



# LADWP's Stormwater Capture Program SCWC Stormwater Workshop

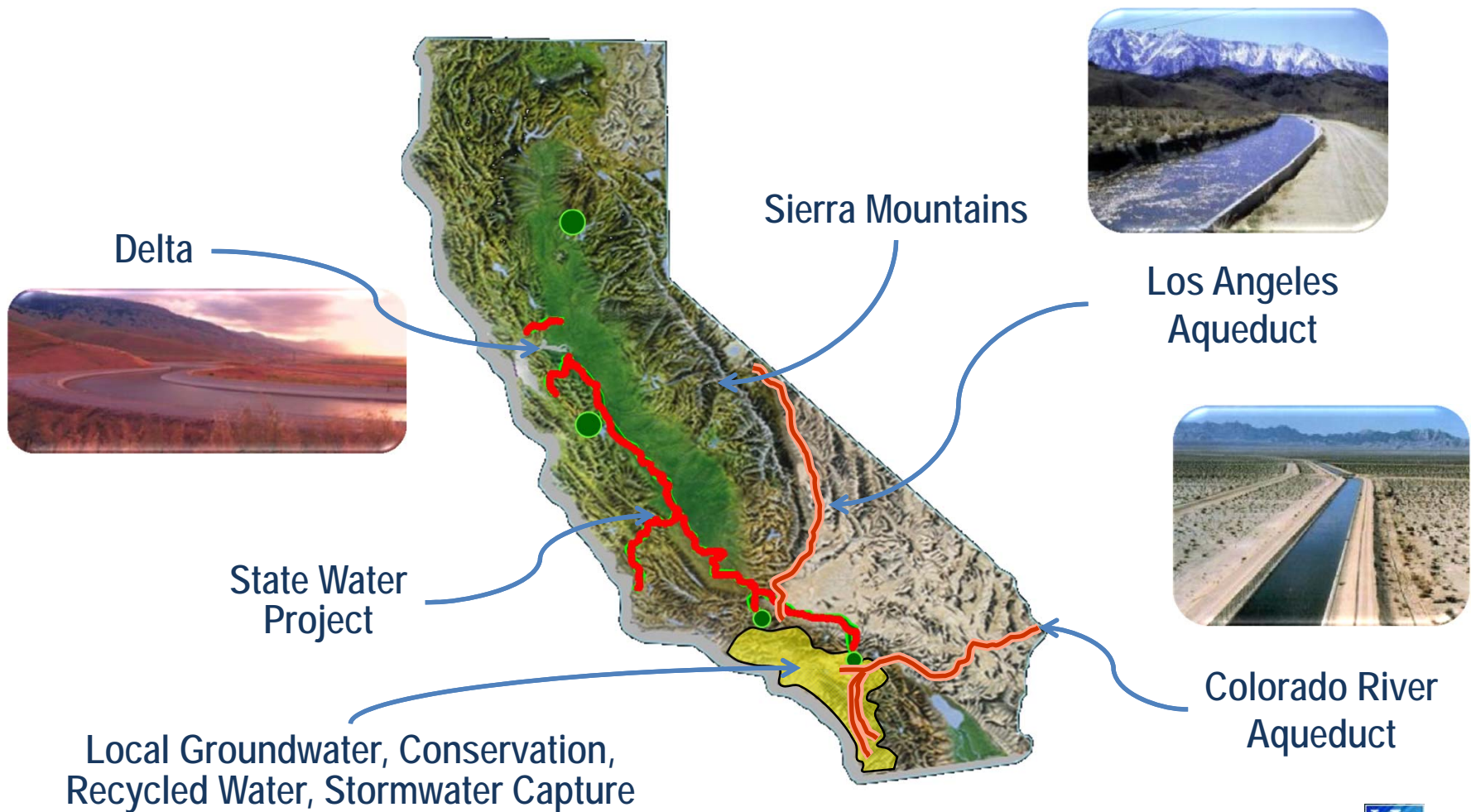
October 11, 2017

Watershed Management

Los Angeles, CA

Putting Customers First 

# Water Sources and Reliability Challenges



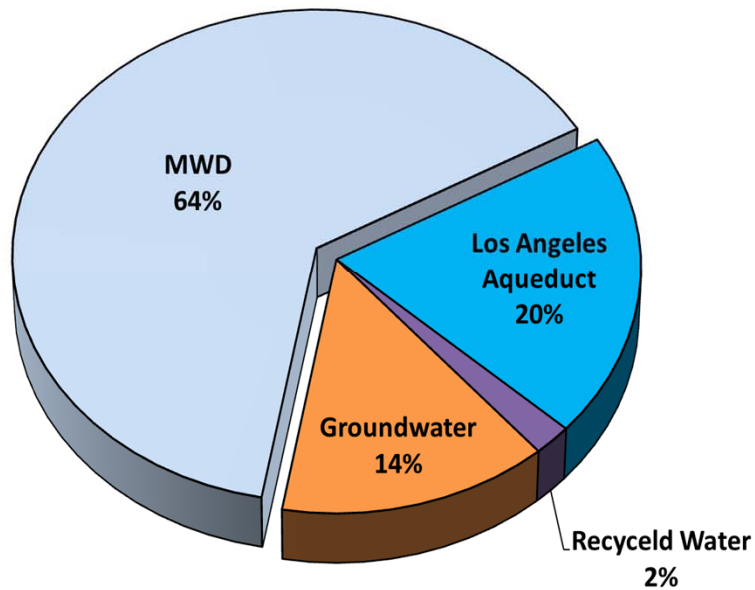
# State and Local Drought Response

- **Mayor's Executive Directive Order #5**
  - Reduce GPCD 20% by 2017
- **Governor's Executive Order**
  - 25% Conservation Statewide
- **LA's Sustainable City pLAN**
  - Reduce GPCD 20% (2017), 22.5% (2025), 25% (2035)
  - 50% Reduction of imported-purchased water by 2025
  - 50% of water locally sourced by 2035
- **State Emergency Conservation Regulations**
  - 3 Year Stress Test

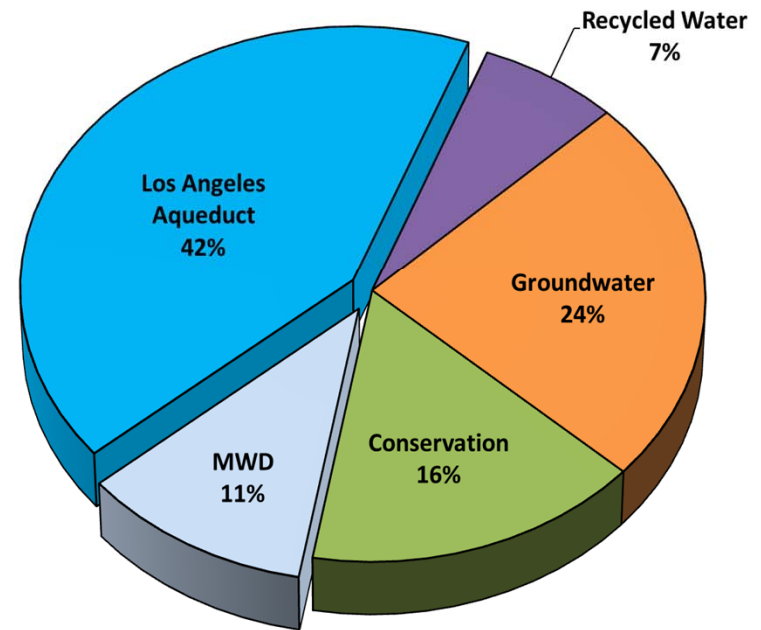


# Sustainable City pLAn & 2015 UWMP Goals

**Fiscal Year 2012 - 16 Average**  
**Total Production: 540,400 AFY**



**Fiscal Year 2039 - 40 Average**  
**Total Production: 675,700 AFY**

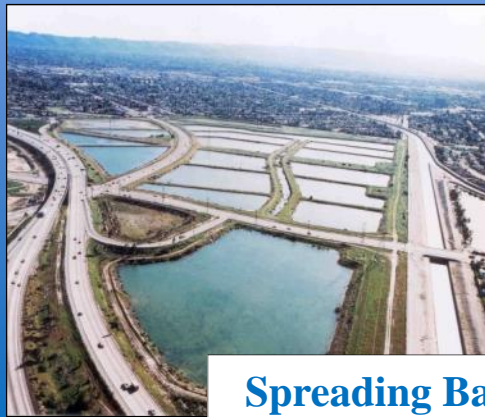


# Centralized vs. Distributed Capture

Dam Improvements



Centralized



Spreading Basins

Dry Wells



Cisterns



Distributed



Green Streets



Sub-regional

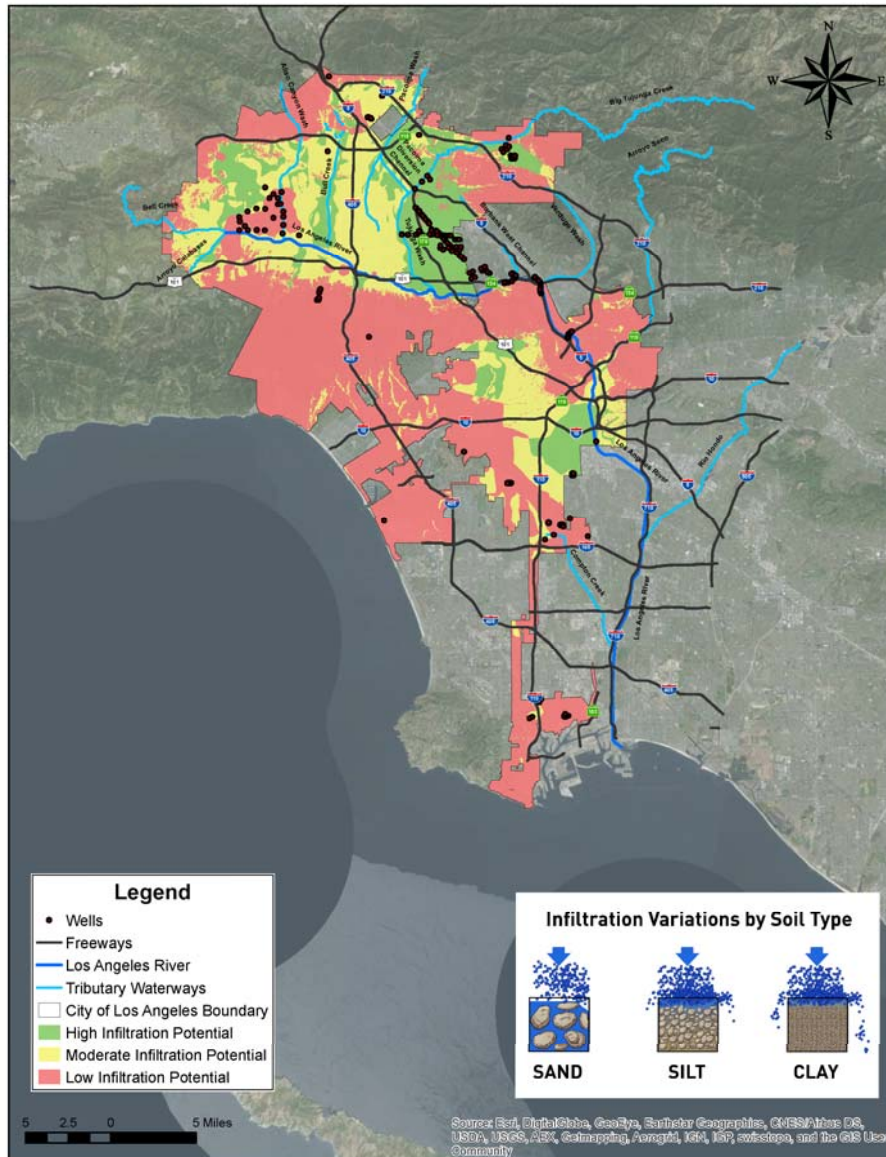
# Stormwater Capture Master Plan



- Quantifying stormwater capture potential
- Identifying new project/programs/policies
- Prioritizing based on water supply criteria
- Developing costs/benefits for proposed projects/programs/policies
- Defining timing and key milestones
- Developing 5, 10, 15, and 20 year goals
- Defining partnerships



# Geophysical Categorization of the SCMP Study Area



## CATEGORY A

- Least hydrogeologically constrained
- Highest priority aquifers
- Conducive to infiltration BMPs

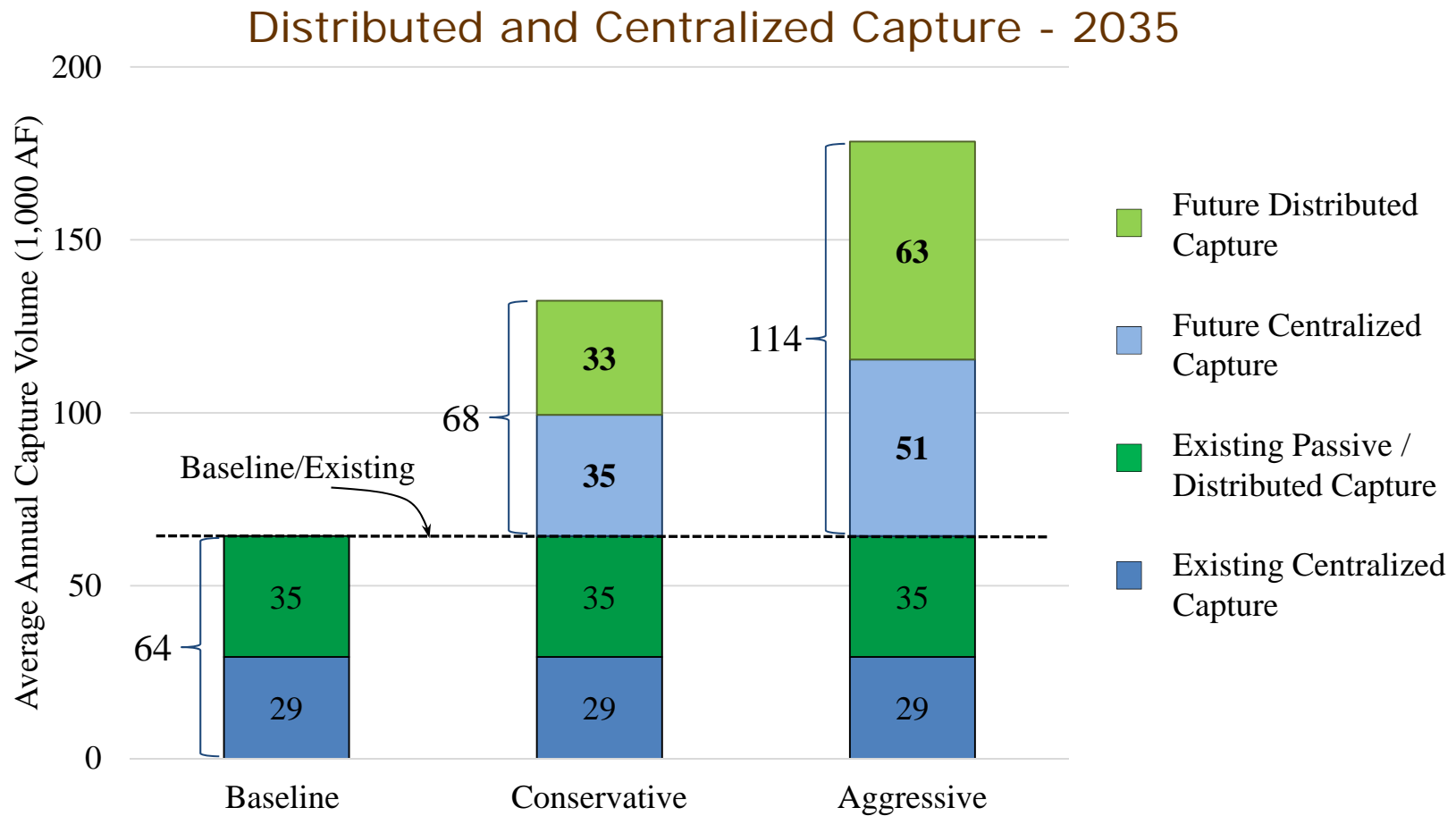
## CATEGORY B

- Somewhat hydrogeologically constrained
- Mid level priority aquifers
- Conducive to infiltration BMPs

## CATEGORY C

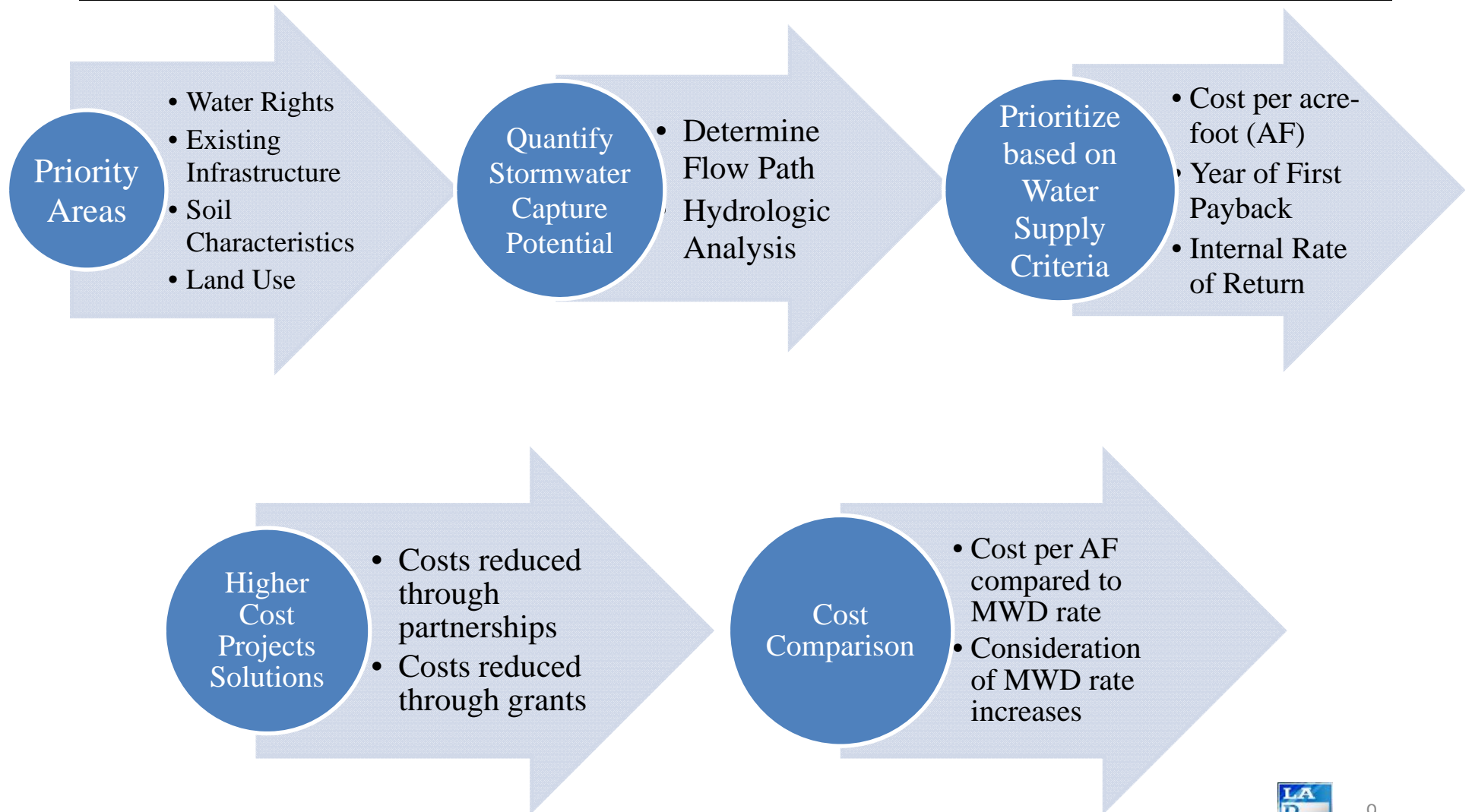
- Most hydrogeologically constrained
- Lower priority aquifers
- More advantageous for direct use BMPs

# Stormwater Capture Potential

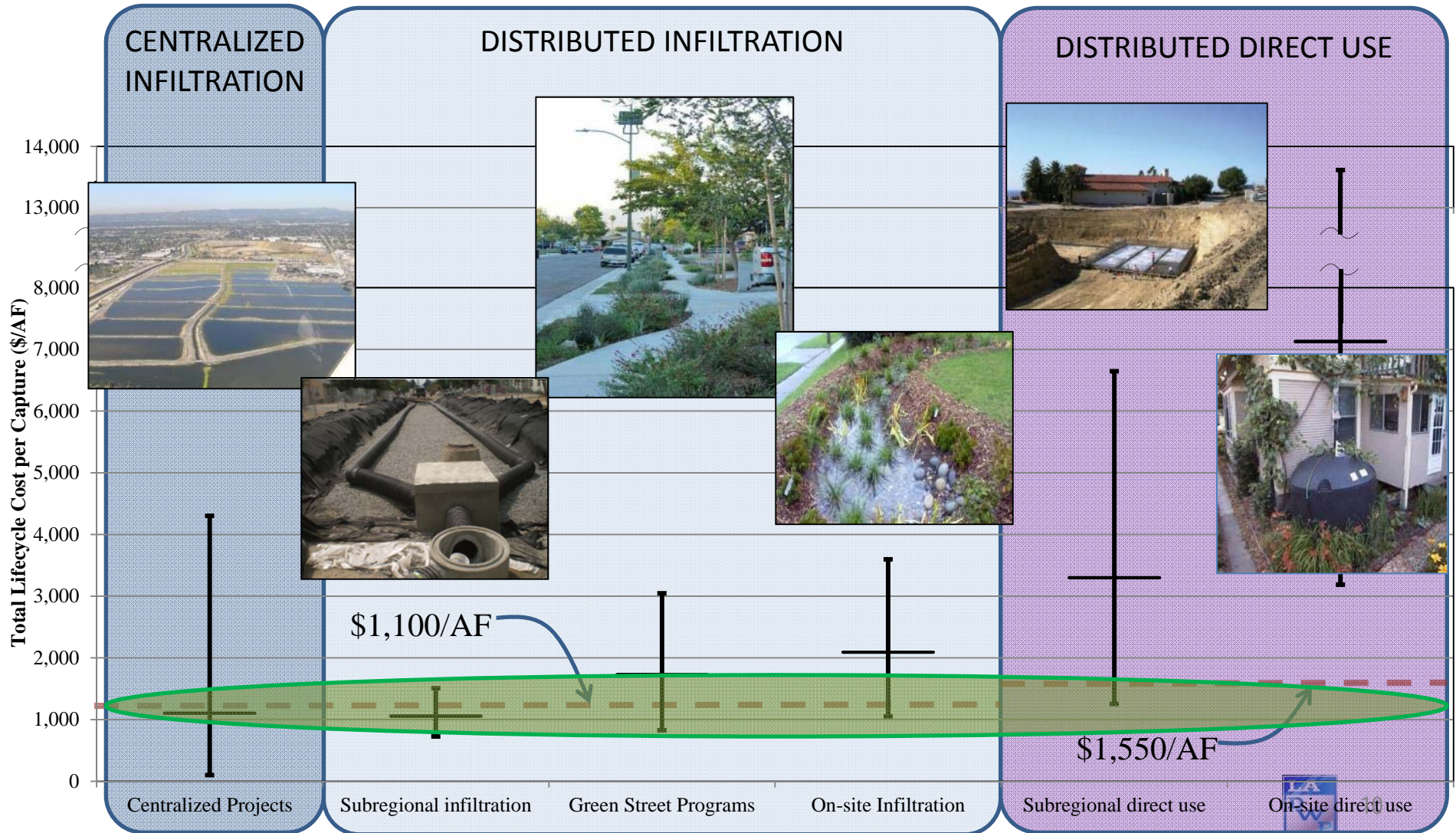




# Stormwater Project Evaluation Process



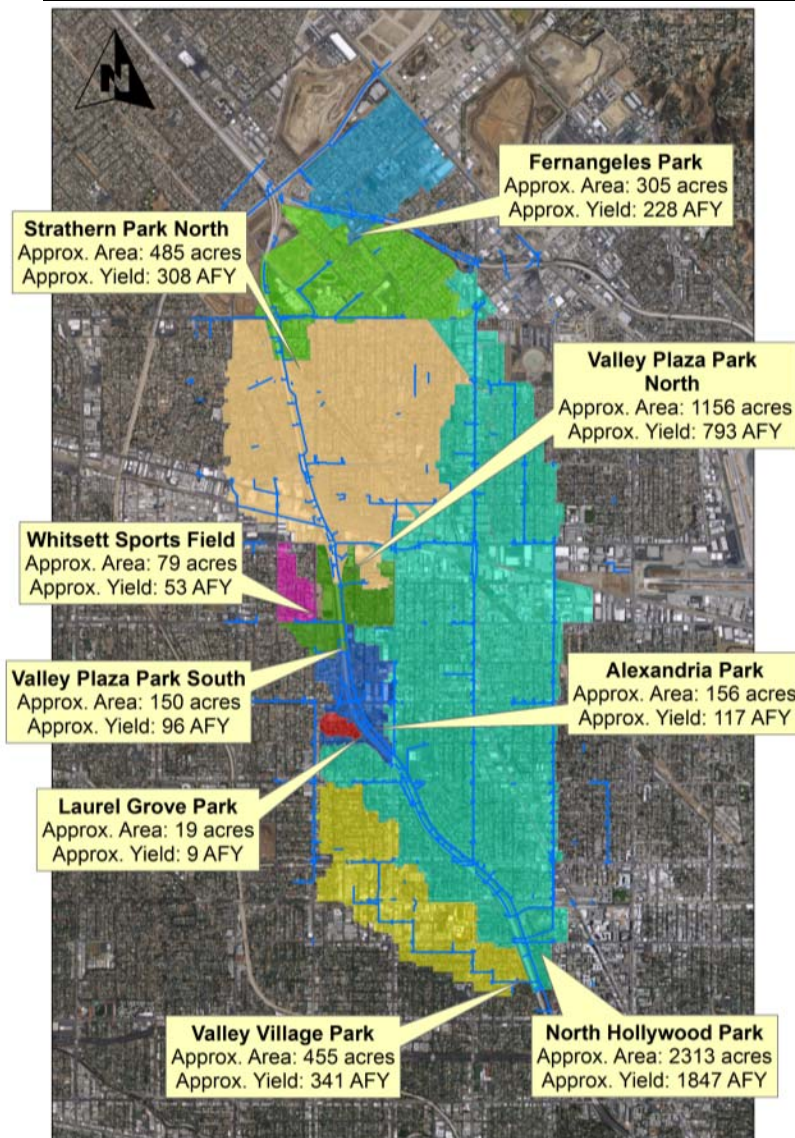
# Cost per Acre-Foot



# Ancillary Benefits of Stormwater Capture



# RAP Tujunga Wash Central Branch Program



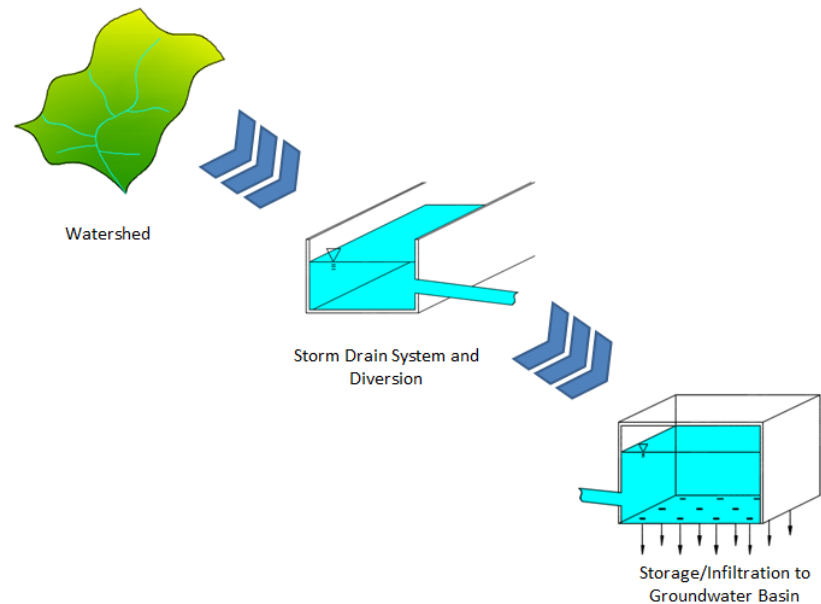
## Summary

Total Tributary Area: 5120 Acres

Total Approx. Annual Yield: 3790 AFY

Total 85<sup>th</sup> Percentile Volume: 270 AF

Estimated Program Cost: \$221M



# RAP Tujunga Wash Central Branch Program

In subregional infiltration, stormwater runoff is collected from multiple parcels, city blocks, or entire neighborhoods into an infiltration facility within the public right-of-way or adjacent public/private lands. Surface channels and/or storm drains are used to convey flows to the desired location where BMPs such as underground infiltration galleries or bio-infiltration basins will be used to artificially recharge local aquifers.



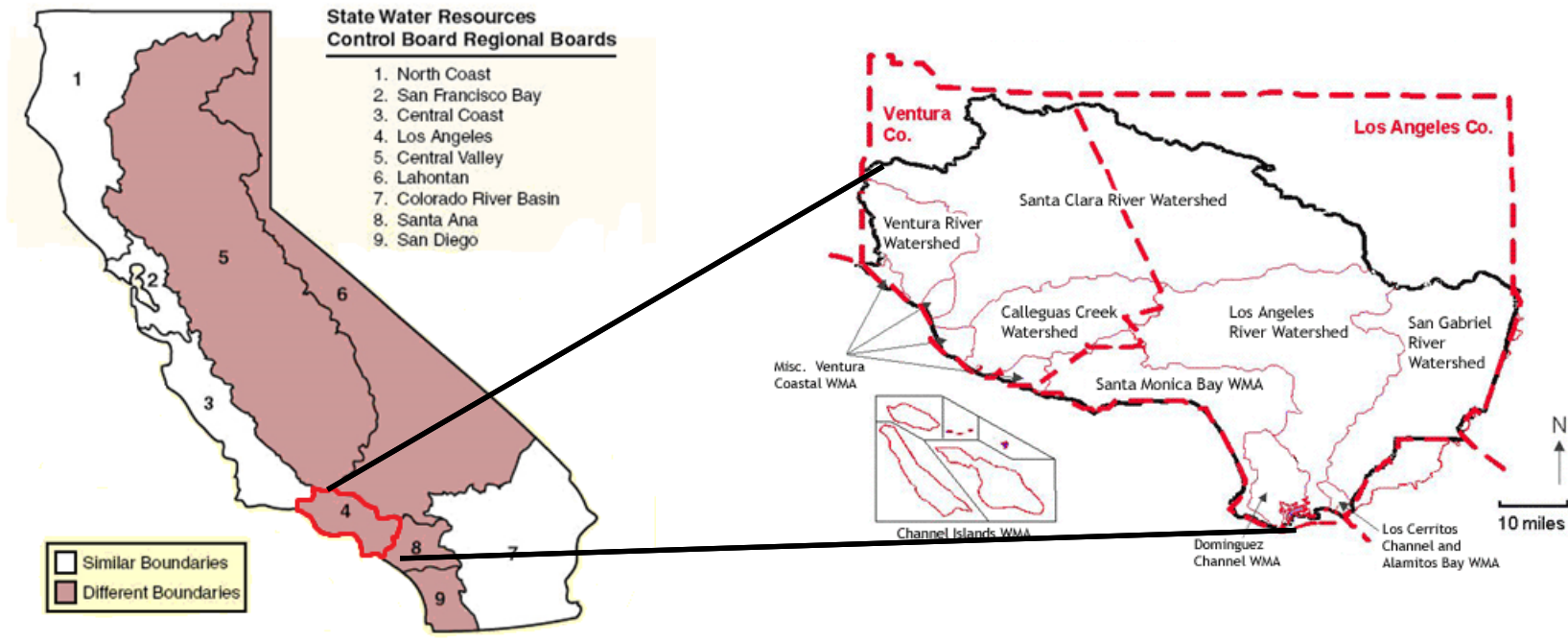
Example of subregional infiltration at Sun Valley Park

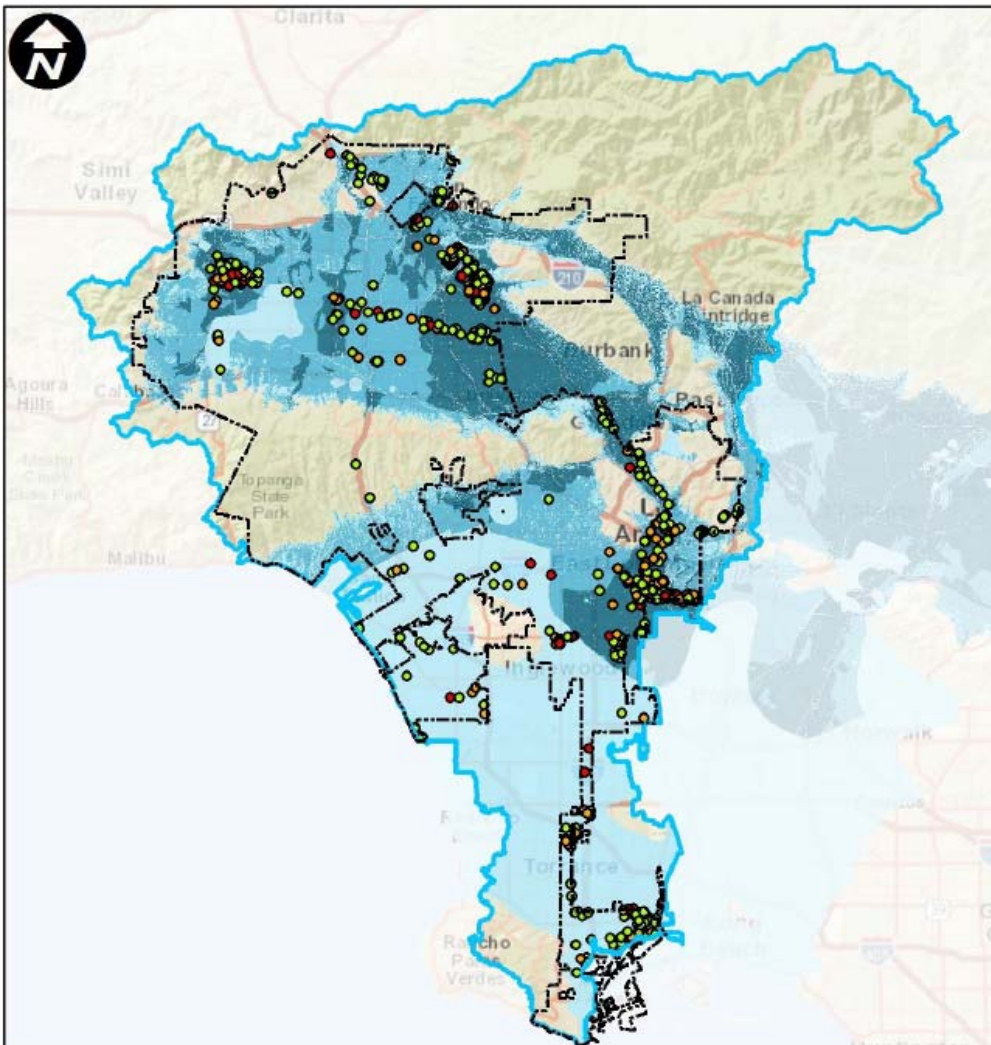


Park improvements above the infiltration galleries

# Industrial General Permit (IGP)

## State Water Resources Control Board: Region 4





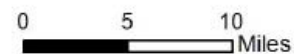
Geophysical Category	Number of Active IGP Sites	Reported Area (ac) <sup>1</sup>	Average Annual Runoff Volume (ac-ft) <sup>1</sup>
A	439	2,910	2,330
B	98	2,210	1,860
C	186	12,630	8,960
<b>Total</b>	<b>723</b>	<b>17,750</b>	<b>13,150</b>

Geophysical Category	Compliance Status	Number of Active IGP Sites	Reported Area (ac) <sup>1</sup>	Average Annual Runoff Volume (ac-ft) <sup>1</sup>
A	Level 1	94	790	600
	Level 2	34	255	205
B	Level 1	22	470	370
	Level 2	9	30	25
C	Level 1	32	310	220
	Level 2	19	7,220	4,770
<b>Level 1 Sites Subtotal</b>		<b>148</b>	<b>1,570</b>	<b>1,190</b>
<b>Level 2 Sites Subtotal</b>		<b>62</b>	<b>7,505</b>	<b>5,000</b>

<sup>1</sup> Three facilities were excluded from the area and volume calculations since their areas were self-reported incorrectly based on a desktop review

- City of LA Boundary
- LADWP SCMP Study Area
- Active IGP Sites Baseline
- Active IGP Sites Level 1
- Active IGP Sites Level 2
- Geophysical Category A
- Geophysical Category B
- Geophysical Category C

**Figure 1**  
**Active IGP Sites**  
**by Geophysical Category**



8/24/2017

# Project Objective and Scope of Work

**Project Objective:** To identify an effective strategy and determine feasibility of incentivizing widespread infiltration and capture/use of industrial stormwater as a water supply resource, based on new compliance options offered under the State Water Resource Control Board's pending Industrial General Permit (IGP) Amendment

## **TASKS:**

Monitor/Assess New  
IGP Compliance Options



Technical Analysis



Stakeholder and  
Regulatory Outreach



Strategic  
Plan

**Desired Outcome:**  
Significantly increase  
industrial stormwater  
infiltration and capture/reuse



**Next Step:**  
Implementation of  
Strategic Program



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[www.ladwp.com/stormwater](http://www.ladwp.com/stormwater)  
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Rafael Villegas  
Water Resources Division  
[Rafael.Villegas@ladwp.com](mailto:Rafael.Villegas@ladwp.com)

