

**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

**DATE:** December 14, 2010

**TO:** Honorable Members of the Energy & Environment Committee

**FROM:** Gerry Miller, Chief Legislative Analyst *GMM*  
Miguel A. Santana, City Administrative Officer *MAS*

**SUBJECT: PROPOSED LOW IMPACT DEVELOPMENT ORDINANCE**

At its December 7, 2010 meeting, Energy and Environment Committee considered the Bureau of Sanitation's (Sanitation) proposed Low Impact Development (LID) ordinance that would impact new development and redevelopment in the City of Los Angeles. The proposal would amend existing Standard Urban Stormwater Management Plan (SUSMP) requirements. At that meeting, the Committee requested a report from the Chief Legislative Analyst (CLA) and the City Administrative Officer (CAO) and a copy of the proposed Best Management Practices Manual from the Bureau of Sanitation.

**RECOMMENDATION:**

That the Council:

- 1) REQUEST the City Attorney's office to prepare and present an ordinance to establish the proposed Low Impact Development requirements on new development and re-development in the City; and
- 2) INSTRUCT the Bureau of Sanitation to prepare a final LID section for its Development Best Management Practices Handbook, and to present that section to the Council at the same time the City Attorney returns with a final ordinance.

**Background:**

The proposed ordinance would update the City's existing SUSMP regulations, which are designed to mitigate storm water runoff, improve water quality, and comply with the storm water and water quality mandates. Adoption of the LID ordinance would lead to greater emphasis on capturing, infiltrating and re-using rainwater on-site. The Bureau of Sanitation has prepared a draft ordinance describing the LID program, but the City Attorney will have to prepare and present a final ordinance to the Council before it can be adopted.

The proposed ordinance will require the use of low impact design practices in new developments and redevelopments to manage rainwater and urban runoff. This will be achieved by requiring on-site measures to capture, infiltrate, and/or use rainwater when and where feasible through such means as high efficiency bio-filtration and treatment Best Management Practices (BMP). Measures currently implemented under SUSMP will be inclusive of LID. A Development Best Practices Manual prepared by Sanitation for developers and homeowners will be updated to incorporate a LID section that describes specific strategies and techniques to comply with the LID requirements as part of this effort.

Sanitation reports that the LID ordinance will help the City meet its current and future water quality implementation and compliance plans in compliance with regulatory requirements in effect such as Total Maximum Daily Loads (TMDL) and in response to direction from the Council (C.F. 09-1554 (Greuel – Reyes Motion). Several compliance plans approved by the City Council already have LID practices as key elements for compliance, including the Los Angeles River Metals TMDL, the Ballona Creek Bacteria TMDL, and the Ballona Creek Bacteria TMDL.

The proposed LID ordinance would apply to all developments and redevelopments that require building permits and add impervious surface of 500 square feet or more. For most developments previously governed by SUSMP – generally commercial developments – the LID requirements are similar to SUSMP requirements.

The LID ordinance does add categories of buildings that are not previously governed by SUSMP requirements, including residential properties of 4 units or less. Projects that are less than 500 square feet are exempted from LID requirements.

**Committee Requests:**

The Energy and Environment Committee requested the CLA and CAO to include information on several areas related to the LID proposal in its report. The remainder of this report addresses those requests.

**Comparison of LID and SUSMP programs**

The Committee requested that our report include a table comparing the LID ordinance and existing SUSMP regulations in separate columns. The following table includes those comparisons:

	<b>SUSMP PER CURRENT NPDES-MS4 PERMIT</b>	<b>PROPOSED CITY OF LOS ANGELES LID ORDINANCE</b>
<b>Purpose</b>	<ul style="list-style-type: none"> <li>Minimize impacts from Stormwater and urban runoff</li> <li>Maximize the percentage of pervious surfaces</li> <li>Minimize the quantity of storm water directed to impervious surfaces</li> <li>Minimize pollution emanating from parking lots</li> <li>Properly design/maintain BMPs</li> <li>Provide for appropriate permanent measures to reduce storm water pollution from development sites</li> </ul>	<ul style="list-style-type: none"> <li>Maximize open, green and pervious space on all Developments consistent with the City’s landscape ordinance and other related requirements.</li> <li>Require LID measures for stormwater pollution mitigation apply to all developments that alter an existing impervious surface area.</li> <li>Integrate LID measures for stormwater pollution mitigation into the current NPDES MS4 Permit – Development Planning Program requirements (SUSMP/SSMP).</li> </ul>
<b>Applies to</b>	<p><i>SUSMP Categories</i></p> <ul style="list-style-type: none"> <li>Single-Family Hillside Homes</li> <li>10+ Housing Developments (Apartments, Condos, etc.)</li> <li>Commercial/Industrial Developments (&gt;1 acre of imperviousness)</li> </ul>	<p>All Developments and Redevelopments in the City of Los Angeles that increase the impervious surface area (<math>\geq 500 \text{ ft}^2</math>) <u>and</u> require a building permit.</p>

	<ul style="list-style-type: none"> <li>• Automotive Service Facilities</li> <li>• Retail Gasoline Outlets</li> <li>• Restaurants</li> <li>• Parking Lots ( &gt;5,000 ft<sup>2</sup> or with 25 or more parking spaces)</li> <li>• Projects located in, adjacent to or discharging directly to a designated Environmental Sensitive Area (ESA)</li> <li>• Redevelopment Projects for above mentioned categories</li> </ul> <p><i>Site Specific Mitigation requiring SUSMP</i></p> <ul style="list-style-type: none"> <li>• Vehicle or Equipment Fueling Areas, Maintenance Areas, including Washing and Repair</li> <li>• Commercial or Industrial Waste Handling or Storage</li> <li>• Outdoor areas which contain: <ul style="list-style-type: none"> <li>- Handling or Storage of Hazardous Materials</li> <li>- Manufacturing</li> <li>- Food Handling or Processing</li> <li>- Animal Care, Confinement, or Slaughter</li> <li>- Horticultural Activities</li> <li>- Major Transportation Projects (LA City requirement only )</li> </ul> </li> </ul>	(continued)
<b>Exemptions</b>	All projects that do not fall within the above mentioned categories	<ul style="list-style-type: none"> <li>• Any Development / Redevelopment that only creates, adds or replaces less than 500 square feet of impervious area;</li> <li>• Any Development / Redevelopment for which plans and complete permit application are accepted by the Dept of B&amp;S for plan check and appropriate fees are paid prior the effective date of this ordinance;</li> <li>• Any Development / Redevelopment with existing building permits and entitlements and or applications deemed complete. This exception shall no longer be valid if a building permit has not been obtained within 3-yrs from the effective date of this ordinance and the applicable tolling period.</li> <li>• Any Development / Redevelopment</li> </ul>

		<p>involving emergency construction activities required to immediately protect public health and safety;</p> <ul style="list-style-type: none"> <li>• Infrastructure projects within the public right-of-way.</li> </ul>
<b>Mitigation Amount</b>	<ul style="list-style-type: none"> <li>• 85<sup>th</sup> percentile 24-hour runoff event determined as the maximum capture storm water volume for the area; or</li> <li>• Volume of annual runoff based on unit basin storage water quality volume, to achieve treatment by the method recommended in the California Stormwater Best Management Practices Handbook – Industrial/Commercial; or</li> <li>• Volume of runoff produced from ¾" storm event; or</li> <li>• Volume of runoff produced from a historical-record based on a 24-hr rainfall criterion for "treatment" (0.75 inch average for the LA County area) that achieves approximately the same reduction in pollutant loads achieved by the 85<sup>th</sup> percentile 24-hr runoff event.</li> </ul>	<i>Consistent with SUSMP</i>
<b>Alternative Compliance Approach</b>	Permittee or Permittees group may apply to Regional Board for approval of a regional or sub-regional storm water mitigation program to substitute in part or wholly SUSMP requirements.	Additionally, may use offsite mitigation on private and/or the public land within the same sub-watershed. It includes construction and perpetual maintenance of BMPs that will achieve the same level of runoff retention, infiltration and/or use, and water quality.
<b>Fees</b>	City of LA SUSMP Plan Check Fee ranges from \$200 - \$600	Proposed LID Plan Check Fee ranges from ranges from \$20 - \$1,000, inclusive of SUSMP

***Relationship with the Regional Water Quality Control Board and Stormwater Permits***

The Regional Water Quality Control Board (RWQCB) has testified and submitted communications in support of the proposed LID. The RWQCB views the core elements of the proposed ordinance as being consistent with the new development and redevelopment requirements that were recently adopted in the Ventura County NPDES-MS4 Permit and that will be incorporated into the reissued MS4 Permit for Los Angeles County. The RWQCB believes the City's proposed ordinance is essential for the City's ability to comply with water quality mandates, and that the LID ordinance would help the City make significant progress in stormwater runoff management.

***Fiscal Impact to City***

Adoption of the proposed LID Ordinance will integrate project compliance review into the existing SUSMP plan review process. Sanitation currently reviews 600 plans per year under the SUSMP Program and anticipates an additional 700 plans to be reviewed per year under the LID ordinance. It is anticipated that 500 of these additions will fall into the smaller residential categories (4 units or less). As compliance with LID for these applicants will require them to choose from a list of prescriptive BMPs and does not require any engineering calculations, Sanitation does not anticipate intensive reviews of these projects. The cost for performing the reviews will be recovered through the revised plan review fee.

The LID ordinance does not require any additional staff in Sanitation, Planning or Building and Safety. Planning's review is currently conducted as part of the entitlement process and currently reviews projects for many issues; the cost of reviews are collected from fees for that purpose. Building and Safety will refer the review for compliance to Sanitation's counter staff for approval. Inspection of construction and grading is done as a normal part of their inspection process and is covered through existing construction and grading permit fees.

Sanitation's LID work load will be absorbed into its existing SUSMP staffing for the Stormwater Program. The cost of these positions is approximately \$500,000 (see table below). Total revenue from SUSMP and LID fees will fully cover these costs. This excludes any peripheral support of the program such as industrial waste inspections. The proposed amendment also requires that all City Departments provide support as part of any off-site mitigation. Those costs cannot be determined at this time but efforts will be made to reimburse any General Fund expenditures.

<u>No.</u>	<u>Class</u>	<u>Title</u>	<u>Estimated 2010-11 Cost</u>		
			<u>Direct</u>	<u>Related</u>	<u>Total</u>
<u>Sanitation</u>					
1	4108-2	Civil Engineering Associate IV	100,908	72,654	173,562
2	1358-0	Civil Engineering Associate III	185,719	133,717	319,436
3		Total	286,627	206,371	492,998

SUSMP fees are currently only covering about \$200,000 of these costs. The additional revenue from LID fees will be phased in as work materializes and is estimated at up to \$500,000 annually. In compliance with City financial and budget policies, the fee will be reviewed annually to maintain fees in line with applicable charges.

***Impact on Development Community***

Because the LID ordinance expands the existing SUSMP categories, projects under the common categories will have to meet SUSMP requirements regardless of whether the proposed LID Ordinance is adopted. Costs to comply with SUSMP are site specific and dependent on site conditions. For projects under the common categories there will be no additional cost to comply with LID requirements. Measures used to comply with SUSMP will satisfy LID requirements. The Bureau reports that costs for smaller residential properties utilizing prescriptive BMPs will range from \$800 to \$1,300 per unit.

The SUSMP comprises between one percent and two percent of total construction costs. The proposed LID ordinance is expected to add between five percent and 10 percent over the current cost to comply with SUSMP (see Attachment A referencing FY 2008-09 permit data for illustration). In context, projects that will be subject to LID requirements represent about three

percent of all permit activity.

***Permitting Process under LID Ordinance***

During the review process, plans will be reviewed for compliance with the City's General Plans, zoning ordinances, and other applicable local ordinances and codes, including MS4 Permit requirements. Plans and specifications will be reviewed to ensure that the appropriate LID BMPs are incorporated to address stormwater pollution prevention goals. The plan check engineer will also determine if project designs need to be modified to address stormwater pollution prevention objectives.

New Development and redevelopment projects are mainly processed through the Department of City Planning and the Department of Building and Safety. Entitlement approvals are processed by Planning and these projects require discretionary action. Building/Grading Permit approvals are processed by Building and Safety.

Upon satisfaction that all stormwater management requirements have been met, Sanitation staff will stamp the plan approved. Following approval by the Planning Department, building/grading permits are obtained from Building and Safety.

***Development of BMP Handbook Supporting Implementation of the Ordinance***

The proposed LID ordinance requires that the City's Development Best Management Practices (BMP) Handbook be amended within 90 days of its adoption to describe LID BMPs.

Sanitation reports that it has already begun revising its BMP Handbook as prescribed by the LID ordinance through a stakeholder process. A Technical Committee, comprised of 23 stakeholders from the City, environmental, building industry and consulting communities, has begun working on revising the current manual. Sanitation reports that it will have a draft of the revisions ready by February 2011.

Our report recommends that Sanitation continue its development of a LID section for this handbook, and that it present that section to the Council at the same time that the City Attorney reports back with a final ordinance for Council consideration.

***Collaboration with Other City Departments***

The Department of Water and Power, Department of City Planning, and Department of Building and Safety were involved in the development of the proposed LID ordinance and testified at the December 7, 2010 committee meeting in support of the proposed ordinance. Each of those departments has communicated with our offices that they support adoption of the proposed LID ordinance.

***Relationship to California Green Building Standards***

The 2010 California Green Building Standards Code, effective January 1, 2011, is a code with mandatory and voluntary requirements for new residential and nonresidential buildings throughout California. Requirements of the code are aimed at reducing construction waste, making buildings more efficient in the use of materials and energy, and reducing environmental impact during and after construction.

The code does include voluntary LID measures that apply to nonresidential developments. That section of the code addresses site development and stormwater mitigation by implementing LID strategies and provides minimal requirements where no regional or local requirements are in place.

Sanitation and the Department of Building and Safety report that implementation of the LID ordinance will be consistent with all building codes and policies, including the California Green Building Standards Code.

***Comparison of Proposed LID ordinance with other similar regulations in the Region***

Sanitation reports that LID practices are becoming more common and all aim to improve water quality, promote water conservation through rainwater harvesting, and increase water supply through groundwater recharge.

San Diego County, in January 2008, and Los Angeles County, in October 2008, have adopted LID ordinances, and the City of Santa Monica has incorporated LID practices under its existing stormwater ordinance.

Sanitation reports that it conferred with representatives from Los Angeles County and San Diego County to gain perspective on how to best implement LID strategies in the City. The proposed LID ordinance does address more areas than those other ordinances by including the possibility of grandfathering projects under existing SUSMP requirements and offering more avenues through which compliance can be reached. Sanitation reports that LA County is currently in the process of revising its LID Ordinance to address these issues.

LID practices and ordinances have also been in other cities throughout the country, including ordinances in Massachusetts, Philadelphia, Maryland, Tucson, Portland, Sacramento County, and Contra Costa County. Within Southern California, LID requirements have been included in the Stormwater Permits for Orange County, Riverside County, San Diego County, San Bernardino County, and Ventura County. It is anticipated that similar LID requirements will be imposed on the City in the new Stormwater Permit for Los Angeles County, as well.

***LID Ordinance's Value Added Proposition***

A study conducted by Community Conservancy International (CCI) in March 2008 found that nearly 40% of L.A. County's needs for cleaning polluted runoff could be met by implementing low impact development projects on existing public lands. CCI calculated that there is a net average of 15,000 acres of existing public lands in the county suitable for LID projects. A 2009 National Resources Defense Council study also found that increased use of LID practices in Los Angeles County would result in savings of between 75,000 and 125,000 acre-feet of imported water per year by 2030.

Sanitation reports that the proposed LID ordinance will play a key role in achieving water quality compliance and that without the proposed LID Ordinance in place, the City will not meet its water quality requirements in a cost effective manner.

*GM:MAS:RP/CM:ER:06110053*

Attachment

Estimated Total Incremental Cost to Comply With LID

Development categories under LID	# of permits issued from FY 08-09	# of permits with Added LID Requirements above SUSMP	Estimated Total Cost to Existing SUSMP	Estimated Total Cost to comply with LID (inclusive of SUSMP)	Incremental Cost Due to Proposed LID Ordinance
Development and Redevelopment < 500 square feet (EXEMPT)	1,342	0	0	0	0
<b>Residential, 4 Units or Less (&gt; 500 square feet)</b>					
For new Development less than 1 acre including hillside Development, or where; Redevelopment that results in an alteration of at least fifty (50) percent or more of the impervious surfaces of an existing developed site	173	173	0	\$ 224,900	\$ 224,900
Where Redevelopment results in an alteration of less than fifty (50) percent of the impervious surfaces of an existing developed site	173	173	0	\$ 138,400	\$ 138,400
For new Development that is 1 acre and greater, or 1 acre and greater in a hillside area	76	25	\$ 994,500	\$ 1,482,000	\$ 487,500
For new Development and Redevelopment that lies within an ESA	56	0	\$ 560,000	\$ 560,000	0
<b>Residential Developments of 5 Units or More and Nonresidential Developments (&gt; 500 square feet)</b>					
For Redevelopment that results in an alteration of less than fifty (50) percent of the impervious surfaces of an existing developed site	211	103	Up to \$13,770,000	Up to \$14,770,000	Up to \$1,000,000
For new Development or where Redevelopment that results in an alteration of at least fifty (50) percent or more of the impervious surfaces of an existing developed site	269	125	Up to \$35,160,000	Up to \$37,660,000	Up to \$2,500,000
<b>All Categories</b>	<b>2,300</b>	<b>599</b>	<b>Up to \$50,484,200</b>	<b>Up to \$54,835,000</b>	<b>Up to \$4,350,800</b>
<b>Percent Change Incremental Cost</b>					<b>8.6%</b>