

Clean Ocean Fact Sheet

For Residents

The protection of our local waters depends upon all citizens, all businesses – everyone. We can no longer point to huge sewage treatment plants or industrial facilities as the most significant contributors of ocean pollution. It is now urban runoff, or the waters that flow from our streets and alleyways to the ocean, that has become the single largest source of water pollution today. Take a moment to review the following information and tips intended to orient homeowners and renters in techniques that reduce or eliminate ocean pollution.

What is Urban Runoff?

Urban runoff is either wet weather (rainwater) or dry weather (water waste) flows from urban landscapes into storm drain systems that lead to the beach. Unfortunately, urban runoff is now the single largest threat to the health of the Santa Monica Bay.

You can take many simple steps to reduce or eliminate runoff from your property. The following is intended to get you started by helping to define the problem and identify opportunities on your way to developing a beach-friendly home.



Hosing sidewalks is illegal and generates urban runoff.

Why is Urban Runoff a Problem?

Urban runoff carries contaminants, such as litter, food, human & animal waste, automobile fluids, industrial pollutants, fertilizers and pesticides to the beach creating health risks for people, killing marine life and contributing to localized flooding and beach closures.

We also see the impacts of pollution in increased health risks to swimmers near flowing storm drains and toxicity to aquatic life. These impacts translate into losses to the tourism economy, loss of recreational resources, dramatic cost increases for cleaning up contaminated sediments, degraded water quality and impaired function and vitality of our natural resources.

Clogged storm drains can lead to area flooding when it rains, creating traffic problems and unsanitary conditions.



First flush is the phenomenon of the first rain “flushing” out the storm drain system of all the accumulated sediment and trash. The Pico-Kenter storm drain, pictured here in December 2004, is a notorious polluter, draining much of the Westside.

In Santa Monica, over 325,000 gallons of runoff flow through the storm drain system each day even when it's not raining.



First flush storm December 2004.

Is runoff treated before going into the ocean, like sewage?

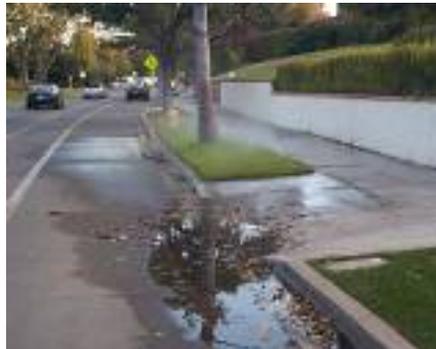
The storm drain system is separate from the sewage system. Storm drains are intended to take rainwater straight to the ocean to avoid area flooding. Santa Monica is unique in that a high percentage (94%) of the dry-weather runoff is treated. The Santa Monica Urban Runoff Recycling Facility (SMURRF) treats and reuses most of the runoff during dry-weather.

The SMURRF treats 325,000 gallons of dry-weather runoff daily. The recycled water is used for irrigation and dual plumbed office buildings.



Good Housekeeping Tips:

- **Storm drains are for rainwater only.** Storm drains carry surface runoff directly to the ocean. Make sure that runoff carries only rainwater.
- **Use a broom instead of a hose.** Hosing paved surfaces is not permitted.
- **Avoid throwing litter into the street.** Trash-laden gutters increase neighborhood pollution and clog storm drains causing street flooding and more traffic congestion..
- **Pick-up after your pet.** Animal waste, when left on the ground, washes down storm drains and contaminates beaches. Picking up dog waste is a requirement and dog owners disregarding this law may be fined. Pet owners are required to carry a visible means of removing their pets' waste.
- **Bring your household hazardous waste (HHW) to the HHW Collection Center.** When thrown in with the regular trash, household hazardous waste can injure sanitation workers. In addition, landfills are not intended or permitted for those types of wastes, which could impact groundwater. When flushed down a toilet, sink or drain, household hazardous waste goes through the sewage system to treatment plants not equipped to handle hazardous waste.
- **Don't do time.** The illegal dumping of hazardous waste carries a minimum fine of \$1,000 per day per violation up to \$100,000 per day per violation and imprisonment.
- **Report illegal dumping.** To report illegal dumping anytime, day or night, call 1 (888) CLEAN LA or fill out an online form.



Overspray from sprinklers creates a pool of pollution destined for the ocean.

Landscaping Tips: Landscaped areas contribute to ocean pollution in numerous ways. Beautify your neighborhood and reduce the negative impacts of your landscaped areas at the same time:

- **Reduce or eliminate the use of pesticides or fertilizers.** Do not apply pesticides or fertilizers before it rains or if a storm is predicted within three days. Not only will you lose most of the chemicals through runoff, but you will also be harming the environment. Do not overwater after application. Read the label and do not apply more than recommended.
- **Plant California-Friendly or climate appropriate plants** that require less water and maintenance than exotic (thirsty) plants.
- **Do not over water plants.** Irrigation runoff is not permitted. Consider installing water-efficient irrigation systems.
- **Check irrigation system** regularly and adjust it to prevent runoff.
- **Automatic irrigation controllers** should be reset seasonally, when there are power outages and during rainy season, before and after rain events.
- **Compost** or mulch yard waste. Do not leave it in the street or sweep it into storm drains.
- **Cover** piles of dirt or mulch to prevent wind or rain from carrying offsite.

Rainwater Management Tips:

- **Redirect rainwater downspouts.** If your downspouts direct runoff directly to the street or alley, you may want to disconnect the downspout and direct runoff to your landscape. Most major home improvement centers have plastic, corrugated and flexible pipes that connect to downspouts and expand to carry the runoff to your landscape.
- **Redirect downspouts to an underground infiltration pit** to allow rainwater to percolate into the ground and recharge our drinking water aquifers.
- **Use a rain barrel/cistern** to capture rainwater and use it to water your garden, reducing runoff and your need for potable water.



Simulated stream bed captures, diverts, and absorbs rainwater.

Automotive Care Tips:

- **Use a commercial car wash.** The water is recycled several times before going to the sewer system for treatment.
- **Wash your car on your yard** so the water can soak into the ground. Use a hose with a shut-off nozzle.
- **Recycle your motor oil for free** at the Santa Monica Household Hazardous Waste Center or at a participating business.
- **Purchase re-refined motor oil for your vehicle.** Re-refined oil has been recycled and then reprocessed so it is as good or better than virgin oil. By using re-refined motor oil, you are closing the recycling loop and saving natural resources.
- **Repair car leaks** as soon as you notice them.
- **Do not degrease engine.**



Fire department cleaning up used motor oil that was illegally dumped in the street.

Permeable Surface Tips:

- Porous concrete and asphalt are available to replace impermeable surfaces. Permeable paving allows runoff to infiltrate into the soil and not run off into the street.
- Concrete and plastic pavers are also available to replace concrete and asphalt, allowing water into the ground but also allowing driving and parking.



This permeable driveway features concrete pavers.

Miscellaneous Urban Runoff Problems & Solutions, brochures available at the City of Santa Monica or on the Web:

- **Pressure Washing and Surface Cleaning:** See Sacramento program, www.sacstormwater.org; Power Washers of North America, www.pwna.org; additional information from www.pressurewash.com or www.dcs1.com though specific for Texas
- **Pool Discharging:** See Sacramento program; City of Santa Monica prohibits the discharge of pool water into the street or alley; must go into the sanitary sewer or your landscape; City of West Hollywood, Department of Public Works brochure
- **General Construction, Earth-Moving Equipment, Road Work/Paving, Site Supervision:** See Alameda Countywide Clean Water Program, www.cleanwaterprogram.org, brochures; City of West Hollywood, Department of Public Works brochure; City and County of Santa Barbara, Project Clean Water, www.countyofsb.org.
- **Painting:** See Sacramento program, <http://www.msa.saccounty.net>; City of West Hollywood, Department of Public Works brochure; Alameda Countywide Clean Water Program.
- **Restaurants/Food Service:** See Sacramento program above; City of West Hollywood, Department of Public Works brochure; County of Los Angeles Public Works, 888.CLEAN LA.
- **Charity Car Washes:** Contact the Western Carwash Association, 800.344.WASH or 562.928.6928, www.wcwa.org.
- **Santa Monica Household Hazardous Waste Center**, for residents only, 310.458.8255 or www.smepd.org.

Additional Miscellaneous Web Site Resources:

- Bay Area Stormwater Management Agencies Association, www.basmaa.org
- California Stormwater Quality Association, www.cabmphandbooks.com
- Center for Watershed Protection, www.cwp.org
- City and County of Sacramento Stormwater Management Programs, www.sacstormwater.org, www.sactostormwater.org, www.sacramentostormwater.org, <http://www.msa.saccounty.net/sactostormwater/documents.asp#brochures>
- City of Los Angeles, www.lastormwater.org
- Low Impact Development Center, www.lowimpactdevelopment.org
- NAHB Research Center Toolbase Services, www.toolbase.org
- Natural Resources Defense Council, www.nrdc.org/water/pollution/storm/stoinx.asp
- Prince George's County, Maryland, www.goprincegeorgescounty.com
- Puget Sound Action Team, LID information and urban runoff, www.psat.wa.gov/Programs/LID.htm
- RiverSides, information on car washes, rain barrels and LID, www.riversides.org
- Santa Clara Valley Urban Runoff Pollution Prevention Program, www.scvurppp.org
- Stormwater Manager's Resource Center, www.stormwatercenter.net
- U.S. EPA, www.epa.gov/owow/nps/urban.html, www.epa.gov/nps, www.epa.gov/owow/nps/urbanmm, www.epa.gov/npdes/menuofbmps/menu.htm
- Wisconsin Department of Natural Resources, resources on rain gardens, www.dnr.state.wi.us/org/water/wm/dsfm/shore/raingarden.htm

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