ITEM 1 – PUBLIC COMMENT

SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program
Clean Water. Healthy Community.

Item 2 – Issues from C/CAG Meetings

May - Approve application of funds for a California Resilience Challenge grant administered by the Bay Area Business Council for $97,671 to implement C/CAG's proposed Resilient San Carlos Schoolyards Project

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Item 3 – Approval of Minutes

- April 16, 2020 meeting minutes approval

SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program
Clean Water. Healthy Community.

Item 4 - Announcements

- COVID-19 Notification Letter
- Funding opportunities
- Regional Projects Update
- Report of Waste Discharge
- Other

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Funding Opportunities

- CA Natural Resources Agency
  - Urban Flood Protection Grant Program
    - Due June 15, $87.5M in two cycles
  - Urban Greening Grant Program
    - July 15, $28.5M
- CA Coastal Conservancy
  - Prop 1 Central/South Coast – multi-benefit ecosystem and watershed protection and restoration
    - San Mateo County included in central coast definition
    - Due July 31, $3 million for Central Coast

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Item 4 - Announcements

- COVID-19 Notification Letter
- Funding opportunities
- Regional Projects Update
- Report of Waste Discharge
- Other

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Item 5

San Mateo Countywide Sustainable Streets Master Plan

Project Update

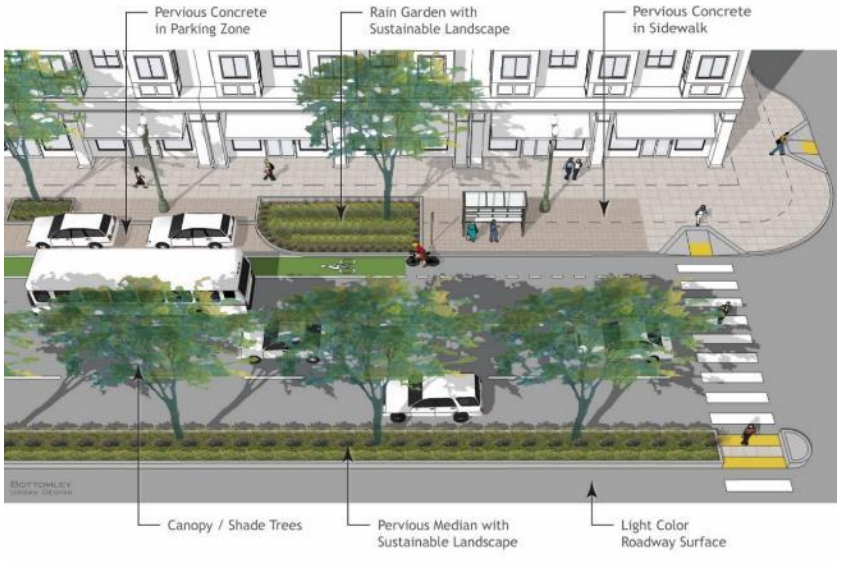
CCAG Stormwater Committee Meeting
May 21, 2020

Sustainable Streets

Complete Streets + Green Infrastructure

Sustainable Streets provide safe mobility and access for all users with the added environmental and community benefits of green infrastructure

Sustainable Streets Master Plan



Project Goals

- Countywide Master Plan with Prioritized Projects
- Climate Change Modeling for SMC
- Conceptual Designs
- Model Sustainable Streets Policies
- High Resolution Drainage Mapping
- Web-Based Tracking Tool
- Community Engagement

Builds Upon SRP

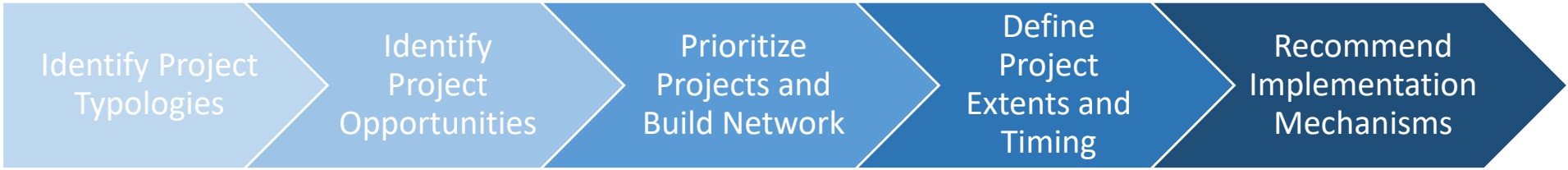
More Targeted Approach

- Identifies Opportunities where Bicycle, Pedestrian, and Streetscape Projects are currently planned
- Identifies “New” Project Opportunities in locations with synergies with SR2S, SR2T and pavement reconstruction needs
- Focuses on “good government” opportunities with more potential for cost sharing and reduction of construction impacts between GI and transportation projects

Improved Data and Process Advances

- Updated prioritization metrics and process, including climate change impacts
- Links projects to implementation mechanisms incl. funding sources and policy tools

SSMP Project Development Overview



- Sustainable Street Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Redesigns
- Sustainable Street Frontage Improvements

- Existing Planned Projects
- New Project Opportunities

- SW Technical Suitability Criteria
- Co-Benefit Criteria
- ID Top Projects
- Spatial Distribution
- Regulatory Need
- Stakeholder Feedback

- Boundaries of Co-Located Projects
- Co-Located Project Timing
- Stakeholder Feedback

- Policy Mechanisms
- Programmatic Mechanisms
- Funding Sources

Typology: Green Bulb Outs and Curb Extensions

Typology: Sustainable Streets Connectivity Improvements

Typology: Sustainable Streetscape Redesign Projects

Typology: Sustainable Street Frontage Improvements

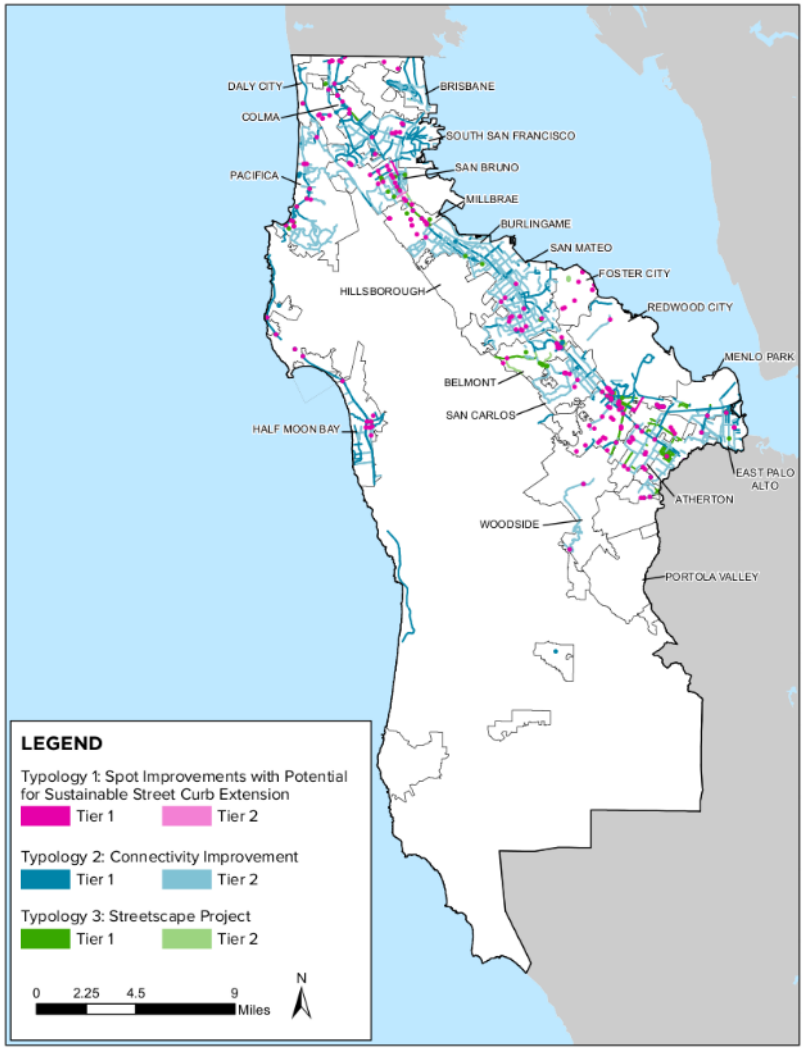
SSMP Project Prioritization Process

- Planned Bicycle Projects
- Planned Pedestrian Projects
- Planned Major Streetscape Projects
- New Opportunities Near Schools and Transit

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

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

- Stakeholder Feedback
- Geographic distribution



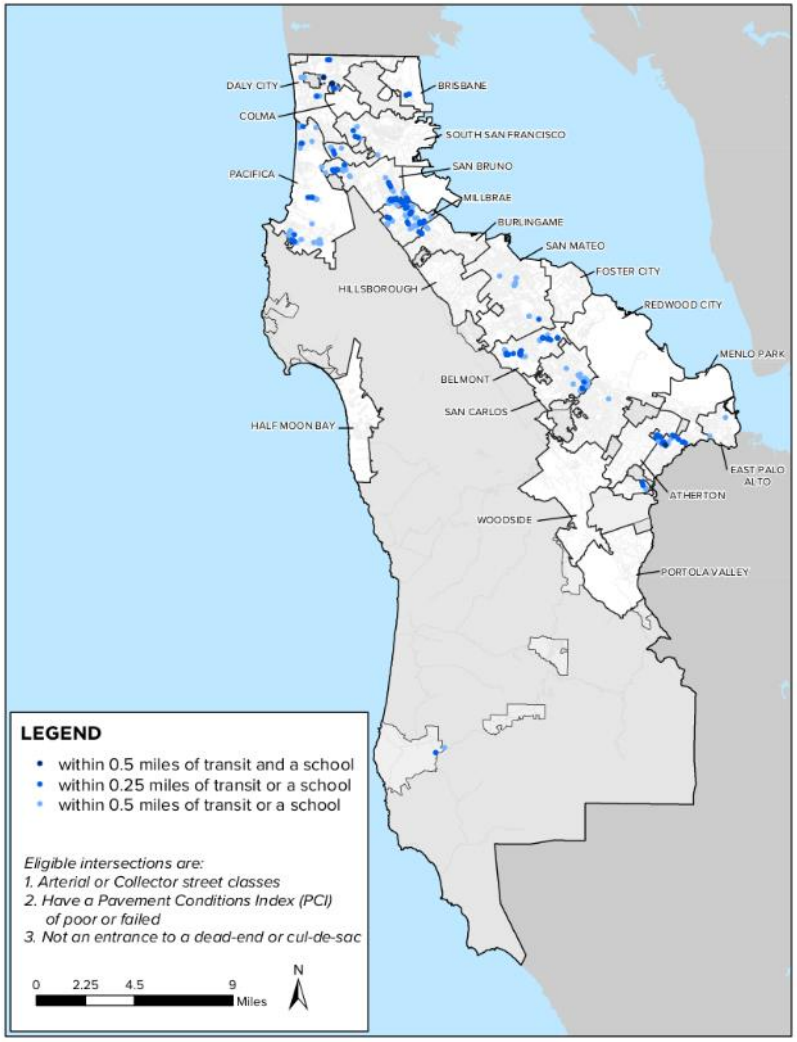
Existing Planned Project Opportunities

Three Project Types

- Sustainable Street Curb Extensions
- Sustainable Street Connectivity Improvements
- Sustainable Streetscape Projects

Two Project Tiers

- Tier 1 projects have more potential to cost-effectively incorporate GI due to extent of construction impacts



"New" Project Opportunities

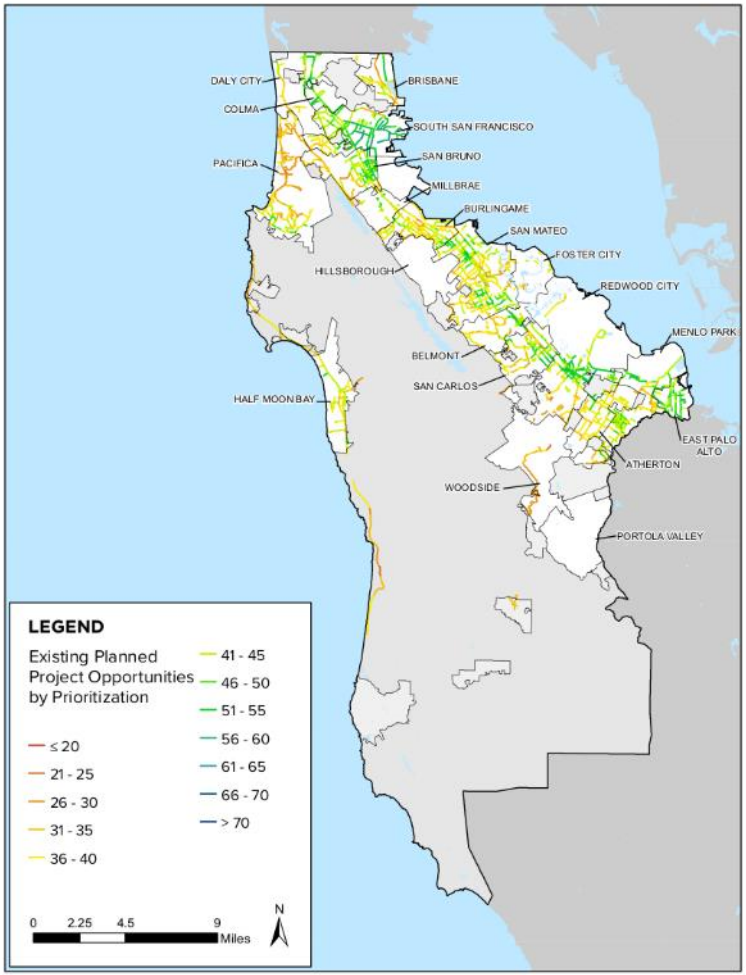
Goals

- Support Safe Routes to School and Transit Program objectives
- Support cost-sharing and construction impact reduction objectives by locating opportunities where pavement is in poor condition

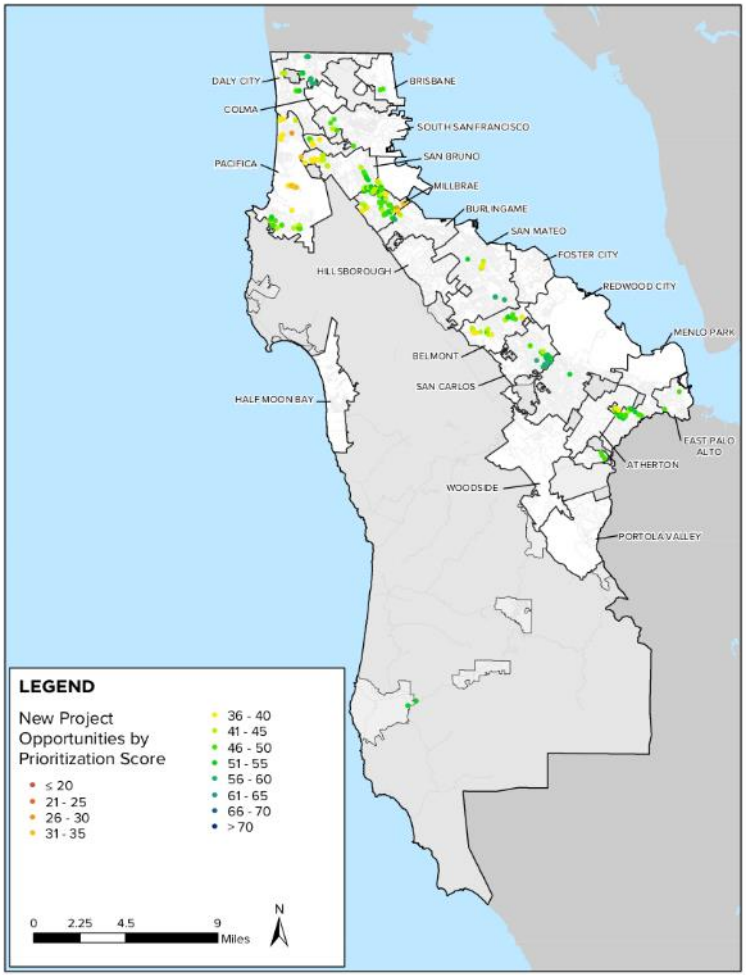
New Curb Extension Opportunities:

- Intersections within .5m walking distance from schools or major transit stops
- Arterial or collector streets
- Poor pavement condition

Prioritized Planned Projects



Prioritized New Opportunities



Next Steps

- Distribute Final Project Identification and Prioritization Methodology TM
- Refine Automated Prioritization Results
  - QA/QC, ID Top Projects, Assess Spatial Distribution, High-Level Feasibility Assessment
- Distribute Project Lists to Municipal Stakeholders for Feedback
  - Online viewer and agency-specific spreadsheets – Planned opportunities and new
- Request Agencies ID Project Concept Candidates from Priority Opportunities
- Continue Policy Development
  - Model Sustainable Streets Policy
  - Model Resolution and Conditions of Approval for Sustainable Street Improvements in Development Frontage Zones
- Develop Final Document

SSMP Climate Change Modeling

Goals

- Quantify the impact to roadway runoff due to climate change forecasts
- Investigate the ability for Sustainable Streets to offset the impacts of climate change on roadway runoff

SSMP Climate Change Modeling

Basis for Climate Change Modeling

Global Climate Models

- 10 GCMs compiled by CalAdapt

Storm Depths

- Regional precipitation analysis for Santa Clara, Alameda, and San Mateo counties (MetStat, Santa Clara Valley WD)

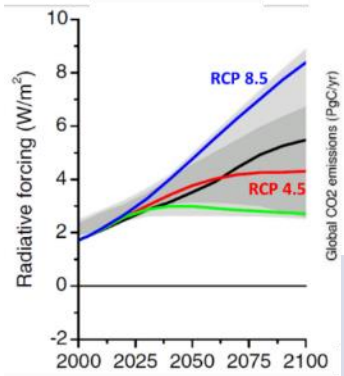
Hydrology and Green Infrastructure Models

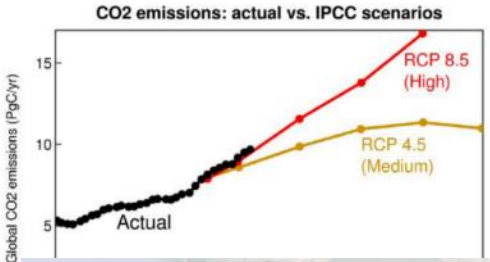
- Regionally calibrated models for the Countywide RAA to meet PCBs and mercury reduction requirements (C/CAG)

Climate Models

Representative Concentration Pathways

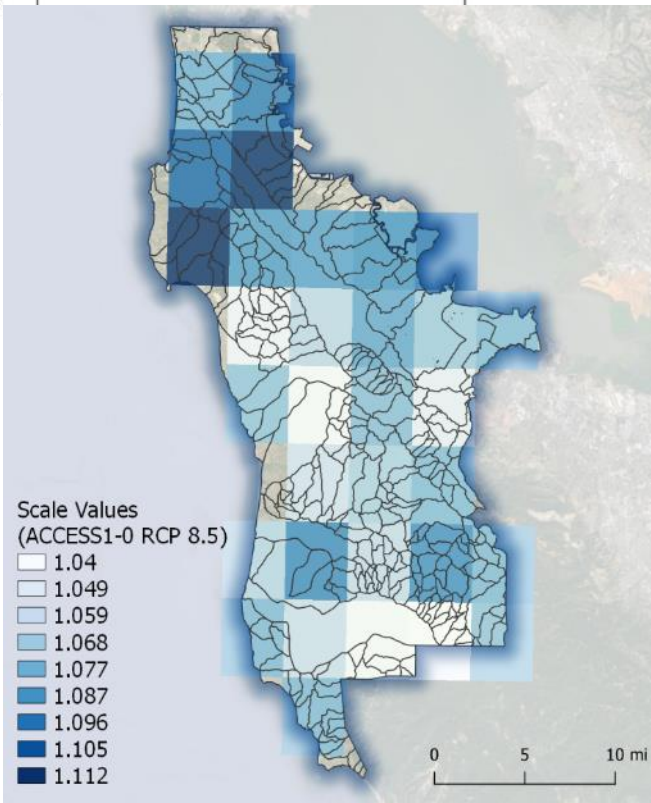
- RCP 8.5 – worst case scenario
- RCP 4.5 – stabilization scenario





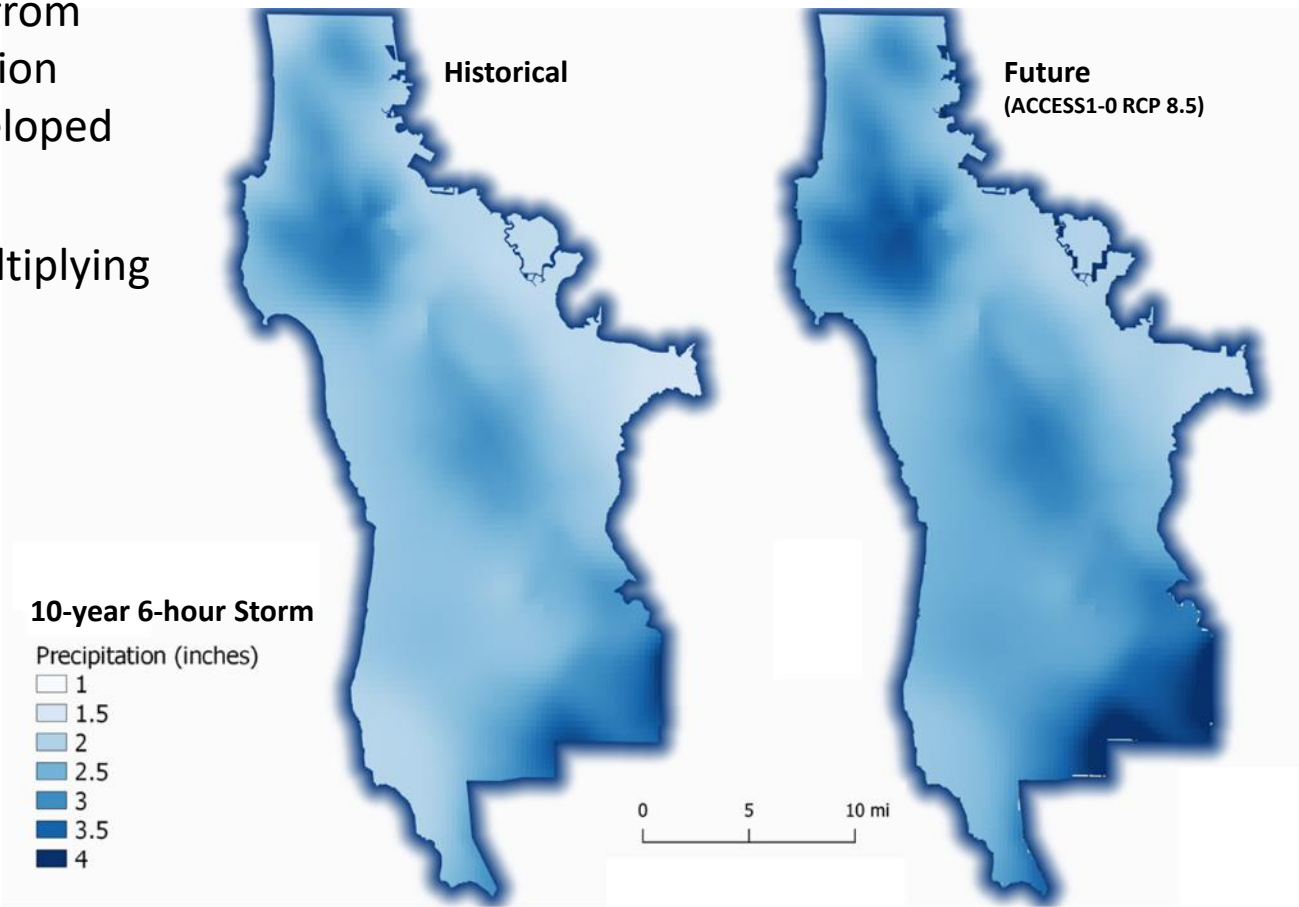
Global Climate Models

- 10 GCMs recommended by CA's Climate Action Team for the state
- Created **scale values** based on modeled future to historical precipitation
- Each GCM/RCP combo has its own set of scale values



Precipitation Storm Depths

- **Historical storm depths:** from high-resolution precipitation frequency estimates developed for SM County
- **Future storm depths:** multiplying calculated scale values by historical storm depths

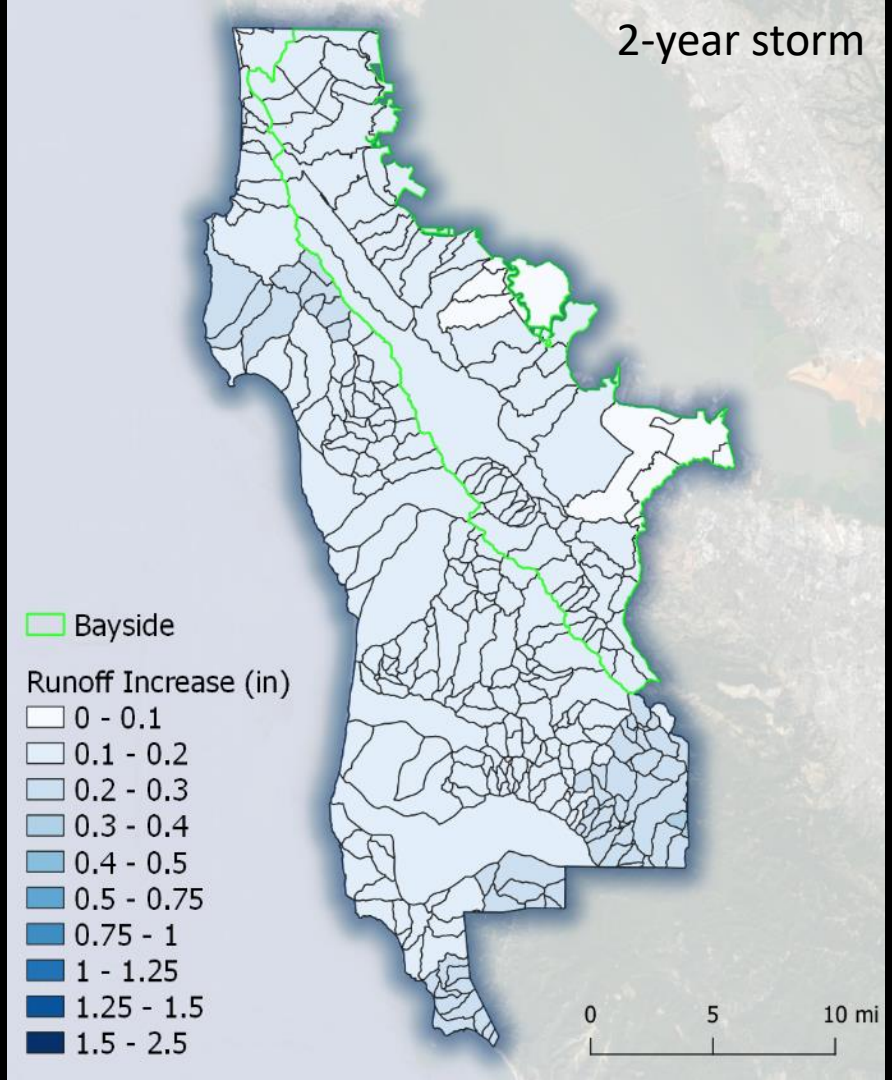


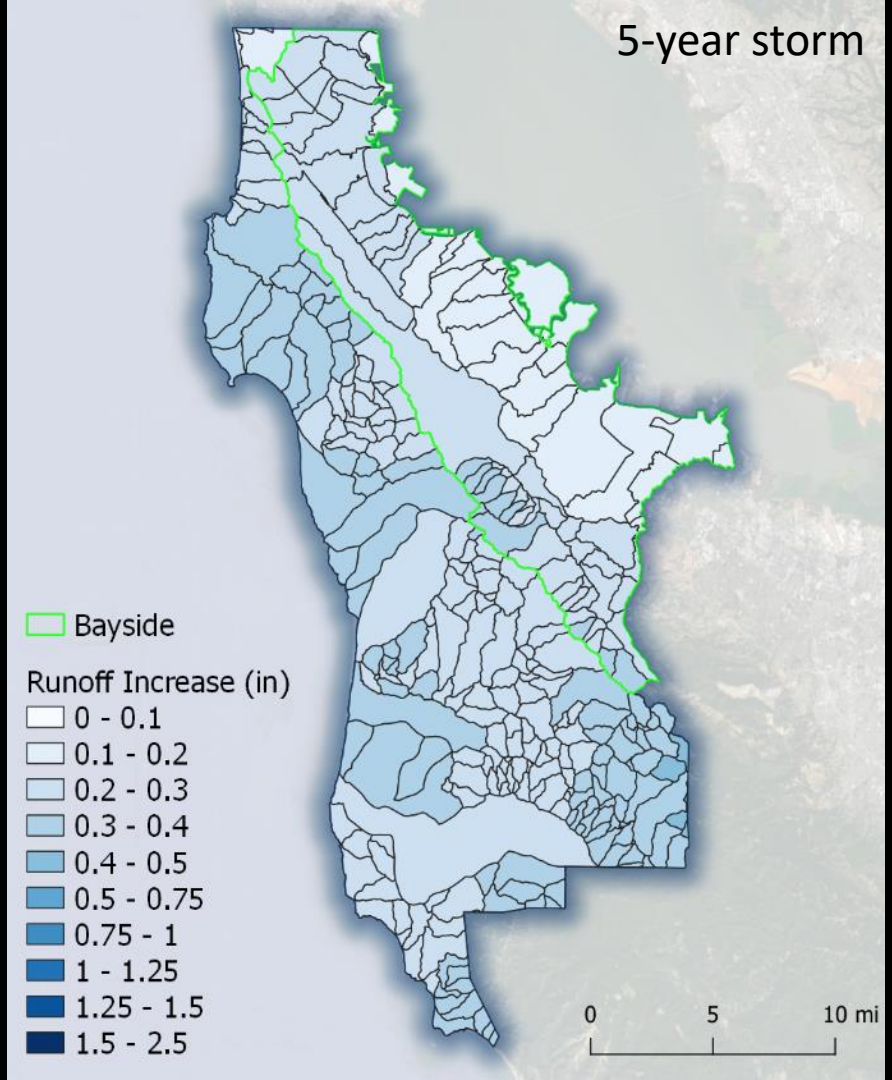
Impact on Precipitation Depth

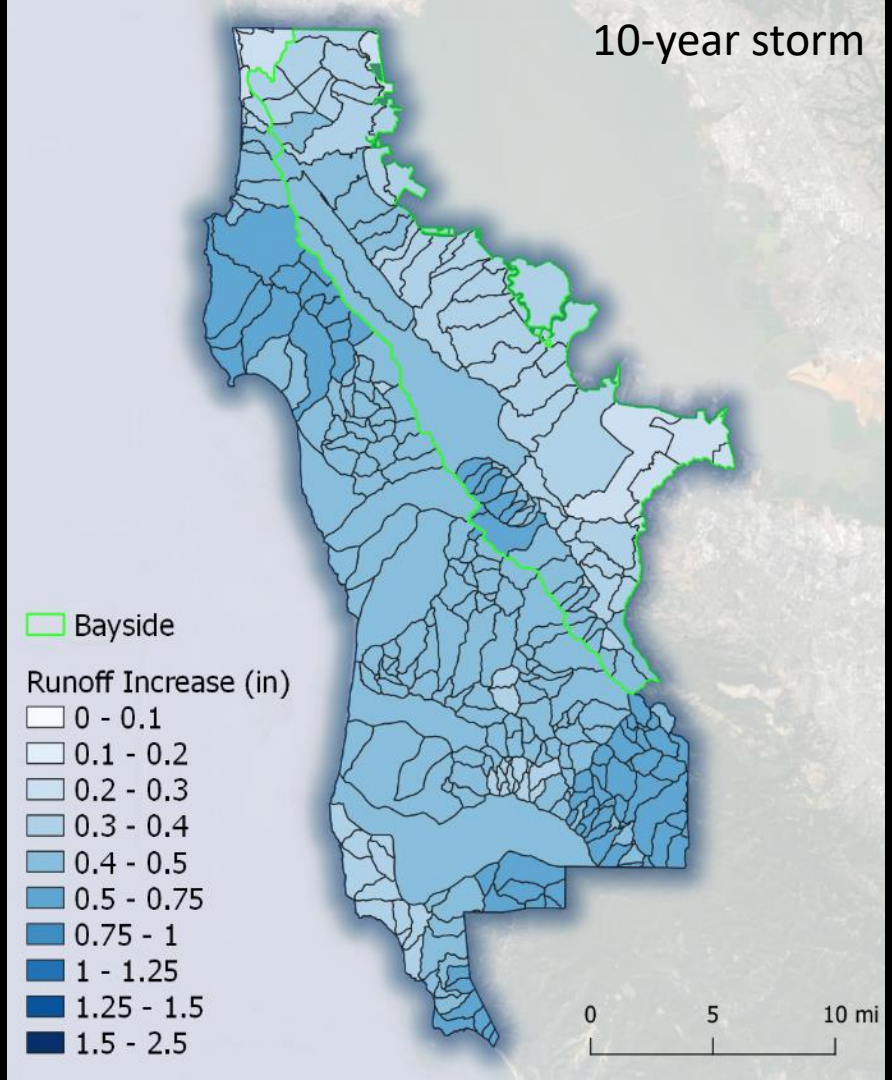
Region	Scenario	6-hour Precipitation Depth (in.) by Return Period					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Ocean	Historical	1.76	2.18	2.49	2.91	3.24	3.56
	Median (RCP 8.5)	1.96	2.51	3.00	3.76	4.38	5.03
Bayside	Historical	1.58	1.96	2.23	2.60	2.88	3.15
	Median (RCP 8.5)	1.73	2.20	2.63	3.28	3.81	4.38
Countywide	Historical	1.69	2.09	2.39	2.79	3.10	3.40
	Median (RCP 8.5)	1.87	2.39	2.86	3.58	4.16	4.78

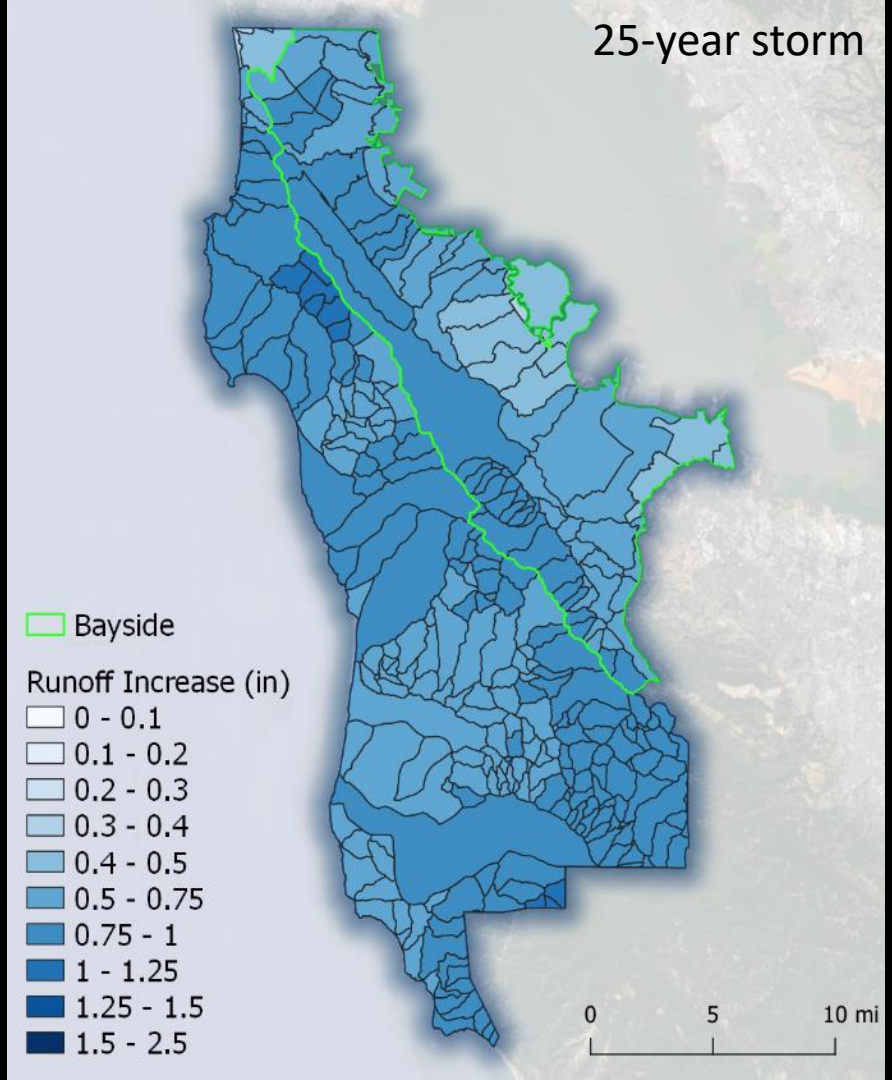
Impact on Runoff Depth

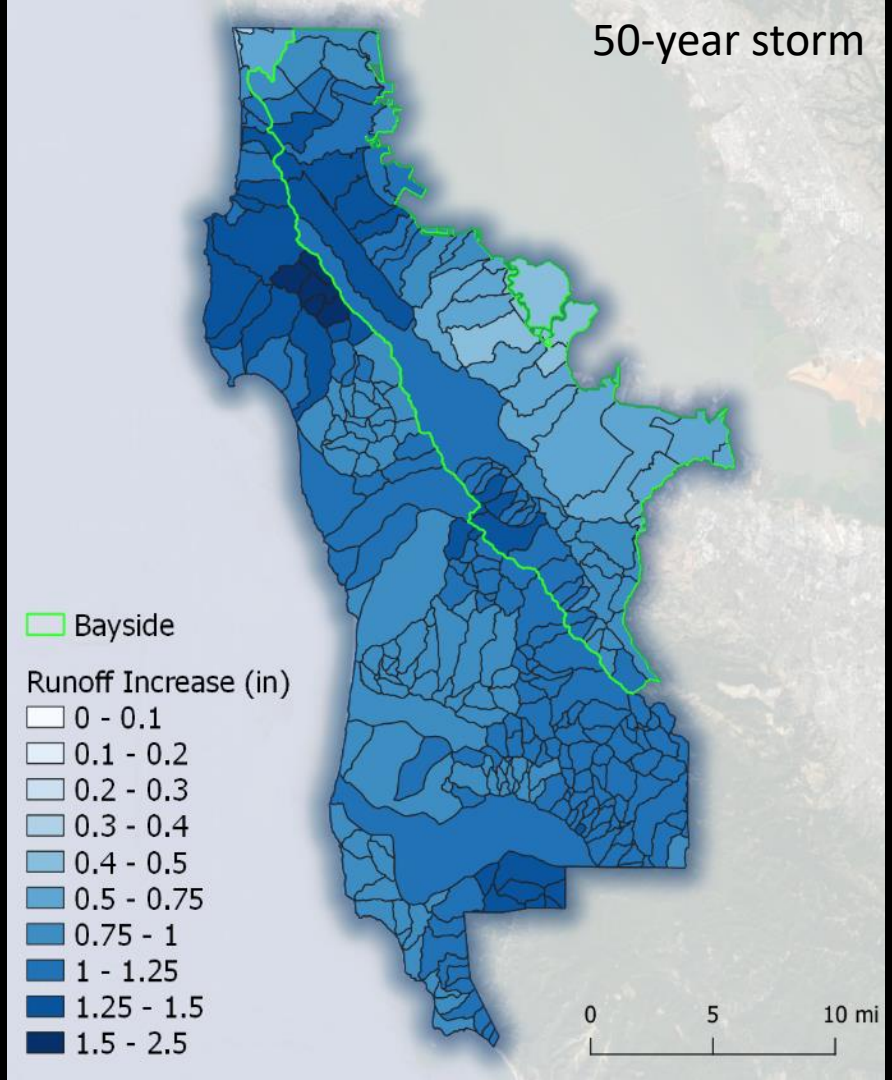
Region	Scenario	6-hour Runoff Depth (in.) by Return Period					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Ocean	Historical	1.13	1.50	1.79	2.17	2.47	2.77
	Median (RCP 8.5)	1.31	1.80	2.25	2.97	3.56	4.18
	Percent Change	*15%*	*20%*	*26%*	*37%*	*44%*	*51%*
Bayside	Historical	0.97	1.30	1.56	1.90	2.17	2.44
	Median (RCP 8.5)	1.10	1.53	1.94	2.56	3.07	3.62
	Percent Change	*14%*	*17%*	*24%*	*34%*	*41%*	*49%*
Countywide	Historical	1.07	1.43	1.70	2.07	2.36	2.64
	Median (RCP 8.5)	1.23	1.70	2.13	2.81	3.37	3.97
	Percent Change	*15%*	*19%*	*25%*	*36%*	*43%*	*50%*

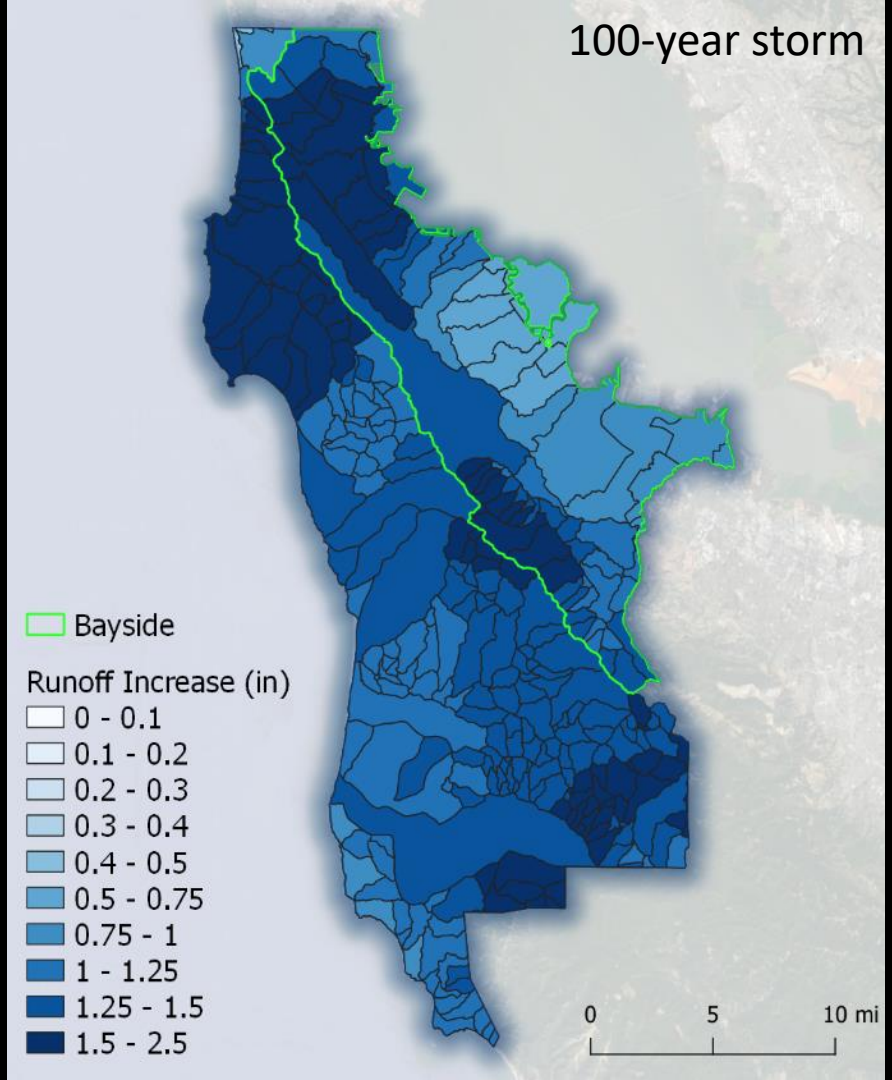

2-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi


5-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi


10-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi

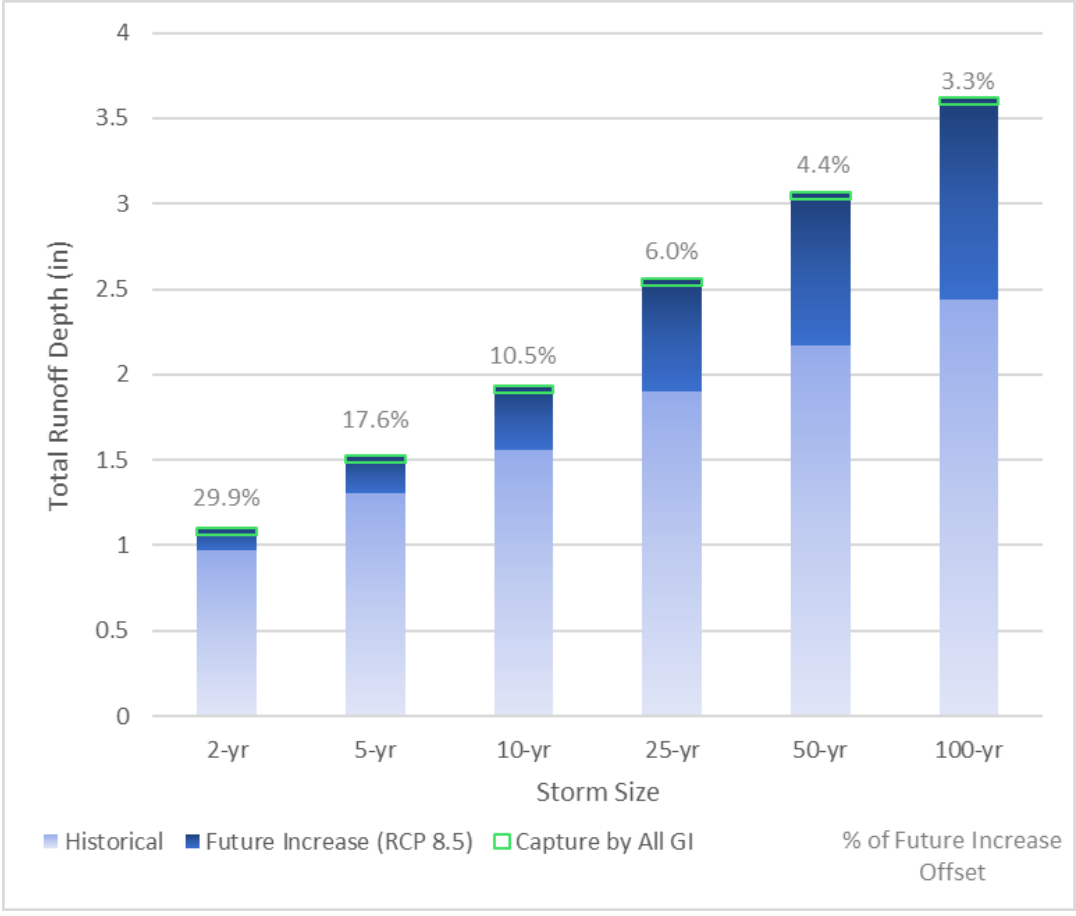

25-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi


50-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi


100-year storm
Bayside
Runoff Increase (in)
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.75
0.75 - 1
1 - 1.25
1.25 - 1.5
1.5 - 2.5
0
5
10 mi

Benefit of Green Infrastructure on Reducing Runoff

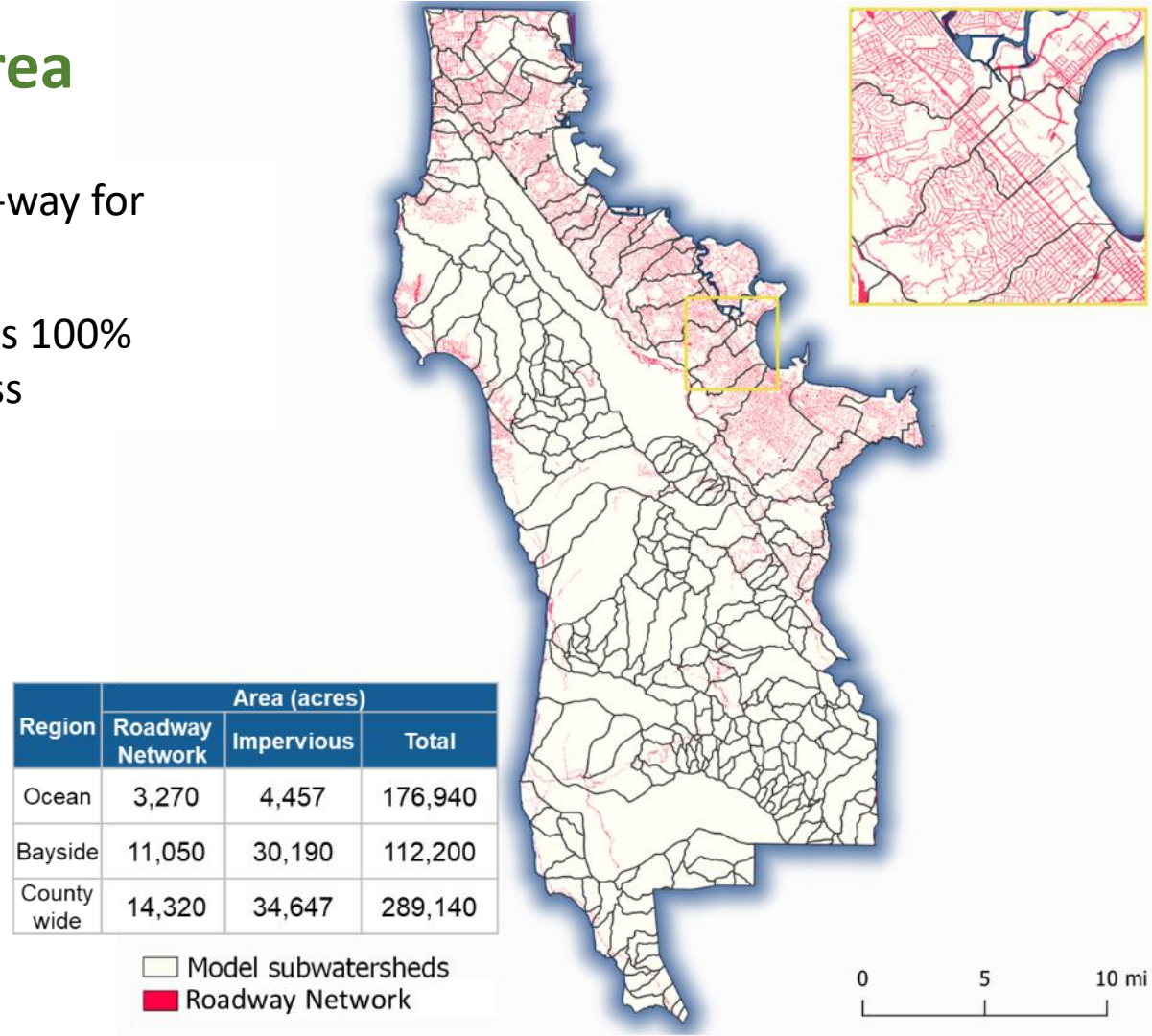
- GI offsets 30% of the projected increase in all runoff for the 2-yr storm
- Benefits of GI decreased with increasing storm size



Isolating Roadway Area

- GIS analysis to identify right-of-way for secondary roads
- Assume resulting right-of-way is 100% impervious for conservativeness

Region	Area (acres)		
	Roadway Network	Impervious	Total
Ocean	3,270	4,457	176,940
Bayside	11,050	30,190	112,200
County wide	14,320	34,647	289,140



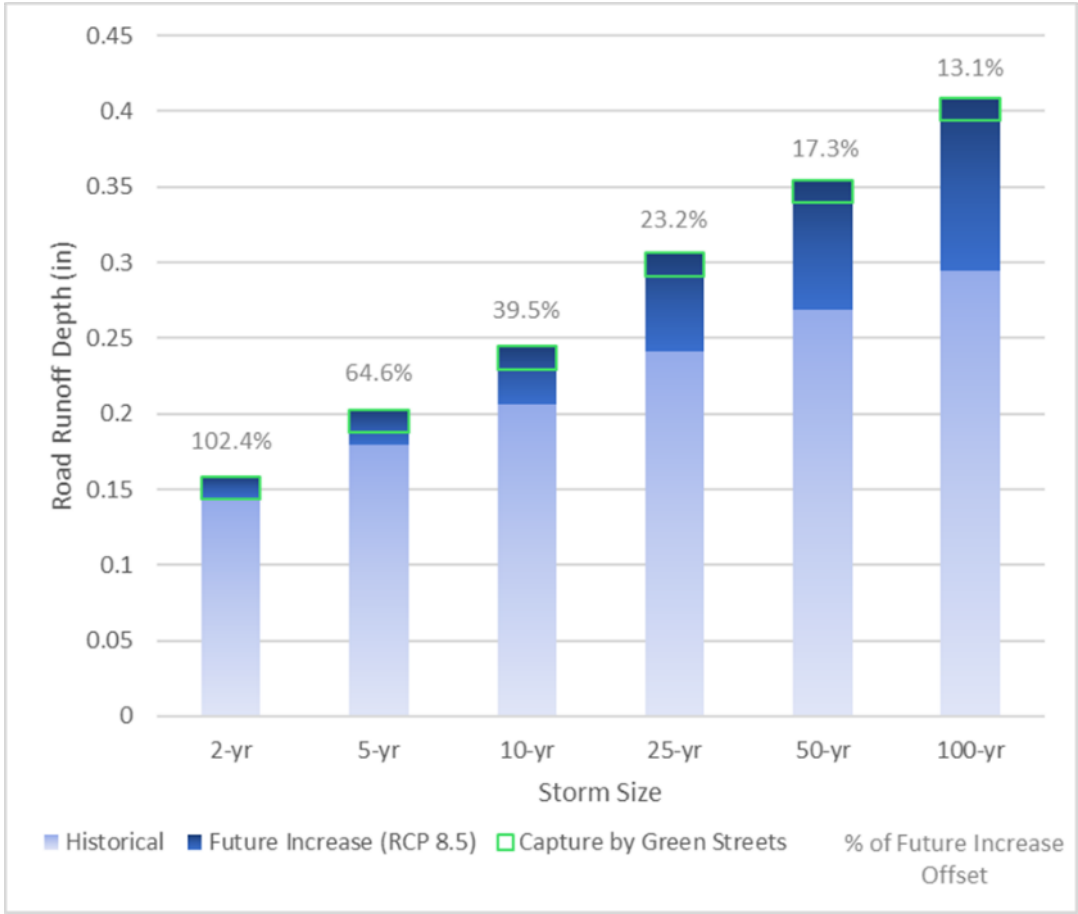
Impact on Roadway Runoff Depth

Region	Scenario	6-hour Runoff Depth (in.) by Return Period					
		2-yr	5-yr	10-yr [1]	25-yr	50-yr	100-yr
Ocean	Historical	0.030	0.037	0.043	0.050	0.055	0.061
	Median (RCP 8.5)	0.033	0.043	0.051	0.065	0.077	0.089
	Percent Change	*12%*	*15%*	*21%*	*30%*	*38%*	*46%*
Bayside	Historical	0.144	0.180	0.206	0.241	0.268	0.295
	Median (RCP 8.5)	0.158	0.203	0.244	0.306	0.355	0.409
	Percent Change	*10%*	*13%*	*18%*	*27%*	*32%*	*39%*
Countywide	Historical	0.074	0.092	0.106	0.124	0.138	0.151
	Median (RCP 8.5)	0.081	0.104	0.126	0.158	0.184	0.212
	Percent Change	*11%*	*14%*	*19%*	*28%*	*34%*	*41%*

[1] There is approximately 20% increase in runoff from the roadway network for the 10-year storm. Storm drain systems in the county are typically sized for the 10-year storm.

Benefit of Sustainable Streets on Reducing Road Runoff

- Sustainable streets offset over 100% of the projected increase in roadway runoff for the 2-yr and 5-yr storms
- Benefits of sustainable streets decrease with increasing storm size



Modeled GI Storage Capacity vs. Runoff Volume

Modeled Green Infrastructure Capacity (acre-feet)					
Total Capacity	**Existing Projects**	**Future New & Redevelopment**	**Regional Projects (Identified)**	**Green Streets**	**Other GI Projects (TBD)**
385.3	72.1	115.8	73.6	112.1	11.8

Scenario	6-hour Runoff Volume (ac-ft) by Recurrence Interval					
	2-yr	**5-yr**	**10-yr**	**25-yr**	**50-yr**	**100-yr**
Bayside Historical	8,767	11,784	14,121	17,230	19,645	22,039
Bayside Median (RCP 8.5)	9,966	13,816	17,515	23,175	27,740	32,775

Next Steps

- Distribute memorandum summarizing results of climate change modeling for review and comment

Item 6 – Update on 20-21 Budget Assumptions

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Starting Balance $1,175,000
- Revenue/Avail. Funds $2,481,000
- Avail. For Expenditures $(3,156,000)

- Ending Balance $500,000*

  * Restricted for potential funding initiative

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Starting Balance $1,060,000
- Revenue/Avail. Funds $2,581,000
- Avail. For Expenditures $(3,141,000)

- Ending Balance $500,000*

  * Restricted for potential funding initiative

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Starting Balance
  - NPDES Fund (Property Fees) $895,000
  - Measure M (Vehicle Fees) $280,000

  TOTAL: $1,175,000

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Starting Balance
  - NPDES Fund (Property Fees) $865,000
  - Measure M (Vehicle Fees) $195,000

  TOTAL: $1,060,000

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Revenue/Available Funds
  - Interest Earnings $12,000
  - NPDES Fund (Property Fees)
    - —Four cities not on tax rolls $143,000
    - —Net tax roll $1,486,000
  - Measure M (Vehicle Fees)
    - —Administration Allocation (cost) $40,000
    - —Regional Stormwater $800,000

TOTAL: $2,481,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Revenue/Available Funds
  - Interest Earnings $12,000
  - NPDES Fund (Property Fees)
    - —Four cities not on tax rolls $143,000
    - —Net tax roll $1,386,000
  - Measure M (Vehicle Fees)
    - —Administration Allocation (cost) $40,000
    - —Regional Stormwater $1,000,000

TOTAL: $2,581,000

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Anticipated Expenditures
  - Administration (Exec Dir): $41,000
  - Professional Services (staff): $430,000
  - Admin Allocation (overhead): $47,000
  - Dues/Memberships: $45,000
  - Distributions (rain barrel): $5,000
  - Miscellaneous/Travel/Training: $7,000
  - Avail. For Consulting Services: $2,581,000

TOTAL: $3,156,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Anticipated Expenditures
  - Administration (Exec Dir): $41,000
  - Professional Services (staff): $456,000
  - Admin Allocation (overhead): $55,000
  - Dues/Memberships: $45,000
  - Distributions (rain barrel): $19,000
  - Miscellaneous/Travel/Training: $7,000
  - Avail. For Consulting Services: $2,518,000

TOTAL: $3,141,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Consulting Services
  - "Fixed" costs
    - Regional Monitoring Program $105,000
      - Required contribution to SF Bay monitoring
    - Annual Tax Roll Services $18,000
    - BASMAA (placeholder) $50,000
      - C/CAG share of regional compliance projects
    - Lobbyist $39,000
    - Petition/Unfunded/Contingency $50,000

      $262,000
- Available for Technical Support: $2.319 M

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Consulting Services
  - "Fixed" costs
    - Regional Monitoring Program $105,000
      - Required contribution to SF Bay monitoring
    - Annual Tax Roll Services $18,000
    - BASMAA (placeholder) $50,000
      - C/CAG share of regional compliance projects
    - Lobbyist $39,000
    - Petition/Unfunded/Contingency $50,000

      $262,000
- Available for Technical Support: $2.256 M

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Anticipated Consulting Services/Tech Support
  - EOA $1,525,000
    - —General Program Support, Subcommittee Support, Training, Annual Reporting, Water Quality Monitoring, Trash, Portions of Mercury & PCBs, MRP 3.0
  - LWA $100,000
    - —Reasonable Assurance Analysis, Modeling, MRP 3.0
  - SGA/COE $275,000
    - —Public Education and Outreach, Teacher Institute

TOTAL: $1.9 Million

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Anticipated Consulting Services/Tech Support
  - EOA $1,525,000
    - General Program Support, Subcommittee Support, Training, Annual Reporting, Water Quality Monitoring, Trash, Portions of Mercury & PCBs, MRP 3.0
  - LWA $150,000
    - Reasonable Assurance Analysis, Modeling, MRP 3.0
  - SGA/COE $275,000
    - Public Education and Outreach, Teacher Institute
  - Grant Writing Support – Placeholder $50,000

TOTAL: $2 Million

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Ending Balance
  - NPDES Fund (Property Fees) $919,000
    - —Restricted (Funding Initiative) ($500,000)
  - Measure M (Vehicle Fees) $0

  Total Unplanned/Unrestricted: $419,000

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Preliminary 20-21 Budget

- Ending Balance
  - NPDES Fund (Property Fees) $689,000
    - —Restricted (Funding Initiative) ($500,000)
  - Measure M (Vehicle Fees) $67,000

  Total Unplanned/Unrestricted: $256,000

- Reserve Balance $120,000

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Item 7 – Regional Board Report

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
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Item 8 – Executive Director's Report

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Item 9 – Committee Member Reports

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Item 10 – Adjourn

SAN MATEO COUNTYWIDE
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