

# Clean Ocean Fact Sheet

## For Business

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 business managers to reduce or eliminate their impact on our ocean.

### 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 business site. 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 business.



Hosing sidewalks and parking lots 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.



## What can a business do to prevent urban runoff pollution?

Everyone has some responsibility in keeping our city and ocean clean. Here are a few tips that can help protect our environment:

- **Don't put anything in storm drains but rainwater.** 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. Sweep up litter and debris from sidewalks, driveways and parking lots. Do NOT sweep into the street or gutter, where it will get washed into a storm drain. For alternatives, click [here](#).
- **Cover dumpsters or close dumpster lids** to prevent the entry of water. Check dumpsters for leaks, report leaky ones immediately and replace it.
- **Cover any exposed chemicals or building materials** that could spill or leak, sending harmful materials into the storm drain system.
- **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.
- **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



Trash dumpster leaking fluids. Properly bag waste, replace leaking bins and keep lid closed at all times.



Mop rather than using a hose.

**Landscaping Tips:** Beautify your business, and reduce the negative impacts of landscaped areas.

- **Be smart when you apply pesticides or fertilizers.** Do not apply pesticides or fertilizers before it rains. Not only will you lose most of the chemicals through runoff, but you will also be harming the environment. Do not over water 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 plants. Click [here](#) for more information.
- **Do not over water your clients' plants.** Irrigation runoff is not permitted. Consider installing water-efficient irrigation systems. Click [here](#) for more information.
- **Check your clients' irrigation system** regularly and adjust it to prevent runoff. Click [here](#) for more information.
- **Automatic Irrigation Controllers should be** reset seasonally when there are power outages and during rainy season, before and after rain events.
- **Redirect runoff** from roof, driveway and other paved areas to your clients' landscape.
- **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.



**Automotive Care Facility Tips:** Serve your customers while protecting public health, the groundwater and ocean water resources.

- **Clean up spills immediately** and properly dispose of cleanup materials.
- **Provide full and complete cover over fueling stations** and design or retrofit facilities for spill containment.
- **Install and maintain oil-water separators** and other devices, such as storm drain inserts and a berm around fueling areas, to remove runoff pollution.
- **Mobile Detailing Companies** must obtain a permit from the Water Resources Protection Office.



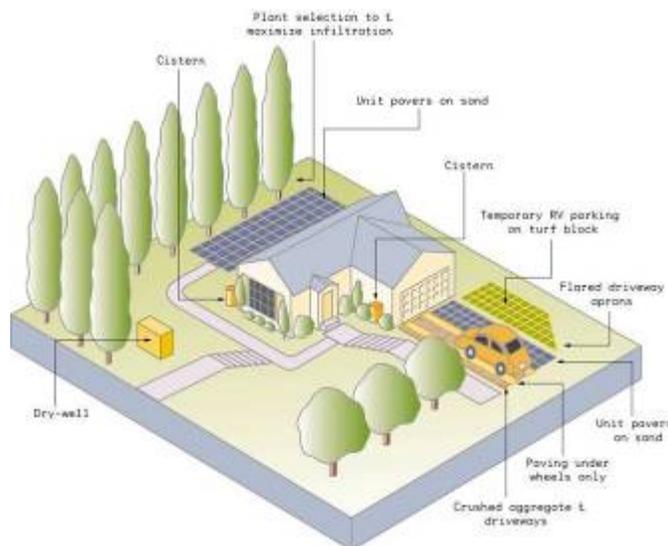
Berm around fueling area to keep any spills or runoff in the fueling area and directed to a catch basin with an insert to remove debris, oil and grease.



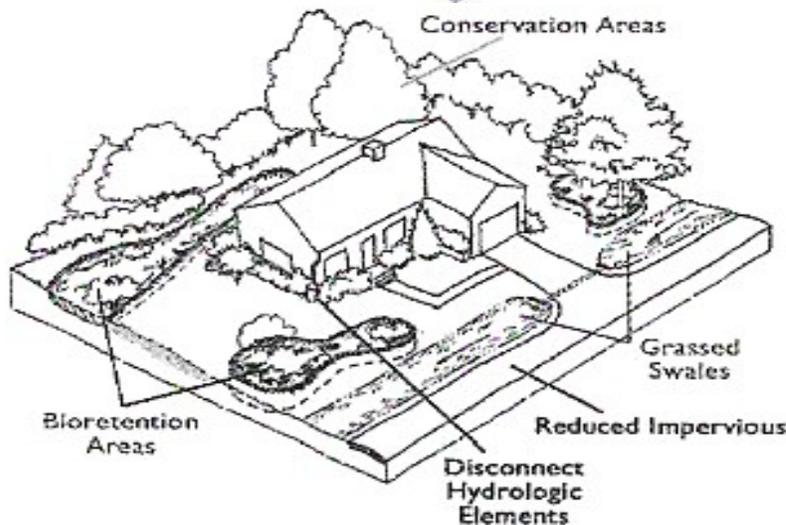
Fire department cleaning up used oil that was illegally dumped in the street.

**Low Impact Development (LID) Projects:** Simultaneously reduce land development and infrastructure costs while protecting a property's natural resources and functions.

- **Minimizing runoff** from any new construction project by reducing impervious surfaces, disconnecting runoff from impervious pathways and using onsite infiltration techniques can reduce or eliminate the need for more costly structural stormwater treatment devices on the property.
- **Preserve open spaces** and minimize land disturbance.
- **Protect and incorporate natural systems** (stream/wildlife corridors, trees, landscapes) as design elements.
- **Utilize Neo-traditional street** and lot layouts and designs (reduced use of wider than necessary hardscapes (streets, sidewalks) and increased use of wider permeable areas.
- **Bioretention areas** direct storm water to shallow topographic depressions in the landscape where it is filtered, stored and infiltrated into the ground.
- **Native grass swales** filter the water as it flows across the area and as it slowly percolates into the ground. These systems can act as low-cost alternatives to curbs, gutters and pipes, i.e. the public storm drain system.
- **Divert storm water** away from disturbed or exposed areas of construction.
- **Cover any exposed areas of dirt.**
- **Install vehicle mud/sediment removal areas** and other sediment and erosion controls, and properly maintain them, especially during a storm event.
- **Protect downstream storm drains** to prevent sediment-laden runoff from entering.



Examples of how to design your land use to maximize permeable areas and minimize impermeable areas to reduce runoff.



Cost-savings examples when implementing LID in a project.  
Source: NAHB Research Center

### 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](http://www.sacstormwater.org); Power Washers of North America, [www.pwna.org](http://www.pwna.org); additional information from [www.pressurewash.com](http://www.pressurewash.com) or [www.dcs1.com](http://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](http://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](http://www.countyofsb.org).
- **Painting:** See Sacramento program, <http://www.msa.sacounty.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](http://www.wcwa.org).
- **Santa Monica Household Hazardous Waste Center**, for residents only, 310.458.8255 or [www.smepd.org](http://www.smepd.org).

**Additional Miscellaneous Web Site Resources:**

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

**Neal Shapiro**

Urban Runoff Management Coordinator  
City of Santa Monica  
310.458.8223  
neal.shapiro@smgov.net  
www.smepd.org

