Stormwater Committee Presentations

C/CAG Stormwater Committee Meeting, January 16, 2025

Image Source: http://astanehelaw.com/2020/09/02/san-mateo-county-passes-emergency-ordinance-establishing-paid-sick-leave-for-the-coronavirus-covid-19-pandemic/

SAN MATEO COUNTYWIDE
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Item 1 – Call to Order/Roll Call/Hybrid Zoom Procedures

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Item 2 – Public Comment

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Item 3 (PRESENTATION) – Receive a presentation on updates from OneShoreline

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Item 4 (ACTION) – Approve the 2025 Stormwater Committee calendar of meetings

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Item 5 (ACTION) – Review and approve October 17, 2024 Stormwater Committee Meeting minutes

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Item 6 (INFORMATION) – Receive a presentation on the SMCWPPP Revised Draft Asset Management Plan Template

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Item 7 (INFORMATION) – Receive a presentation on the Draft OneWatershed Framework Report

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Draft OneWatershed Framework Report

Reid Bogert – rbogert@smcgov.org
Dan Sternkopf – dsternkopf@smcgov.org

C/CAG Stormwater Committee Meeting, January 16, 2025

Image Source: http://astanehelaw.com/2020/09/02/san-mateo-county-passes-emergency-ordinance-establishing-paid-sick-leave-for-the-coronavirus-covid-19-pandemic/

SAN MATEO COUNTYWIDE Water Pollution Prevention Program
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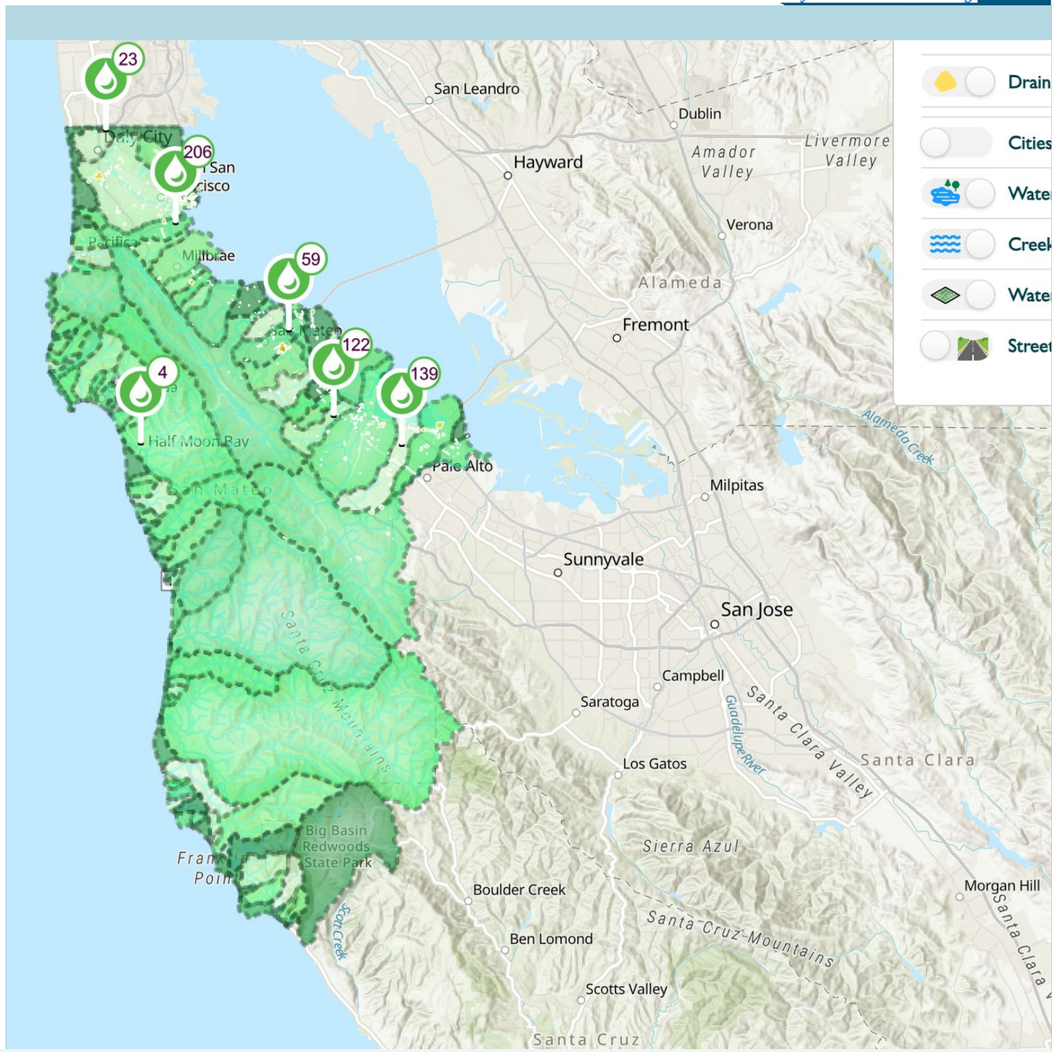
What is the OneWatershed Framework?

An equity-focused, integrated watershed management approach to climate resilience in San Mateo County (akin to a “One Water” strategy).

- Climate Hazards evaluated:
  - Sea level Rise/Groundwater Rise/Intrusion
  - Extreme Precipitation
  - Extreme Heat/Drought/Wildfire

- Watershed Assets evaluated for risk exposure:
  - Water Supply
  - Storm Drainage
  - Waste Water Services
  - Groundwater Basins



FLOOD RISK REDUCTION

WATER SUPPLY RELIABILITY

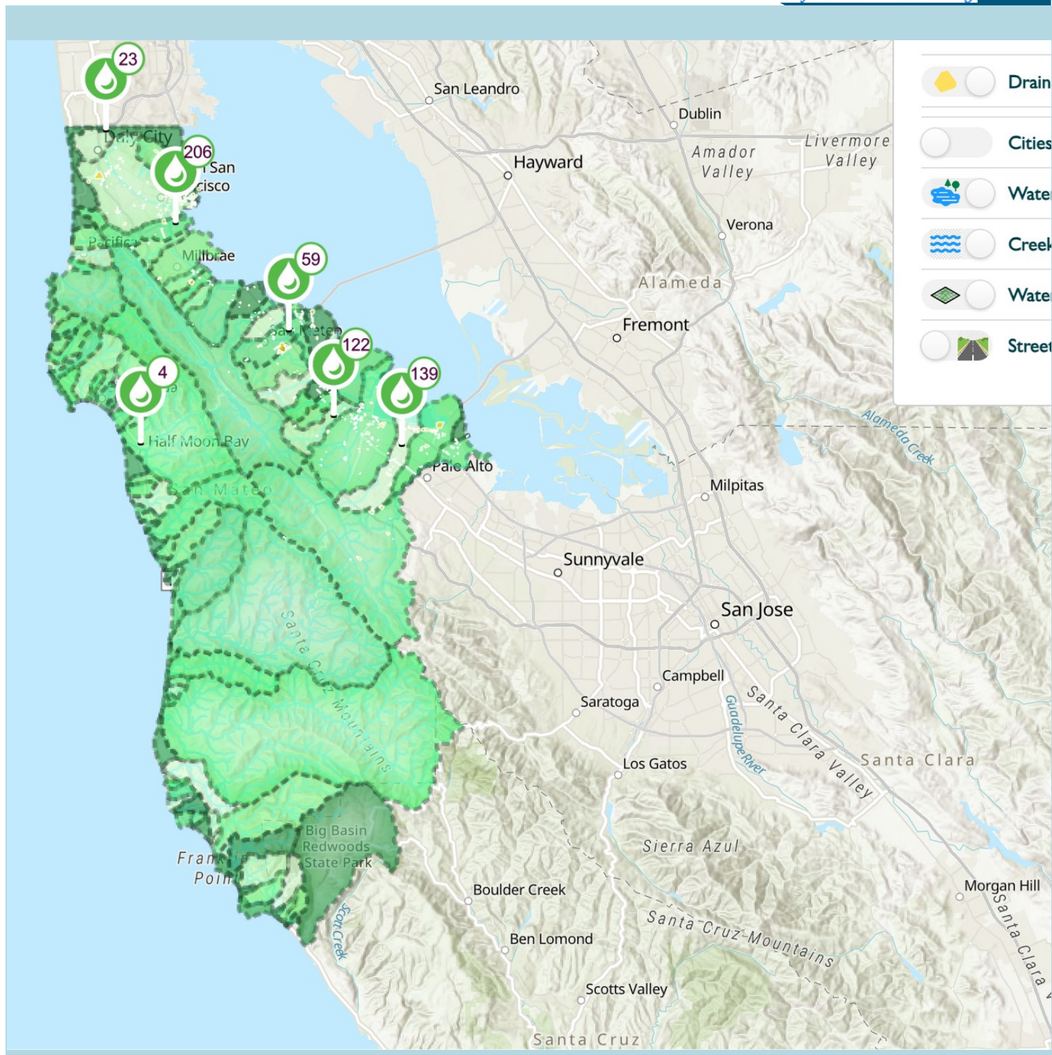
PUBLIC SAFETY AND ACTIVE TRANSPORTATION

AND OTHER COMMUNITY CO-BENEFITS

What is the OneWatershed Framework?

Potential OneWatershed Projects:

- Focus on multi-benefit **green stormwater infrastructure** (benefits to flood/stormwater/water supply/wastewater systems)
  - Sustainable Streets
  - Regional stormwater capture projects
  - Park retrofits
- May also include:
  - Grey infrastructure improvements
  - Shoreline resilience projects
  - Diversion to WWTPs
  - Creek Restoration



FLOOD RISK REDUCTION

WATER SUPPLY RELIABILITY

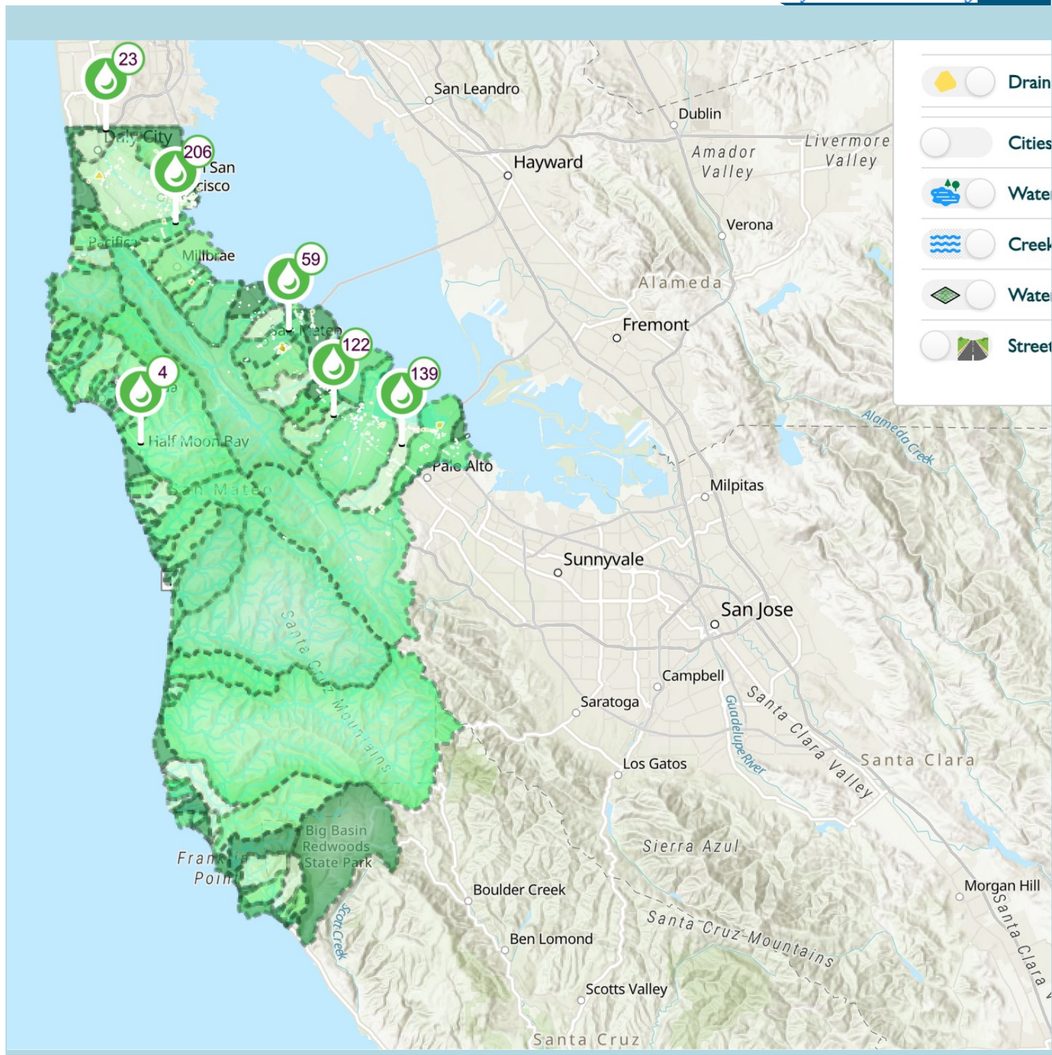
PUBLIC SAFETY AND ACTIVE TRANSPORTATION

AND OTHER COMMUNITY CO-BENEFITS

What is the OneWatershed Framework?

Overall Goals:

- Support MRP related Green Infrastructure requirements and Regional Collaborative efforts
- Other local planning initiatives:
  - Multi-Jurisdiction Local Hazard Mitigation Plan
  - Safety Element/Environmental Justice Element/Climate Action Plans
  - Regional Shoreline Adaptation Plan requirements (SB 272)
  - Bike/Ped Master Plans/Urban Forestry Plans. etc.



FLOOD RISK REDUCTION

WATER SUPPLY RELIABILITY

PUBLIC SAFETY AND ACTIVE TRANSPORTATION

AND OTHER COMMUNITY CO-BENEFITS

OneWatershed Project Partners

- C/CAG Stormwater Program – project lead
- Climate Resilient Communities – CBO lead
- City of San Bruno – San Bruno Creek Watershed lead
- County of San Mateo Sustainability Department
- South San Francisco-San Bruno Regional Water Quality Control Plant
- Bay Area Water Supply and Conservation Agency
- San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline)

Primary Tasks

1 Workplan and Initial Engagement

- Develop Work Plan
- Develop Engagement Plan
- Establish Committees

2 OneWatershed Data Inventory

- Data Collection and Gap Analysis
- Inventory Development
- Shared-Risk Assessment Approach

3 OneWatershed Framework and OneWatershed Dashboard

- OneWatershed Framework Report
- OneWatershed Dashboard
- Shared-Risk Countywide Results

4 Community-Led San Bruno Creek OneWatershed Climate Resilience Plan

- Establish Resilient San Bruno Team
- Community-scale Vulnerability Assessment
- Pilot of OneWatershed Framework
- San Bruno Creek OneWatershed Plan

5.1 NOAA Grant Application

- NOAA Climate Resilience Regional Challenge Grant Application (submitted Feb 2023/not awarded, but following up on other opportunities)

5 Project Administration

- Project Kick-Off and Monthly PMT Meetings
- APGP Progress Reports and Final Report

Project Groups/Committees

Group	Membership	Oversight
Project Management Team	Partners and Consultant team	Entire Project
Technical Advisory Committee	Agency Representatives	OneWatershed Framework Development
Equity Priority Community Group	Non-profits/CBOs and other stakeholders	Community Engagement Plan and OneWatershed Framework
Climate Change Community Team	San Bruno Community Members	San Bruno Creek OneWatershed Plan
San Bruno Creek Community Member Workshops	San Bruno Community Members and other stakeholders	San Bruno Creek OneWatershed Plan

WHO IS RESILIENT SAN BRUNO?

NOV 2024

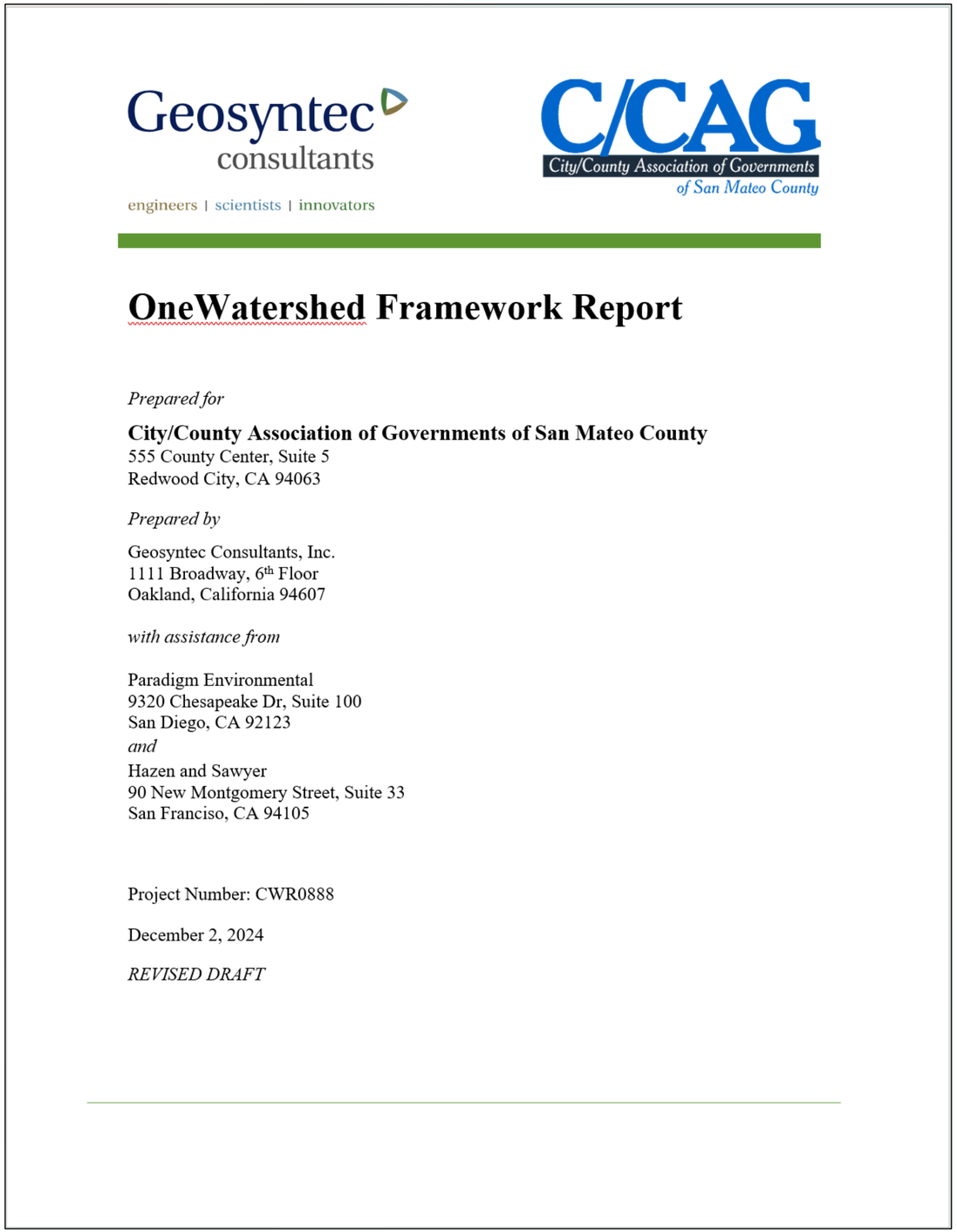
Resilient San Bruno: San Bruno's Climate Change Community team.

- *Resilient San Bruno is...*
  - *An open, once monthly community meeting space welcoming San Bruno residents and community leaders to discuss tangible community projects that lead directly to improved resilience to the impacts of a changing climate. Funding for logistics and a once a year community project is*
  - *provided by the OneWatershed project and the Atkinson foundation.*

EPC *Resilient San Bruno*

DEC 2024

- Team has met 9 times, and RSB has leveraged opportunities outside of the team to provide community outreach and engagement.
  - Canvassing with Skyline college for Bond Measure Q
  - 2 successful workshops led by OneShoreline
- The team has been working towards selecting a community project, to build trust and engage a larger and more diverse proportion of San Bruno.
- The team has also returned feedback on the OneWatershed project's
  - Community Engagement Plan
  - Data Map Web-viewer
  - Community Vulnerability Assessment plan (CVA)
- In 2025 the Resilient San Bruno Team will provide feedback on:
  - The implementation of the CVA
  - The Community Led Resilience Plan
  - San Bruno Pilot Infrastructure Project.
  - City of San Bruno's Climate Action Plan



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engineers | scientists | innovators

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OneWatershed Framework Report

Prepared for

City/County Association of Governments of San Mateo County
555 County Center, Suite 5
Redwood City, CA 94063

Prepared by

Geosyntec Consultants, Inc.
1111 Broadway, 6th Floor
Oakland, California 94607

with assistance from

Paradigm Environmental
9320 Chesapeake Dr, Suite 100
San Diego, CA 92123
and
Hazen and Sawyer
90 New Montgomery Street, Suite 33
San Franciso, CA 94105

Project Number: CWR0888

December 2, 2024

REVISED DRAFT

C/CAG City/County Association of Governments of San Mateo County

Draft OneWatershed Framework Report

- Initial Draft reviewed by Project Management Team in Nov
- Revised Draft out for review by the TAC/EPC Workgroup in Dec
- Distributed to the Stormwater Committee for review/comment on Jan 7
- Comments due Jan 24

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Draft OneWatershed Framework Report

- Background/Climate Adaptation and Resilience Definitions
- OneWatershed Framework
  - Objectives
  - Process
- Climate Hazard Exposure Assessment
- Climate Resilience Projects
- Pilot Application to San Bruno Creek Watershed
- OneWatershed Dashboard

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Climate Adaptation and Resilience Definitions

- OneWatershed Framework leverages California Adaptation Planning Guide (Cal OES 2020)
- **Climate hazards** include, for example: sea level rise, drought, extreme precipitation, extreme heat, and wildfire.
- **Exposure** is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm, including where climate hazards may be present.
- **Climate vulnerability** is the degree to which natural, built, and human systems are at risk of climate change impacts. (function of exposure, sensitivity, consequence of impact, and adaptive capacity)

Climate Adaptation and Resilience Definitions – Cal OES (2020)

- **Resilience** is the “capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.”
- **Hazard mitigation** is a sustained action taken to reduce or eliminate the long-term risk to human life and property through actions that reduce hazard, exposure, and vulnerability.

CalOES Adaptation Planning Process and OneWatershed Framework

OneWatershed Framework Countywide Climate Hazard Exposure Assessment

OneWatershed Framework + San Bruno OneWatershed Climate Resilience Plan

OneWatershed Framework + San Bruno OneWatershed Plan + Future OneWatershed Strategic Plan

San Bruno OneWatershed Plan + Future OneWatershed Strategic Plan

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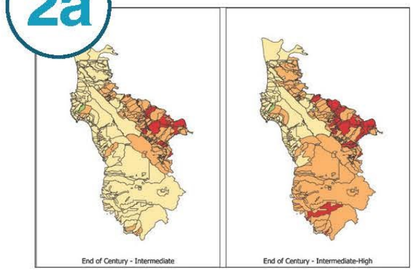
STEP 1

Identify multi-agency, multi-stakeholder collaborative partnerships specific to the communities in the target watershed.

STEP 2

Assess watershed-scale vulnerability of water infrastructure and assets to climate hazards:

2a



Use the Countywide shared-risk analysis to identify hot spots of climate hazard exposure.

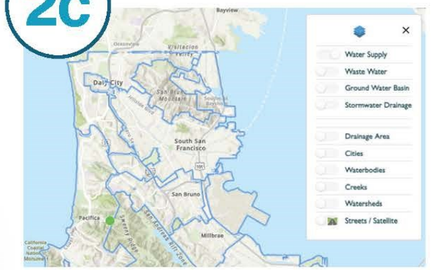
2b

Conduct a Community Vulnerability Assessment to understand community:

sensitivity to | **potential impact from** | **adaptive capacity to moderate harm from**

Climate hazards

2c



Use the outcomes of 2a and 2b to prioritize vulnerable infrastructure assets within the watershed.

STEP 3

Identify and prioritize climate resilience projects.

Image courtesy of C/CAG

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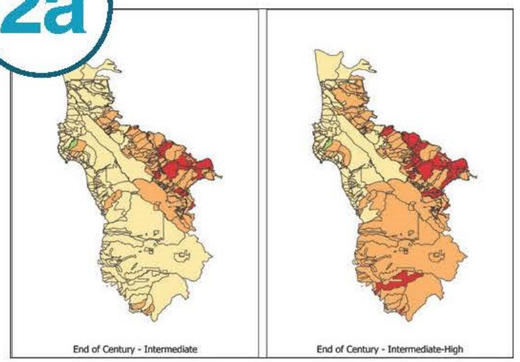
STEP 2

Assess watershed-scale vulnerability of water infrastructure and assets to climate hazards:

2a



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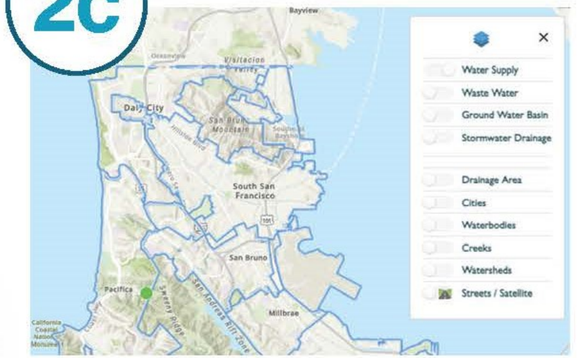

Use the outcomes of 2a and 2b to prioritize vulnerable infrastructure assets within the watershed.

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Climate Hazard Exposure Assessment

- Used for Step 2a: **Assess watershed-scale exposure of OneWatershed infrastructure and assets to climate hazards under future conditions.**
- Examined exposure to climate hazards:
  - Sea Level Rise
  - Extreme Heat
  - Extreme Precipitation
  - Hydrologic Drought
  - Wildfire
- Four future climate scenarios were assessed, consistent with BCDC Regional Shoreline Adaptation Plan Guidelines.

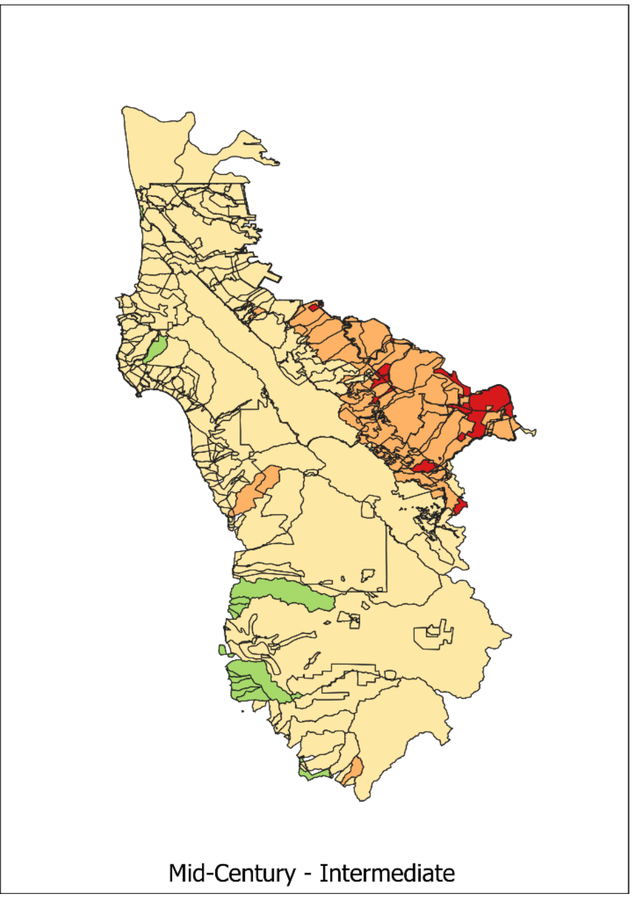
Climate Hazard Exposure Assessment

- Assessed OneWatershed infrastructure network exposure on a unit basis, defined as:
  - Water supply service areas
  - Wastewater collection and treatment plant service areas
  - Stormwater catchments
  - Groundwater basins
- For each infrastructure category, an exposure score of “low,” “moderate,” or “high” was identified geospatially based on the relative magnitude of exposure to the climate hazards.
- Exposure levels were assigned to infrastructure network units countywide based on co-located climate hazard data.

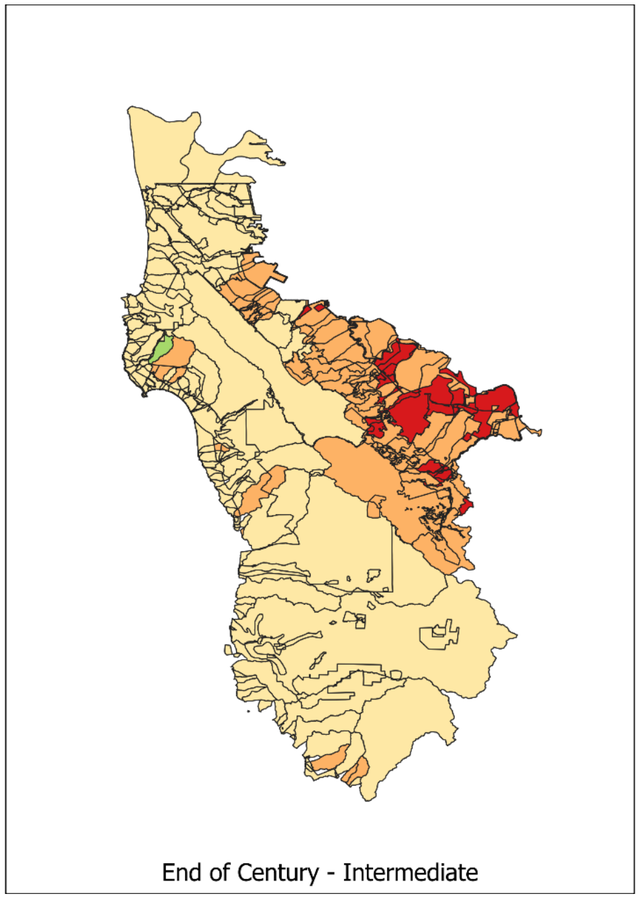
OneWatershed Infrastructure Networks

Category	Major Infrastructure	Water Resource of Focus
Water Supply	Reservoirs, supply lines, turnouts, interties, storage tanks, treatment plants	Water Supply Sources
Wastewater Services	Private laterals, sewer main pipes, lift stations, wet wells and detention facilities, treatment plants, recycled water distribution system	Sanitation and Recycled Water
Stormwater Drainage System	Inlets, storm drain pipes, pump stations, channels, detention facilities, outfalls, stormwater treatment assets (e.g., green stormwater infrastructure)	Receiving Waters
Groundwater Basins	Private and public wells, pumps, treatment equipment	Groundwater

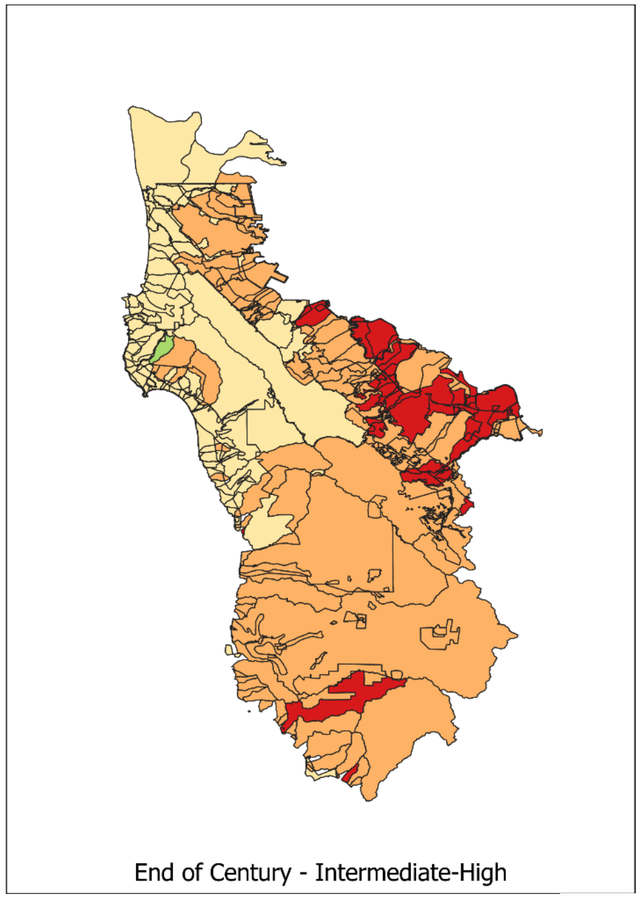
- Climate hazard exposure for each asset category and each climate hazard are available through the OneWatershed Dashboard
- Visual representation, averaging exposure scores across all climate hazard categories and OneWatershed infrastructure network categories:



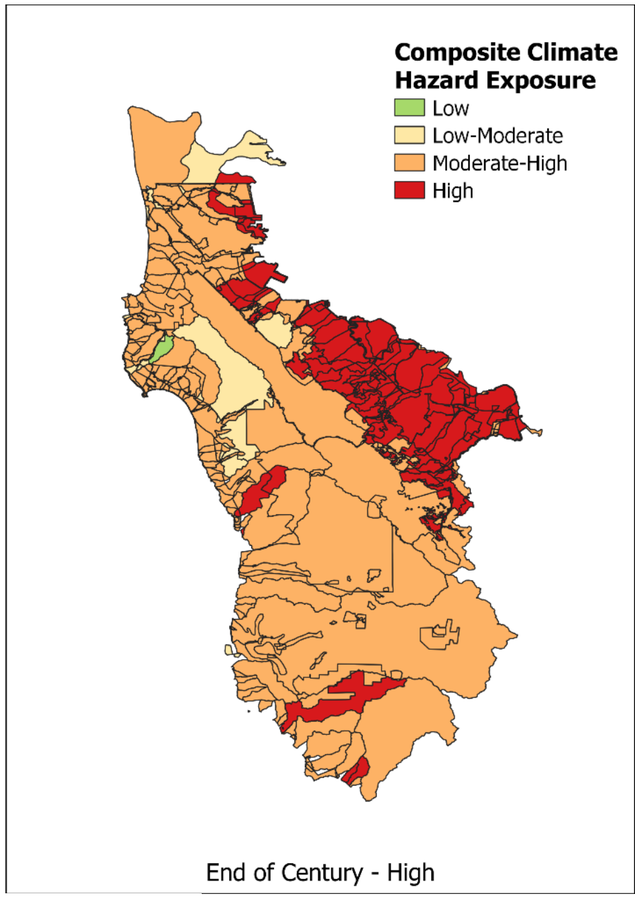
Mid-Century - Intermediate



End of Century - Intermediate



End of Century - Intermediate-High

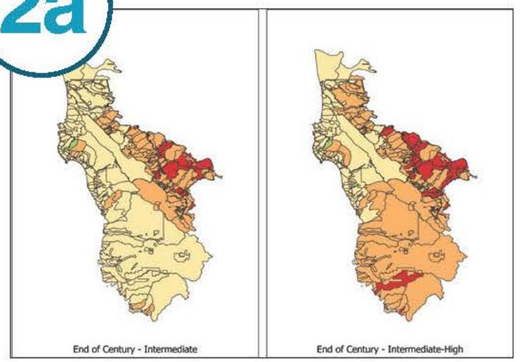


End of Century - High

STEP 2

Assess watershed-scale vulnerability of water infrastructure and assets to climate hazards:

2a



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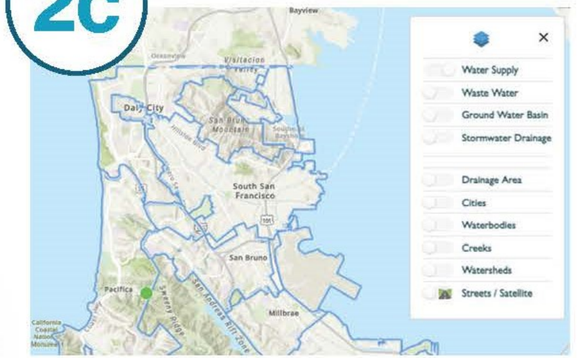
Climate hazards

2c



Use the outcomes of 2a and 2b to prioritize vulnerable infrastructure assets within the watershed.

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STEP 2

Assess watershed-scale vulnerability of water infrastructure and assets to climate hazards:

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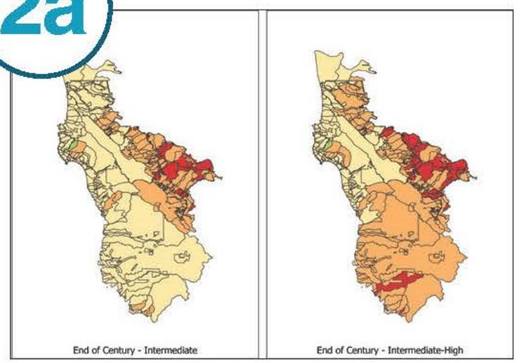

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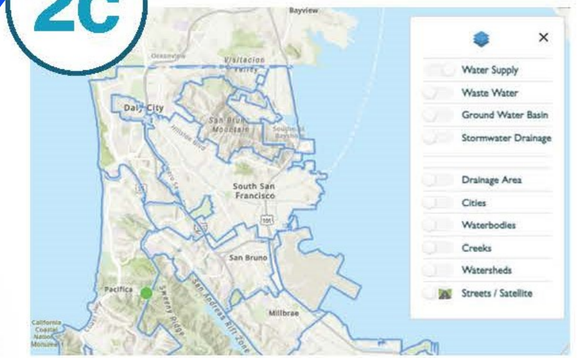

Use the outcomes of 2a and 2b to prioritize vulnerable infrastructure assets within the watershed.

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STEP 3

Identify and prioritize climate resilience projects.

Image courtesy of C/CAG

Pilot Application to San Bruno Creek

- In 2025, the Project will pilot the OneWatershed Framework in the San Bruno Creek watershed
- **Step 1: Identify multi-agency, multi-stakeholder collaborative partnerships** – the collaborative partnerships established through this project and the Resilient San Bruno team
- **Step 2: Assess watershed-scale vulnerability of OneWatershed infrastructure and assets to climate hazards –** will use the Exposure Assessment and San Bruno Creek Community Vulnerability Assessment led by CRC

Pilot Application to San Bruno Creek

- **Step 3: Identify and prioritize climate resilience projects -** In close coordination with the Resilient San Bruno Team, the PMT and the Consultant Team will ***identify potential climate resilience projects that could address prioritized vulnerabilities*** within the watershed.
- Watershed-based plans will be referenced to compile previously identified project opportunities. Projects identified through the Community Vulnerability Assessment will also be considered.
- These ***projects will be prioritized to maximize the climate hazard resilience benefits provided, in alignment with community priorities***.

Project Next Steps

- Presentations on Draft OneWatershed Framework Report
  - Stormwater Committee Jan 16
  - CMEQ Jan 27
  - OneShoreline Board Jan/Feb
  - C/CAG Board Feb 13
- Draft OneWatershed Framework Report – Comments due Jan 24
- Final OneWatershed Framework Report – Feb
- The San Bruno Creek Pilot will be initiated in early 2025
  - Workshops through spring 2025
  - Draft/Final San Bruno Creek OneWatershed Plan fall/winter 2025

Item 8 (INFORMATION) – Receive stormwater program related information and announcements

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Stormwater Program Announcements

- C/CAG Board updates:
  - Oct – none
  - Nov – Partnership Agreement with CRC for EPA Community Change Grant application
  - Dec – Redwood City Councilmember Kaia Eekin appointed to OneShoreline Board southern regio city seat

- C/CAG Stormwater Program Director appointed to CASQA Board of Directors in December

- FY23-24 Annual Reports – WB staff reviewing FY23-24 Annual Reports (note typo on date in staff report) + FY24-25 Annual Report Forms being finalized by February

- Integrated Pest Management Effectiveness Evaluation
  - Reminder to send primary contact information by Jan 17

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Stormwater Program Announcements

- State Water Board Cost Reporting Policy – Final Cost Reporting Policy issued in December for Jan 22 adoption hearing (initial state reporting in FY26-27)

- EPA Partial Approval of 2024 303(d) List in California
  - California Stream Condition Index Tool used for basis of listing as Category 3 for benthic impacts in State Board listing
  - EPA disapproved this listing for 44 waterbodies including 4 in San Mateo County (San Mateo, Laurel, Pilarcitos Creeks) and is proposing to list them all as Category 5, i.e., requiring TMDLs
  - SMCWPPP Comment Letter submitted Jan 15

- Funding opportunities

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Stormwater Program Announcements

FY2025 State and Federal Funding

- Advancing multi-benefit stormwater infrastructure projects aligned with its planning efforts with a priority for projects with multi-jurisdiction or MRP related benefits, initial planning, support for equity focus communities, and early investments
- Potential Earmarks this FY:
  - Coastside sustainable street project (TBD)
  - Colma ECR Sustainable Street
  - OneWatershed Strategic Plan
- Additional priority projects that could be funded by grants/Prop 4:
  - Next set of sustainable streets
  - San Bruno I-280/380, Belmont Twin Pines Park, Redwood City Red Morton Park Regional Projects
  - Schoolyard greening

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Item 9 – Regional Water Board Report

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Item 10 – Executive Director's Report

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Item 11 – Member Reports

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Item 12 – Adjourn

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