BMPs and good housekeeping practices, and for responding to spills.
2. Conduct annual training on BMPs, good housekeeping practices, and what to do in the event of a spill.
3. Inform your students of the proper methods for disposing and/or recycling of fluids and wastes at your school.
4. Label storm drain inlets so that students, teachers, and employees properly dispose of waste. *Stencil them with the “No Dumping, Drains to Bay” message. Contact your local stormwater representative for stenciling information and supplies (see Appendix for phone numbers).*

## Outdoor Surface Cleaning

### **General Practices**

1. Make sure contractors follow all of the best management practices described below.
2. Consider contracting only with surface cleaners that have received training from the Bay Area Stormwater Management Agencies Association (BASMAA - see Appendix).

### **Sidewalks and Plazas – with oil on surface or if using soap**

3. Direct washwater to the sanitary sewer.
4. Sweep, collect and dispose of debris and absorbent. *This does not include spills; in the case of an oil or hazardous spill, contact the local fire department for guidance.*

### **Sidewalks and Plazas – with no oil on surface or if not using soap**

1. Sweep, collect, and dispose of debris.
2. Direct washwater to landscaping to prevent washwater from entering the storm drain.

## Driveways, Parking Garages, or Lots – with oil deposits

1. Sweep, collect, and dispose of debris. Sweep parking lots weekly (daily is preferable).
2. Where light oil is present:
  - Clean oil spots with absorbent and manage appropriately. Contact your local hazardous waste regulator for disposal information. Please see Appendix - Certified Unified Program Agencies and Alameda County Environmental Health for phone numbers and additional guidance.
  - Use shop towels.
3. If cleaning with detergent: Use a self-contained mobile washing unit that captures washwater for disposal to the sanitary sewer. Contact your local wastewater treatment agency before discharging to the sanitary sewer.
4. Dispose of washwater to the sanitary sewer, after calling local wastewater treatment agency.
5. Post signs to control litter.

## Building Exterior Cleaning

1. For glass and steel buildings:
  - Direct washwater runoff to dirt/landscaped areas.
2. For painted buildings known to be lead-free:
  - Direct washwater runoff to dirt/landscaped areas.
3. For painted buildings with lead:
  - Seal storm drains and vacuum or pump washwater to a tank. Water and sludge may need to be disposed of as hazardous waste. Consult your wastewater treatment agency and local hazardous waste regulators (see Appendix - Certified Unified Program Agencies and Alameda County Environmental Health).

## Graffiti Removal

1. If using wet sand blasting:
  - Minimize the quantity of water used.
  - Direct runoff to dirt/landscaped areas.

- Sweep debris and sand and dispose of as waste to avoid future runoff contamination.
2. Use high pressure washers with water only and no cleaning compounds:
    - Direct runoff to dirt/landscaped areas. If no landscaping is present, remove solids with a filter before directing runoff to dirt.
  3. Paint over graffiti, taking care to not overspray, drip or spill paint.
  4. Chemical handwipes are another relatively clean alternative for removing graffiti.



~Do not let soap,  
including biodegradable soaps,  
or oily washwaters enter the  
storm drain~

## Concrete, Paving, and Road Work Activities

### General Practices

1. Schedule work (concrete, asphalt, seal coat) for dry weather and avoid activities in wet weather or when a forecast of rain will interfere with adequate curing/setting time for the product.
2. Establish a designated cleanup area before starting work and properly dispose of waste and washwater.
3. Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
4. Wash out concrete equipment, tools, and trucks in a designated area where rinse water will flow into a landscaped area or dirt pit; scrape asphalt off tools and equipment.
5. Let water seep into the soil or evaporate, leaving the concrete residue behind. When the residue dries and hardens, dispose of it in the garbage.
6. Park paving machines over drips pans or absorbent materials since they tend to drip continuously.
7. If hiring a contractor, ensure that they follow all of the above Best Management Practices (BMPs).

## Sawcutting Pavement

- 1 Block storm drain inlets and catch basins using sand/gravel bags, drain covers or similar devices to prevent any slurry and runoff from the saw cutting operation from entering the inlet or basin.
- 2 Minimize the amount of slurry and runoff generated and confine the slurry and runoff to the immediate work area. Minimize the tracking of slurry and runoff off site by cars and trucks.
- 3 Use vacuum cleaning equipment to collect and remove all slurry and runoff as soon as possible, and then dispose of properly.

## Disposing of Washwater

### Preferred Practice:

1. Contain all washwater on soil, preferably in a bowl shaped area to prevent the washwater from flowing from the washout area.

### Alternate Practice:

2. Do **all** of the following:
  - Find the storm drain immediately down stream from the designated washout area. Block the storm drain and dam an area to collect the washwater. *One effective control method is to use sandbags. To properly install, first wet down the sandbags, then compact them tightly to one another and to the curb so that no silty water can flow through.*

- Allow particles to settle and allow the water to evaporate, or even better, vacuum up all water. The latter is preferred, particularly during the rainy season.
  - Remove any remaining concrete sediment.
3. Discard any remaining concrete particles to the trash or landfill.

## Disposing of Concrete

1. Place all excess concrete in a form, holder, box, or a designated washout area where it may be removed once it is hardened. *You may need to make a number of smaller piles because solid concrete is very heavy.*
2. Use the minimum amount of water to wash down the chute, finishing tools, and any other equipment. Perform washing in designated clean-up area.
3. Remove the concrete sediment from the street, gutters, and area surrounding the washout area before it hardens.
4. Dispose of small amounts of dry concrete, grout, and mortar in the trash.
5. Recycle leftover materials, such as large concrete chunks, whenever possible, or dispose of properly. *Concrete, asphalt, cleared vegetation, and rock are all recyclable!*

## Cafeteria and Cafeteria Area

**Cleaning Floor Mats** *It is prohibited to wash mats outdoors where the washwater drains to a storm drain.*

1. Clean floors and mats inside, if possible, or at a wash facility that discharges to the sanitary sewer.
2. Pour/direct washwater into a mop sink or floor drain.

### **Kitchen and Eating Area**

1. Store kitchen grease for recycling in a sealed container (tallow bin).
2. For lunch wagons or food carts, discharge washwater at a proper drain/wash rack equipped to accept and discharge wastewater to the sanitary sewer system.
3. Provide an adequate number of trash receptacles for your students and/or faculty.

## Pool or Fountain Maintenance

1. *If possible, control outdoor pool algae by regulating chlorine levels and using a pool cover to block sunlight. **Do not** use copper-based algae control products.*
2. Discharge swimming pool or fountain water to the sanitary sewer. Please contact local wastewater treatment agency for instructions on how to best proceed (rate of flow, etc.).  
Or discharge swimming pool or fountain water to the storm drains, only if the following conditions are met:
  - The water has been dechlorinated.
  - The water is within ambient temperature.
  - No copper based algae control products have been added to the water.
3. Clean the filter in a wash area that drains to the sanitary sewer. OR Capture/contain the washwater to be pumped to a sanitary connection.
4. Dispose of any solids resulting from backflushing the filters to trash.

## Auto Shop

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### General Practices

1. Choose covered areas that are easy to clean up, with an impervious floor, if possible.
2. Use plastic tarps, drip trays, and splashguards around and under vehicles and equipment to contain leaks.
3. Inspect shop equipment often for leaks and fix them as soon as possible.
4. Recycle leftover materials where appropriate. *Used oil, oil filters, antifreeze, lubricants, solvents, paints, batteries, tires, scrap metal, and degreasers can often be recycled.*
5. Train and remind students on where vehicle fluids and wastes should be disposed (such as posting signs).
6. Label all inside and outside drains to indicate whether they flow to an oil/water separator, directly to the sanitary sewer, or to a storm drain.
7. Cars should be taken to a commercial car wash for washing.
8. Use dry methods to remove oil deposits on the pavement or in the gutter to prevent contamination of the runoff.

## Storage

1. When storing waste containers, antifreeze, and oil:
  - Store them inside a covered shop within secondary containment. OR
  - 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.
2. When storing batteries:
  - Store them securely under cover to avoid breakage, explosions and acid spills during earthquakes. Shelving should be secured to the wall. OR
  - Store them in secondary containment.

## Cleaning Your Shop

1. Sweep or vacuum the shop floor frequently.
2. Segregate waste solvents, paints, oil filters, anti-freeze, motor oil, batteries, and lubricants to increase your water recycling/disposal options and to reduce costs.
3. Soak up leaks and spills with rags or absorbent such as cat litter or saw dust and dispose of properly.

4. Clean up all spills immediately with a spot mop or rags and send them to an industrial laundry.
5. Consider using an oleophilic mop (picks up oil and not water) to reduce the volume of waste liquids you collect and to reduce your cost for disposal.
6. Use a damp-mop instead of hosing down your work area for routine cleaning.

## **Engine Cleaning/Degreasing**

1. Engine cleaning and degreasing should be taken to a commercial shop with appropriate equipment, unless the following can be done:
  - Install appropriate pre-treatment technology as authorized and/or permitted by wastewater treatment agency and hazardous waste regulators.
  - Do not allow any materials or liquids to enter the sanitary sewer or storm drain system.
  - Clean engines on a wash pad and indoors.
  - Evaluate possible hazardous waste for hazardous waste criteria and manage appropriately. Please confer with hazardous waste regulator. (see Appendix for contact information)
2. Avoid products that contain trichloroethane, trichloroethylene, naphtha, and nonylphenol ethoxylate.

3. Use non-flammable biodegradable alternatives to highly toxic degreasers. *Try limonene, a citrus-based solvent*
4. Use rags instead of water when cleaning.
5. Use self-contained sinks and tanks when working with solvents.
6. Keep sinks and tanks covered when not in use. Store inside covered shop, if possible.
7. Regularly inspect degreasing solvent sinks for leaks, and make necessary repairs immediately.
8. Avoid soldering over drip tanks.
9. Clean up solvent with a shop towel and either recycle or dispose of shop towels as hazardous waste.
10. Allow parts to dry over the hot tank.

**Brake Work** - *Most brake pads contain copper and asbestos, which shed or leach off as the pads wear.*

1. Clean brake dust off of wheels with damp towels and dispose of towels as a hazardous waste or use a HEPA vacuum. These precautions are necessary because brakes contain asbestos.
2. Use no-copper or low-copper brake pad replacements, if possible.

3. Avoid cleaning wheels or brake pads where brake pad dust, cleaners, or rinsewaters can flow to a street or storm drain.

## Changing Oil/Antifreeze and other Fluids

1. Recycle used oil, oil filters, and antifreeze.
2. Separate coolant and other auto fluids.
3. Store wastes in a covered, concrete floor shop, within secondary containment.
4. Work in a bermed area or use absorbent socks to create a bermed area to prevent spills from reaching storm drains.
5. Drain vehicle fluids indoors and only on non-porous floors.
6. Drain fluid into a drip pan. *It is also a good idea to place a larger drip pan under the primary drain pan to catch any spilled fluids*
7. Use a funnel to pour fluid into plastic container.
8. Transfer fluids drained from vehicles to a designated waste storage area as soon as possible.

## Auto Body Repair

1. Conduct all body repair and painting indoors or under cover.
2. Eliminate use of degreasers for cleaning body parts before painting. Instead, brush off loose debris and use rags to wipe down parts.
3. Clean spray guns in a self contained cleaning unit.
  - Recycle the cleaning solution when it becomes too dirty to use.
  - Never discharge cleaning waste to the sanitary sewer or storm drain. Contact your local hazardous waste regulators for information on disposal of cleaning waste, (see Appendix - Certified Unified Program Agencies and Alameda County Environmental Health).
4. Sweep, vacuum, or use other dry clean up methods to pick up dust from sanding metal or body filler.
5. Store spray booth filters indoors or in a drum to prevent contact with stormwater. Dispose of filters appropriately. Contact your local hazardous waste regulator for disposal information.

## Auto Washing

1. Designate a vehicle washing area with an appropriate connection. Prevent soapy water from flowing to the storm drains. Contact your local wastewater treatment agency for disposal information.
2. Use soap and elbow power to clean wheels. Avoid using spray-on (acid based) wheel cleaners where rinse water may flow to the storm drains.
3. Eliminate use of degreasers. Instead, brush off loose debris and use rags to wipe down parts.



PLACE LARGE DRIP PANS UNDER LEAKY EQUIPMENT AND AS SECONDARY CONTAINMENT WHEN CHANGING OIL AND OTHER FLUIDS.

## Fueling Stations

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### General Practices

1. Use dry methods such as rags or absorbent materials to clean up leaks and drips. Leaks are not considered cleaned up until the absorbent is picked up and disposed of properly.
2. Handle materials and waste properly to reduce adverse impacts to stormwater quality.
3. Train all employees regularly on proper methods of handling and disposing of waste. Ensure all employees are familiar with the Spill Response Plan. Educate employees on these Best Management Practices (BMPs), stormwater and wastewater discharge requirements and prohibitions.
4. Label all drains within facility boundaries using paint or stencil, to indicate whether flow is to the storm drain, sewer, or oil/water separator.
5. Annually inspect and clean storm drain inlets and catch basins within facility boundaries before October 1.

### Fuel Dispensing Areas

1. Never wash down fueling area with water unless the wash water is collected and disposed of properly.

2. Fit underground storage tanks with spill containment and overfill prevention system meeting the requirements of Title 23 of the California Code of Regulations.
3. Use fuel dispensing nozzles with automatic shutoffs (“hold-open latches”), except where prohibited by local fire departments.
4. Post signs at the fuel dispenser or fuel island warning vehicle operators against “topping off” of vehicle fuel tanks.

### **Outdoor Receptacle Areas**

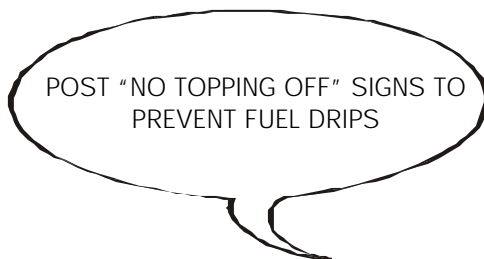
Minimize the possibility of stormwater pollution from outside waste receptacles by doing at least one of the following:

1. Use only watertight receptacle(s) and keep the lid(s) closed, or
2. Grade and pave the waste receptacle area to prevent runoff of stormwater, or
3. Install a roof over the waste receptacle area, or
4. Install a low containment berm around the waste receptacle area, or
5. Use and maintain drip pans underneath waste receptacles.

## Air/Water Supply Areas

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

1. Spot clean leaks and drips routinely to prevent runoff of spillage, or
2. Grade and pave the air/water supply area to prevent runoff of stormwater, or
3. Install a roof over the air/water supply area, or
4. Install a low containment berm around the air/water supply area.



## Welding

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1. Conduct all welding indoors or in a covered area that is not exposed to precipitation or surface runoff.
2. Routinely clean up any welding rods or associated materials that may be exposed to precipitation or surface runoff.



## Appendices

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Local Agency Contacts

Glossary

General Industrial Activity Permit

# Local Agency Contacts

## Local Clean Water Program representatives/inspectors

For tips on Stormwater Pollution Prevention, additional copies of this and other informative brochures, and obtaining stencils for marking your storm drains please call:

City of Alameda	(510) 749-5885
	(510) 749-5840
	or
City of Albany	(510) 528-5771
City of Berkeley	(510) 981-6400
Castro Valley	(510) 670-5500
City of Dublin	(925) 833-6632
City of Emeryville	(510) 596-3728
City of Fremont	(510) 494-4740
City of Hayward	(510) 881-7900
City of Livermore	(925) 373-5233
City of Newark	(510) 790-7254
City of Oakland	(510) 238-6600
City of Piedmont	(510) 420-3050
City of Pleasanton	(925) 931-5511
City of San Leandro	(510) 577-3401
San Lorenzo	(510) 670-5500
Sunol	(510) 670-5500
City of Union City	(510) 675-5369

or call the **Alameda Countywide Clean Water Program** at (510) 670-5543.

## Bay Area Stormwater Management Agencies Association

**(BASMAA)** at (510) 622-2326 for names of professional surface cleaners trained and certified in pollution prevention methods. BASMAA is also a good information source regarding environmental practices for construction and remodeling activities.

### **Sanitary Wastewater Authorities**

for clarification on what can and cannot be put into the sanitary sewer drain please call the Authority for your locality:

Castro Valley Sanitary District	(510) 537-0757
Dublin San Ramon Services District <i>Serves Dublin and Pleasanton</i>	(925) 846-0568
East Bay Municipal Utility District <i>Serves Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont</i>	(510) 287-1651
City of Hayward	(510) 881-7900
City of Livermore	(925) 373-5230
Oro Loma Sanitary District <i>Serves San Lorenzo, unincorporated portions of San Leandro and Hayward.</i>	(510) 276-4700 x149
City of San Leandro	(510) 577-3401
Union Sanitary District <i>Serves Fremont, Newark, Union City</i>	(510) 477-7500

### **Alameda County Household Hazardous Materials Facilities**

at (800) 606-6606 will recycle oil and dispose of small amounts of oil paints, solvents, pesticides, and other hazardous materials.

**UC Cooperative Extension Office** at (510) 670-5200 for additional ideas on how to maintain a healthy, pest-free lawn and how to implement an Integrated Pest Management Program at your schools.

### **Alameda County Solid Waste Management Authority**

can provide information on recycling, composting and proper disposal. Please call 1-877-STOPWASTE.

### **Certified Unified Program Agencies (CUPA) and Alameda**

**County Environmental Health** are local hazardous waste regulators. They can provide information on proper handling, storage, and disposal of hazardous materials including wash waters mixed with lead based paint, oil and other hazardous materials. Please call:

Alameda County Environmental Health (510) 567-6862  
*Serves Alameda, Albany, Castro Valley, Dublin, Emeryville  
Piedmont San Lorenzo, and Sunol.*  
Berkeley City Toxics Management Division (510) 705-8150  
Fremont City Fire Department: (510) 494-4213  
Hayward City Fire Department (510) 583-4924  
Livermore-Pleasanton City Fire Department (510) 454-2362  
Newark City Fire Department (510) 790-7254  
Oakland City Fire Department (510) 238-7759  
San Leandro (510) 577-3331  
Union City Fire Department (510) 471-3232 x367

# Glossary

**Ambient temperature** - temperature of a surrounding medium, usually air or water

**Beneficial insects** - insects that are helpful to human society in some way, including flower pollinators such as bees and butterflies, and insects that are natural enemies of other insects that are considered pests

**Best management practices (BMPs)** – routines or actions implemented to prevent or reduce water pollution, e.g. placing a drip pan under a leaky automobile, covering piles of soil and other potential pollutants with a tarp

**Copper-based algae control products** - chemical products, whose primary active ingredient is copper, designed to kill algae in swimming pools and fountains. One popular brand name is Cutrine.

**Drainage swale** - open drainage channel or depression explicitly designed to detain and promote the filtration of stormwater runoff

**Filter fabric cloth** – see Geotextile fabric

**Geotextile fabric** - synthetic textile of relatively small mesh or pore size that is used to (a) allow water to pass through while keeping sediment out (permeable), or (b) prevent both runoff and sediment from passing through (impermeable), also known as **filter fabric**

**Groundwater** - water that flows below the ground surface through saturated soil or rock

**Impervious** - material that prevents the infiltration or passage of liquid through it; generally applies to manmade surfaces, such as roads, streets, parking lots, rooftops and sidewalks

**Integrated pest management practices (IPM)** - sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health and environmental risks

**Naphtha** - volatile (often flammable) liquid hydrocarbon mixtures used chiefly as solvents and diluents

**Nonylphenol ethoxylate** - non-ionic, polymeric surfactants, widely-used in the following industries: metal processing, pulp and paper, paints, petroleum, textile and leather processing, construction materials, plastics, soap, detergent, and cleaning, and food and beverage; also used in pesticide and fertilizer formulations

**Oleophilic mop** – oil-absorbent mop, preferentially absorbs oil and does not fill up with water; can be used on stormwater with a small amount of oily material

**Pervious** - material that allows the passage of liquid through it

**Sanitary sewer** - system of underground pipes that carries sanitary waste or process wastewater to a treatment plant

**Secondary containment** – system used to ensure that substances are not released to the environment in the case of leakage or failure of the primary container, for example a berm around containers holding hazardous materials or garbage

**Sludge** - muddy or slushy mass, deposit, or sediment

**Slurry** - watery mixture of insoluble matter (like mud, lime, or cement)

**Spill response plan** - a plan of action to take if and when a spill occurs so that the spilled material does not enter the storm drain. For example, develop procedures to seal shut storm drains and clean up for different types of spills, train employees on the procedures, and keep cleanup kits in well marked, easily accessible areas.

**Storm drain inlet grate** - openings to the storm drain system are generally a metal grate flush to the ground over an open section of storm drain pipe.

**Sump pump** - pump used to remove accumulations of liquid from a sump pit

**Tributyl tin** - organic compound most often used in marine paints, also used in lumber preservatives as an industrial biocide; highly toxic, bioaccumulative, and persistent

**Trichloroethane** - halogenated solvent used in degreasing

**Trichloroethylene** - halogenated solvent used in degreasing

**Wastewater treatment agency** – organization that operates the facilities that treat wastewater received from the sanitary sewer system

### **Industrial Activities Stormwater General Permit (General Permit) requirements pertaining to school districts**

This section pertains to additional regulatory requirements concerning storm water compliance, which may pertain to specific school activities

Federal Clean Water Act, 1987 amendments, Section 402p, identifies specific industry types, by Standard Industrial Classification (SIC) Code, which require a permit for storm water runoff. The National Pollutant Discharge Elimination System (NPDES) Permit issued by the US EPA to the State Water Resources Control Board (State Water Board) authorizes states to issue general permits to specific industry types regarding storm water compliance.

The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB) require that certain transportation facilities, including **school/school districts, that have a bus yard and also perform vehicle maintenance, obtain and adhere to all the requirements of a General Permit**

Vehicle maintenance includes: vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication. Only these portions of the facility must be permitted.

General Permit facilities are required to:

- Complete and submit a Notice of Intent to the SWRCB with appropriate fee (\$250/yr)
- Complete, implement and retain onsite a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify all potential sources of contaminants to storm water from any onsite activities, specific Best Management Practices (BMP's) that will be implemented to eliminate or minimize on and offsite impacts to storm water. The SWPPP must contain a site map identifying all storm drains, outside process areas, storage, waste/ recycle storage areas and any other areas which could potentially affect runoff. The SWPPP must also include a site map indicating vector arrows where storm water flows, locations of drop inlets or receiving water bodies and loca-

tions where representative storm water samples will be collected. The SWPPP must be revised, as necessary to reflect any site process or layout changes impacting runoff.

- Facility operators are required to perform quarterly visual observations during periods of dry weather. Documentation must be maintained for the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in storm water discharges.
- During wet weather facility operators must visually observe storm water discharges from one storm event per month during the wet season (Oct 1-May 30). These visual observations shall occur during the first hour of discharge at all discharge locations.
- Storm water sampling and analysis is required during the first hour of discharge from the first storm event of the wet season and at least one other storm event in the wet season. Analysis must include\*: pH, total suspended solids (TSS), total organic carbon (TOC), specific conductance and other pollutants which are likely to be present in storm water discharge in significant quantities.

\* Note- Facility operators may be exempt from performing sampling and analysis if they do not have areas of industrial activity exposed to storm water. They will need to file "No Exposure Certification Form," see website below.

- General Permittees are also required to complete an annual report due to the RWQCB by July 1, outlining measures the facility has performed to minimize/eliminate offsite impacts to storm water. Copies of analytical sampling data must also be included.

For more information regarding General Permits contact the RWQCB at (510) 622-4694, SWRCB at (916) 341-5538, online at [www.swrcb.ca.gov/stormwatr/industrial.html](http://www.swrcb.ca.gov/stormwatr/industrial.html) or your local Clean Water Program representative listed in the appendix to this booklet.