

14-0748

MOTION

PUBLIC WORKS & CONSTRUCTION  
ENERGY & ENVIRONMENT

JUN 6 2014

Streets convey not only automobiles and pedestrians but also water. When it rains, water flows from the street into catch basins and storm drains that then divert the runoff into our local tributaries, rivers and ocean. In the process, street pollution contaminates waterways, and stormwater that could be captured and reused is discharged into the ocean.

This system presents a number of challenges for the City of Los Angeles (City). First, it does not sufficiently address runoff pollution, which the City is mandated to mitigate. The City currently must satisfy 22 Total Maximum Daily Load (TMDL) regulations as part of its Municipal Separate Storm Sewer System (MS4) Permit. Failure to comply with the permit could result in extensive financial penalties.

Second, the current system fails to capitalize on stormwater capture and groundwater infiltration opportunities. Local efforts to bolster our local water supply, particularly in this time of drought, are necessary in order to meet the Mayor's goal of reducing City water imports by half.

Finally, it does not adequately protect against flooding. There are more than 400 known locations that have drainage problems causing localized flooding in our neighborhoods and exposing our residents, motorists, and bicyclists to potential safety hazards. In addition, poor drainage and chronic flooding can damage and undermine street pavement.

Incorporating Best Management Practices and green street infrastructure such as bioswales, curb cuts, and tree wells can mitigate a number of these concerns by infiltrating water where appropriate and removing contaminants from polluted water before discharge.

To achieve this, the Bureau of Street Services, Bureau of Sanitation, Bureau of Engineering, and the Department of Water and Power would need to collaborate and develop green infrastructure projects that provide multi-benefit solutions.

An estimated 2,400 centerline miles are currently failing or near failing. A new approach to capital expenditures should be pursued to maximize the public investment in infrastructure as opposed to today's patch-work approach.

City policy should prioritize multi-benefit solutions that improve transportation and safety, minimize flooding, reduce watershed pollution, and increase stormwater capture and local water supply. A multi-benefit approach also necessitates a review of current departmental performance metrics to better measure the efficiency and effectiveness of such projects.

I THEREFORE MOVE that Council instruct/request the Bureau of Street Services and the Bureau of Sanitation, in conjunction with the Bureau of Engineering, Department of Water and Power, Chief Legislative Analyst and the City Administrative Officer, to work with the City Attorney to develop a draft ordinance that requires all public street construction and reconstruction projects, irrespective of funding source, to incorporate *Stormwater Management Guidelines for Public Street Construction and Reconstruction* (as attached) consisting of the following components:

- Drainage capacity/flood mitigation;
- Stormwater infiltration feasibility;
- Water quality improvement and regulatory standards.

I FURTHER MOVE that the Bureau of Street Services and Bureau of Sanitation report to the Council in 45 days on the status of the working group and draft ordinance development.

JUN 6 2014

PRESENTED BY:

FELIPE FUENTES  
Councilmember, 7<sup>th</sup> District

SECONDED BY:

ORIGINAL

**City of Los Angeles**  
**Stormwater Management Guidelines for Public Street Construction and Reconstruction**

All public street construction and reconstruction projects in the City of Los Angeles will utilize Best Management Practices and accepted green street infrastructure standard plans to assess drainage, stormwater infiltration, and water quality needs. Street resurfacing projects will be coordinated among city departments to ensure efficiencies in implementation and will utilize Best Management Practices when appropriate.

**I. Prioritization of Streets**

The system for prioritizing street construction and reconstruction will give a weighted score to street segments based on criteria that include the following:

- Flooding/drainage deficiencies
- Stormwater infiltration and/or capture feasibility for water supply augmentation
- Water quality deficiencies required to be remediated under the City’s Municipal Separate Storm Sewer System permit or to meet other regulations or community needs.

**II. Green Street Infrastructure Implementation**

The Bureau of Sanitation will review all street construction, reconstruction, and resurfacing projects and work with the Bureau of Street Services, Bureau of Engineering, and the Department of Water and Power to incorporate green street infrastructure as appropriate.

For a construction or reconstruction project on a street segment with low to moderate flooding, staff will analyze the stormwater infiltration feasibility of the location based on its soil permeability, groundwater levels, slope, and contamination. Staff will determine if stormwater should be captured onsite or treated and discharged and identify appropriate green infrastructure elements from the Best Management Practices Tool Box. Treat and discharge practices (Tool Box 2) will only be utilized if infiltration and/or capture are demonstrated as infeasible. All projects will be required to follow infiltration standards as determined by the Bureau of Sanitation, with the performance goal of infiltrating or capturing for use, at a minimum, the 85<sup>th</sup> percentile storm. Infiltration standards will aim to maximize infiltration and ensure protection of groundwater quality.

<b>Best Management Practices Tool Box*</b>	
<b>Volume Capture (Tool Box 1)</b>	<b>Treat and Discharge (Tool Box 2)</b>
<ul style="list-style-type: none"> <li>- Curb/parkway retrofits</li> <li>- Infiltration trenches</li> <li>- Infiltration galleries</li> <li>- Dry wells</li> <li>- Bioinfiltration/bioretention without underdrains</li> <li>- Cisterns</li> <li>- Other Storage BMPs</li> <li>- Trees</li> </ul>	<ul style="list-style-type: none"> <li>- Bioswales</li> <li>- Curb/parkway retrofits</li> <li>- Bioretention with underdrains</li> <li>- Treatment train of BMPs with biofiltration prioritized</li> <li>- Trees</li> </ul>

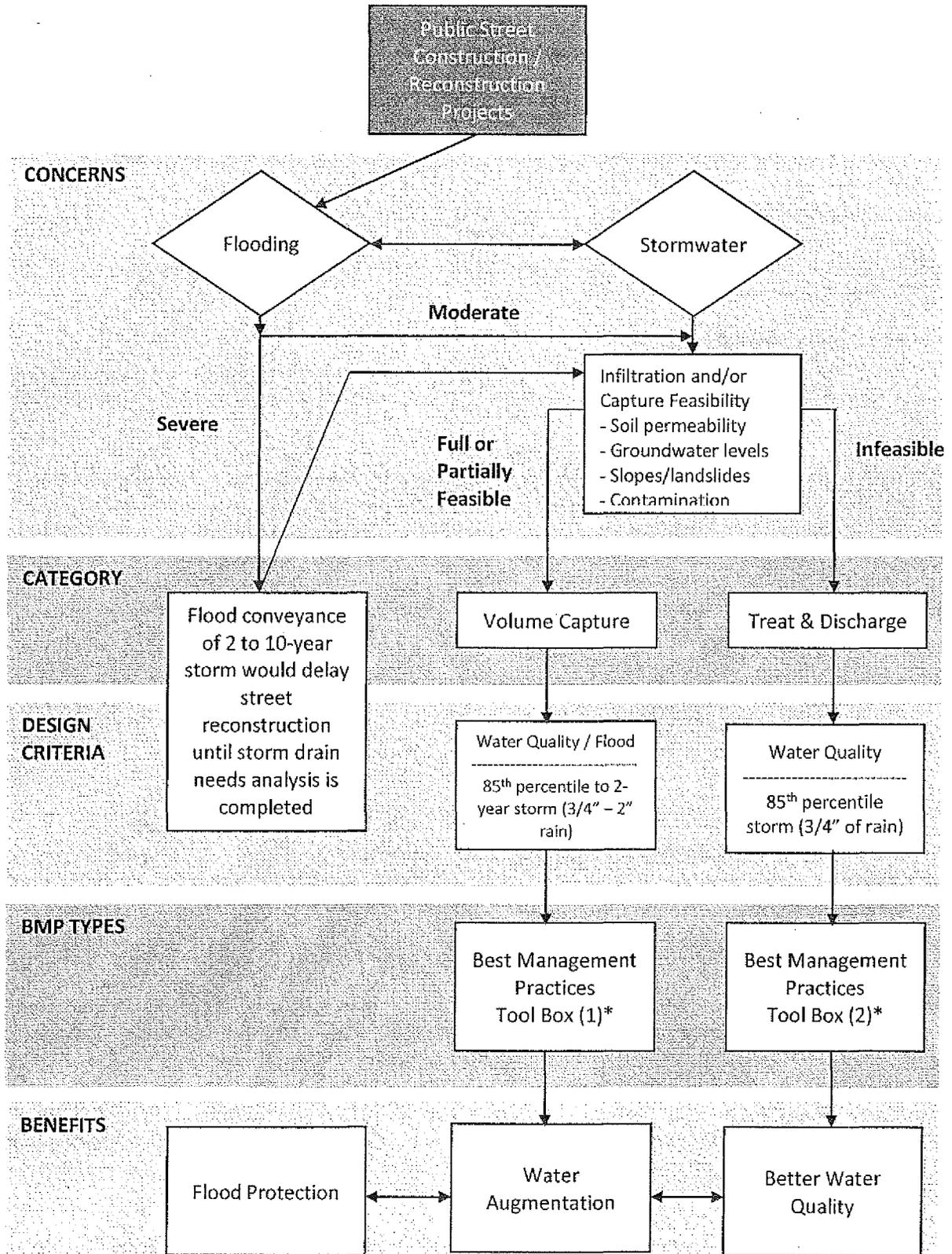
\*The Tool Box is not an exhaustive list and will be updated by Bureau of Sanitation as new standard plans are developed.

For a street segment with severe flooding, staff will first conduct a storm drain analysis prior to construction or reconstruction, and then proceed with the above stormwater infiltration feasibility analysis. The analysis shall include the ability for upstream capture to reduce flooding impacts. When construction or reconstruction begins, the performance goal of infiltrating or capturing for use will be, at a minimum, the 85<sup>th</sup> percentile storm standard.

For street resurfacing projects, departments will coordinate on opportunities to implement parkway Best Management Practices such as bioswales, curb/parkway retrofits, and trees that could be implemented either in conjunction with street resurfacing or on an independent parallel process through contracting or local grants.

This policy will produce multi-benefit projects that protect against floods, replenish local water supplies through groundwater infiltration and capture for use, mitigate water pollutants, and provide community enhancements.

# Green Street Infrastructure Implementation



\*BMP Tool Box  
 (1) Infiltration BMP  
 (2) Biofiltration BMP