

# Stormwater Management and Low Impact Development

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*There are mountains in Attica, which can now keep nothing but bees, but which were clothed, not so very long ago, with fine trees producing timber suitable for roofing the largest buildings while the country produced boundless pasture for cattle. The annual supply of rainfall was not lost, as it is at present, through being allowed to flow over a denuded surface to the sea, but was received by the earth, in all its abundance, into her bosom where she stored it.*

Plato: Dialogue of Critias 360 B.C.E.

The conservation of all natural resources is not a concept of recent origin. From the glassblowers of old who depended on stands of mature hardwood forests to heat their furnaces, to the building and construction industries of today, we are experiencing a renaissance in understanding about the impacts of a denuded landscape. Waters flow faster and untamed through our California watersheds and rain water is channeled down our urban streets when it could be saved and reused. Low Impact Development practices are innovative practices to manage urban stormwater runoff at its source. The issue is one with several considerations: economic, environmental, and social.

On January 8, the Environmental Protection Agency (EPA) released a new report, “Reducing Stormwater Costs Through Low Impact Development (LID) Strategies and Practices.”<sup>1</sup> Seventeen case studies from across North America show the economic viability of LID practices.

<sup>1</sup> The full report, including an Executive Summary and a Question and Answer fact sheet, can be downloaded at <http://www.epa.gov/owow/nps/lid/costs07>.

In explaining the goal of LID, Don Waye of the Nonpoint Source Control Branch of EPA said, “The goal is to mimic the way water moved through an area before it was developed by using design techniques that infiltrate, evapotranspire, and reuse runoff close to its source. Some common LID practices include rain gardens, grassed swales, cisterns, rain barrels, permeable pavements and green roofs.”

Echoing the sustainable communities concept, new alliances are being formed by county stormwater managers, local water districts, urban planners, and developers to better understand the inter-relatedness of these disciplines. Conservation designs not only address water conservation, but the preservation of open space. Developers can use conservation designs to preserve important features on the site such as wetland and riparian areas, forested tracts, and areas of porous soils by not stripping the topsoil or compacting the subsoil from heavy equipment grading. The social benefit to the community is proximity to open space and the expanded recreational opportunities it affords.

LID is relatively new as a land use and urban planning tool. Two governmental agencies working on a Low Impact Development program are the City of Salinas and the County of San Diego. The program that Salinas adopts could become the model for that region. San Diego County has just completed their program guidelines and released a LID handbook for planners. The handbook is available at <http://www.sdcdplu.org/dplu/Resource/3~proguid/3~proguid.html>.

Members intrigued by the efforts of Salinas and San Diego may explore these issues using the U.S. Environmental Protection Agency outreach tools, available online here: <http://www.epa.gov/owow/nps/toolbox/links.htm>.