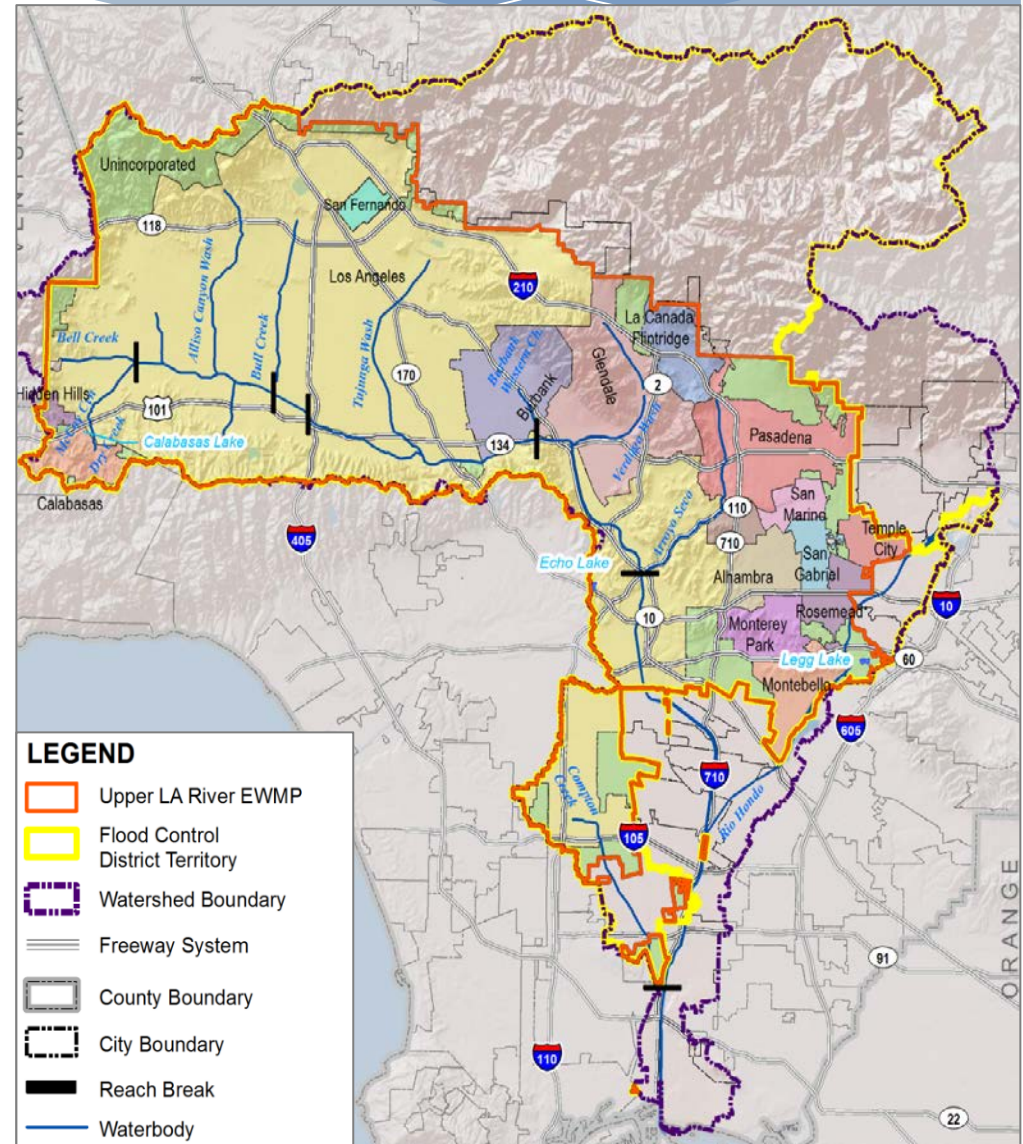


# Upper LA River Stormwater Compliance: Enhanced Watershed Management Program

July 9, 2015

# Upper Los Angeles River Watershed

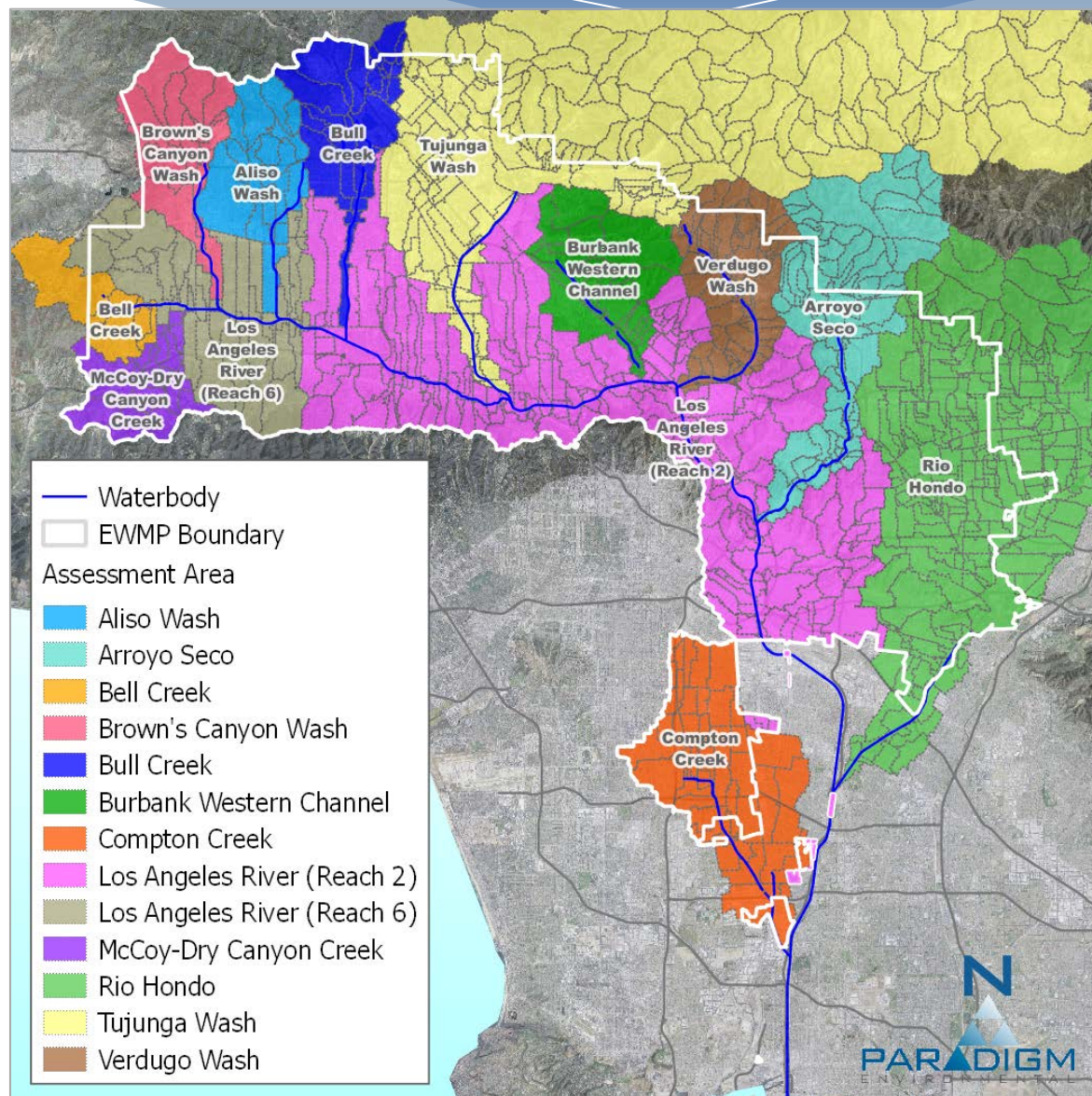
- Alhambra
- Burbank
- Calabasas
- County of LA
- Flood Control District
- Glendale
- Hidden Hills
- Temple City
- La Canada Flintridge
- Los Angeles
- Montebello
- Monterey Park
- Pasadena
- Rosemead
- San Fernando
- San Gabriel
- San Marino
- South Pasadena
- South El Monte





# Upper LA River Assessment Areas

- LA River mainstem
- Compton Creek
- Rio Hondo
- Arroyo Seco
- Verdugo Wash
- Burbank W. Ch.
- Tujunga Wash
- Bull Creek
- Aliso Wash
- Brown's Canyon Wash
- Bell Creek
- McCoy-Dry Canyon





# Early Action Project: Brandon and Green Street



*SUBSURFACE INFILTRATION BASIN*



*STORMTANK MODULES*



*BASIN INSTALLATION*

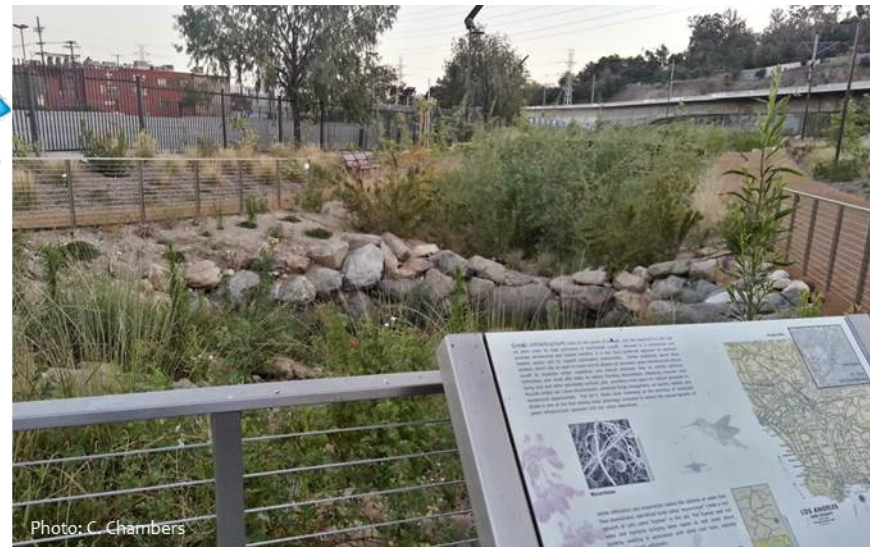
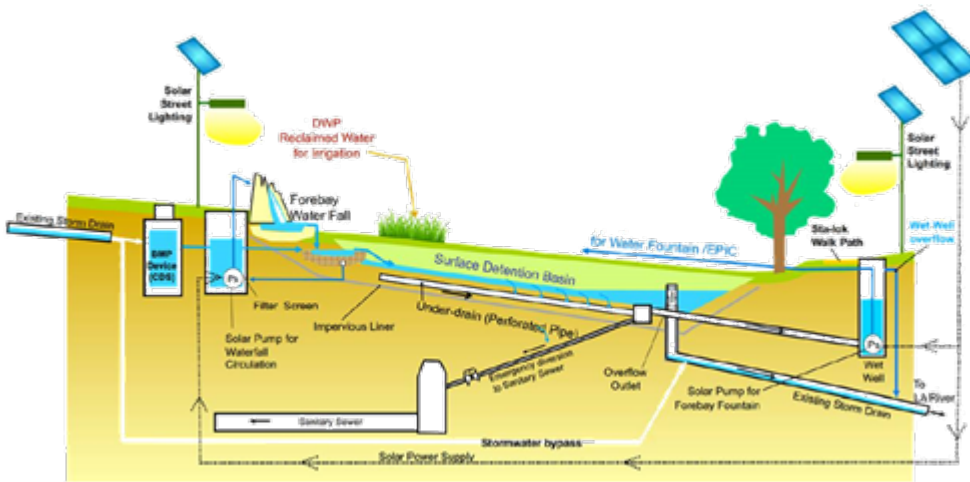




# Early Action Project: Humboldt Greenway



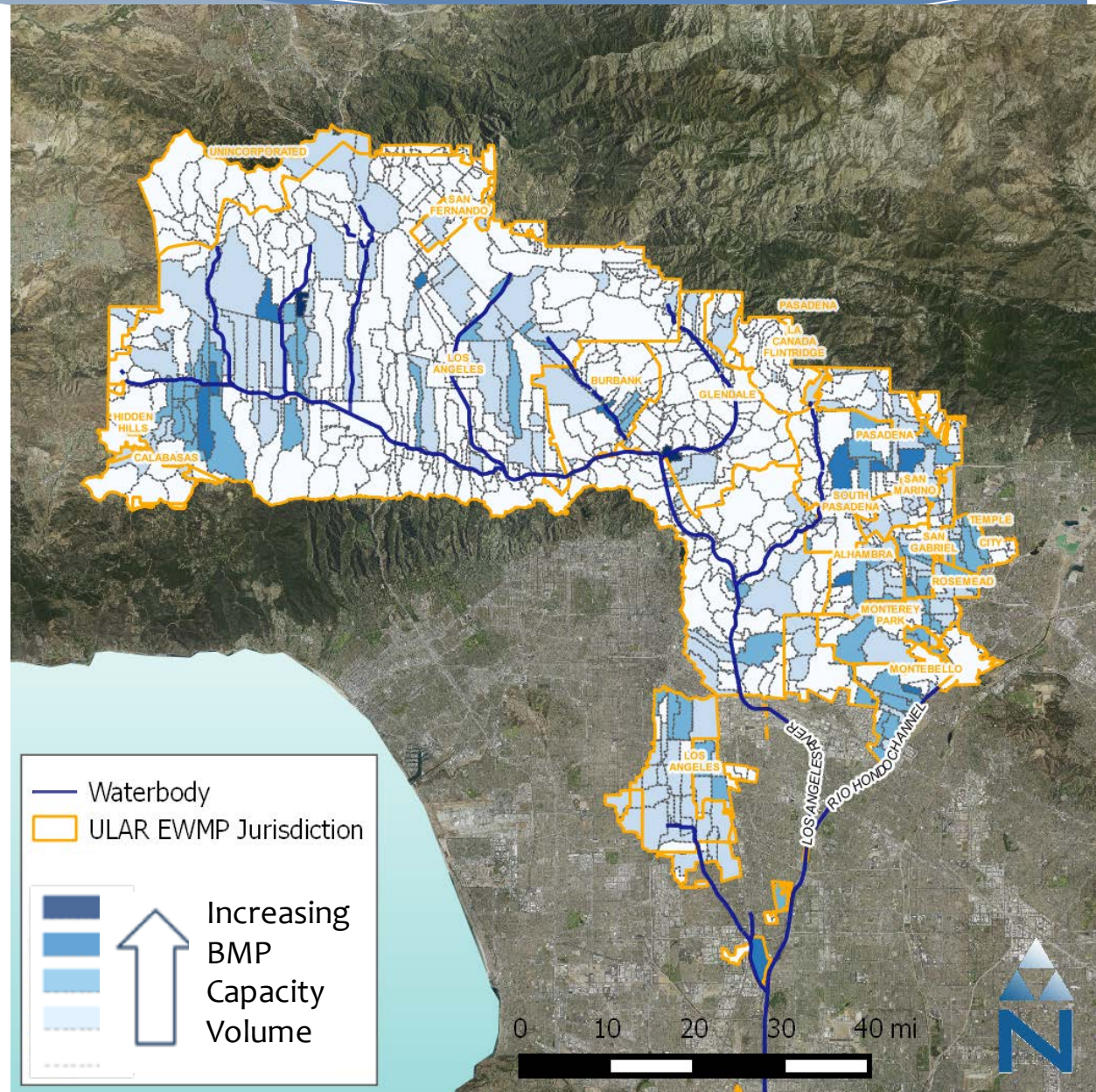
Cost: \$4.5 M  
Completed: Jan. 22, 2014





# Reasonable Assurance Analysis

- RAA is quantitative demonstration that projects will result in compliance
- Watershed Management Modeling System (WMMS) also supports control measure selection based on cost effectiveness
- Model approved by Regional Board and methods are consistent with RAA Guidelines



# Governing Compliance Schedules

**2012:**  
25% wet weather  
metals milestone

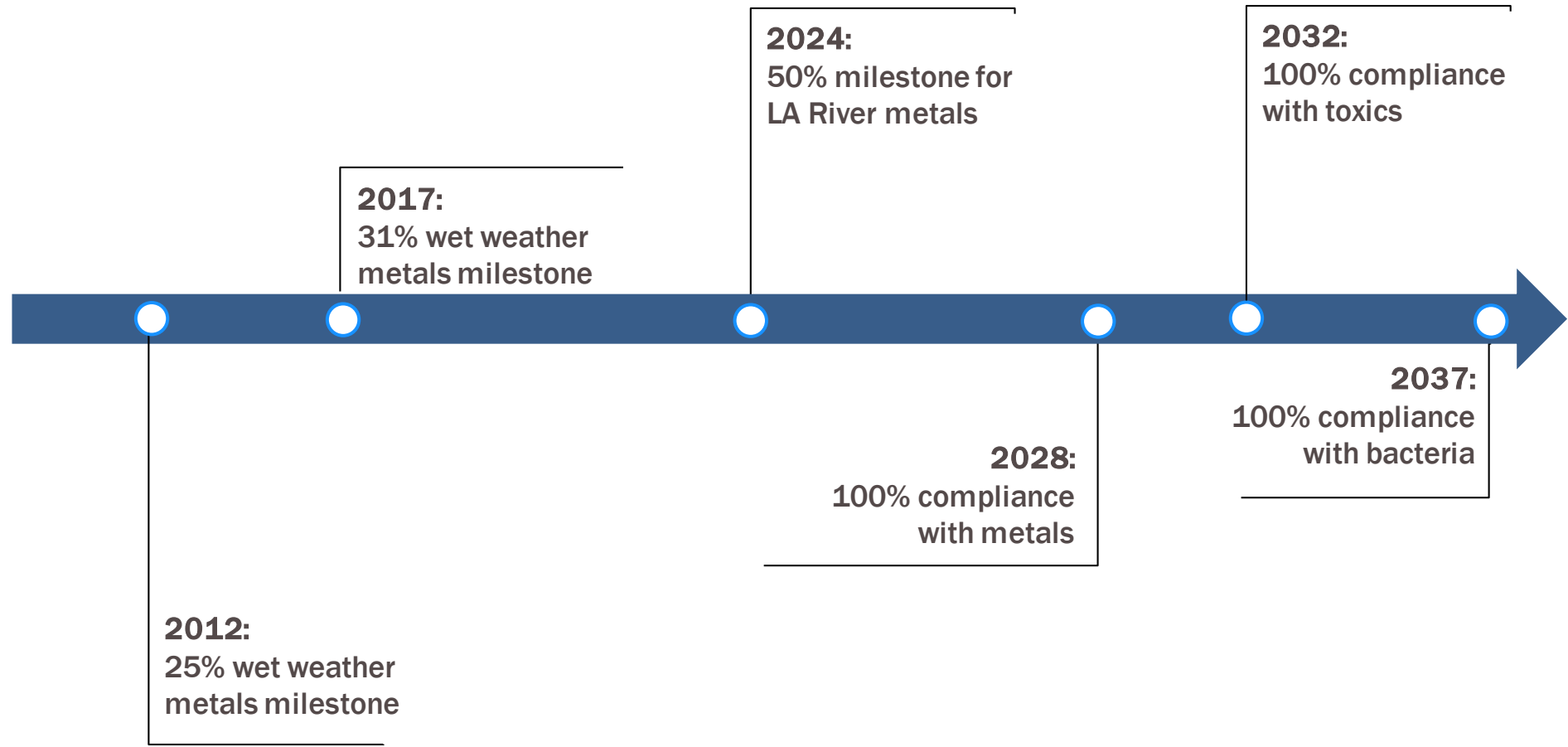
**2017:**  
31% wet weather  
metals milestone

**2024:**  
50% milestone for  
LA River metals

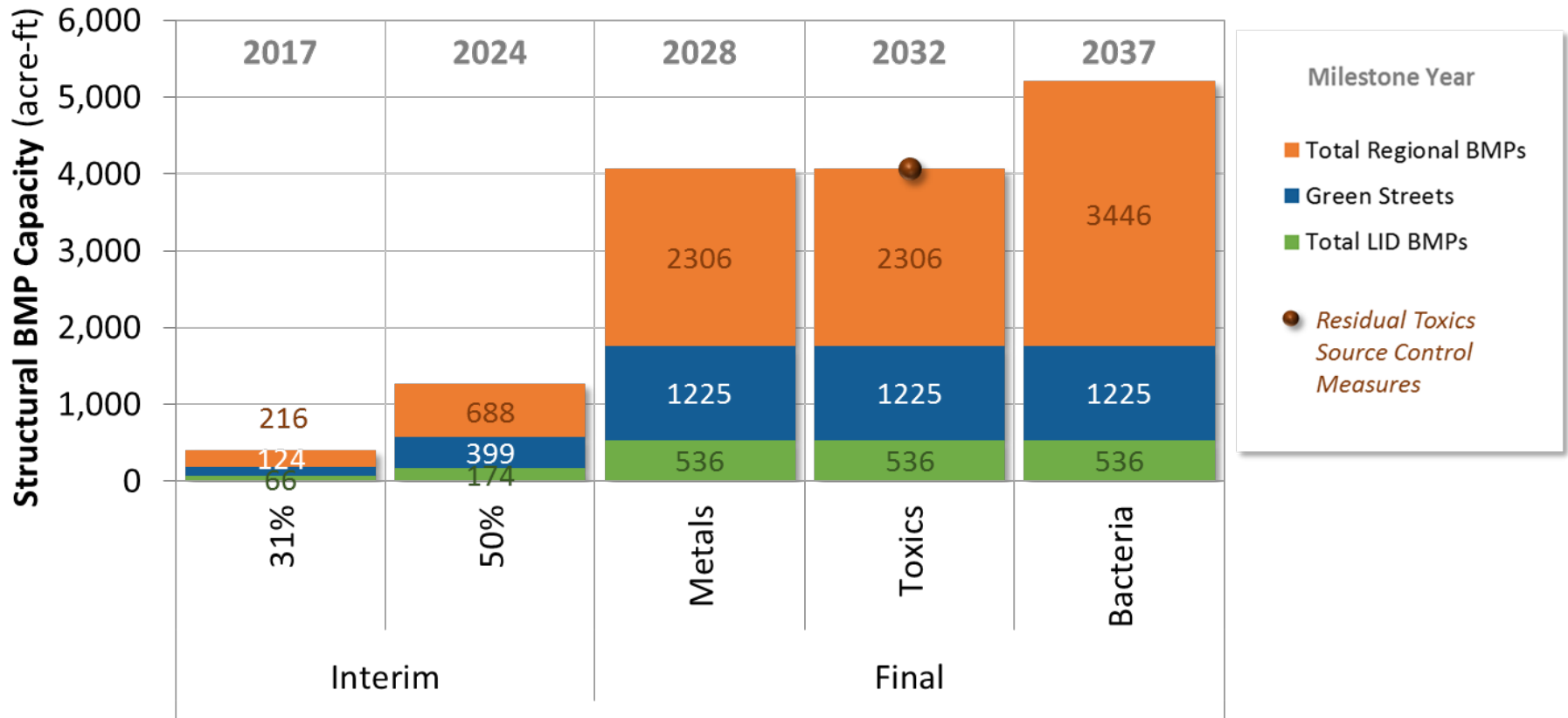
**2028:**  
100% compliance  
with metals

**2032:**  
100% compliance  
with toxics

**2037:**  
100% compliance  
with bacteria



# Scheduling for Compliance



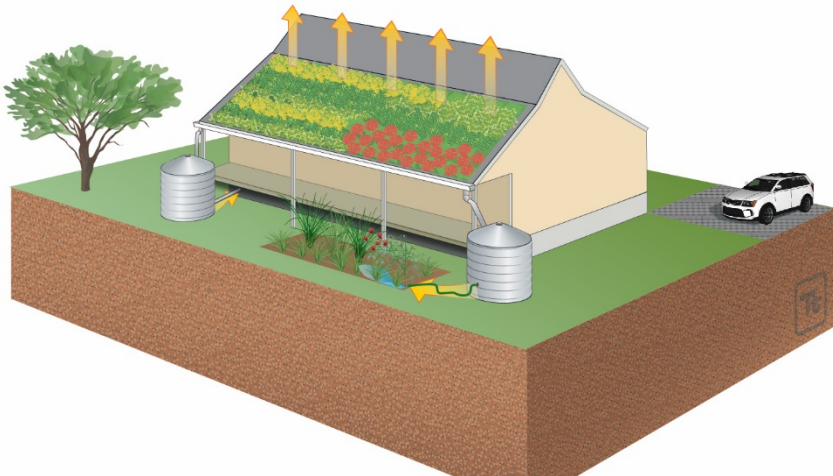


# Comply by Implementing Control Measures

- Four primary categories of control measures:

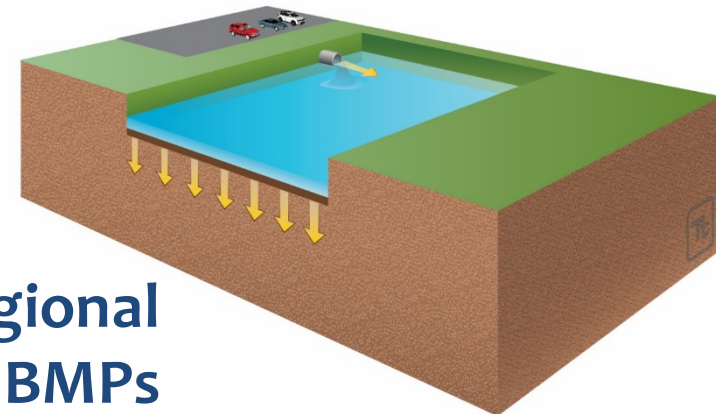
(1) **Institutional BMPs**  
e.g., Enhanced sweeping

(3) **Low Impact Development**

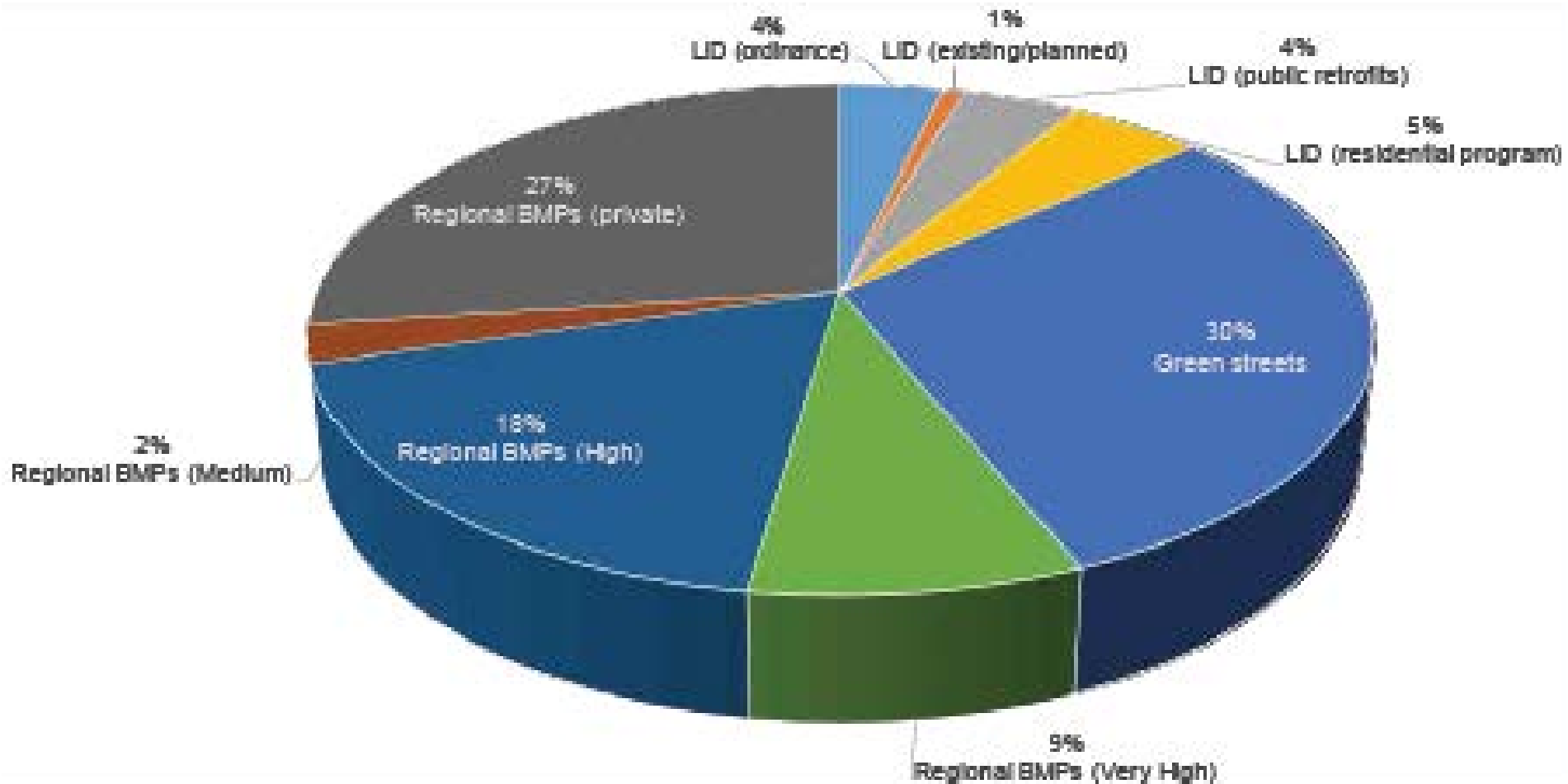


(2) **Green Streets**

(4) **Regional BMPs**



# EMWP Compliance Strategy



Relative BMP Capacities

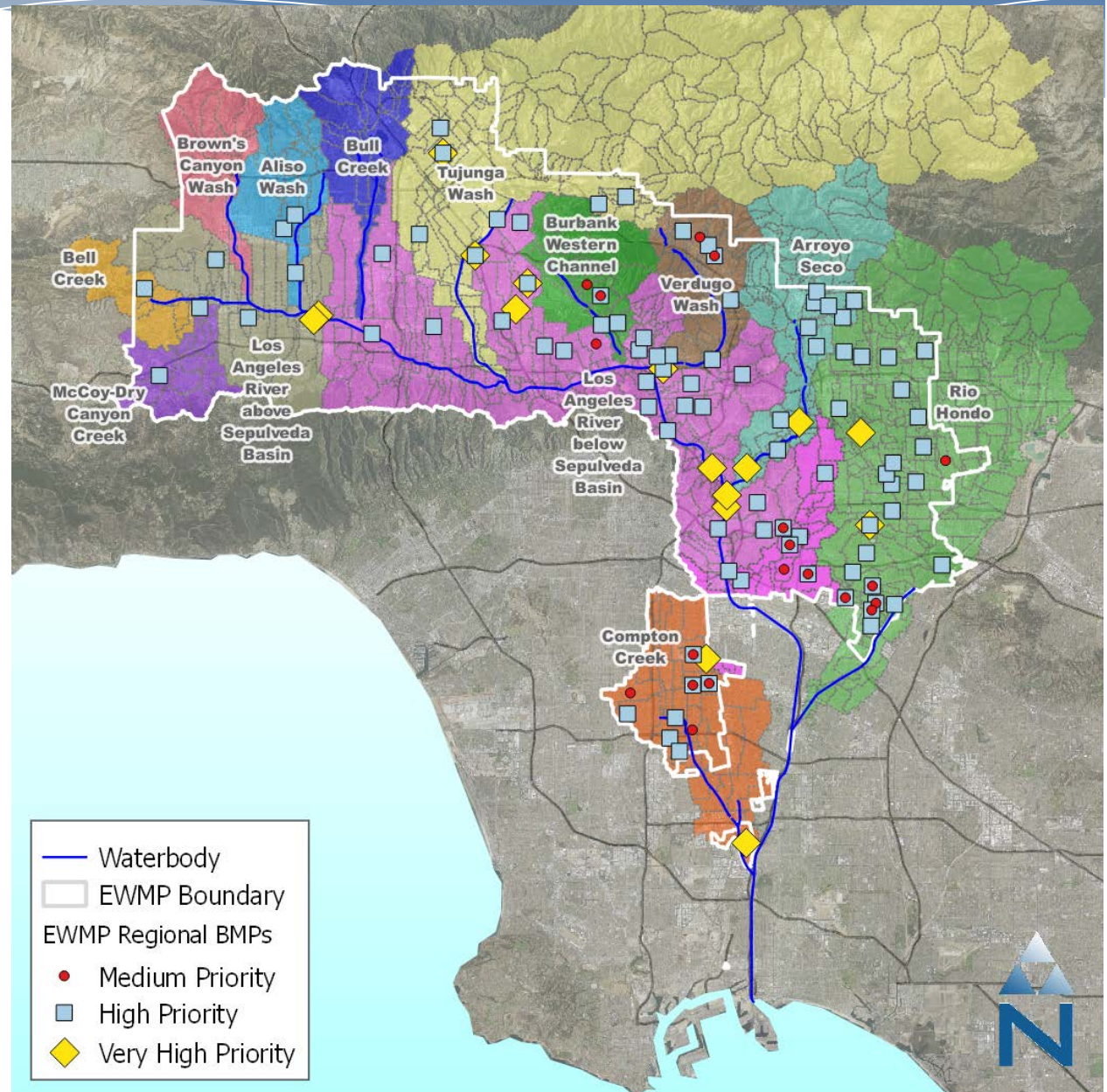


# Regional Projects

## 695 Regional Projects:

- 16 Very High
  - 8 Signature Projects
- 70 High
- 593 Medium

Detailed process that screened over 12,000 public parcels





# Franklin D. Roosevelt Regional BMP Project

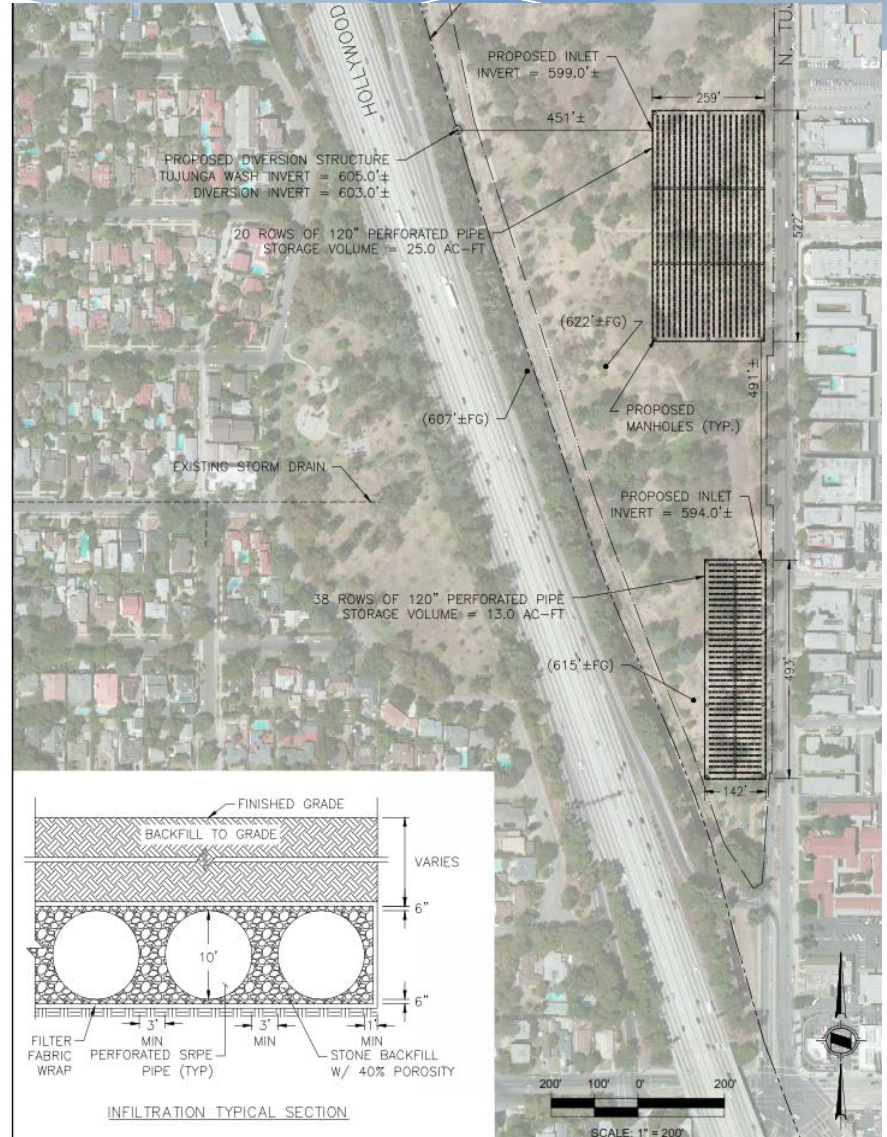
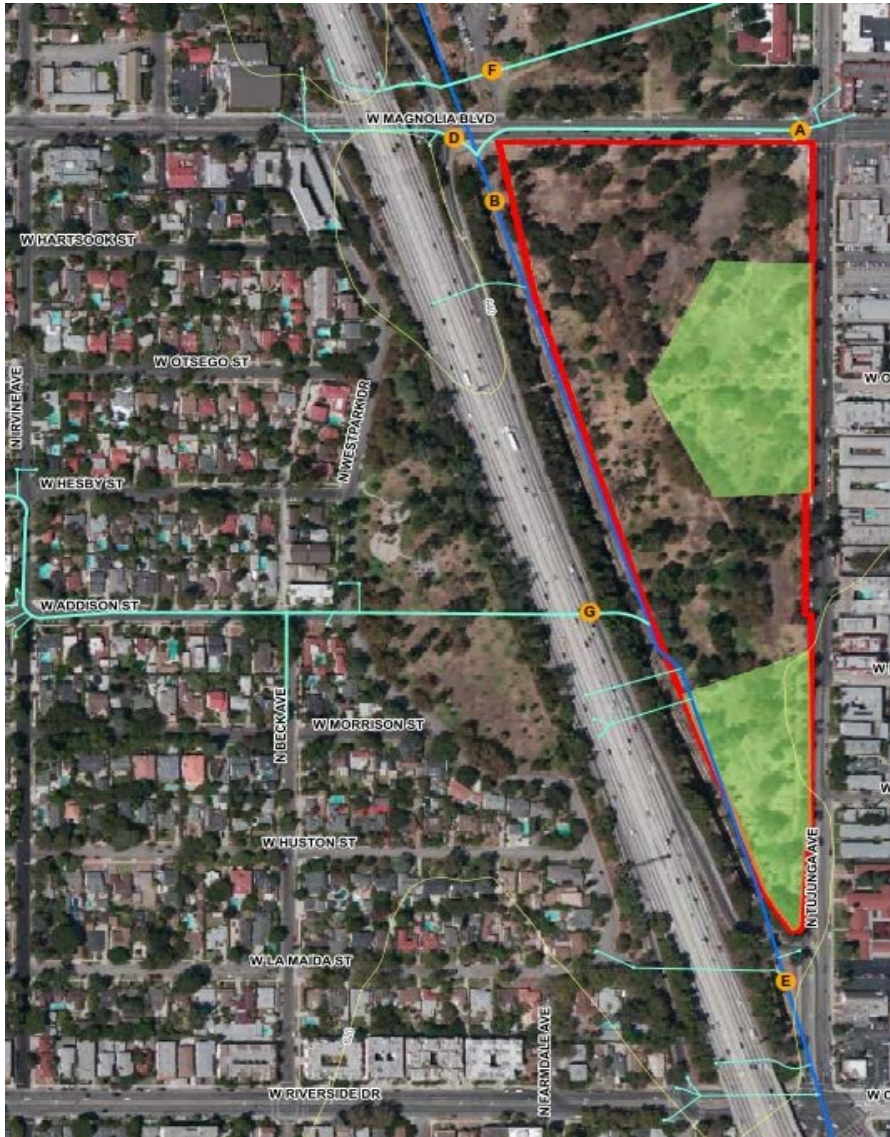


- Major Physical Benefits:
  - ✓ Improve water quality
  - ✓ Increase Local Water Supplies
- Priority:
  - ✓ Capture 85<sup>th</sup> Percentile 24-hour storm
  - ✓ Multi-use Benefits to the communities
- Current Status:
  - ✓ Seeking Grant Funding
  - ✓ 30% Design Plan



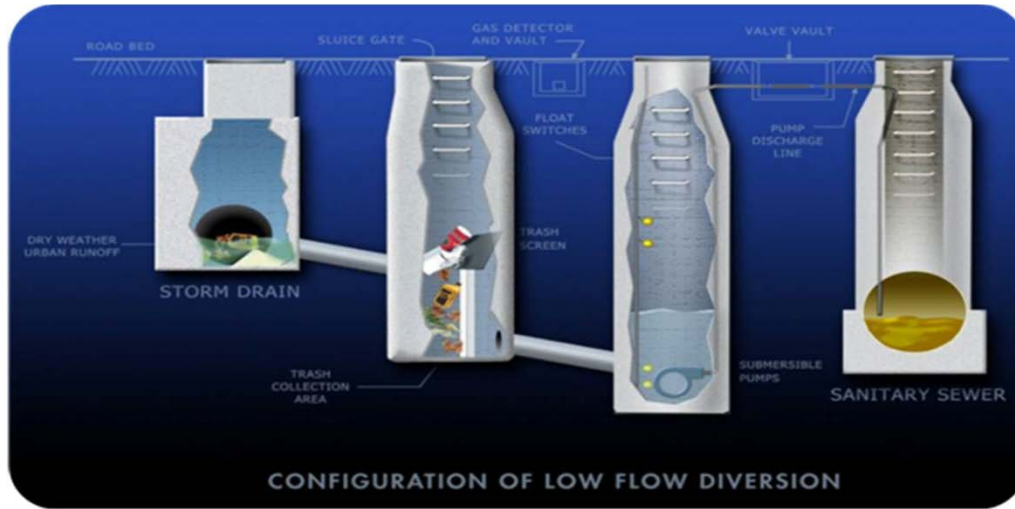


# North Hollywood Park

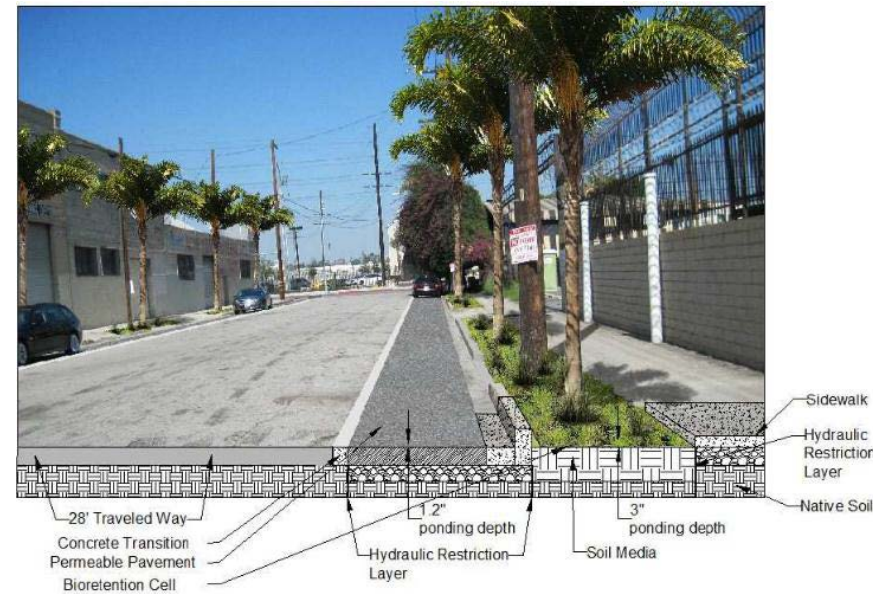




# Load Reduction Strategies (dry weather)



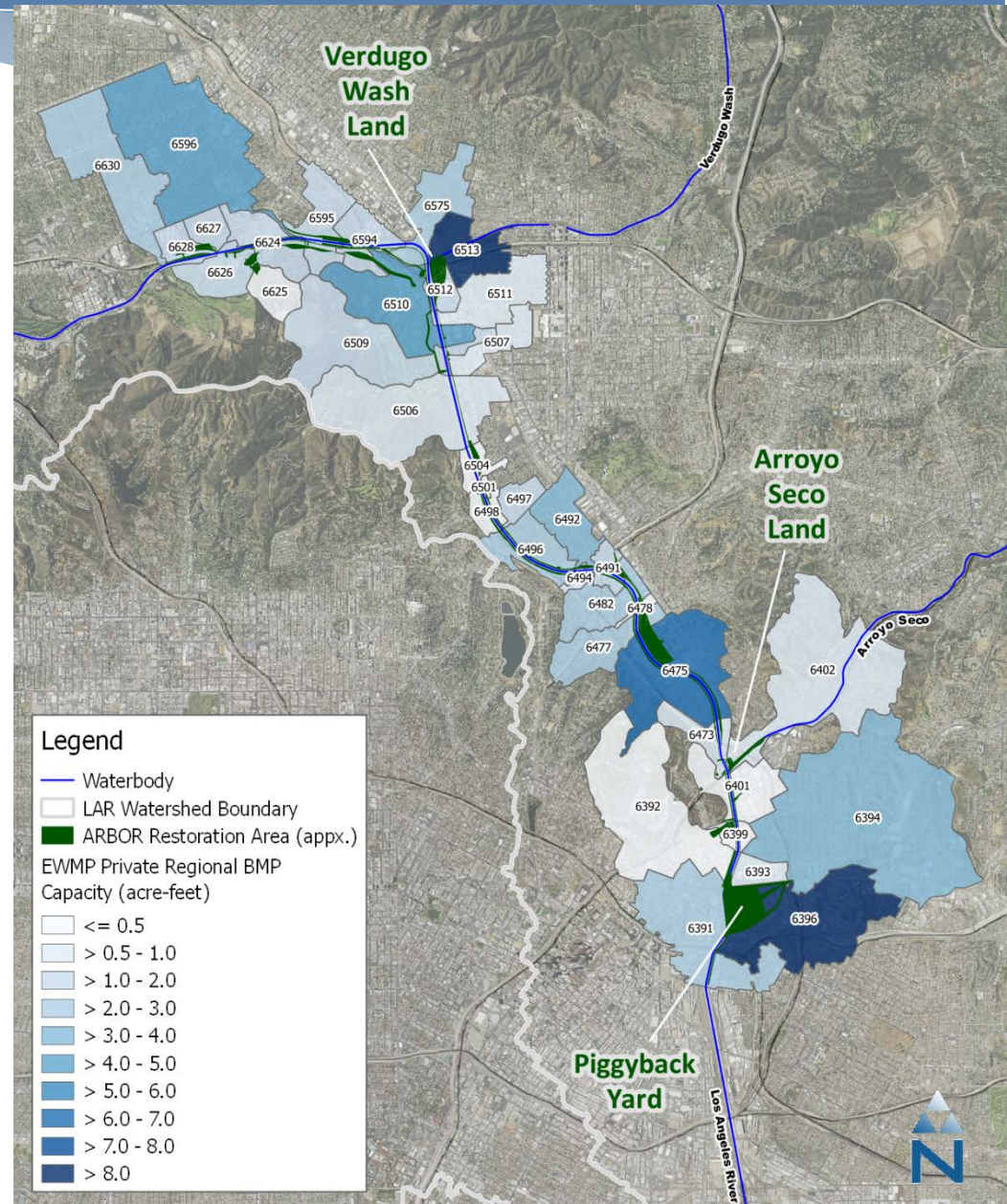
- Segment B LAR:** submit June 2015
- Rio Hondo:** submit March 2016
- Arroyo Seco:** submit March 2016
- Segment E LAR:** submit Sept. 2017
- Compton Creek:** submit March 2018





# Linkage to Restoration and Revitalization Efforts

- Important to integrate EWMP with restoration and revitalization efforts
- **Example:** regional BMPs on private land are large component of EWMP
  - Land acquisition could provides multiple benefits including habitat restoration, increasing public access to River, floodplain buyback, etc.
- **Illustration:** Map to right highlights key LA River restoration areas with nearby subwatersheds where regional BMPs on private land are required by RAA.



# Stakeholder Outreach

- Three Stakeholder meetings at the LA Zoo
  - April 2014
  - November 2014
  - March 2015
- Six Public Meetings for the Program Environmental Impact Report
- Websites
  - [www.LACoH2Osheds.com](http://www.LACoH2Osheds.com)
  - [www.LAStormwater.com](http://www.LAStormwater.com)



# Financial Strategy

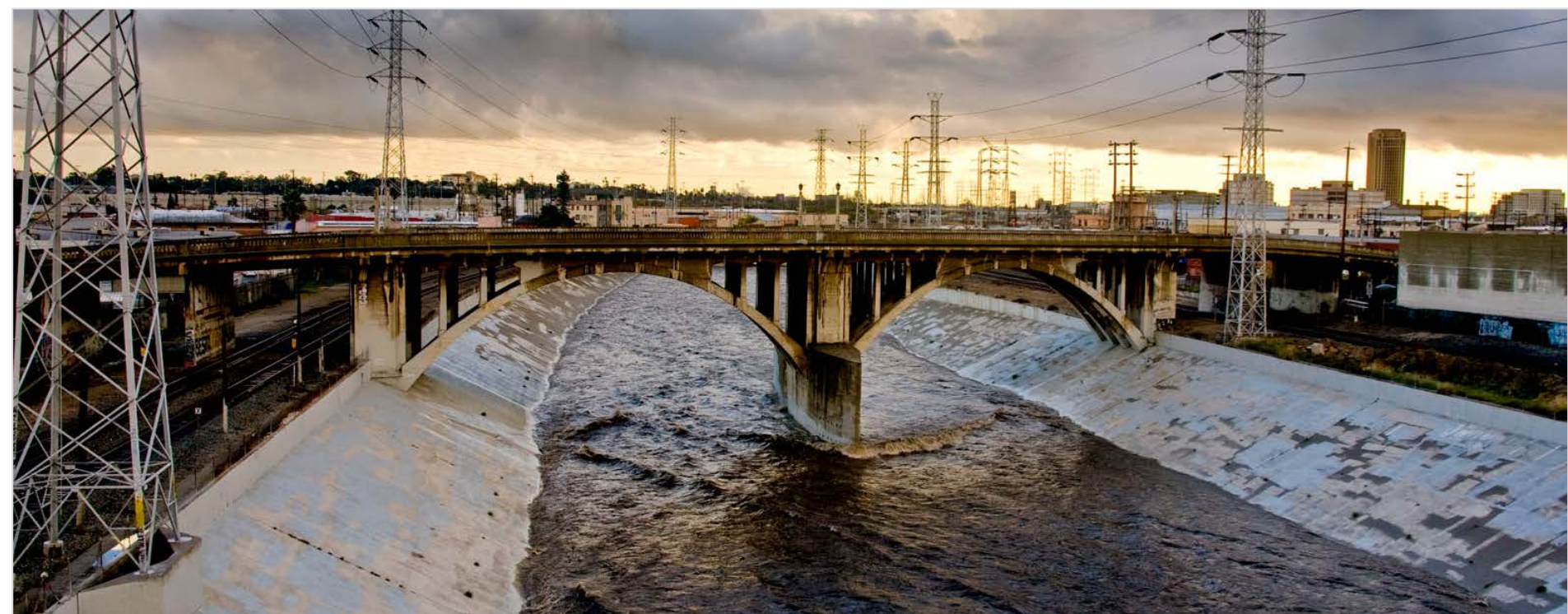
- Water Bond
- Grants
- Loans
- Other Bonds
- Continue to outreach for public support of stormwater projects
- Coordinate with other regional projects
- Work with others on their planning efforts
- Seek public-private partnerships
- Work with Water agencies
- Evaluate the feasibility of Assessments or Stormwater fees



# City Council Meetings



# Upper Los Angeles River Watershed





# Thank you

## Upper Los Angeles River Watershed Management Group

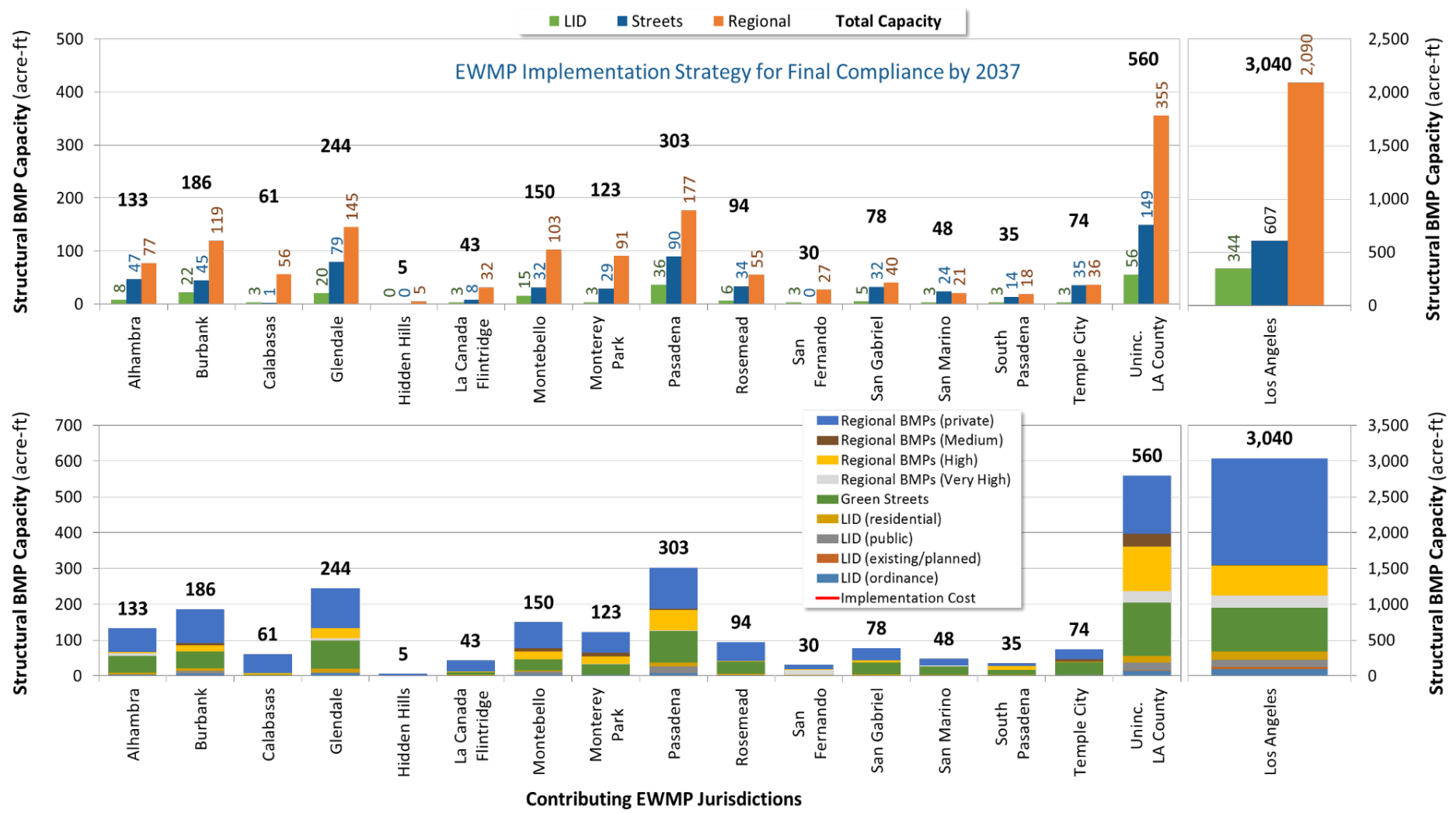




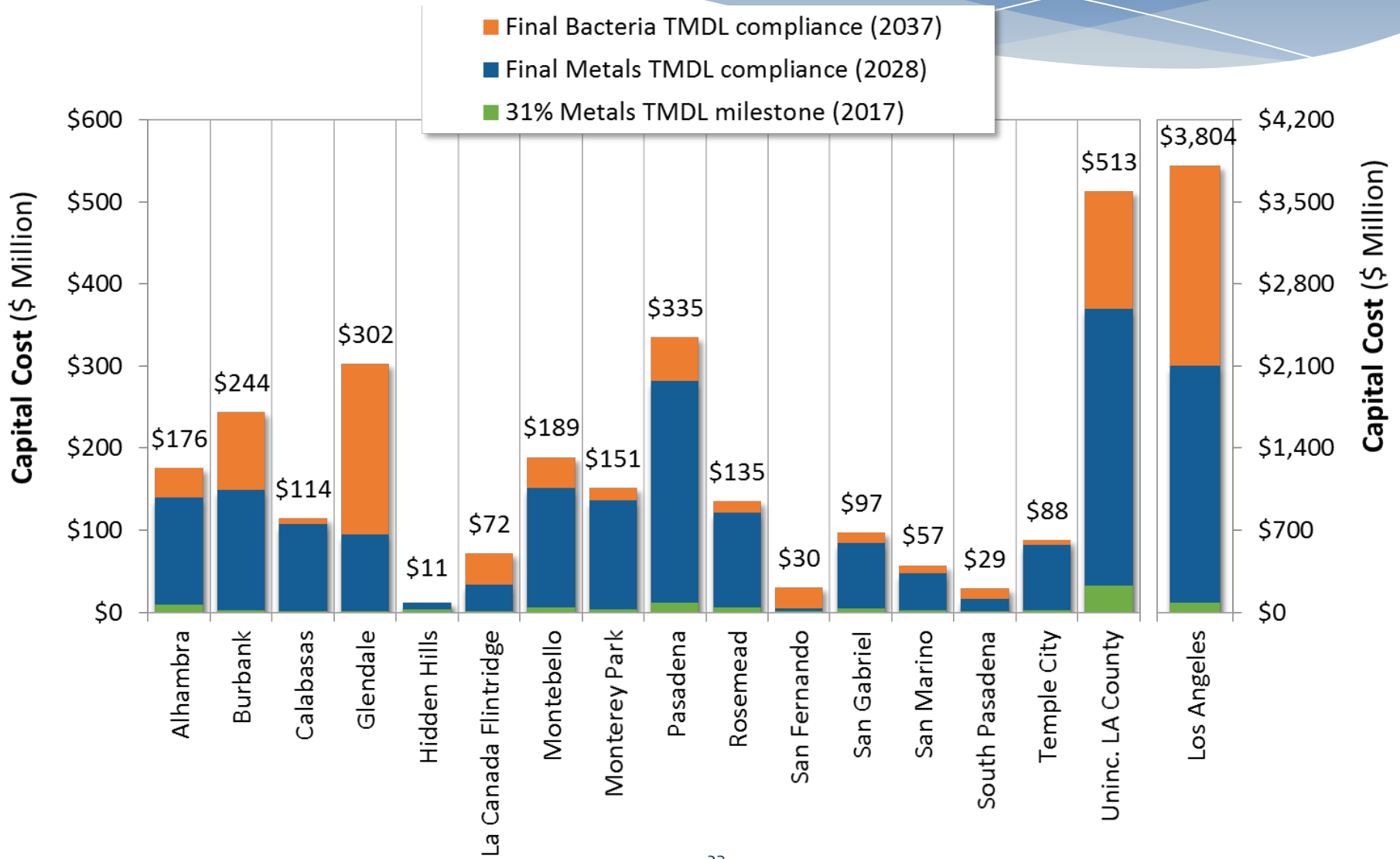
# Extra Slides



# EWMP Implementation Strategy (Bacteria, thru 2037)



# Compliance Cost





# Recipe for Compliance

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION STRATEGY: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)													
	For Metals by 2028	For Bacteria by 2037	For Metals Attainment by 2028											For Bacteria Attainment by 2037		
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs					Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private				
616102	11.80	0.00	90%	0.15	--	0.09	0.25	3.68	0.00	0.17	0.00	3.38	7.7	0.00	7.7	
616202	0.94	0.47	47%	0.02	--	--	0.05	0.54	0.00	0.00	0.00	0.00	0.6	0.47	1.1	
616602	0.20	0.71	11%	0.02	--	--	0.10	0.00	0.00	0.00	0.00	0.00	0.1	0.71	0.8	
<b>Total</b>	<b>123.3</b>	<b>8.1</b>	<b>75%</b>	<b>2.1</b>	<b>0.0</b>	<b>0.9</b>	<b>2.6</b>	<b>44.2</b>	<b>7.3</b>	<b>3.3</b>	<b>0.0</b>	<b>39.2</b>	<b>99.6</b>	<b>8.1</b>	<b>107.7</b>	