Sustainable Streets Master Plan Prioritization Process Update

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City/County Association of Governments of San Mateo County

Stormwater Committee

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Caltrans

SAN MATEO COUNTYWIDE Water Pollution Prevention Program

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Prioritization Process Update Goals

1. Solicit Feedback on Project Prioritization Process
    - Feedback on Prioritization Process
    - Feedback on Proposed Metrics for Scoring Project Opportunities
2. Opportunity to provide additional data to improve analysis of network enhancements
    - C/CAG attempt to convene TAC (Stormwater + Transportation)
    - Consider Stormwater Committee in-lieu of TAC given scope enhancement options

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Project Prioritization: Overview

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SSMP Project Prioritization Process

SSMP Project Prioritization Process

Define Project Typologies

- Green Bulbouts and Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Redesigns
- Sustainable Frontage Improvements

Identify Project Opportunities

- Existing Planned Projects
- SW Technical Suitability Criteria
- Co-Benefit Criteria
- Additional Prioritization Criteria

Define Project Extents

- Boundaries of Co-Located Projects
- Suitability and Co-Benefit Rating Results
- Updated Drainage Output
- Stakeholder Feedback

Define Project Timing

- Co-Located Project Timing
- Regulatory Need?
- Stakeholder Feedback

Recommend Implementation Mechanisms

- Policy Mechanisms
- Programmatic Mechanisms
- Funding Sources

Prioritization:
Sustainable Street Typologies

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- Green Bulbouts and Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Redesigns
- Sustainable Frontage Improvements

Draft Sustainable Street Project Typologies

Sustainable Street Typology	Relative Scope	Example Transportation Design Elements	Example Stormwater Design Elements	Example Project Type
Green Bulb Outs and Curb Extensions	$	Cross-walks, curb extensions, pedestrian refuges	Stormwater curb extension	Safe Routes to School, Bike/Ped Safety Improvement, Safe Routes to Transit, Traffic Calming Corridor
Sustainable Street Connectivity Improvements	$$-$$$	Cycle tracks, extended medians, bike lanes	Green gutter, Bioretention swale, Pervious paving	First/Last Mile, Bike Boulevard or Class IV Bicycle Facility, Transit Priority Corridor, Gap Closure Project
Sustainable Streetscape Redesign Projects	$$$$	Street trees, seating, lighting, sidewalk widening, transit, bike/ped improvements	Stormwater planter, Curb extension, Stormwater tree, Pervious paving	Main Street Redesign, Complete Street, Corridor Beautification, Streetscape Projects
Sustainable Street Frontage Improvements for New Developments	$$[1]	Street trees, sidewalk and ped improvements	Tree wells, Stormwater planter	Street Frontage Improvements Complete Street Policy Requirements/COA

Typology: Green Bulb Outs and Curb Extensions

Typology: Sustainable Streets Connectivity Improvements

Typology: Sustainable Streetscape Redesign Projects

Typology: Sustainable Street Frontage Improvements

Prioritization:
Project Opportunity Identification

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- Existing Planned Projects
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Project Identification Process

Project Identification Process

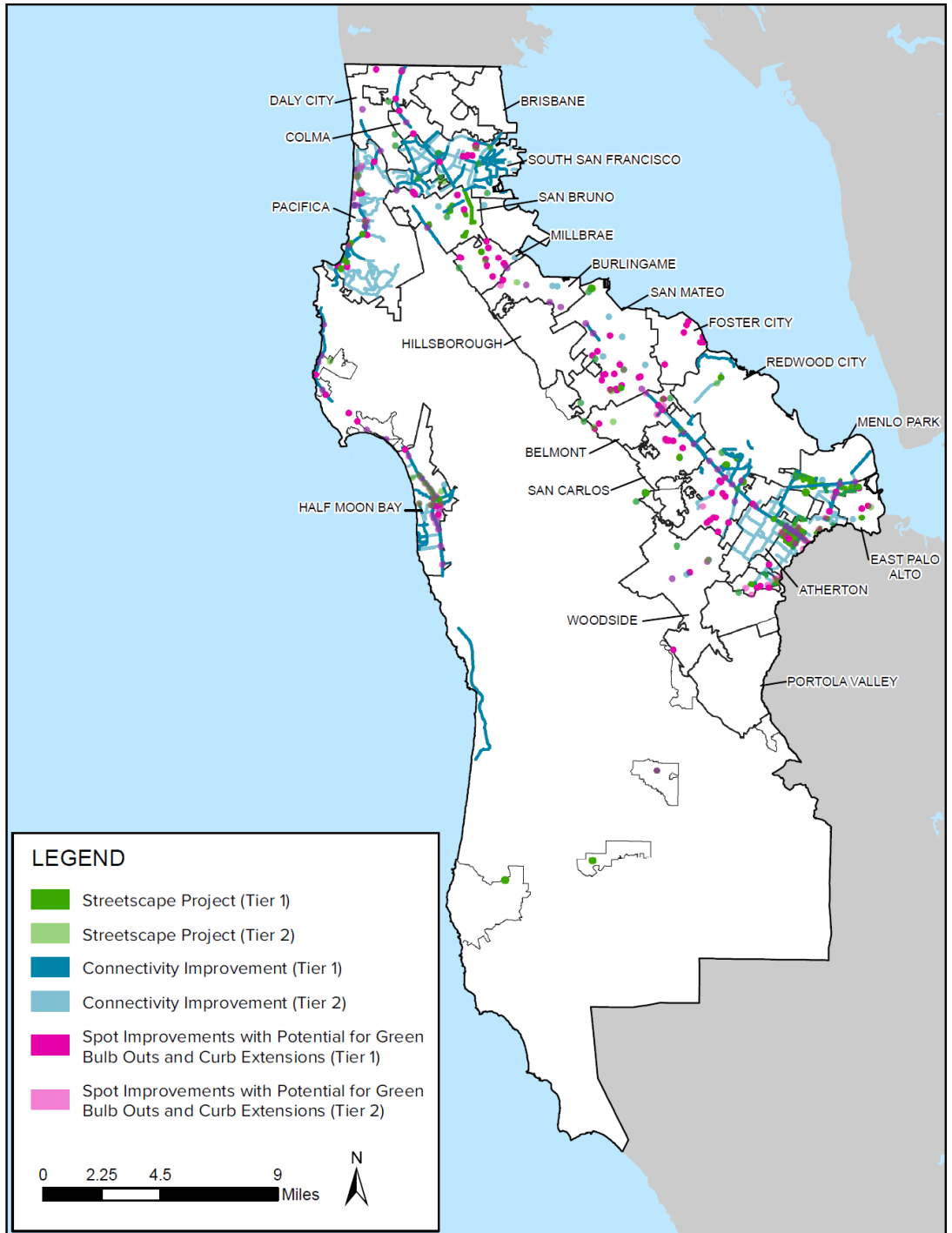
- Bike and Ped Plans
- SR2S Walk Audits
- Community-Based Transportation Plans
- GI Plans
- Specific Area Plans
- Projects + Relevant Policy Language

Existing Planned Project Opportunities

Process:

- Gather Planned Project Data
- Map Projects to Sustainable Street Typologies
- Tier Opportunities Based on GI Integration Potential

Tier 1 – has project scope and schedule to integrate GI, share cost
Tier 2 – limited cost-sharing potential (e.g., no curb work)

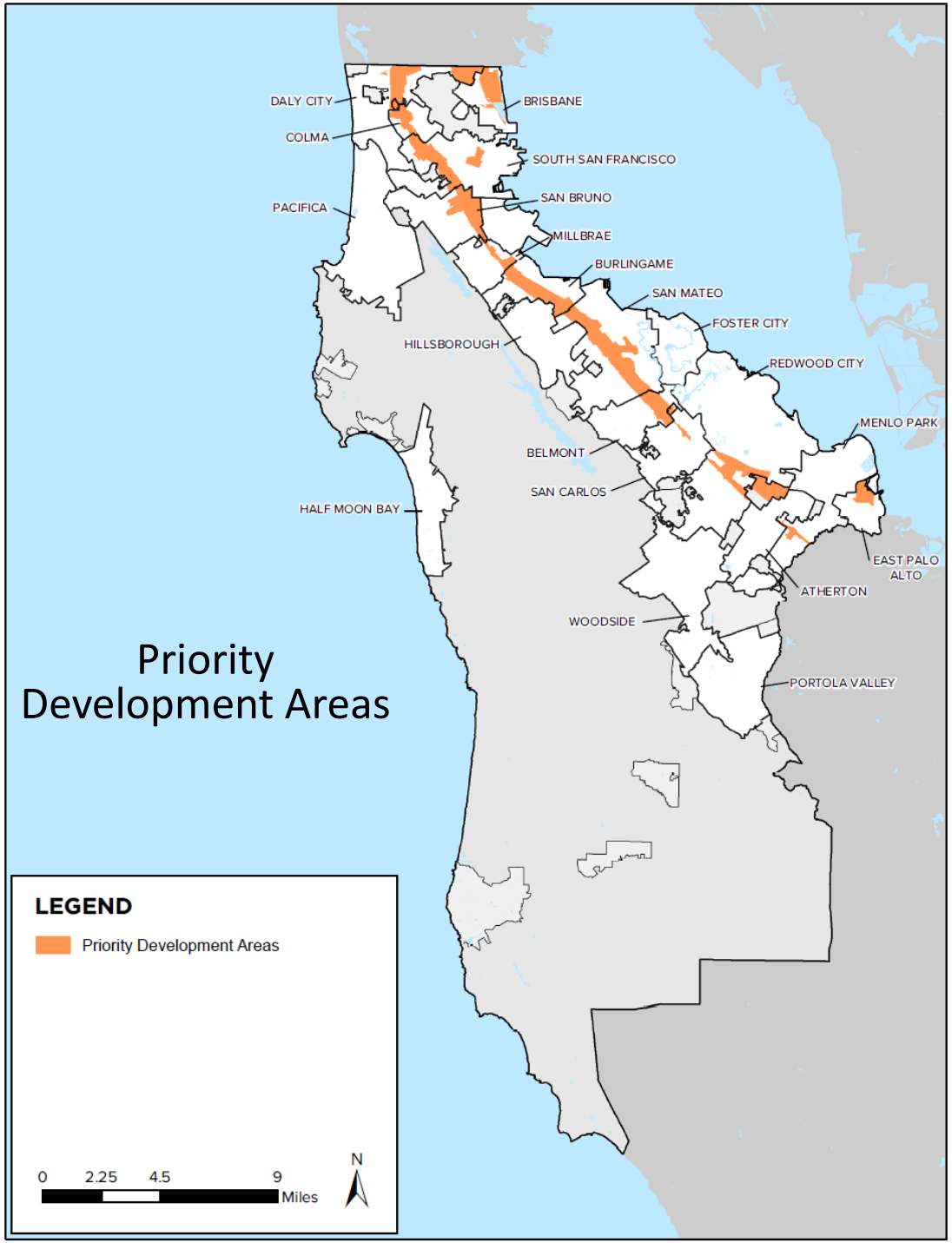


Initial Output for Typologies 1-3

- Green Bulb Outs and Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Redesign Projects

Missing Data

- Plans in process of development
- Projects need to be digitized



Typology 4

- Areas for Potential Sustainable Street Frontage Improvements for New Developments
- Policy-based typology

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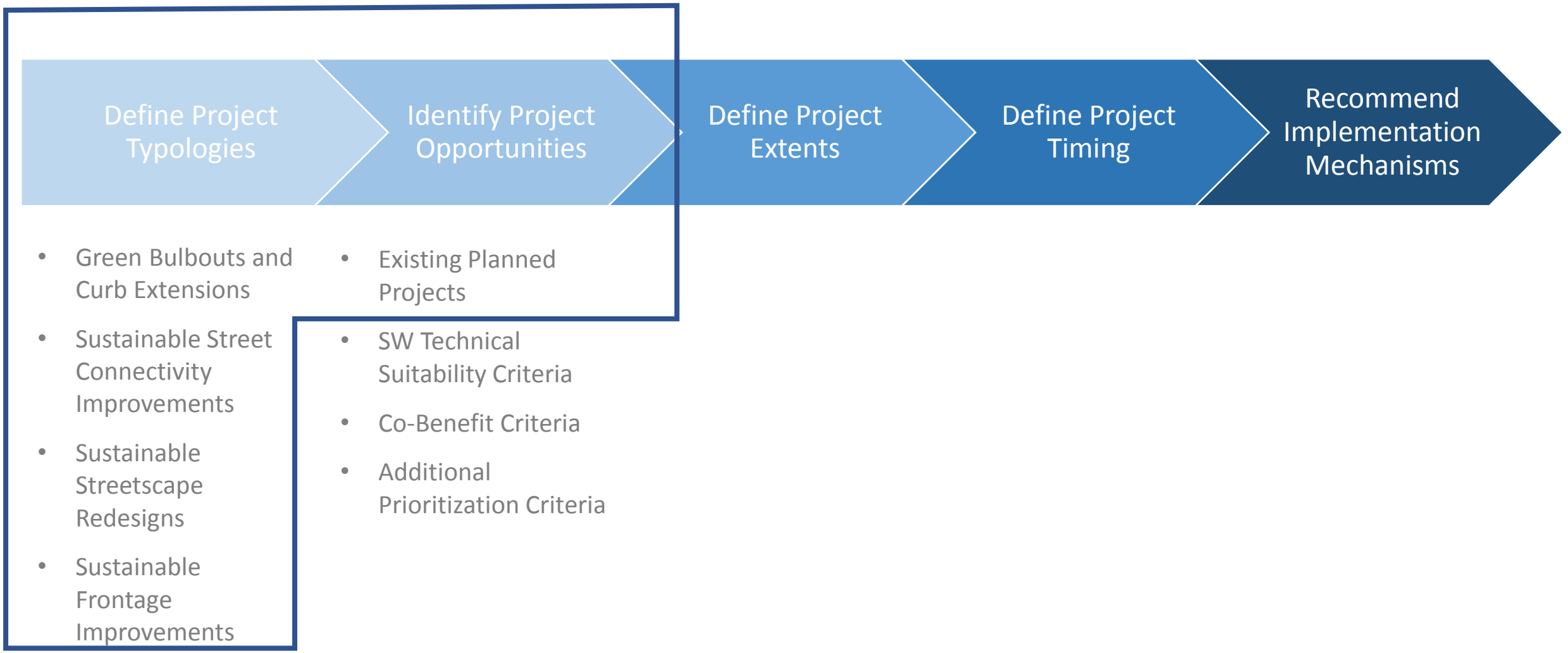

SSMP Project Prioritization Process

- Green Bulbouts and Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Redesigns
- Sustainable Frontage Improvements

- Existing Planned Projects
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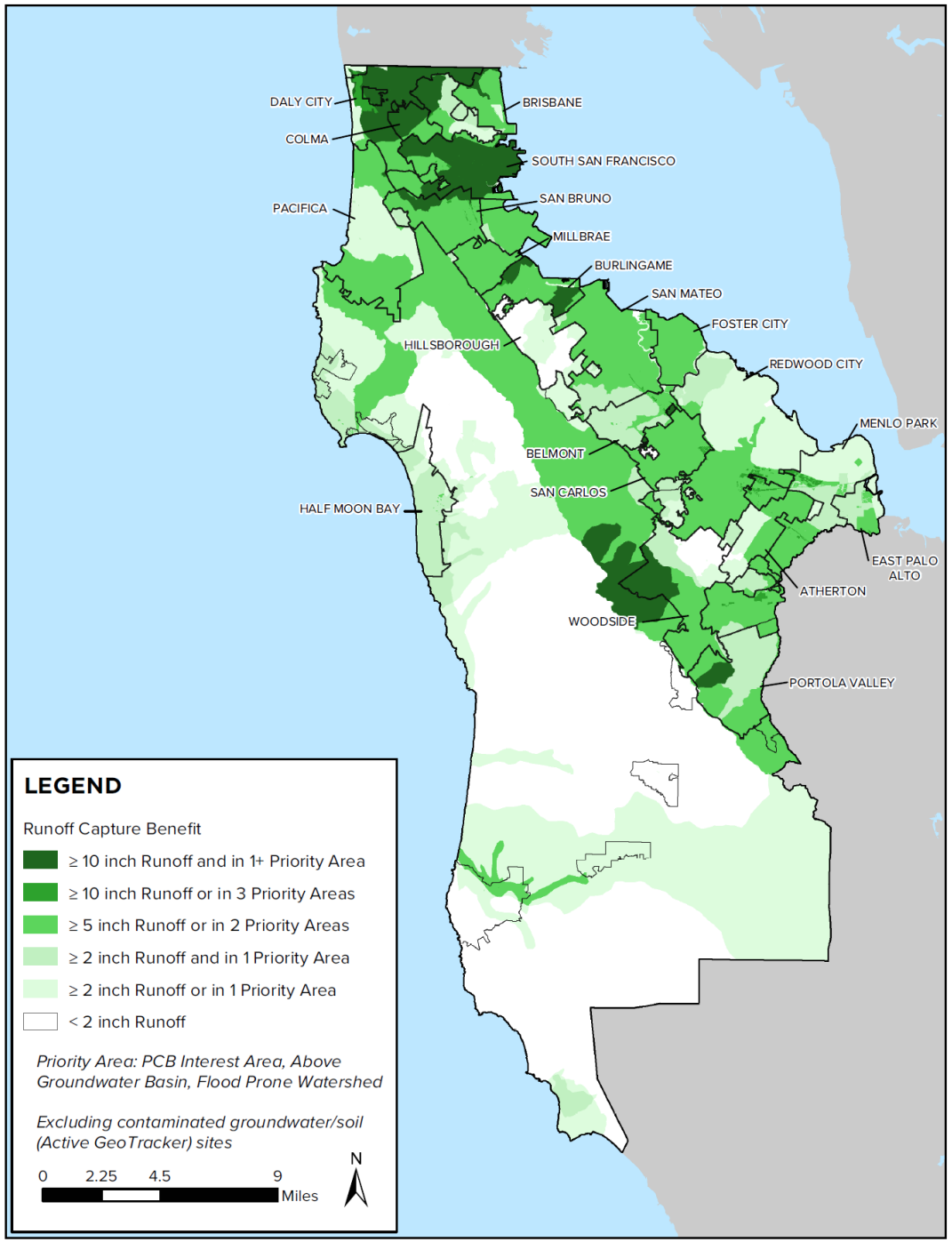
Project Identification Process

- Runoff Capture Performance
- Hydrogeological Conditions
- Site Characteristics/ Constructability

Proposed Stormwater Technical Suitability Metrics	Points					
	0	1	2	3	4	5
Runoff Capture Benefits						
Annual Runoff Depth Per Catchment Area*	<5 (inches)	5-10	10-15	15-20	20-25	>25 inches
Contains PCB Interest Areas	None			Moderate		High
Within Watershed of Flood Prone Channel	No					Yes
Augments Water Supply (above groundwater basin and outside contamination area)	No					Yes
Outside of Regional Project Drainage Area*	No, in DMA of regional project in design phase	No, in DMA of regional project with funding for site evaluation	No, in DMA of regional project identified in GI Plans	Yes		
Flood risk reduction in 1-5 yr storms (Climate Change Analysis) **(Placeholder)**						
Hydrogeological Conditions						
Hydrologic Soil Group		D	Unknown	C	B	A
Groundwater Constraints*		GW Depth < 10 ft		GW Depth 10-20 ft		GW Depth > 20 ft
Slope (%)	10 > X > 5	5 > X > 4	4 ≥ X > 3	3 ≥ X > 2	2 ≥ X > 1	1 ≥ X > 0
Site Constraints						
Available Width per Street Class*		Skinniest 33% by Class		Middle 33% by Class		Widest 33% by Class
Available Length per Block*		Length lost >300 ft per 1000 ft		Length lost ≤300 ft per 1000 ft		Length lost <200 ft per 1000 ft
Utility Conflicts*			PG&E main			No PG&E main



Runoff Capture Benefit Summary Map

- RAA Runoff Depth (Pollutant Reduction)
- PCB Interest Areas (Pollutant Reduction)
- Areas Upstream of Flood-Prone Channels (Flood Reduction)
- Areas above Groundwater Basin (Water Supply Augmentation)
- Areas Outside of Regional Project Drainage Catchments

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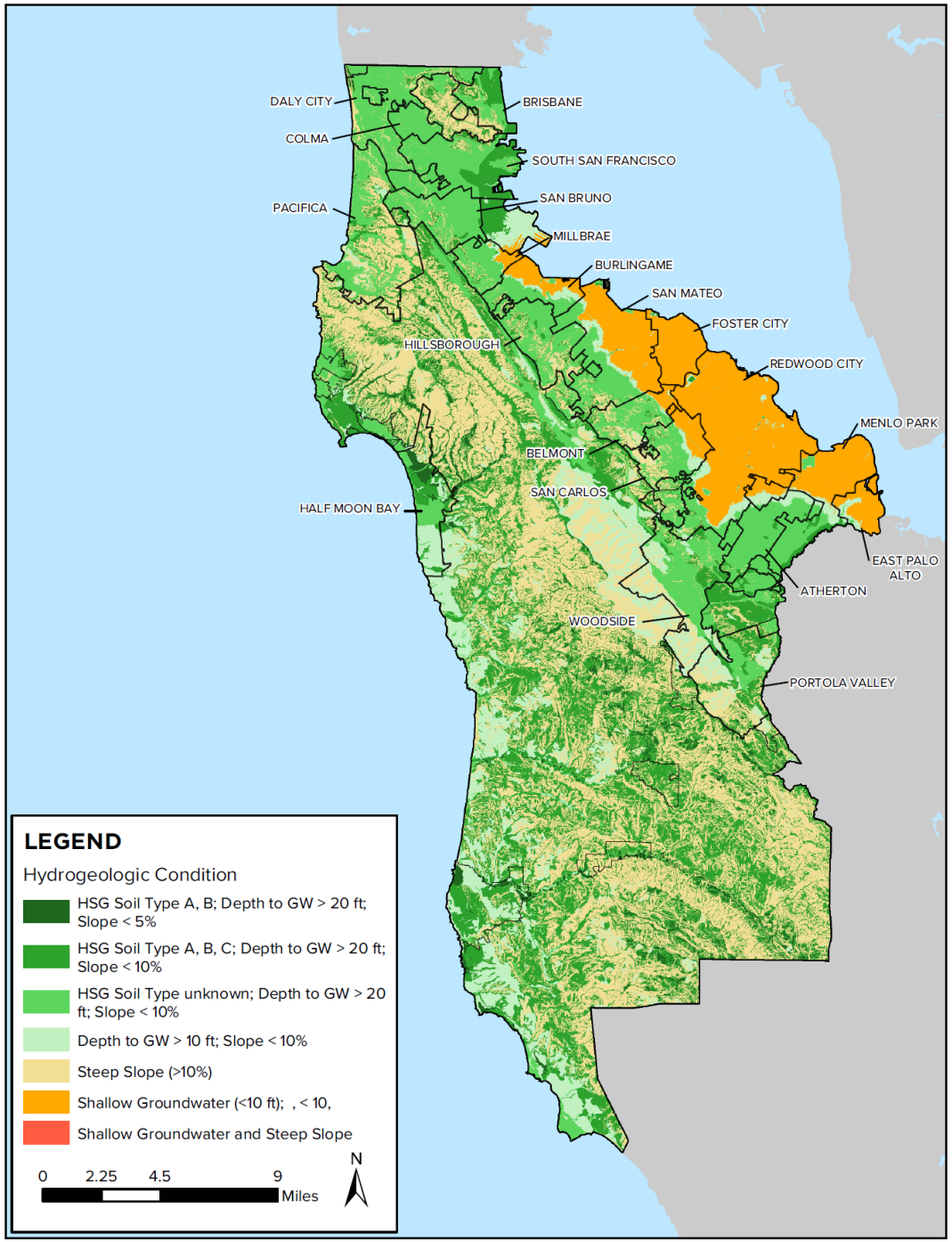
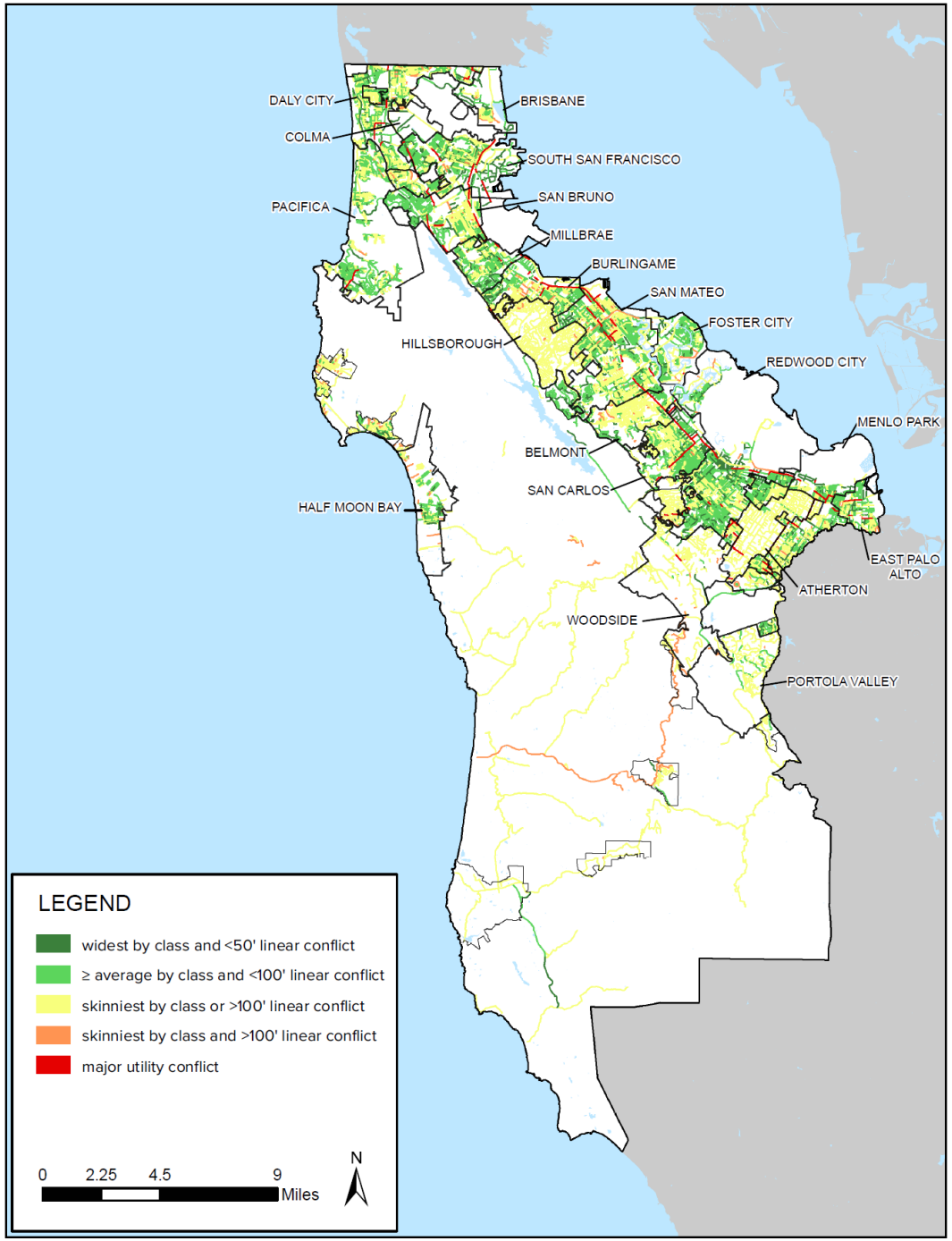


Hydrogeologic Condition Summary Map

- Infiltration Feasibility
  - Soil Type
  - Depth to Groundwater
  - Slope



Site Space Constraint Summary Map

- Available Width per Street Class
- Available Length per Block
- Major Utility Conflicts

Project Identification Process

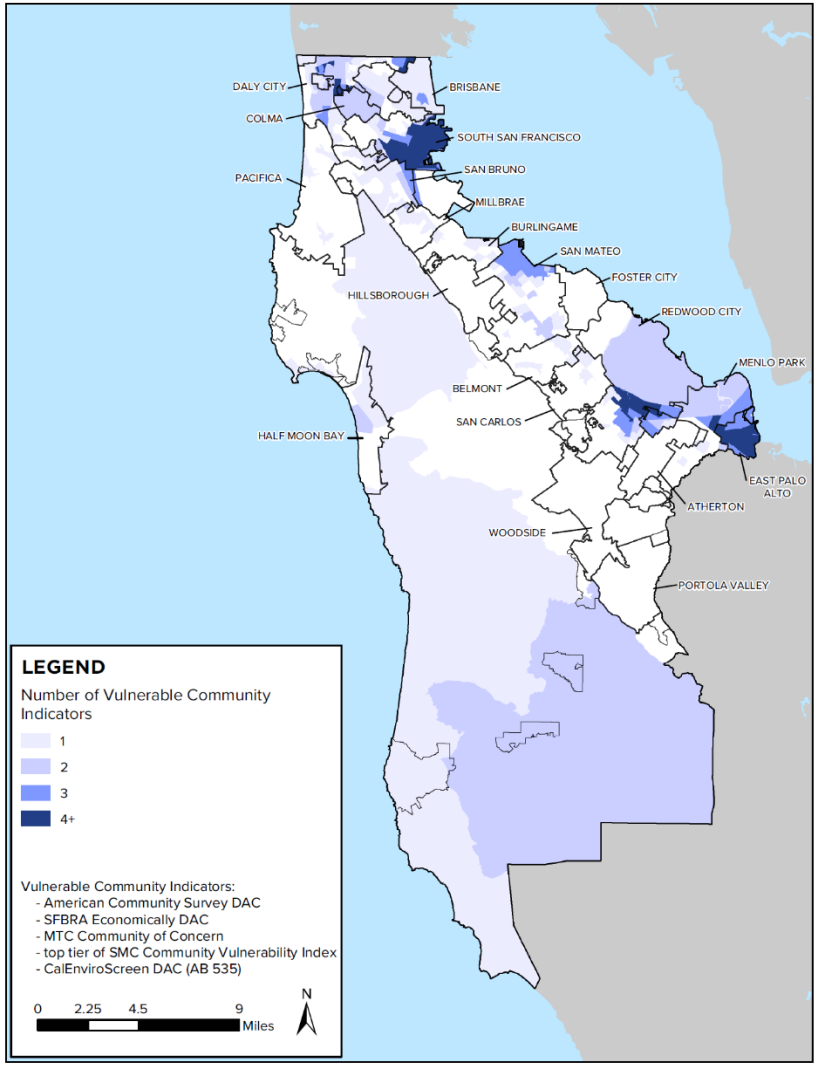
- Vulnerable and Disadvantaged Community Indicators
- Vehicle Ownership
- Vegetation Density
- Urban Heat Island Index
- Pavement Condition

Proposed Co-Benefit Criteria

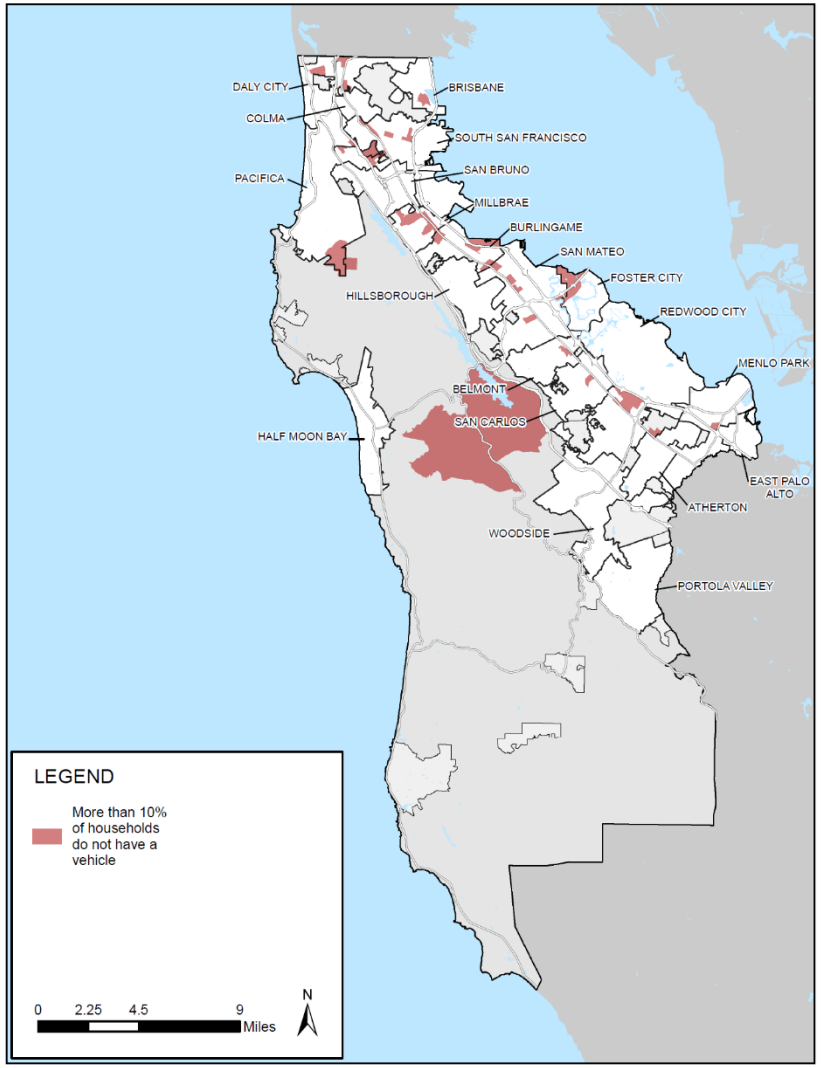
Proposed Co-Benefit Metrics	Points					
	0	1	2	3	4	5
Vulnerable Community Indicators - In American Community Survey DAC* - In SFBRA-based DAC* - In MTC COC - In top tier of SMC CVI* - In CalEnviroScreen DAC (AB 535)	Not in any vulnerable community dataset	In 1 vulnerable community dataset		In 2 or more vulnerable community datasets		In 4 or more vulnerable community datasets
Community Benefit* - Vehicle-Ownership	Fewer than 10% of households do not own a vehicle					More than 10% of households do not own a vehicle
Urban Heat Island Index*	< 4,000	4,000 – 8,000	8000 – 12,000	12,000 – 16,000	16,000 – 20,000	> 20,000
Vegetation density by census tract*		> 50%		20 - 50%		< 20%
Pavement Condition Index*	Excellent/Very Good	Good/Fair		At Risk		Poor/Failed

* = Added relative to SRP

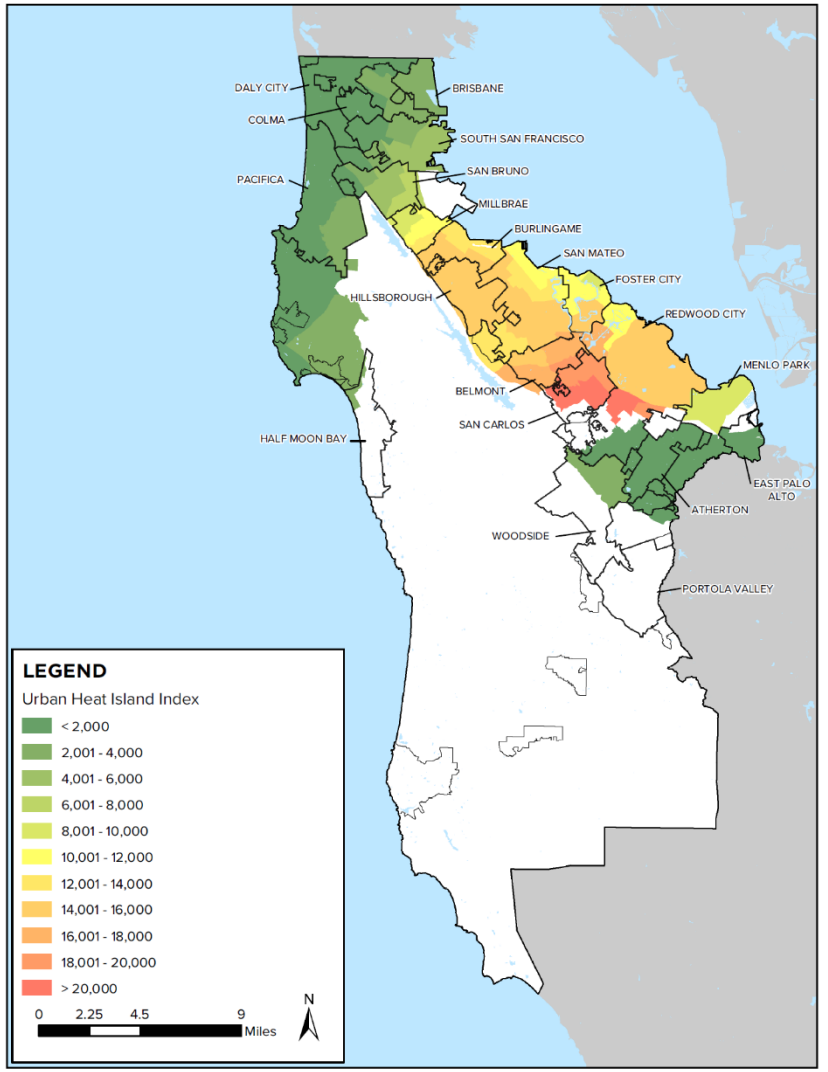
Draft Co-Benefit Criteria Maps



Vulnerable Community Indices

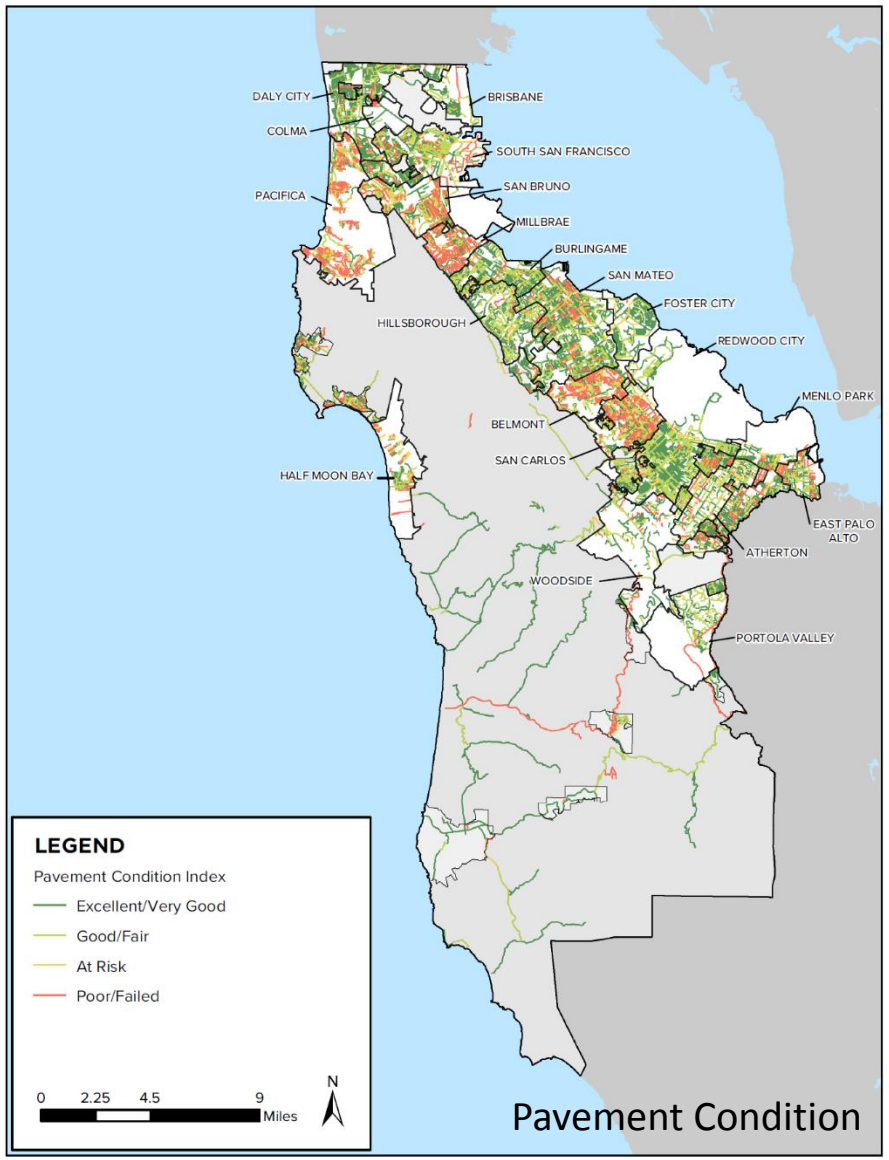


Low Vehicle Ownership



Urban Heat Island Index

Pavement Condition Index



Process:

- The proposed methodology currently includes pavement condition in the prioritization scoring for project opportunities

- Also investigating using pavement condition as a primary driver for locating new green street project opportunities

Additional Project Identification

Goal: Identify additional sustainable street opportunities if co-located projects are not comprehensive enough

Process:

- High technical suitability scores **and** high priority for street repair
- Within 0.25 mi radius from major trip generators (e.g., schools)
- Assess intersection conditions for curb extension feasibility
- Apply remaining co-benefit criteria

Project Identification Process

- Stakeholder Feedback
- Geographic distribution (?)
- Other (?)

Next Steps

- Incorporate SAC and Stormwater Committee feedback into Prioritization Process
- Continue data collection and process refinement
- Draft Prioritization Methodology Memo - Early October
- C/CAG and SAC comments - Early November
- Final Prioritization Methodology Memo - Early December

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Question and Discussion Period

1. **Prioritization Approach** – focus on co-located project opportunities
2. **Typologies** – simplicity, 3 transportation-driven, 1 redevelopment, 1 stormwater-driven (as needed)
3. **Transportation Analysis** – other project sources, contacts to be aware of
4. **Technical Suitability Criteria** – ones we missed, ones that don't add value
5. **Co-Benefit Criteria** – ones we missed, ones that don't add value
6. **Other Input –** high priority corridors, best method for SAC feedback, etc.