

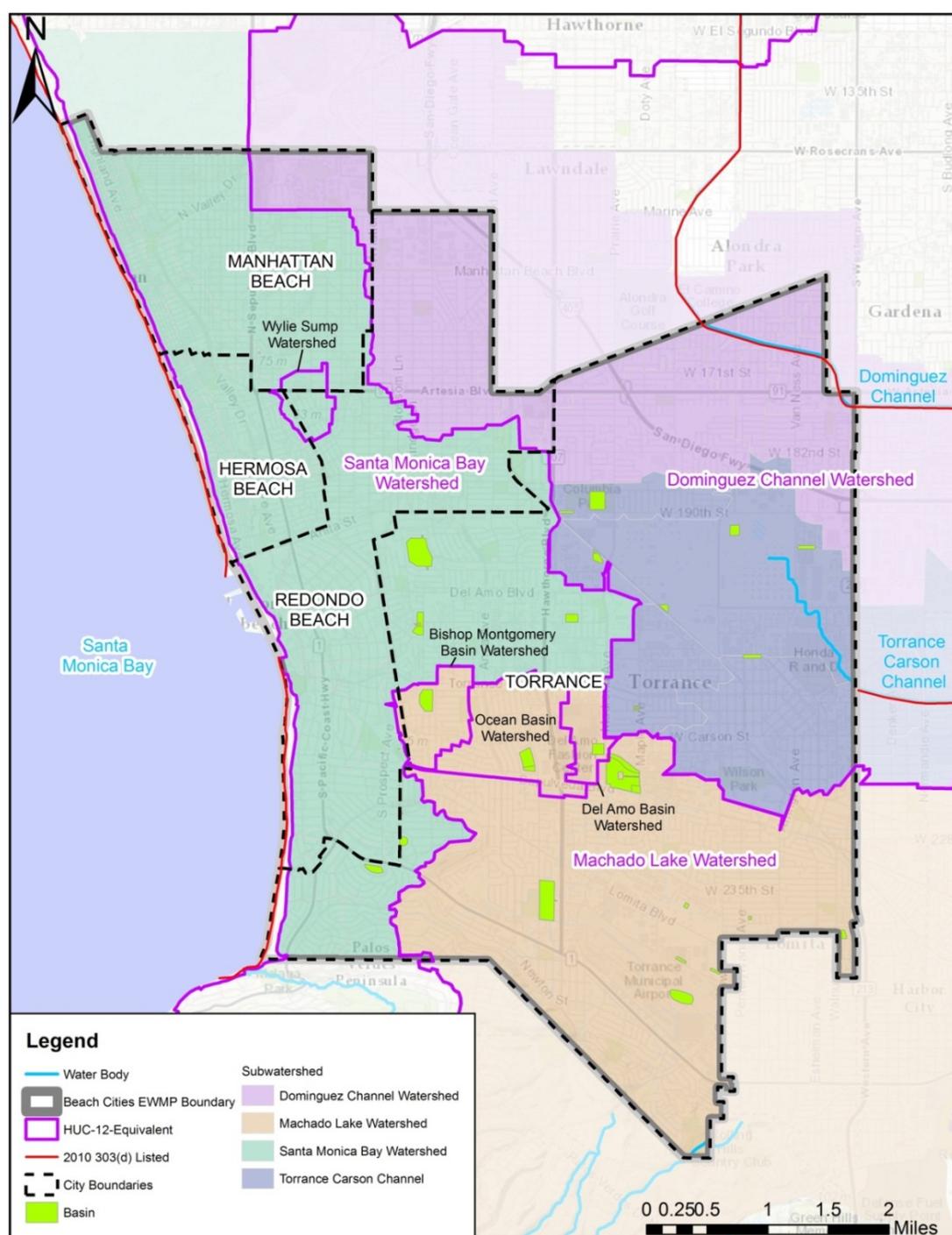
# BEACH CITIES EWMP OVERVIEW

KRISTY MORRIS, CITY OF HERMOSA BEACH  
ON BEHALF OF BEACH CITIES WMG AGENCIES  
JULY 9, 2015



# Beach Cities Watershed Management Group

- ▶ Manhattan Beach
- ▶ Hermosa Beach
- ▶ Redondo Beach
- ▶ Torrance
- ▶ Los Angeles County Flood Control District



# Beach Cities WMG EWMP Land Area Distribution

Agency	Santa Monica Bay Watershed Area (acres)	Dominguez Channel Watershed Area (acres)	Total EWMP Area (acres)
Redondo Beach	2,614	1,217	3,831 (25%)
Manhattan Beach	2,078	350	2,428 (16%)
Hermosa Beach	832	0	832 (5%)
Torrance	2,314	5,812	8,126 (53%)
LACFCD	NA	NA	
<b>Beach Cities WMG</b>	<b>7,837</b>	<b>7,379</b>	<b>15,217 (100%)</b>

# How is the Beach Cities WMG unique?

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- Beach communities focused on high quality recreational beaches
- 10 Yrs of collaboration on Santa Monica Bay Bacteria TMDL Implementation
- Numerous completed water quality improvement projects



# Expansion of Previous Work

**Santa Monica Bay Beaches Bacteria TMDL Implementation Plan:  
Jurisdictional Groups 5 & 6 (2005)**

**Jurisdictional Groups 5 & 6  
Implementation (2011) – Santa  
Monica Bay Beaches Bacteria TMDL:**

- Structural BMP Siting and Conceptual Design Study
- Dry Weather Source Characterization and Control Summary
- Programmatic Solutions – Report of Findings

**City of Torrance Stormwater Quality  
Master Plan**



# Watershed Water Quality Priorities

## Total Maximum Daily Loads

- **Santa Monica Bay Beaches**
  - Dry Weather Bacteria
  - Wet Weather Bacteria\*
- **Santa Monica Bay**
  - Trash/Debris
  - DDT and PCBs
- **Dominguez Channel**
  - Toxics and Metals (Cu,Zn Pb)\*

\* Controlling Pollutant

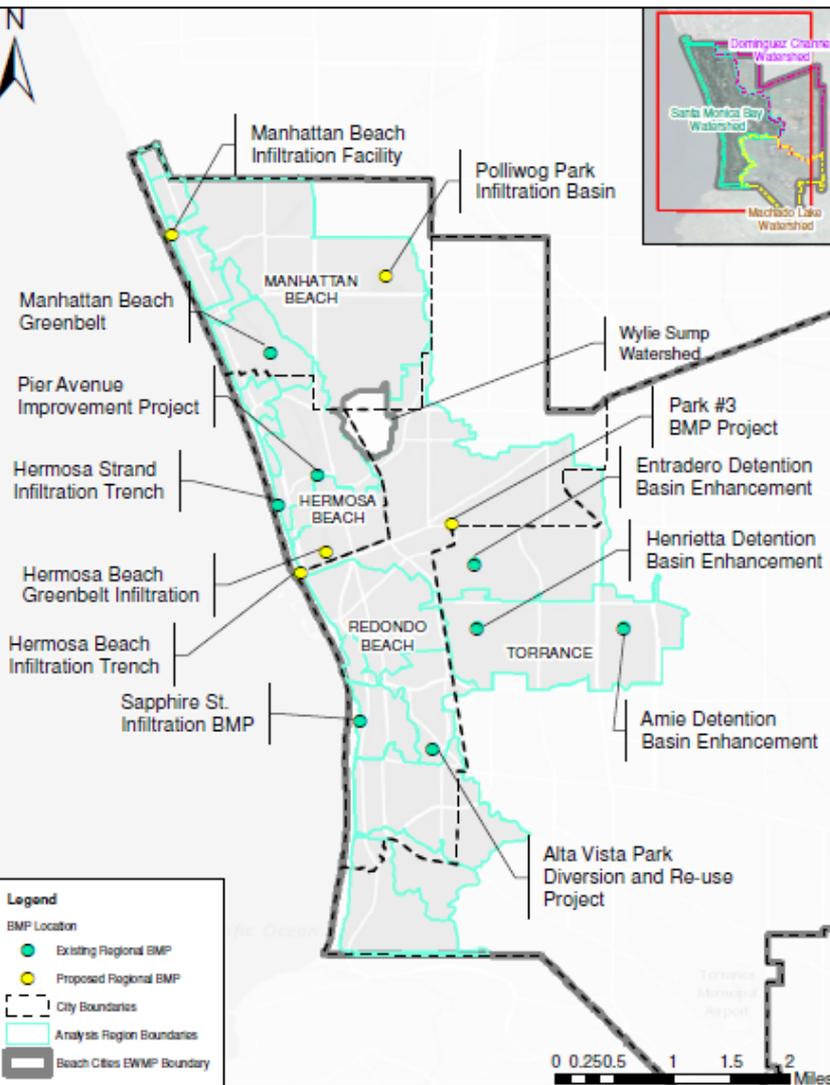


# Compliance Schedule

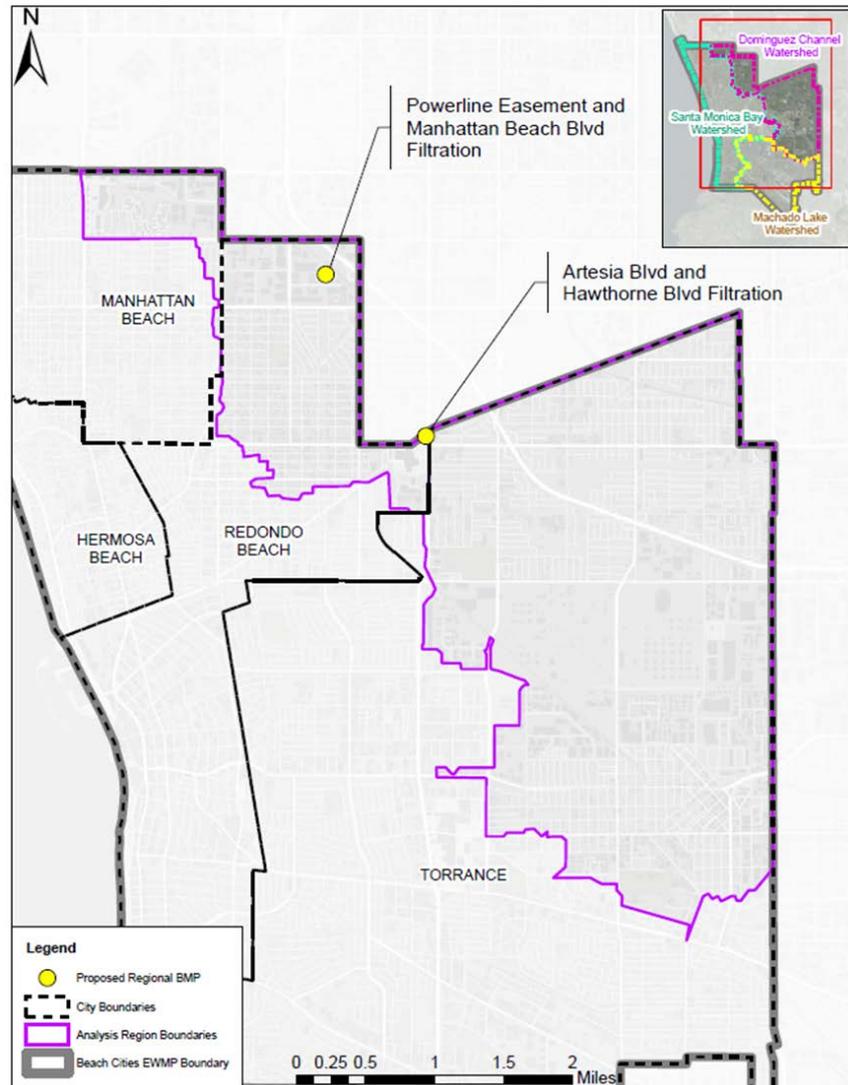
Category	Water Body	Pollutant	Final Compliance Deadlines (Category 2 deadlines are proposed)
<b>1: Highest Priority</b> (Total Maximum Daily Loads [TMDLs])	Santa Monica Bay Beaches	Bacteria (wet and dry weather)	2021
	Santa Monica Bay	Trash and plastic pellets	2020
		Toxics	N/A
	Dominguez Channel (including Torrance Lateral)	Toxics and metals	2032
<b>2: High Priority</b> (303[d] listings)	Dominguez Channel (including Torrance Lateral)	Indicator bacteria	2032

# Watershed Control Measures

## Santa Monica Bay Watershed Regional BMPs



## Dominguez Channel Watershed Regional BMPs



# Santa Monica Bay Watershed Existing Regional BMPs

Manhattan Beach Greenbelt Infiltration Project



Amie Basin



Henrietta Basin



Hermosa Strand Infiltration Trench



Alta Vista Diversion and Reuse



Entradero Basin



Sapphire Street Infiltration BMP



# Hermosa Beach – Pier Avenue Improvement Project

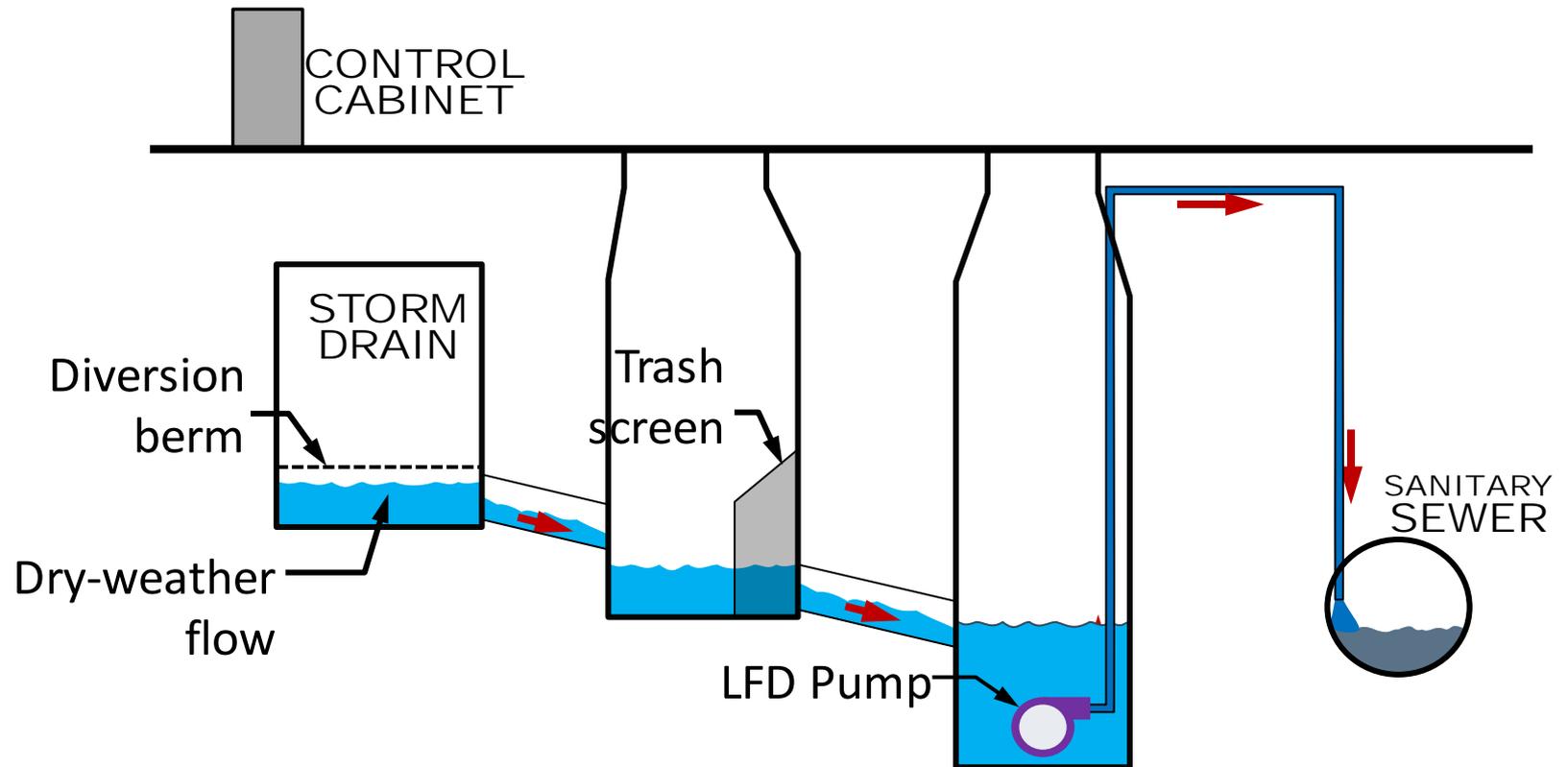


## Green Street Retrofit

- 33-acre drainage area
- Multi-benefit streetscape project
- Reduced pollutant loading and flooding
- Widening of pedestrian walkways
- New bikeways
- Safer crosswalks
- Landscaped Median
- Bulb-outs

# Seven (7) Low Flow Diversions on Major Storm Drains in Beach Cities WMG

Address Santa Monica Bay dry weather bacteria TMDLs

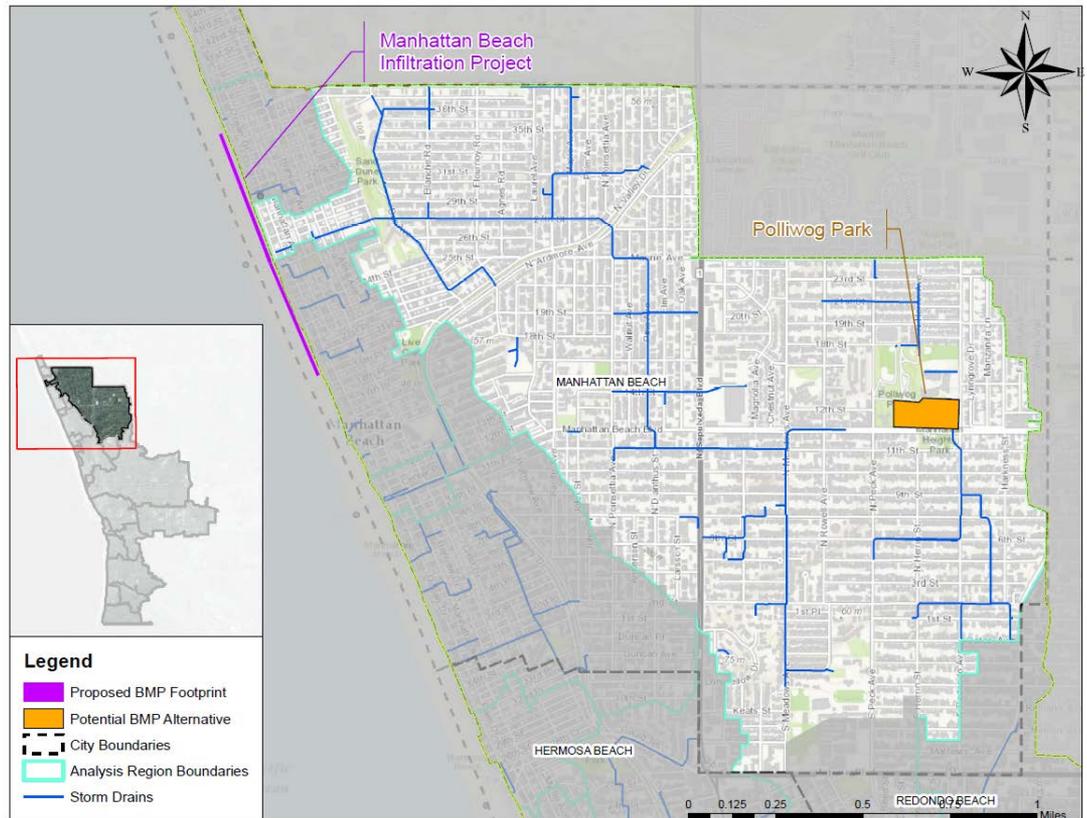


# Santa Monica Bay Watershed Proposed Regional BMPs

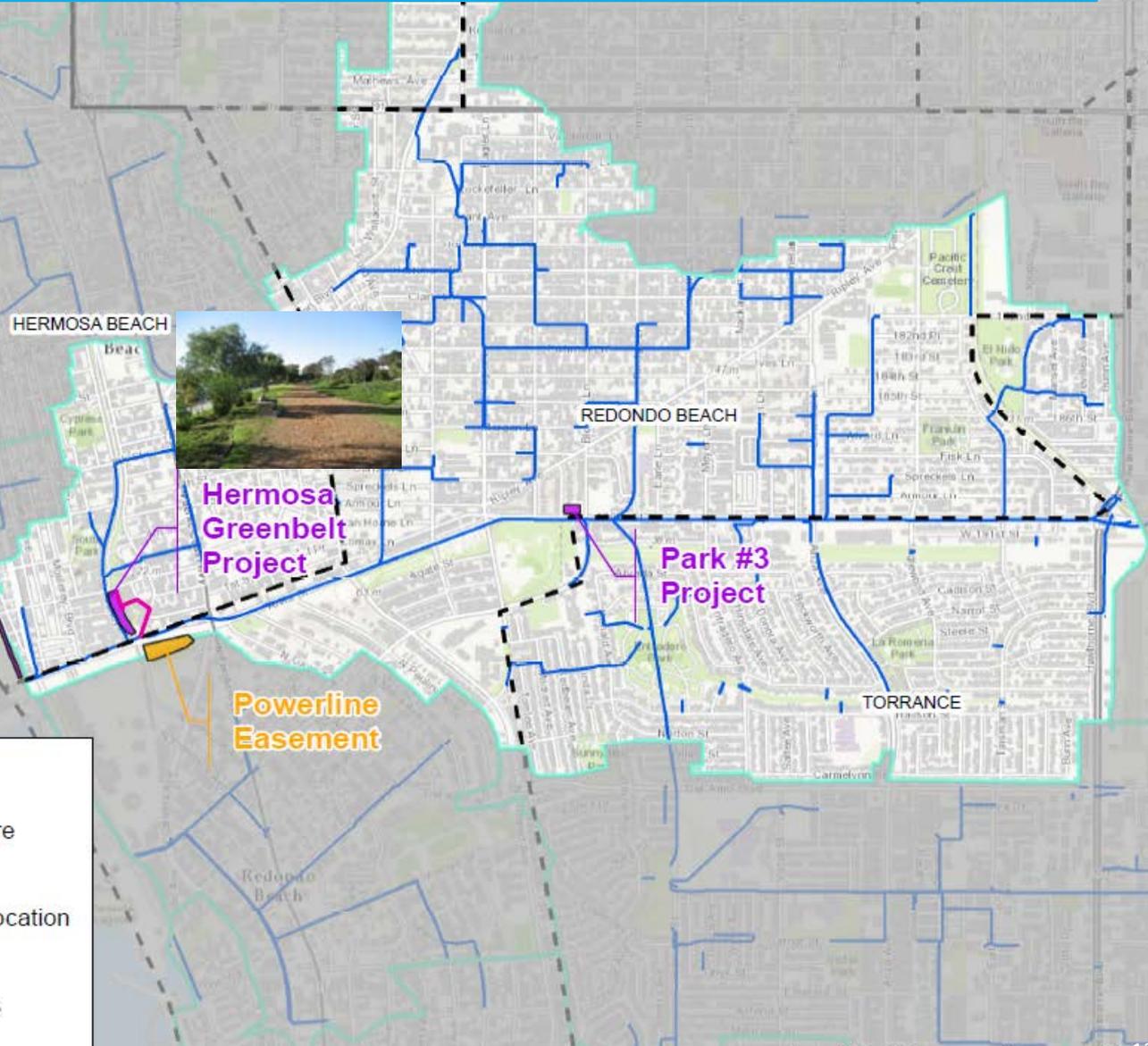
## Priority Subwatershed - 28<sup>TH</sup> Street MB

Diverts runoff from six outfalls  
to subsurface, linear  
infiltration trench

Tributary area = 1,600 acres



# Priority Subwatershed – Herondo Drain Hermosa Bch, Redondo Bch, Torrance



**Hermosa Beach Infiltration Project**

**Hermosa Greenbelt Project**

**Park #3 Project**

**Powerline Easement**

**Legend**

- Proposed Diversion Structure
- Proposed BMP Footprint
- Potential BMP Alternative Location
- City Boundaries
- Analysis Region Boundaries
- Storm Drains

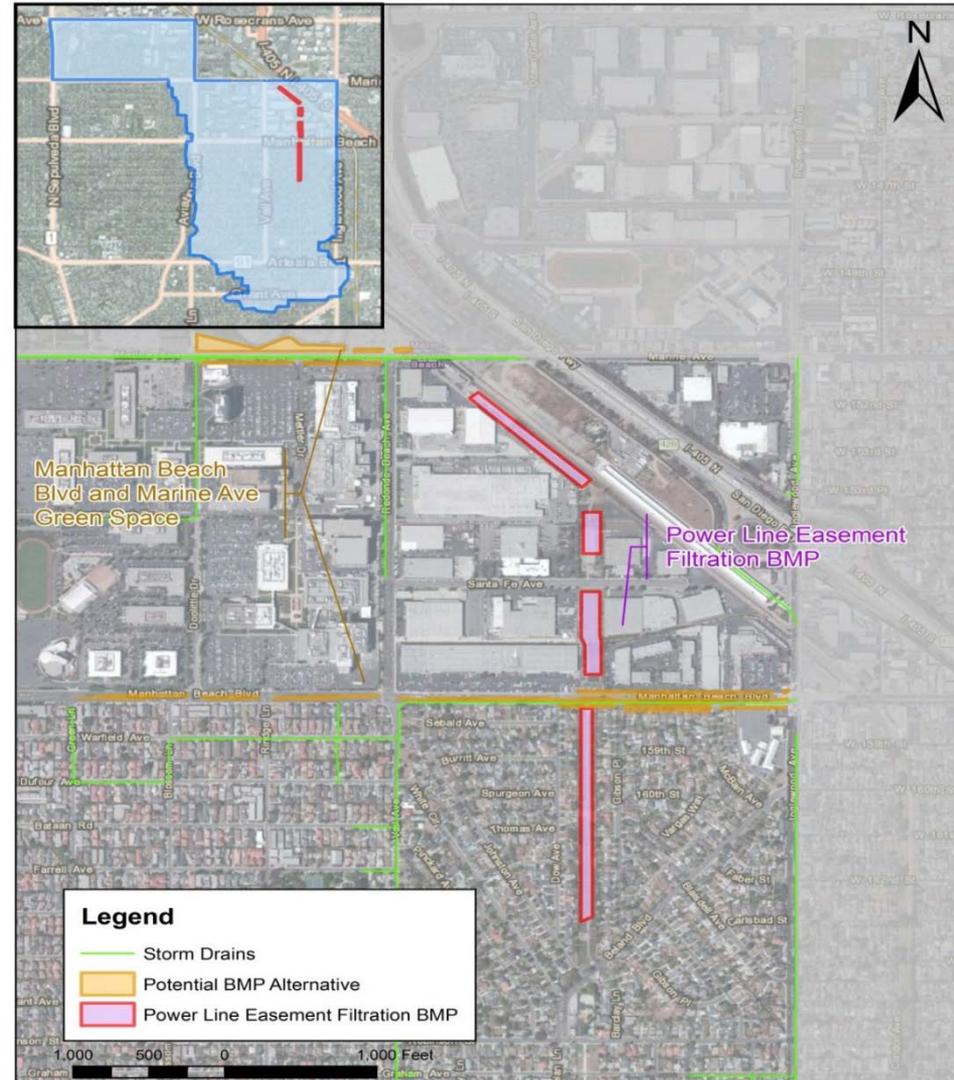
# Dominguez Channel Watershed Proposed Regional BMPs

## Powerline Easement

Marine Ave & Manhattan Bch Blvd.

Diversion to subsurface  
engineered biofiltration system

Tributary area = 1,500 acres



# Examples of Existing Distributed BMPs



Connector Pipe Screens

Continuous Deflection Systems

Retractable and Fixed Screens

Permeable Concrete



# Non-Structural & Institutional BMPs

- Clean Bay Restaurant Program
- Stormwater Awareness Website (www.southbaystormwaterprogram.com)
- Water Efficient Landscape Ordinance
- Plastic Bag Ban
- Polystyrene Ban
- No Smoking in Public Areas
- Pet Waste Stations & Dog Parks
- CalGreen Code
- LID Ordinances & Green Street Policies





# Project Implementation Costs

Summarized costs based on proposed structural BMPs (distributed and regional)

Excluded: Annual monitoring costs (CIMP), costs of implementing baseline and enhanced MCMs

Project schedules will be aligned with compliance deadlines for the water body-pollutant combinations

- (between 2018 and 2032)

Cost Component	Range (low-high)
Construction	\$43 – 89 Million
Annual O&M	\$2.0 - 3.1 Million
<b>Total 20-year Life-Cycle (not discounted)</b>	<b>\$82 – 150 Million</b>





# Financial Strategy Opportunities:

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## STRATEGIES:

- **Grants**
  - Prop 1 Water Bond
  - IRWMP
  - USEPA 319 Grants
  - Clean Beaches Initiative
- **Fees**
  - Local Stormwater Fees
  - Sales Tax
- **Legislative**
  - Amend Prop 218
  - Source Control (i.e. SB 346)
- **General Funds**

## EXAMPLES:

- Dedicated storm drain fee(s)
- Solid waste management surcharge
- Water service surcharge
- Property assessment
- Vehicle license and rental fees
- Fines
- Financial subsidy to encourage private sector participation in the development of local and district-wide projects
- One time capital recovery fee
- Taxes (e.g. fuel taxes)



# Beach Cities EWMP Planning Outreach Meetings for Stakeholders

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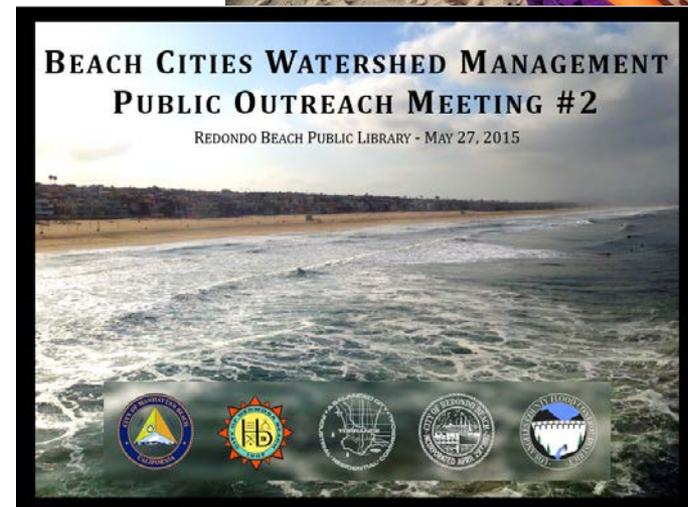
**Work Plan & CIMP: May 21, 2014**

**Draft EWMP: May 27, 2015**

**Invitations emailed to stakeholders**

**Advertised in:**

- Daily Breeze
- Beach Reporter



# Elected Official Support

Agency	Draft EWMP Approved by City Councils/Board
Hermosa Beach	June 23, 2015
Manhattan Beach	June 2, 2015
Redondo Beach	June 16, 2015
Torrance	June 9, 2015
Los Angeles County	May 26, 2015



# Questions

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# Low Impact Development Ordinances and Green Street Policies

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Agency	LID Ordinance Adoption Date	Green Street Policy Adoption Date
<b>Hermosa Beach</b>	May 26, 2015	April 28, 2016
<b>Manhattan Beach</b>	April 21, 2015	April 7, 2015
<b>Redondo Beach</b>		
<b>Torrance</b>		