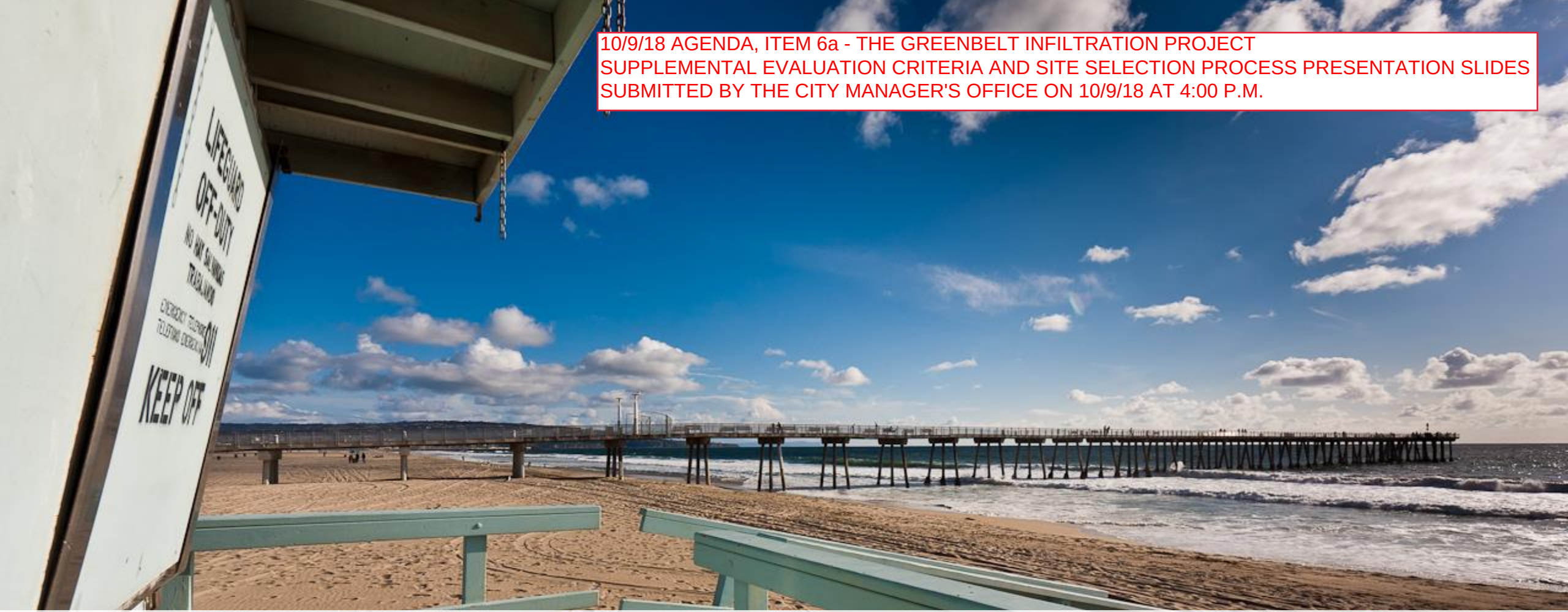
10/9/18 AGENDA, ITEM 6a - THE GREENBELT INFILTRATION PROJECT
SUPPLEMENTAL EVALUATION CRITERIA AND SITE SELECTION PROCESS PRESENTATION SLIDES
SUBMITTED BY THE CITY MANAGER'S OFFICE ON 10/9/18 AT 4:00 P.M.



PROJECT SITE SELECTION

Evaluation Criteria and Site Selection Process

KATHLEEN MCGOWAN

Santa Monica Bay Beaches Recreational Water Quality Targets

- Recreational water quality must be equal or better than an undeveloped watershed
- Recent Heal the Bay Beach Annual Report Cards:
  - Significant Improvements During Dry Weather – Consistent A (Summer) or A/B (Winter) Grades
  - Significant Challenges Remain During Wet Weather – Consistent F Grades (4 out of 5 years)
- 45% Stormwater Load Reduction needed to Meet Water Quality Targets

Fecal Indicator Bacteria – Unique Pollutant

Regional projects, distributed projects and source control measures were proposed

- To meet the TMDL exceedance-day based limitations, need a structural project near the outfall
- Bacteria regrows and multiplies in the storm drain system so treatment systems such as disinfection and discharge are ineffectual
- Bioretention and infiltration is a cost-effective technology for eliminating bacteria from stormwater

Structural BMP Prioritization & Analysis Tool - SBPAT

Two primary components:

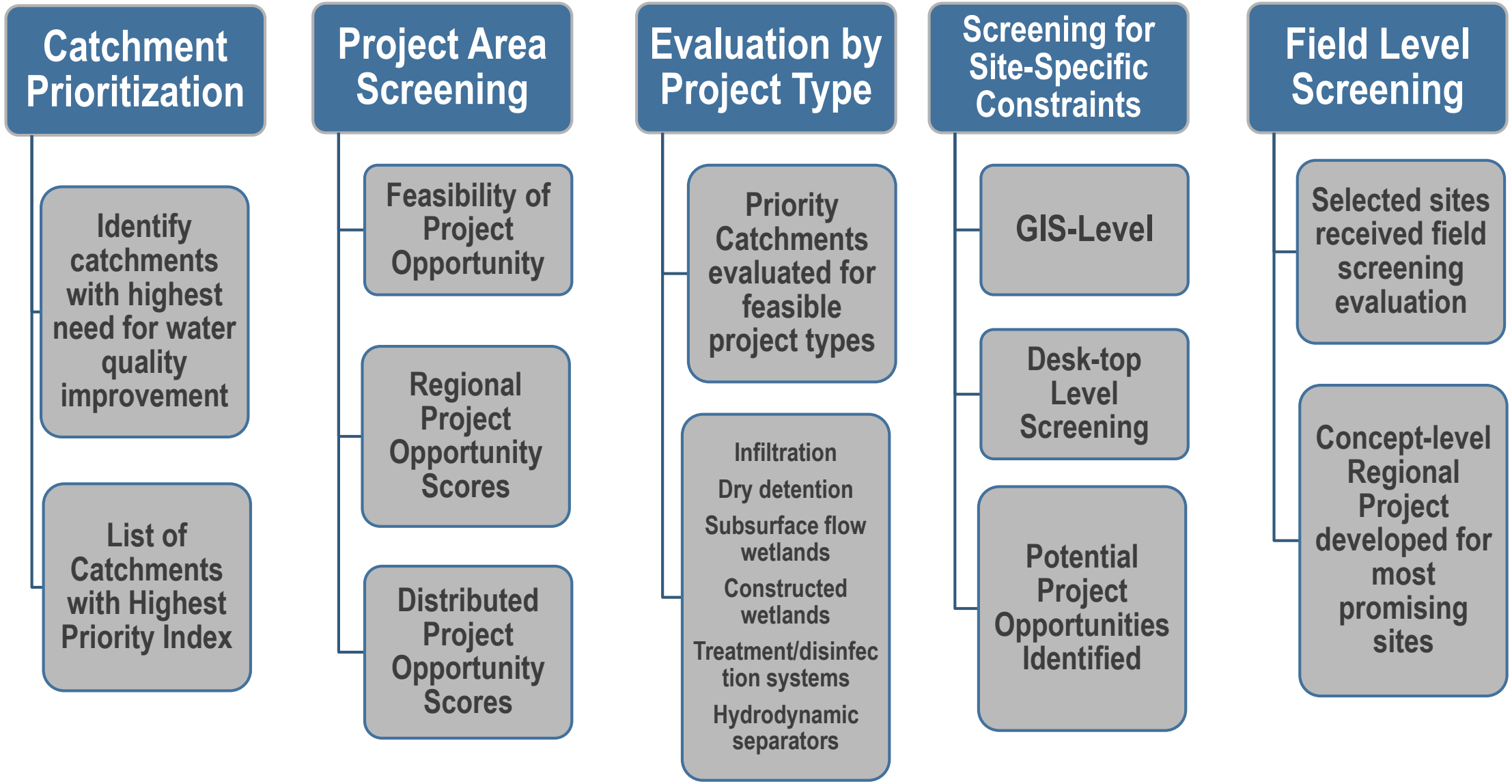
Project prioritization methodology:

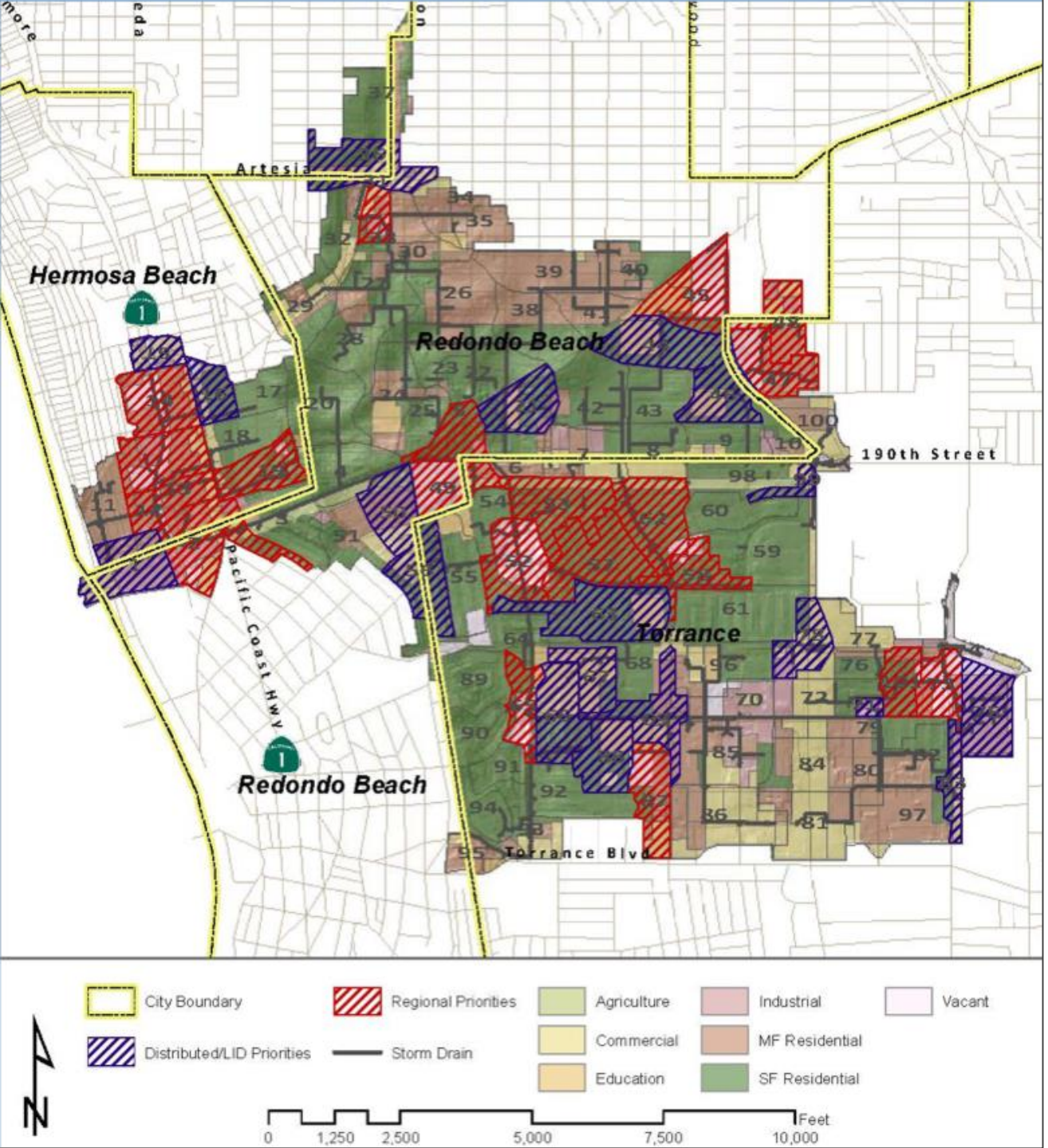
- Prioritizes catchments with relatively higher pollutant loading
- Identifies structural project opportunities within the catchments

Modeling and analysis component:

- Updated to meet 2014 Regional Board Reasonable Assurance Analysis (RAA) guidance
- Evaluates the effectiveness of proposed and completed projects in meeting the water quality standards

Project Prioritization Process



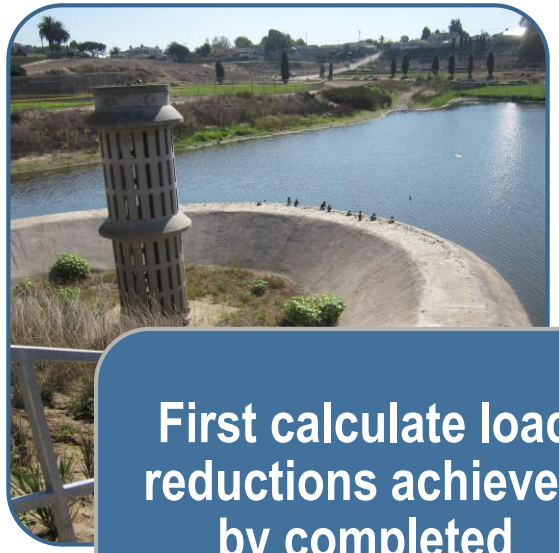


Priority Catchments for Regional and Distributed Projects

Regional priority catchments shown in red.

Distributed priority catchments shown in blue.

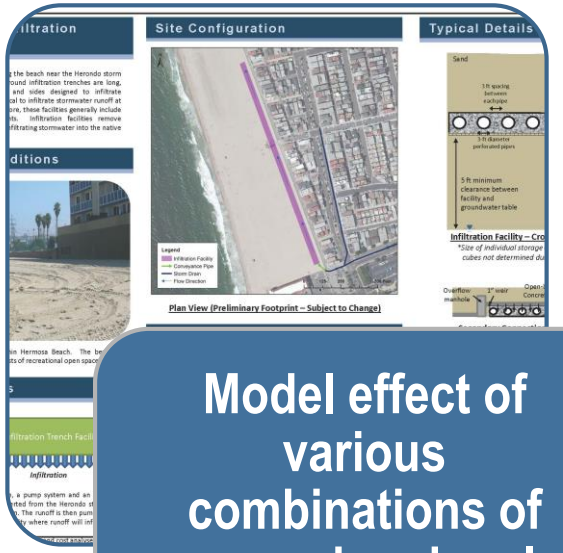
Reasonable Assurance Analysis Process



First calculate load reductions achieved by completed projects, e.g., Torrance Basin Enhancement Projects

CERTIFIED CLEAN BAY CERTIFIED CERTIFIED

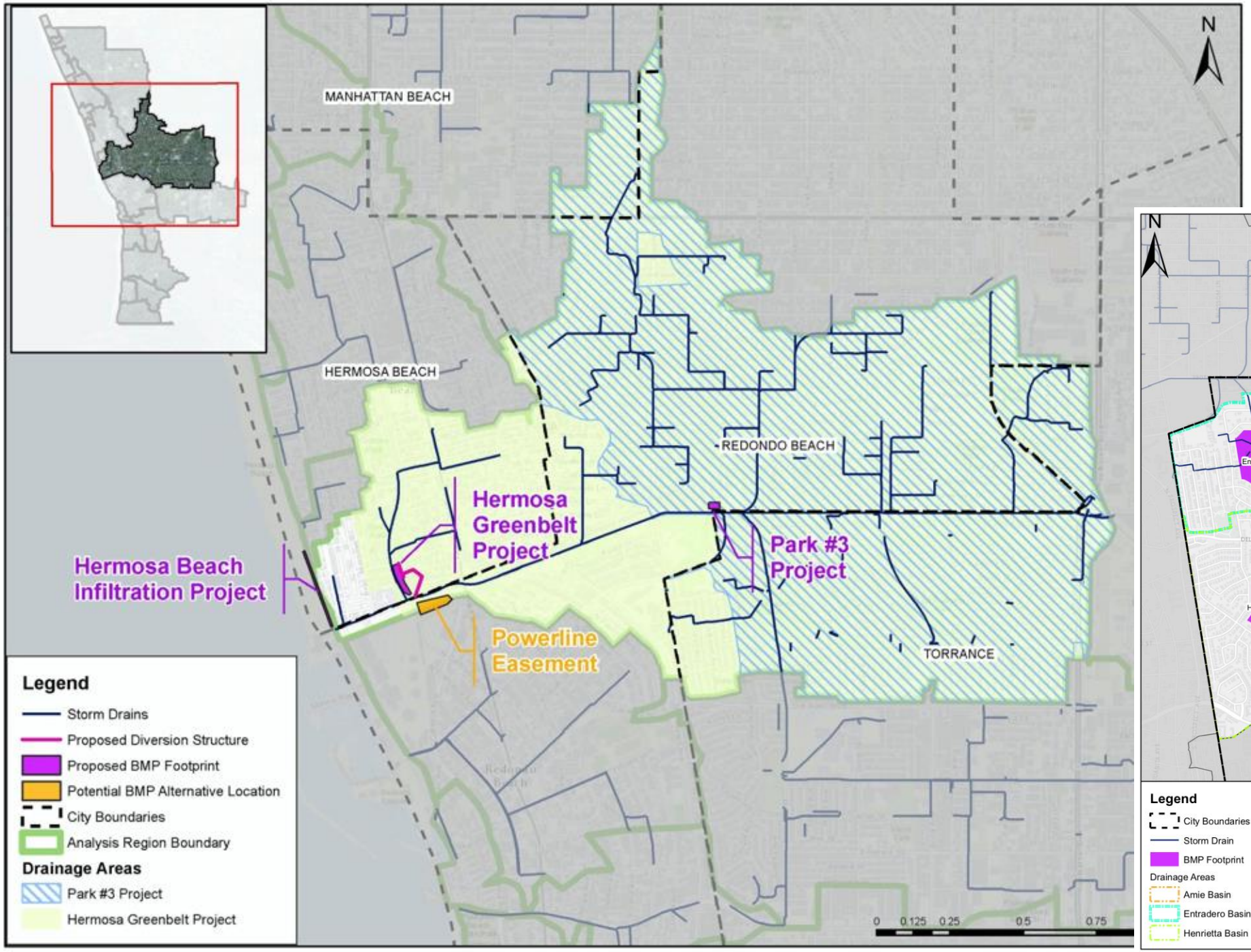
Credit for non-structural enhanced best management practices (5% load reduction)

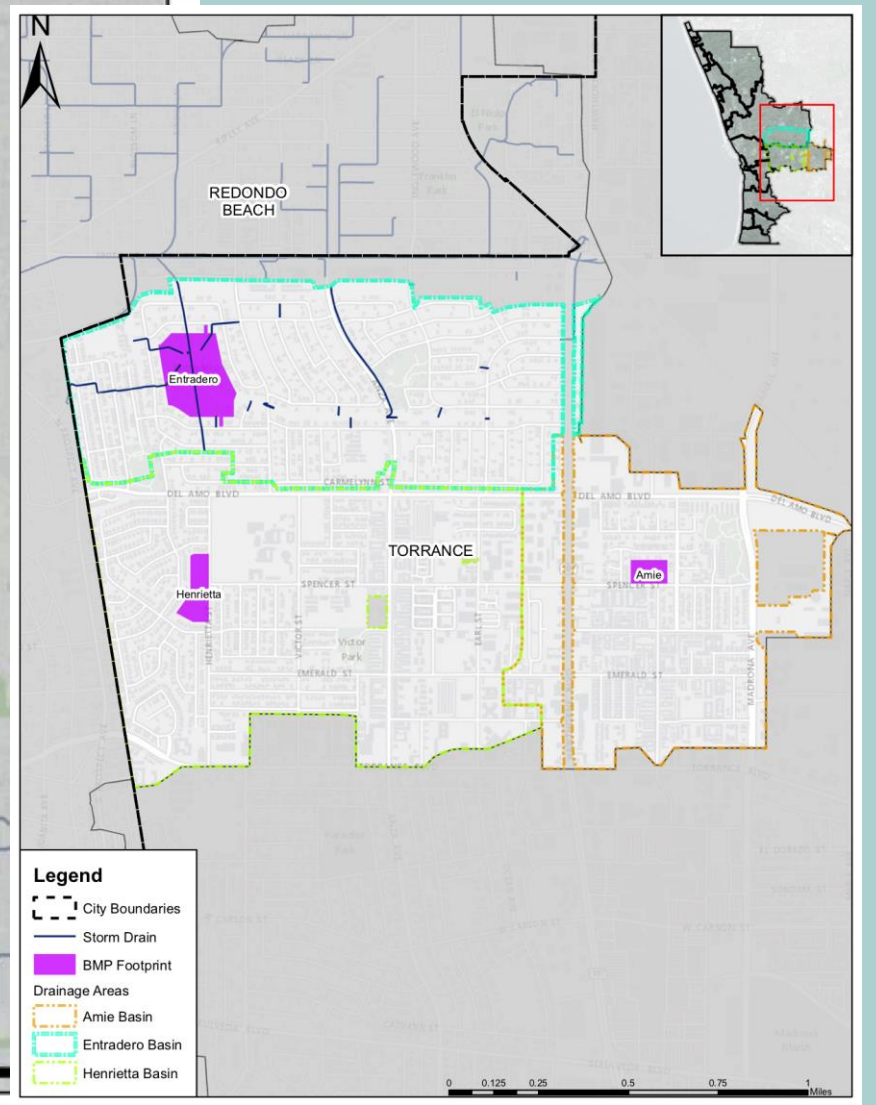


Model effect of various combinations of proposed regional or distributed projects to meet the remaining necessary target load reduction

EWMP Regional & Distributed Projects Selected for Herondo Tributary Area

	Critical Year Annual Capture Volume (acre-feet)	Design Storage Volume (acre-feet)	Expected Load Reduction as a % of Baseline Load	Tributary Area (acres)
Henrietta + Amie + Entradero Basins	264.7	13.2	**16%**	1407
Hermosa Greenbelt Infiltration System	543.7	7.3	**15.1%**	2927
Redondo Beach Park # 3	47.3	2	**1.3%**	2461
Beach Infiltration Trench w/storage under Parking Lot	33.3	0.3	**0.4%**	2970
Distributed Green Streets in 25% of Herondo Tributary			**2%**	


MANHATTAN BEACH
HERMOSA BEACH
REDONDO BEACH
TORRANCE
Hermosa Beach Infiltration Project
Hermosa Greenbelt Project
Park #3 Project
Powerline Easement
N
0 0.125 0.25 0.5 0.75
Legend
Storm Drains
Proposed Diversion Structure
Proposed BMP Footprint
Potential BMP Alternative Location
City Boundaries
Analysis Region Boundary
Drainage Areas
Park #3 Project
Hermosa Greenbelt Project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REDONDO BEACH
TORRANCE
Entradero
Henrietta
Amie
DEL AMO BLVD
SPENCER ST
EMERALD ST
Legend
City Boundaries
Storm Drain
BMP Footprint
Drainage Areas
Amie Basin
Entradero Basin
Henrietta Basin
0 0.125 0.25 0.5 0.75 1
Miles