

City of Santa Monica Urban Watershed Management Program

Low Impact Development Strategies:

Santa Monica Main Library

601 Santa Monica Blvd.



← [Slotted Drain]



← [StormFilter® Catch Basin]



[Downspout Filter] →



[200,000 Gallon Concrete Cistern] →



The Santa Monica Main Library project incorporates Low Impact Development strategies with Best Management Practices (BMPs) to harvest urban runoff either for treatment via infiltration (soil ecology does a wonderful job in neutralizing low-level or background concentrations of pollutants) or for reuse in landscape irrigation or indoor flushing.

Rebuilt from the ground up, the new library opened in 2006. The city's urban runoff strategy evolved to the highest sustainable end use: reuse. By reusing runoff, one can reduce the demand for more valuable potable water, most of which is imported into Southern California from distant watersheds.

Runoff from roofs, decks and surface parking areas is collected and piped through **17 downspout filters BMPs** (PHOTO bottom left) before entering the **200,000 gallon concrete cistern BMP** (PHOTO bottom right), which is located beneath the underground parking structure. Downspout filters are capable of removing some pollutants. Stored water is pumped to the library's sub-surface irrigation system.

The landscape includes drought-tolerant and native plants. The surface parking lot has two BMPs to collect and filter water before it reaches the cistern: **slotted drains** (PHOTO top right) and a **StormFilter® catch basin** with filter media (PHOTO top right) from Contech. The catch basin contains a media-filled cartridge to filter soluble pollutants, as well as remove trash. All site runoff is directed to these four BMPs.

Planning for a Cleaner Bay

Urban runoff flowing through storm drains is the single greatest source of pollution to the beaches and near shore waters of the Santa Monica Bay. Unlike sewage and discharges from industrial sources, urban runoff is not generally adequately treated before it reaches the bay and our beaches.

The City of Santa Monica passed an ordinance that is designed to reduce the amount of urban runoff pollution that reaches our storm drain system and the Santa Monica Bay. The ordinance requires a reduction in urban runoff flowing off of all impermeable surfaces from newly developed or retrofitted parcels within the city.

Reducing the amounts of urban runoff and of pollutants contained in the runoff is essential for the health and safety of our community. A cleaner bay means a healthier marine ecosystem and improved quality of life for residents, and increases Santa Monica's appeal to visitors and businesses.

By implementing post-construction Best Management Practices (BMPs) and making these strategies part of our daily lives, we can make a genuine difference - and clean the bay!



Putting the LID on Urban Runoff, the Santa Monica Way

In the city's efforts to reduce runoff pollution through the use of BMPs, we can manage, use and redevelop our lands in a more sustainable manner through the use of Low Impact Development (LID) and smart growth design strategies, and BMPs. LID is an economically and environmentally responsible strategy to site development which still allows land development, but in a long-term cost-saving manner that also mitigates potential environmental impacts. Whether employed at a single-family home or large commercial or public project, LID integrates land planning, and site design practices and techniques to mitigate development impacts to land, water and air, to conserve and protect natural resources and ecosystems, and to reduce infrastructure costs, e.g., storm drain systems.

This strategy views each development project as a small micro-watershed, part of the greater watershed or drainage basin of a particular area. The strategy promotes the concept of "start at the source," that is, to keep as much precipitation on each parcel to minimize the amount of runoff or waste water leaving a site. In the end, watershed management must include the individual and each parcel, and LID approaches should be used in planning and designing phases. The results of these strategies will be to maximize onsite rainwater and runoff harvesting, retention and use, and to minimize runoff pollution in reaching the bay.

For more information contact **310-458-8223** or visit **sustainable-sm.org**



Urban Runoff & Watershed Management Program

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