



# **Green Infrastructure**

**City of Los Angeles**

## HOW BIG IS LOS ANGELES?

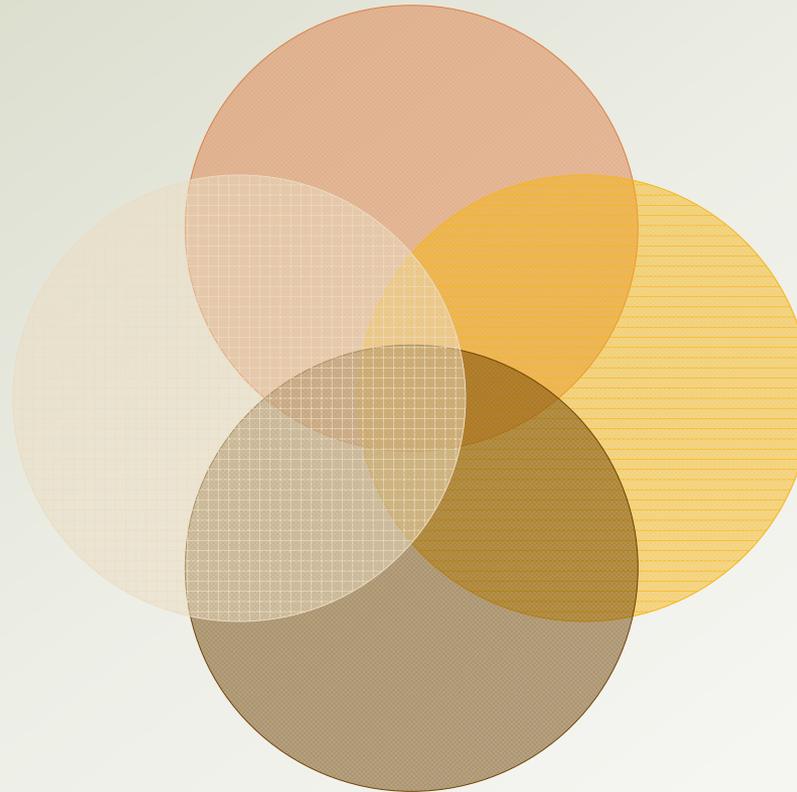
City	square miles
City of Los Angeles	468.85
Boston, MA	49
Cleveland, OH	199.4
Manhattan, NY	31
Milwaukee, WI	95
Minneapolis, MN	58.7
Pittsburgh, PA	55.5
St. Louis, MO	160.3
San Francisco, CA	46.7



# Low Impact Development

Green Streets

Rainwater  
Harvesting  
(cisterns,  
downspout  
redirect)



Green Alleys

Porous Pavement

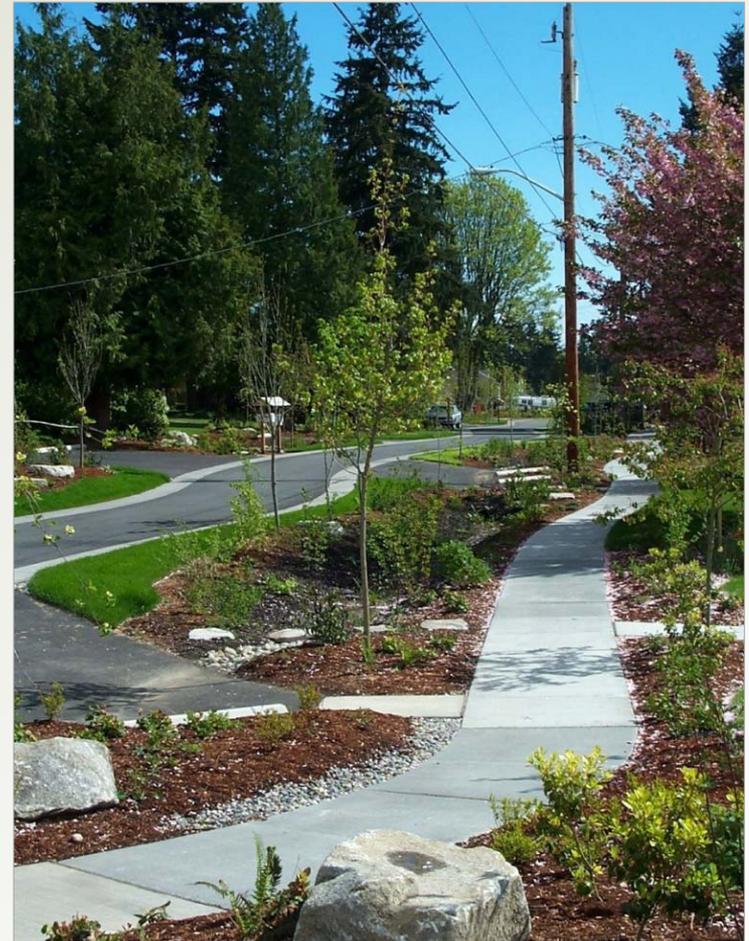
**Multiple Green Infrastructure (LID) Goals and Methods**

# Low Impact Development: Key Principles

- ❑ Infiltrate urban runoff at points distributed *throughout the watershed*
- ❑ Preserve natural hydrologic and ecosystem functions.
- ❑ Harvest rainwater for reuse.



Bioswales, downtown Los Angeles

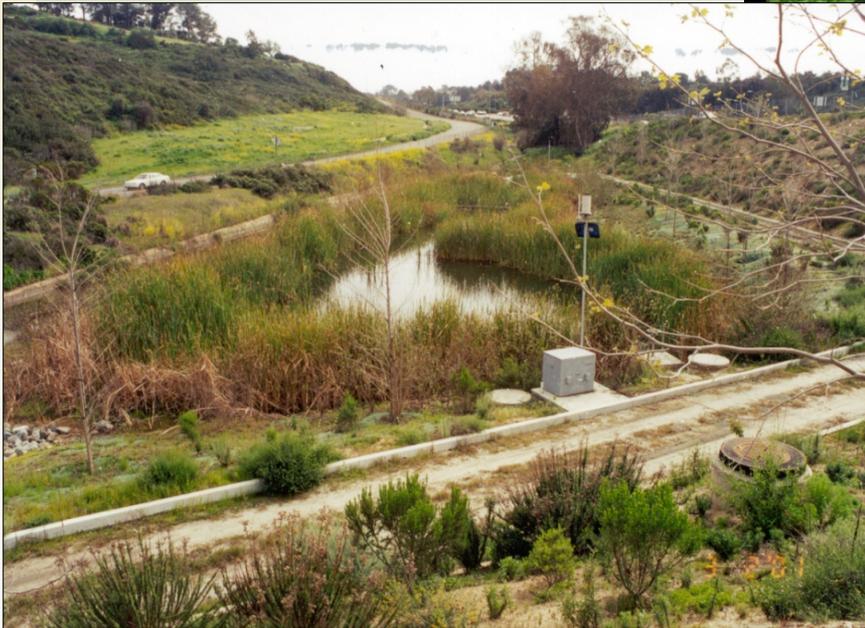


Street with bioswales in Redmond, WA

# Distributed BMPs: Bioretention and Urban Streetscape



# Regional BMPs: Detention Ponds and Infiltration Basins



# Benefits of LID

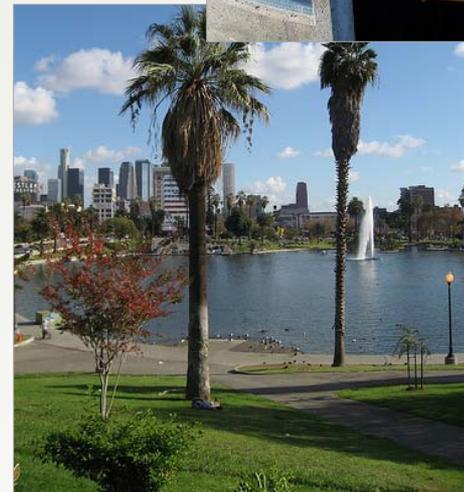
- Better flood control
- Reduced need for wastewater treatment
- Money saved on water management infrastructure
- Increased green space and wildlife habitat
- Reduced urban heat island effect
- Community beautification
- Emphasis on green jobs and economy



Flooding



Water Treatment



Green space

# Benefits of LID in Los Angeles

## Polluted Urban Runoff:

Nearly 40% of the county's needs for cleaning polluted runoff could be met by LID projects on existing public lands.

Community Conservancy International, March 2008



# Benefits of LID in Los Angeles

## Water Supply:

LID projects in L.A. County could save 41,000—83,000 AF/year of imported water (through groundwater recharge and water capture & reuse).



# Benefits of LID in Los Angeles

## Energy Use & Climate Change:

Greater reliance on local water supply instead of pumping from distant locations would save 72,000—233,500 MWH of energy per year.



# Green Infrastructure (LID) in LA

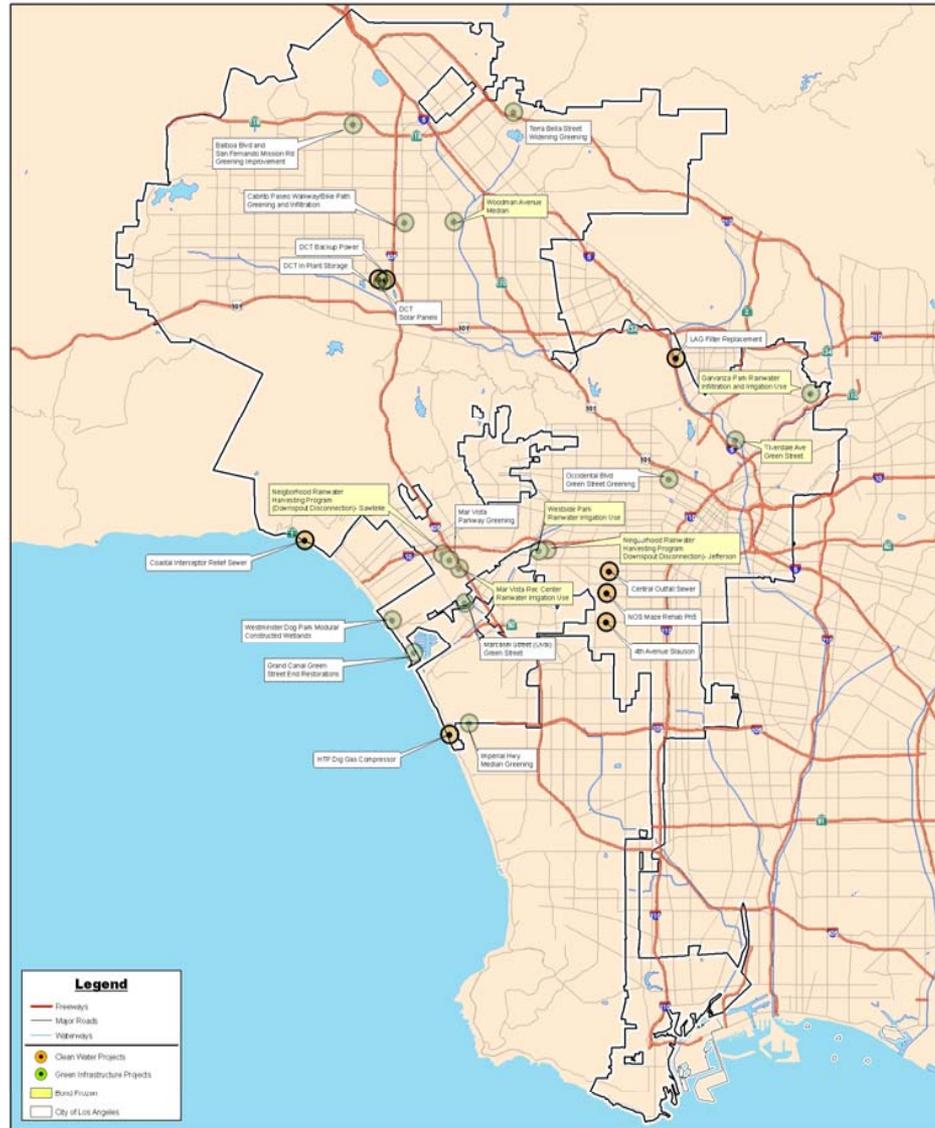


- ❑ Formed Interdepartmental Working Group
- ❑ Developed Project Lists and Evaluation Process
- ❑ Developed Project Selection Criteria and Methodology
- ❑ Developed Design Guidelines
- ❑ Developed Pilot Projects on Public and Private Property
- ❑ Creating BMP Manual
- ❑ Instituting Permit Process Improvements
- ❑ Developing Green Gardener Workforce
- ❑ Investigating Maintenance Funding Options

6500 miles of streets/900 miles of alleys

# All Sanitation Projects Submitted for ARRA/ SRF Funding

(highlighted areas: priorities developed with LADWP)



Proposed Projects CWSRF-ARRA 2009

	ENRIQUE C. ZALDIVAR DIRECTOR				DEPARTMENT OF PUBLIC WORKS		SHAHRAM KHARAGHANI PROGRAM MANAGER		
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# Green Infrastructure Projects

Submitted  
By  
Sanitation  
For  
ARRA/  
SRF  
Funding

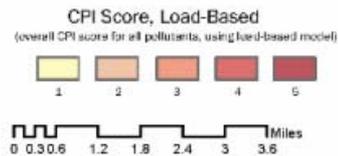
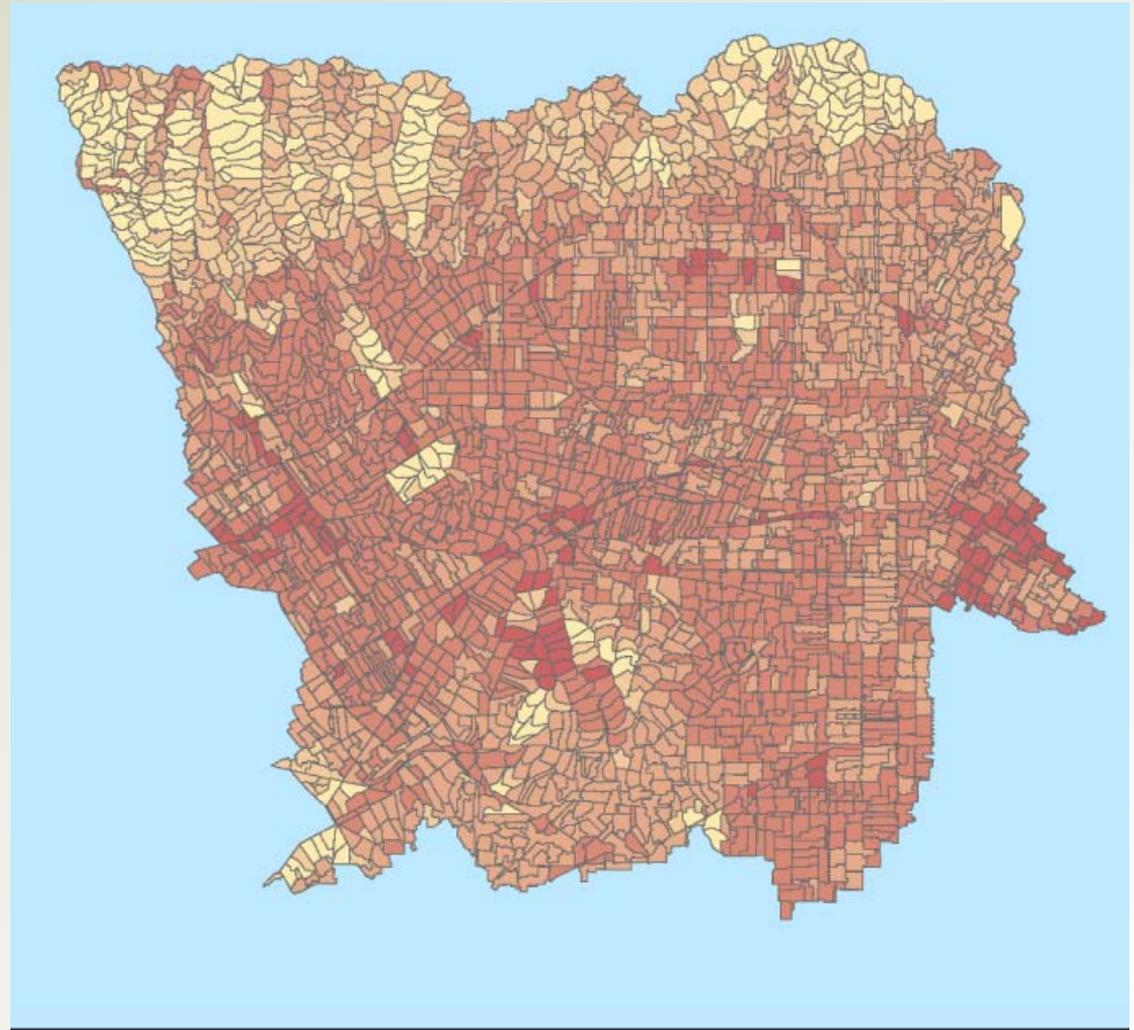
(highlighted  
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LADWP)



**Green Infrastructure Projects (CWSRF-ARRA 2009)**

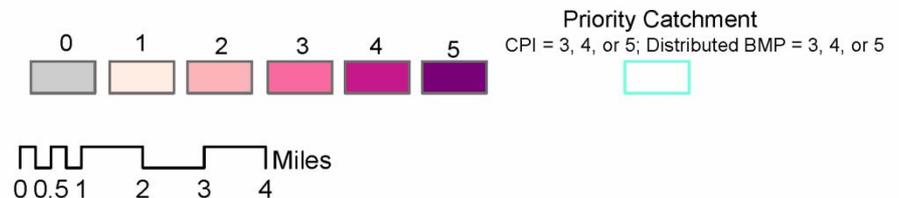
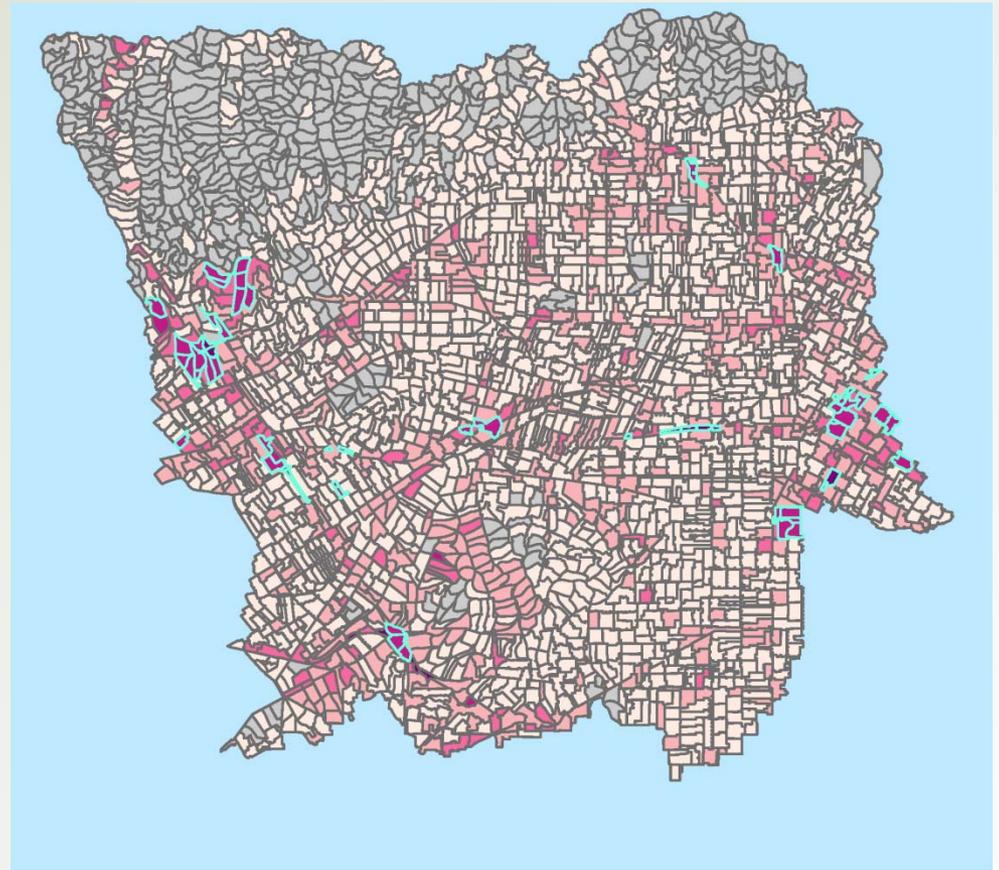
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# Project selection: Modeling Identifies High Pollutant Loading Catchments



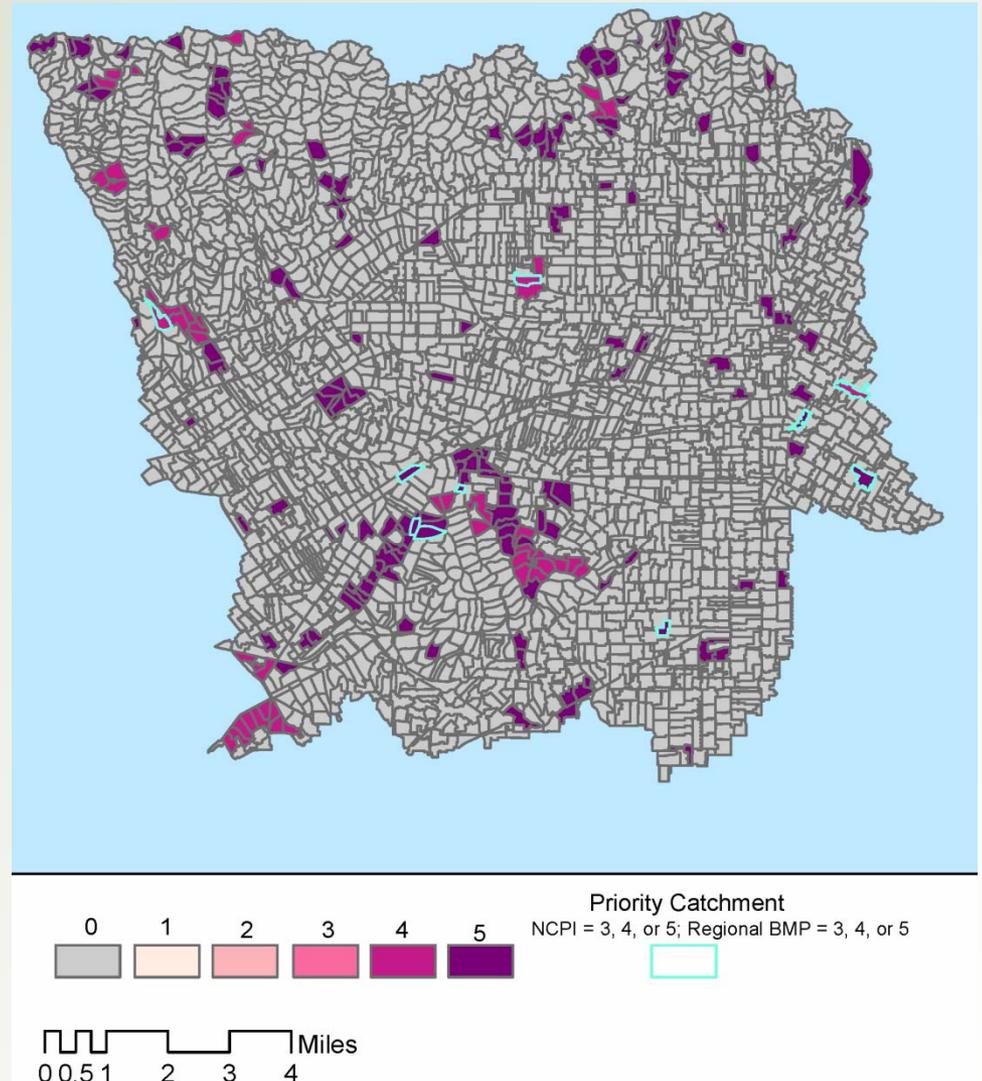
# Distributed BMP Priorities: High Pollutant Loading and Opportunities

- 189 Priority Catchments
- 7% of Total Catchments



# Regional BMP Priorities: High Pollutant Loading and Opportunities

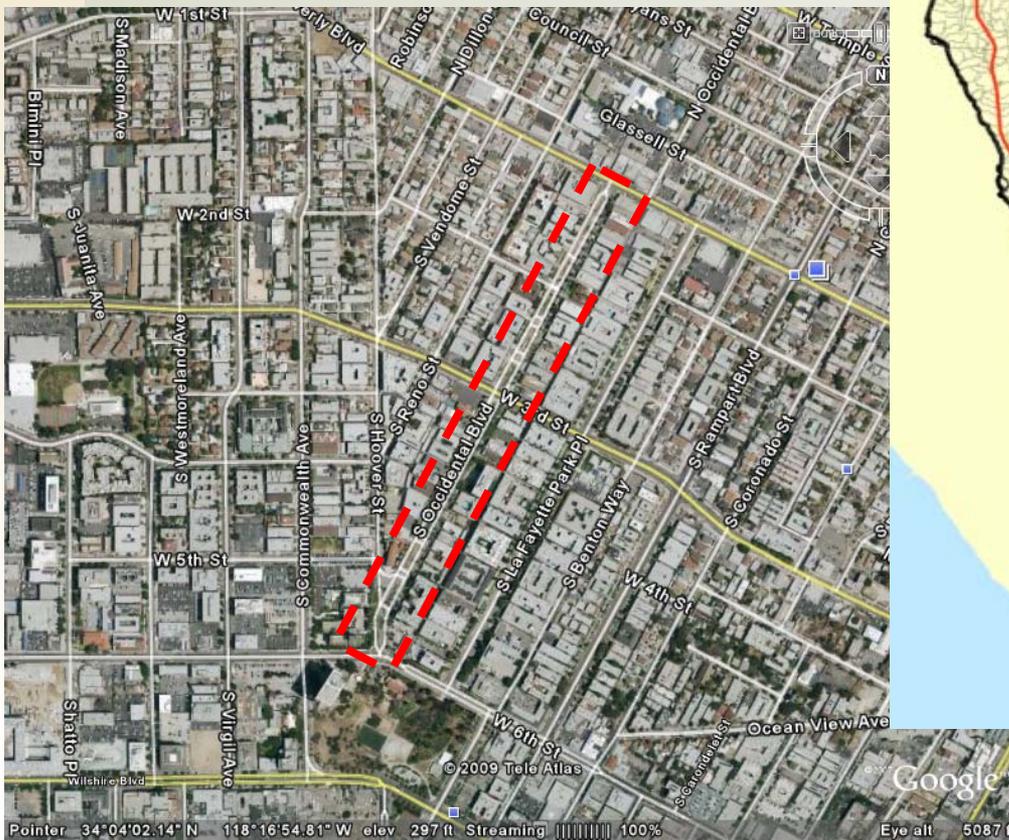
- 87 Priority Catchments
- 3% of Total Catchments





# Potential Project: Occidental Blvd

- Proposed elements: vegetative swales, curbcuts, porous pavement
- Partners/Stakeholders: Ballona Creek Watershed Foundation



# For further information:

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