Low Impact Development a Key Response to Stormwater[1]

As the water boards have attempted to improve regulation surrounding urban stormwater, they have begun to focus more on low impact development (LID) as both a key to reducing stormwater discharges and as a potential source of recycled water. The state, as a whole, should continue discussing ways to encourage and improve LID.

The goal of LID is to maintain the hydrology of a development site even as development occurs. LID attempts to hold water on site through water storage and infiltration with the ground. Examples of LID include rooftop gardens on public buildings, rain barrels that catch rain water for reuse, permeable pavement and other methods that decrease the imperviousness of an area that often occurs when it is developed into an urban use.

LID marks a profound change in urban development. Past practices focused on moving water from rain storms quickly away from development to prevent flooding. In Los Angeles, for example, engineers designed concrete channels to convey large volumes of water from occasional but fierce rain storms.

The water boards and other state agencies have made efforts to promote – and require – LID:

- ***Central Coast LID Center.*** Using $2.25 million from the state board, the Central Coast Regional Water Quality Control Board helped develop the Central Coast LID Center, which opened in 2008. The non-profit, affiliated with an already-existing LID center in Maryland, opened in San Luis Obispo in 2008, and will develop technical expertise for the state on LID, provide education and outreach on the topic and serve as a library for research on the issues.

- ***LID Education Project.*** Developed by the water boards, the Coastal Commission and several other groups, including the California Stormwater Quality Association, the project is intended to hold workshops and promote LID throughout the state to local government officials, state officials, developers and others. The project, which was just launched 2008, is seeking to raise more than $2 million to pay for the workshops and other efforts.

- ***LID Regulations.*** Both the state water board and some regional boards have begun to require LID in permits. The San Francisco Bay Regional Water Quality Control Board, for example, is requiring in stormwater permits that new development maintain pre-development erosion levels, while the San Diego Regional Water Quality Control Board in its stormwater permits is requiring all new development and redevelopment projects to implement LID where feasible. Other boards are beginning to place numeric limits on development sites, limiting the amount of impervious surfaces in new development.

The construction industry and municipalities have objected to some of the boards' more aggressive efforts to require LID, arguing that it can increase design and construction costs. In addition, local governments may need to review decades-old ordinances: The city of Lompoc, for example, found that ordinances required impervious concrete in parking lots, which conflicted with Central Coast Regional Water Quality Control Board's requirements to dramatically decrease imperviousness.

Despite these conflicts, most stakeholders agree that LID is an essential tool to addressing stormwater pollution. In addition, LID may help local communities retain and eventually reuse water by recharging ground water basins. A 2005 report by the Los Angeles and San Gabriel Rivers Watershed Council noted that 500,000 acre-feet of stormwater runoff flow from the Los Angeles County basin to the ocean each year. The report noted that if the region could instead capture that water and reuse it, Southern California would be less dependent on water imports from Northern California.

Sources: Water Education Foundation. 2007. "Stormwater Management: Turning Runoff into a Resource." Eric Berntsen, State Water Resources Control Board. January 28, 2008. "Incorporation of LID into State Water Board Programs." Roger Briggs, Executive Officer, Central Coast Regional Water Quality Control Board, and Al Wanger, Deputy Director, California Coastal Commission. October 27, 2008. "Statewide Low Impact Development Education Project." Presented to the Water Quality Coordinating Committee. Central Coast Regional Water Quality Control Board. June 10, 2008. "Staff report, Proposed Re-Direction of Low Impact Development Project Funds to Support the Central Coast Low Impact Development Center."

[1] Little Hoover Commission, *Clearer Structure, Cleaner Water: Improving Performance and Outcomes at the State Water Boards*, p. 81 (Jan. 2009).