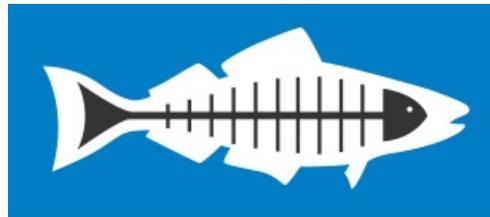


Water Quality

Venice Neighborhood Forum



Heal the Bay

The Changing Face of Water Pollution



Urban Runoff

5 billion gallons of contaminated storm water flows directly— untreated—into rivers, creeks, lakes and our bay and coastal waters*

100 million gallons on a dry day



*Typical rainy day

Coastline After Rain Event

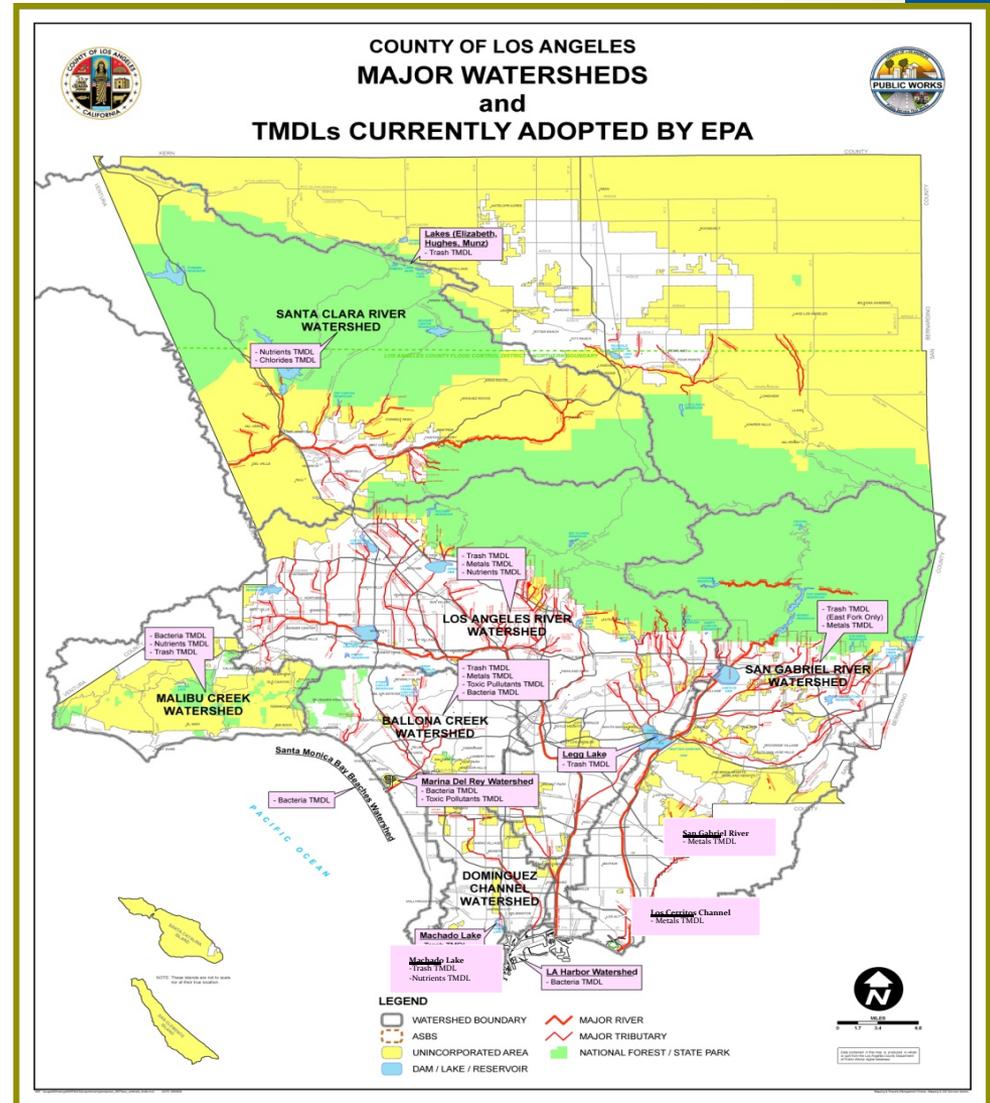


State of Surface Water Quality in Los Angeles County

Every major water body
impaired and regulated

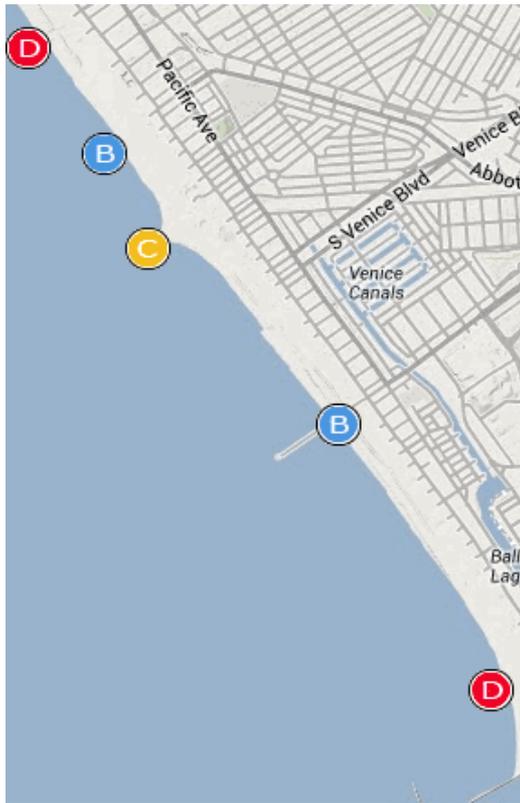
Over 40 regulations in effect
or under development

Fines for non-compliance

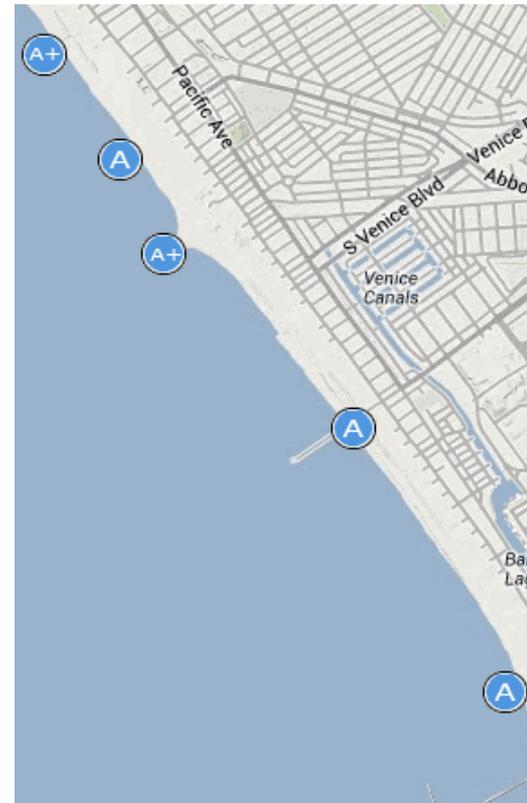


Beach Report Card

Venice Winter 2012-13 wet grades vs Summer 2013 grades



Winter 2012-13 wet



Summer 2013

Water Quality 2011-2013

Venice AB411 summer dry weather - last 3 summers

fldLocName	2011	2012	2013
Venice City Beach, at the Rose Ave. storm drain	A	A+	A+
Venice City Beach at Brooks Ave. drain	A	A	A
Venice City Beach at Windward Ave. drain	A	A	A+
Venice Fishing Pier- 50 yards south	A	A+	A
Venice City Beach at Topsail St.	A	A	A

winter wet weather

fldLocName	2010-11 wet	2011-12 wet	2012-13 wet
Venice City Beach, at the Rose Ave. storm drain	F	F	D
Venice City Beach at Brooks Ave. drain	F	D	B
Venice City Beach at Windward Ave. drain	C	A	C
Venice Fishing Pier- 50 yards south	D	A	B
Venice City Beach at Topsail St.	F	D	D

Economics

Public Health

- Swimming at polluted beaches in Los Angeles County caused between 427,800 and 993,000 excess cases of gastroenteritis per year
- Equates to annual health costs of between \$14 and \$35 million, or \$120 and \$278 million (depending on the epidemiological model used) per year.

Ocean Economy

- “California has the largest Ocean Economy in the United States, ranking number one overall for both employment and gross state product”
- Local beach goers in California spend as much as \$9.5 billion annually and the non-market values associated with beach going in California may be as high as \$5.8 billion annually.

Climate Change Considerations

surface water, drinking water, and ground water quality

Sea Level Rise

- Impacts on Infrastructure
- Salt water intrusion to groundwater supplies
- Increases in salinity in freshwater ecosystems

Climate

- Changes in frequency and intensity of flooding (storm water management)
- Different precipitation patterns (species/use impacts)



Low Impact Development Ordinance (2011)

- LID is an integrated water management strategy that uses natural processes to capture, treat and infiltrate urban runoff throughout the watershed.



Permeable pavement and a street-side swale

Common LID BMPs

Some Common LID Best Management Practices ⁵



Vegetated Swales / Bioswales



Rain Gardens



Rain Cisterns



Green Roofs



Permeable Pavers



Porous Pavement



Curb Bump-Outs



Curb Cuts

Pollution Limits/Policy

Trash Pollution Limits:

LAR Trash Withheld = 1,258,121 gallons (same as 96,778 - 13gal kitchen size trash bags)

BC Trash Withheld = 423,073 gallons (same as 32,544 - 13gal kitchen size trash bags)

Source Control:

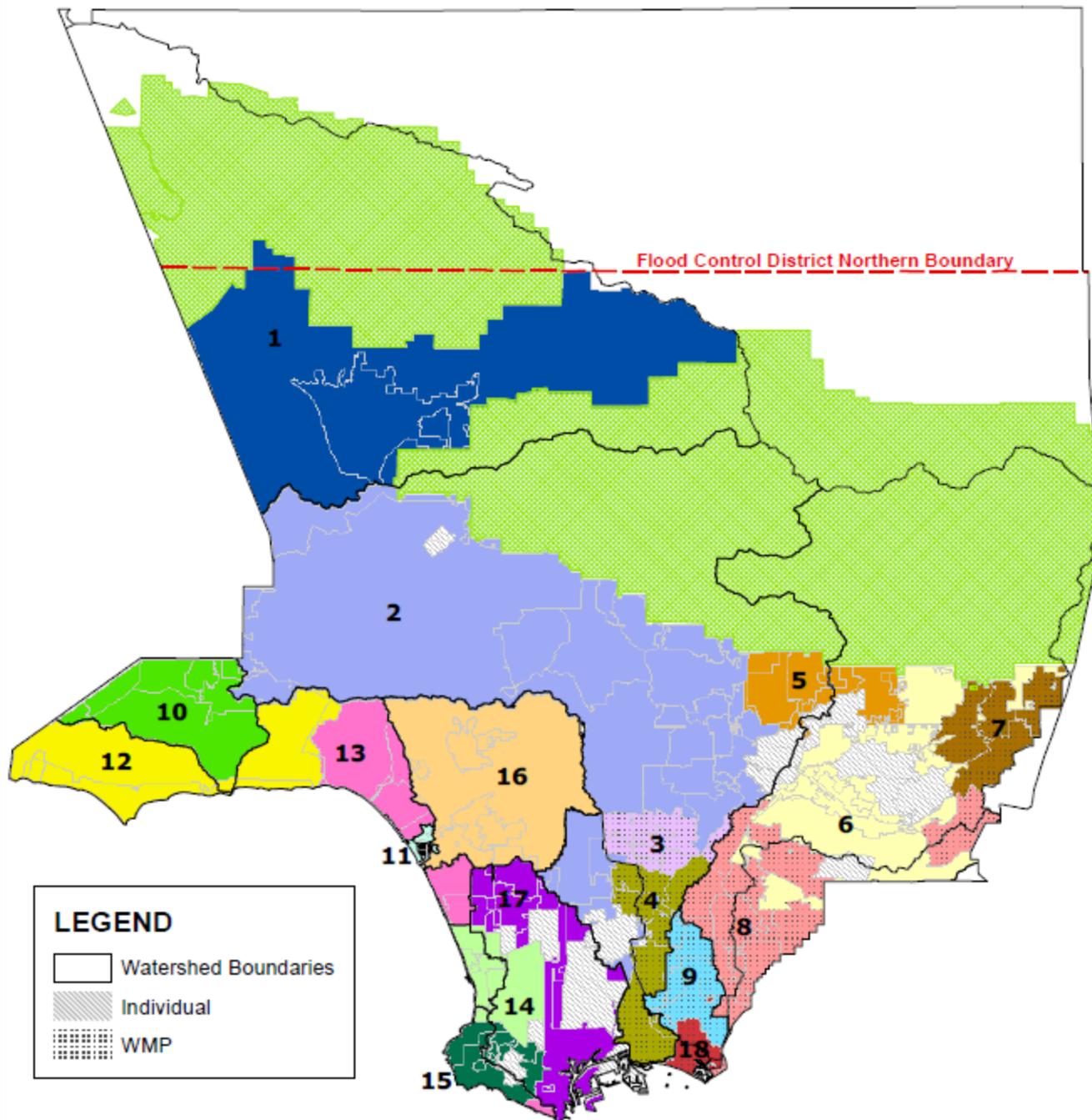
Single-use Carryout Bag Ordinance = 2 billion plastic bags/year



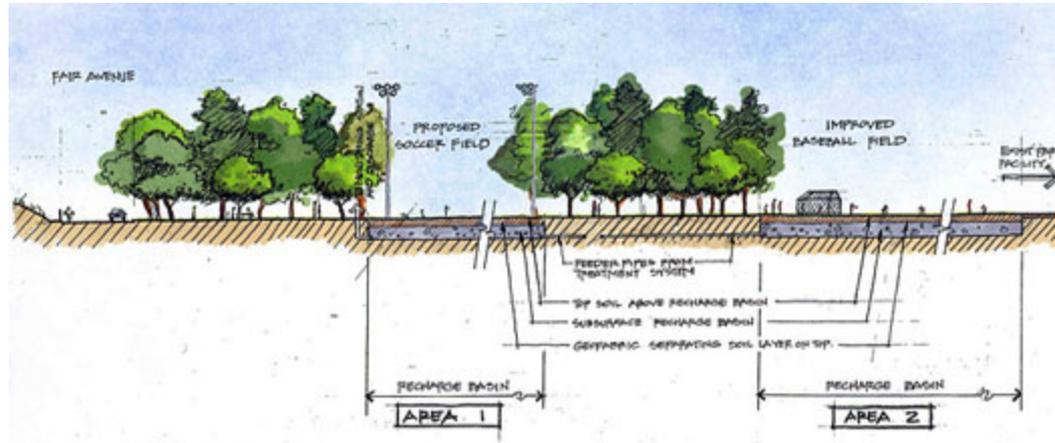
Watershed Management Programs

Clean Water Act Regulations

- Prioritization of water quality issues by watershed
- Identification and implementation of strategies, control measures and BMPs
- Process to modify strategies, control measures, and BMPs as necessary based on monitoring and assessment



Prioritization of Water Supply/ Multi-benefit Projects



SUN VALLEY PARK RECHARGE BASINS

NOT TO SCALE



Funding WQ Improvement

Los Angeles— Prop O

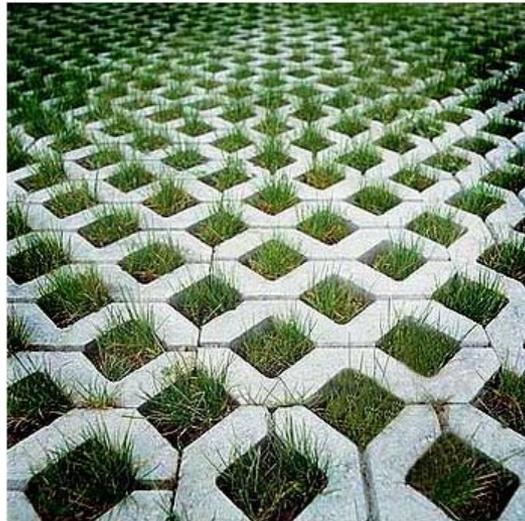
- \$500 million
- Passed with 76%



Echo Park, City of LA

Santa Monica – Measure V

- \$40 million
- Passed with 67%



Pier Improvement, City of Santa Monica

Penmar Water Quality Project (Proposition 0)



Regional Funding Measure

- Long-term, stable, dedicated funding source
- Funds construction and O&M



Save our Streets Measure

SCOPE

STREETS:

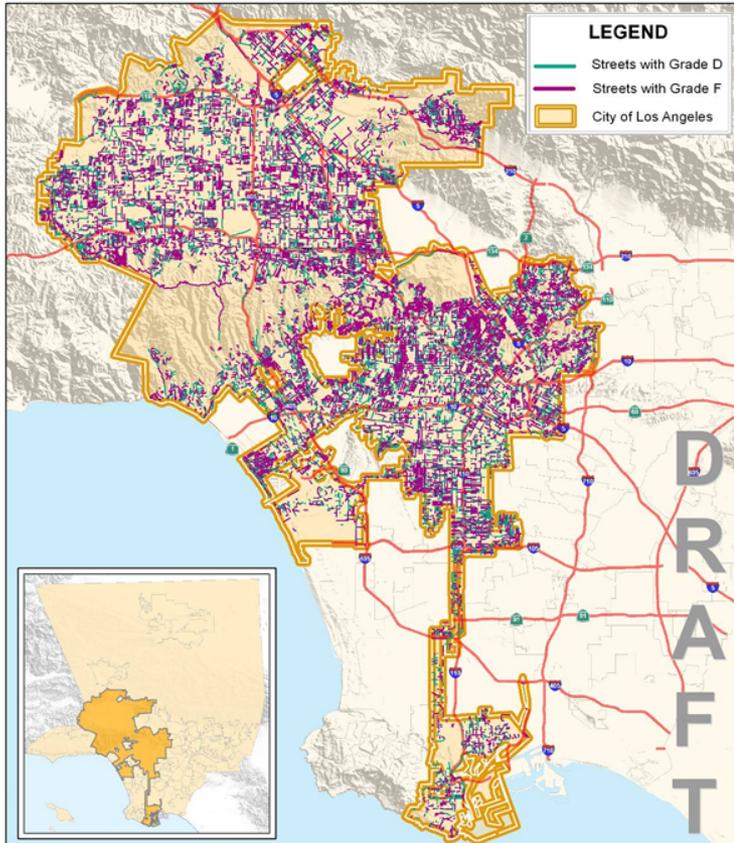
- REHABILITATION OF GRADE D AND F STREETS

SIDEWALKS:

- REMOVE BARRIERS TO MOBILITY

COMMIT TO INCORPORATE:

- COMPLETE STREETS ELEMENTS
- GREEN STREETS ELEMENTS
- GREAT STREETS ELEMENTS
- COOL STREETS ELEMENTS



LEGEND

- Streets with Grade D
- Streets with Grade F
- City of Los Angeles

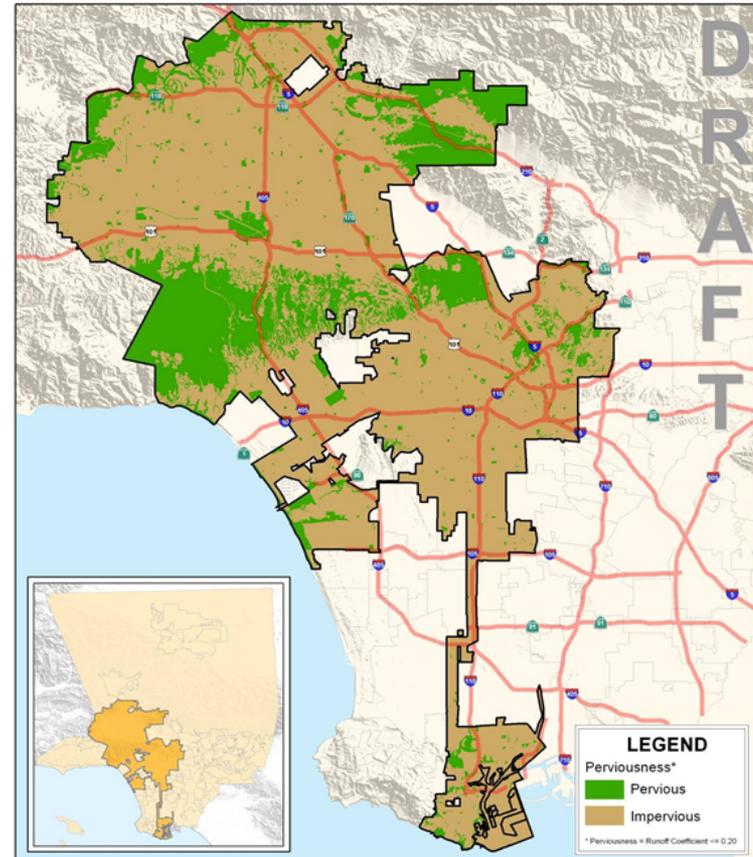
D
R
A
F
T



CITY OF LOS ANGELES GREEN STREETS PROGRAM
Grade D & F Streets

BUREAU OF SANITATION

	ENRIQUE C. ZALDIVAR DIRECTOR		SHAHRAM KHARAGHAN PROGRAM MANAGER		
	DRAWN BY: N/A	CHECKED BY:	DATE: 9/23/13	DATE REVISED:	
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LEGEND

- Perviousness*
- Pervious
- Impervious

* Perviousness = Runoff Coefficient \times 0.20

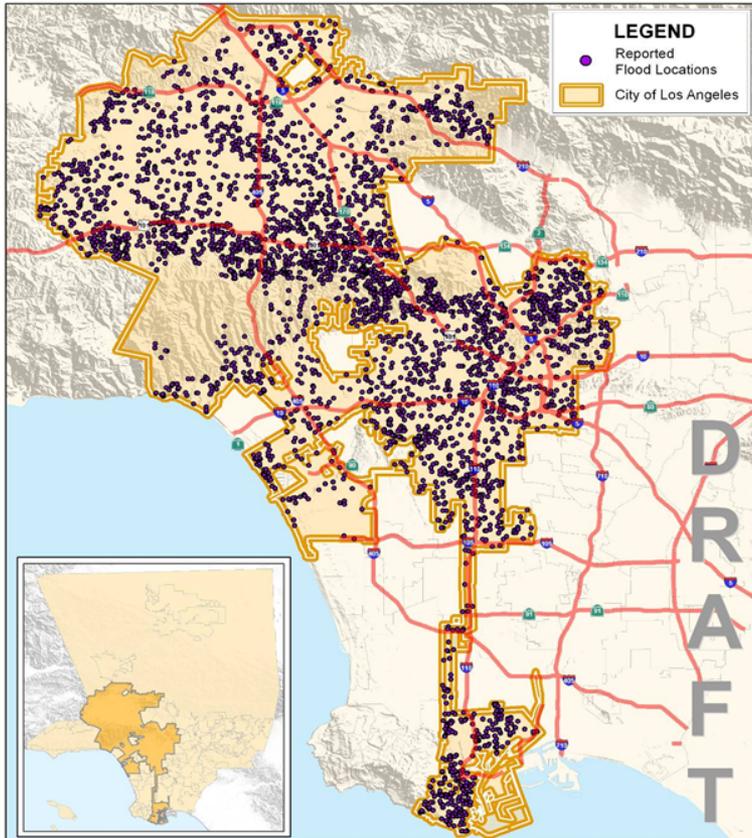
D
R
A
F
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CITY OF LOS ANGELES GREEN STREETS PROGRAM
Perviousness

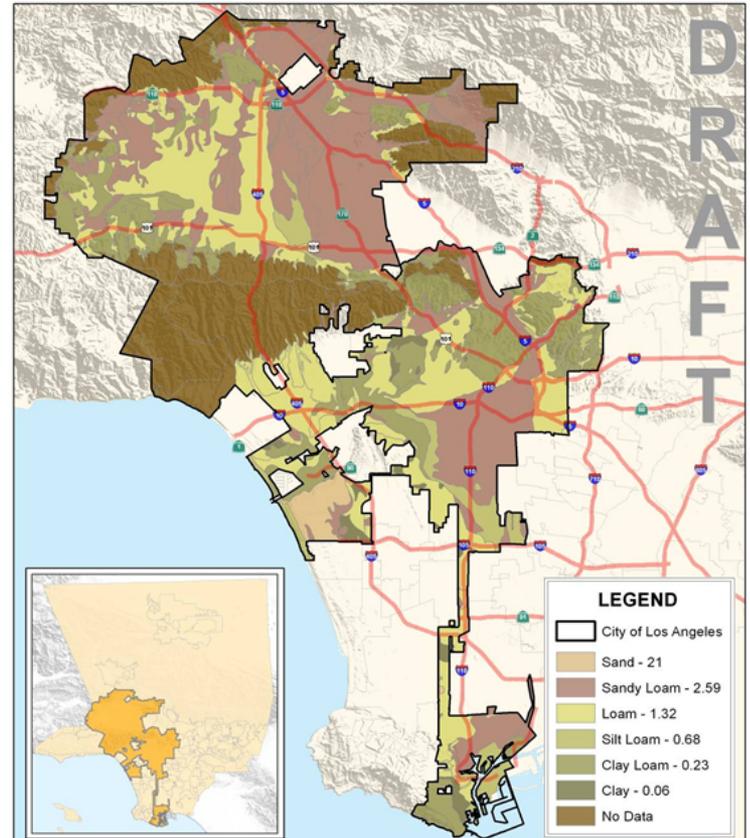
BUREAU OF SANITATION

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CITY OF LOS ANGELES GREEN STREETS PROGRAM
Flood Locations

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CITY OF LOS ANGELES GREEN STREETS PROGRAM
Soil Types

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Green streets



State Water Bond

Heal the Bay Priorities

#1. Increase regional self-reliance for water supply using Integrated Regional Water Management, thereby improving water quality.

Expand stormwater capture and re-use, including investment in green infrastructure to infiltrate stormwater in developed areas.

Support greater water conservation and water recycling.

Clean up contaminated groundwater basins.

#2. Restore the health of California's watersheds, to protect our important coastal and inland waterways.

Improve water quality to meet beneficial uses.

Questions?

