

# Stormwater Best Management Practices for UST Facilities

Solutions to common stormwater violations at retail and wholesale fueling operations.



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# Presentation overview

- Regulations
- Sewer vs. Storm Drain
- Most Common Problems
- Best Management Practices
- Resources
- Questions?



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# Water Quality Regulations

- Federal Clean Water Act (CWA)
- Porter-Cologne Water Quality Control Act
  - State Water Resources Control Board
  - Regional Boards issue Municipal Permits for each region (9).

All prohibit disposal of pollutants to the storm drain system.



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# “The Permit”

Municipal Permit (Order R9-2007-0001)

- Issued to 21 municipalities in San Diego or AKA “Copermittees”.
- Each jurisdiction has a local ordinances and stormwater programs which they administer in their jurisdiction.

NOTE: Some industrial facilities are required to file an “NOI” with the SWRCB.

For info visit: [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

# “The Permit”

## Identify Commercial sites/sources

- Automobile repair, maintenance, fueling, or cleaning;
- Airplane repair, maintenance, fueling, or cleaning;
- Boat repair, maintenance, fueling, or cleaning;
- Equipment repair, maintenance, fueling, or cleaning;
- Retail or wholesale fueling
- Plus “Industrial” and “any sites/sources tributary to a 303(d) impaired water body” ...and others.

# Sewer vs. Storm Drain System



# Storm Water Conveyance System

The public and private drainage facilities other than sanitary sewers...by which urban runoff may be conveyed to receiving waters and includes but is not limited to roads, streets, constructed channels, aqueducts, storm drains, pipes, street gutters, inlets of storm drains, or pipes or catch basins.

# Basically...



Photo Credit: HMD HIRT

**If it flows in here, it ends up there!**

# What is a pollutant?

- Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

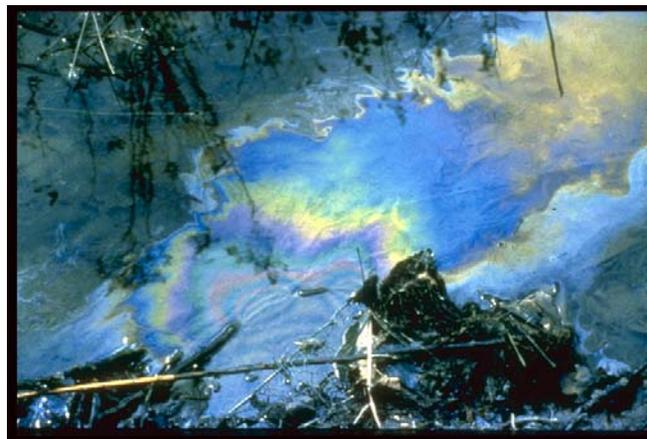


Photo Credit: U.S. EPA OUST website

# Priority Pollutants

Pollutant	Sources	Impacts
Sediment	Construction, grading, concrete work, bare slopes, excavations, drilling	Clogs streams and rivers; reduces light; reduces oxygen harming wildlife; carries other pollutants
Nutrients	Fertilizers, green waste, ammonia cleaners	Algae blooms, then rapid die off depleting oxygen
Bacteria	Pet waste, leaking sewer lines, improper disposal motor homes tank waste	Impacts wildlife and shellfish harvesting; may cause human illness
Trash	Uncovered containers & vehicle loads, litterbugs	Wildlife entanglement or ingestion; loss of aesthetics
Pesticides	Home, ranch, animal, and garden chemicals	Designed to kill by design; may contaminate fish stocks and disrupt food chain

# Common Stormwater Violations

1. Incomplete spill clean up
2. Improper storage of waste (housekeeping)
3. Discharges by contracted service providers
4. Unlabeled containers (assumed hazardous)
5. Corrective action training documentation



Spill clean up is incomplete.

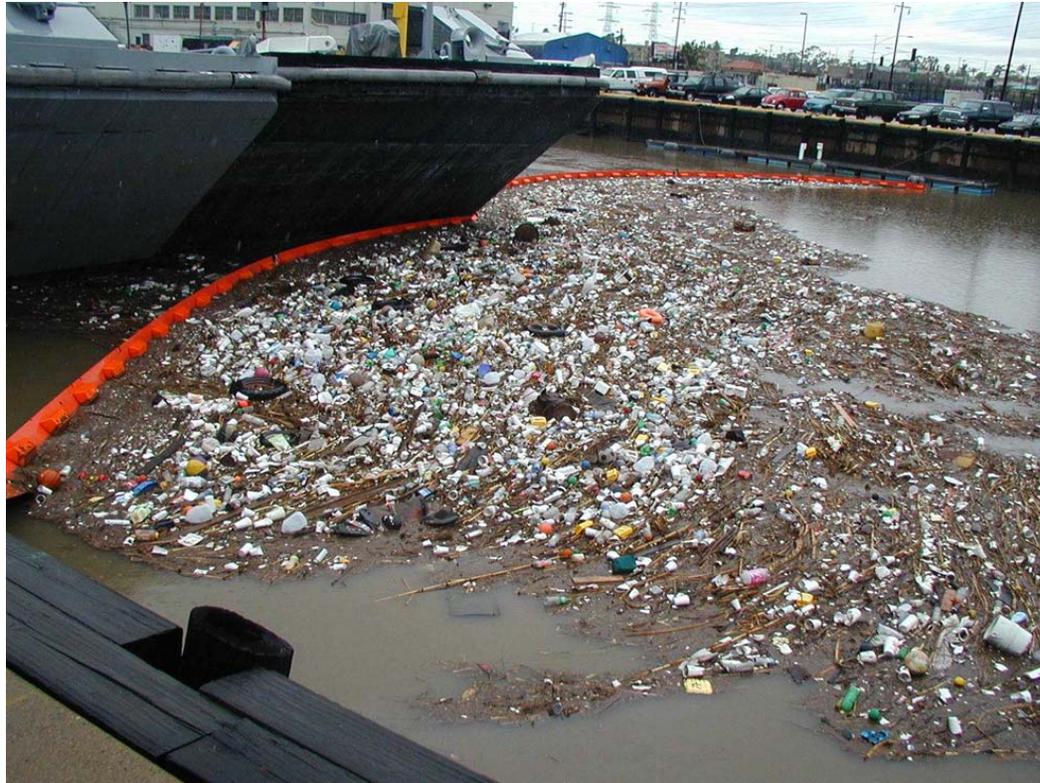


Photo Credit: HMD-UST

# Spill Clean Up BMPs

- Develop “SOPs” (standard operating procedures) for different types of spills.
- Train employees for each spill type.
- Maintain spill kits in accessible areas.
- Pick up absorbents to finish up.
- “MEP”= Maximum Extent Practicable.
- Never hose any spill to storm drain!

# Litter is a stormwater problem.



Chollas Creek at San Diego Bay after “first flush”. Photo credit: U.S. Navy

# Improper solid waste storage



Before



Photo Credit: DPW-WPP

After

# BMPs for Solid Waste Storage

- Solid waste storage areas should be maintained to be clean and free of debris.
- Dumpsters should be closed when not in use to prevent contact with rain and “fly away litter.”
- Waste containers must be leak proof and in good repair.
- Contact hauler to replace damaged or leaking dumpsters.

# Discharges by Contracted Service Providers



Photo Credit: HMD-HIRT

# BMPs & Service Providers

- Accidents happen, but most can be prevented. (See clean up BMPs)
- Owners/operators are jointly responsible for actions of service providers on the property.
- How is the power wash water disposed by service providers?
- Does your contract include language for preventing stormwater pollution?



# Unlabeled containers

- Unlabeled containers are a mystery.
- Hazardous materials and wastes shall be stored, managed and disposed in accordance with applicable federal, state and local laws and regulations.
- Pesticides and other chemical products shall be used, stored and disposed in accordance with applicable federal, state and local laws and regulations.



# BMPs for Hazardous Waste

- Maintain adequate labeling on containers.
- Adequate precautions must be taken to prevent contact with rain water and runoff.
- Elevate and cover containers.
- Store all materials and wastes with the potential to pollute stormwater in a manner that either prevents contact with rainfall and runoff from storm flows or contains contaminated run-off for treatment and disposal.



# Document corrective action training

- Training is done, but not documented.
- Or Training records not on site.
- Or Not available to staff on site.



# BMPs for training

- Conduct the training.
- Document it and have employees sign.
- Make records available for inspectors.



# Resources

Project Clean Water

[www.projectcleanwater.org](http://www.projectcleanwater.org)

California Stormwater Quality Association

[www.cabmphandbooks.com](http://www.cabmphandbooks.com)

Regional Stormwater Hotline

(888) 846-0800

Questions?



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