



# Countywide Stormwater Program Updates

C/CAG Congestion Management and Environmental Quality Committee Meeting  
October 28, 2024

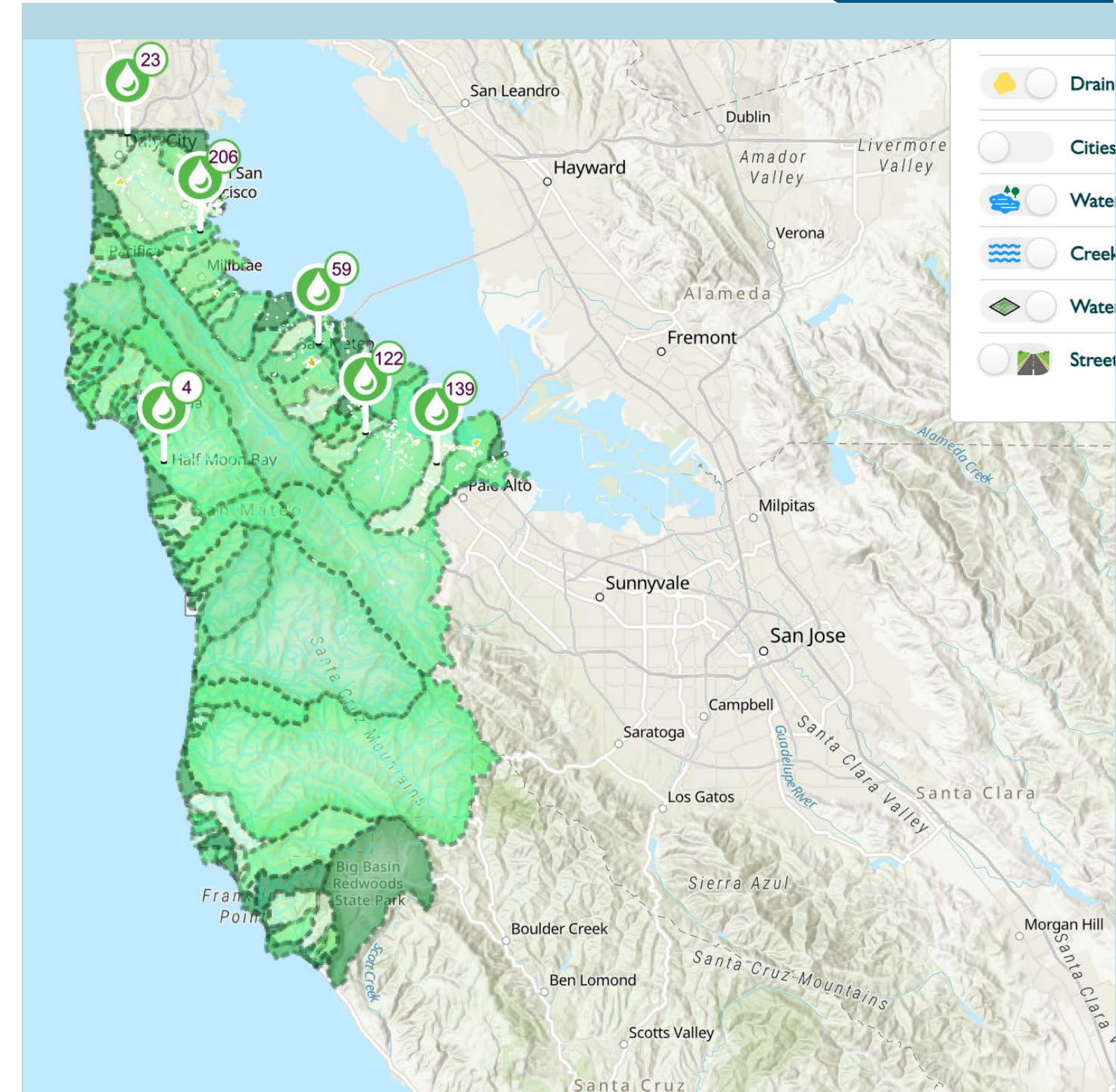
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# What is the One Watershed Framework?



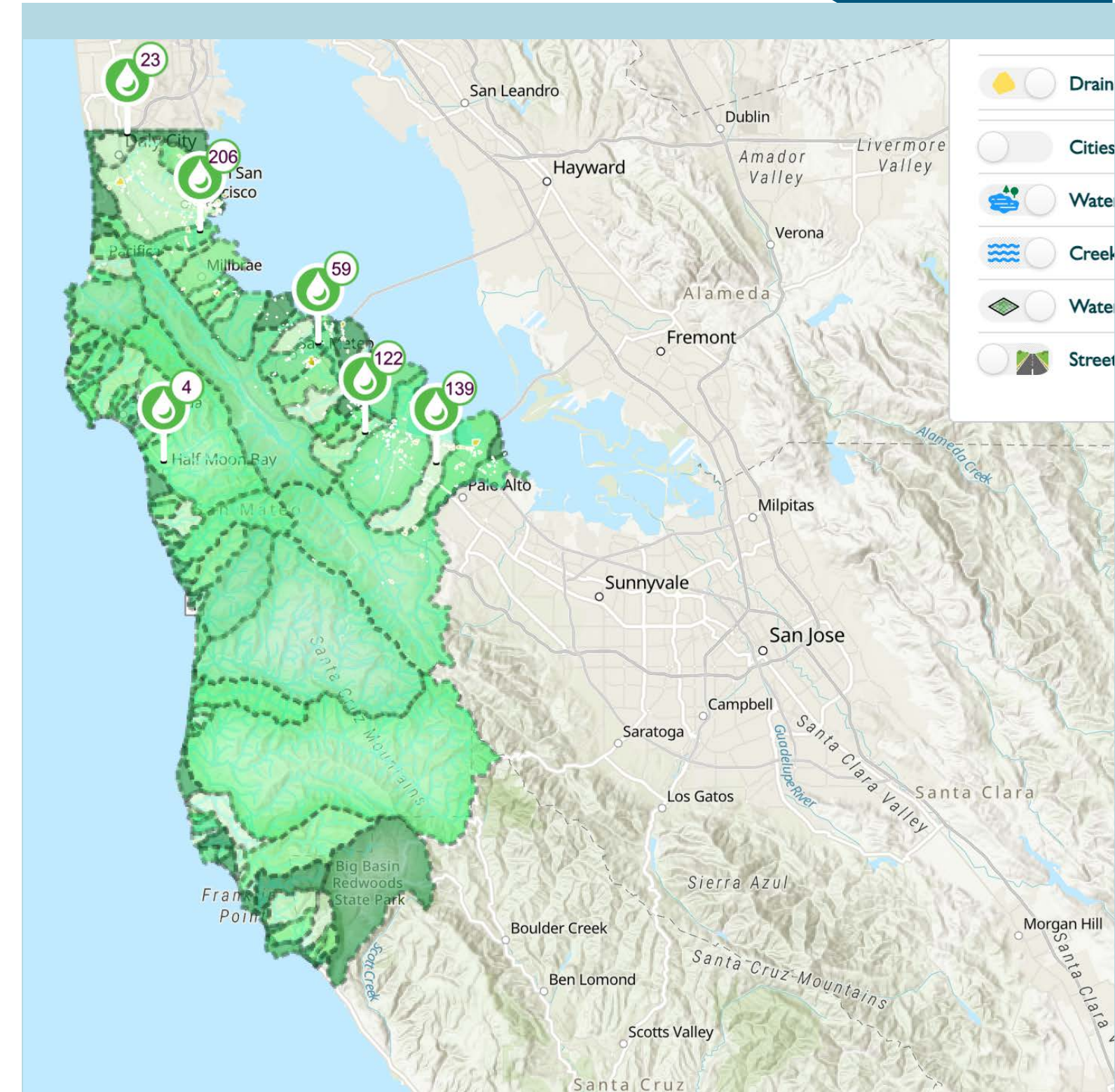
- OneWatershed Climate Resilience Infrastructure addresses the regional and **shared-risk** of climate change to **water infrastructure and resources** (sewer, water, stormwater) with an emphasis on building **adaptive capacity** to climate impacts for the **most vulnerable communities**.
- Leveraging prior efforts but taking a more holistic approach to watershed-based resilience



# What is the One Watershed Framework?



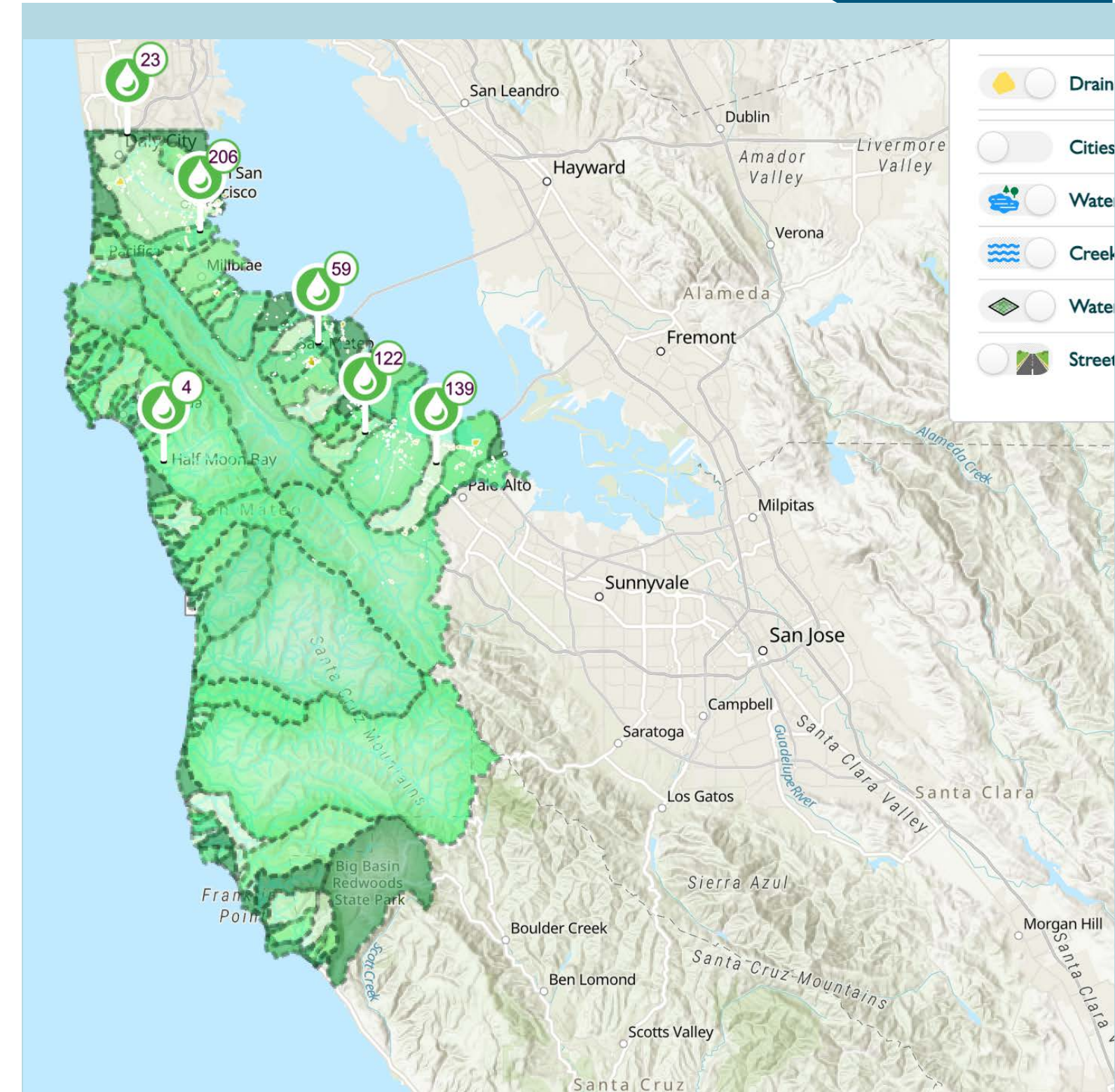
- Builds on years of often disaggregated climate resilience planning in the county
- Harnesses resources and partnerships under an umbrella program to advance shared goals around overlapping climate risk, collectively
- Equity first (e.g., San Bruno Creek Watershed “Community-Led Plan”)



# What is the One Watershed Framework?



- Part one of a multi-year, multi-part strategy to build systematic and transformational change with respect to integrated watershed management and resilience in San Mateo County (this is phase one)
- Not a plan itself but a framework for future coordinated resilience planning



# Putting the Pieces Together to Build Resilience in San Mateo County

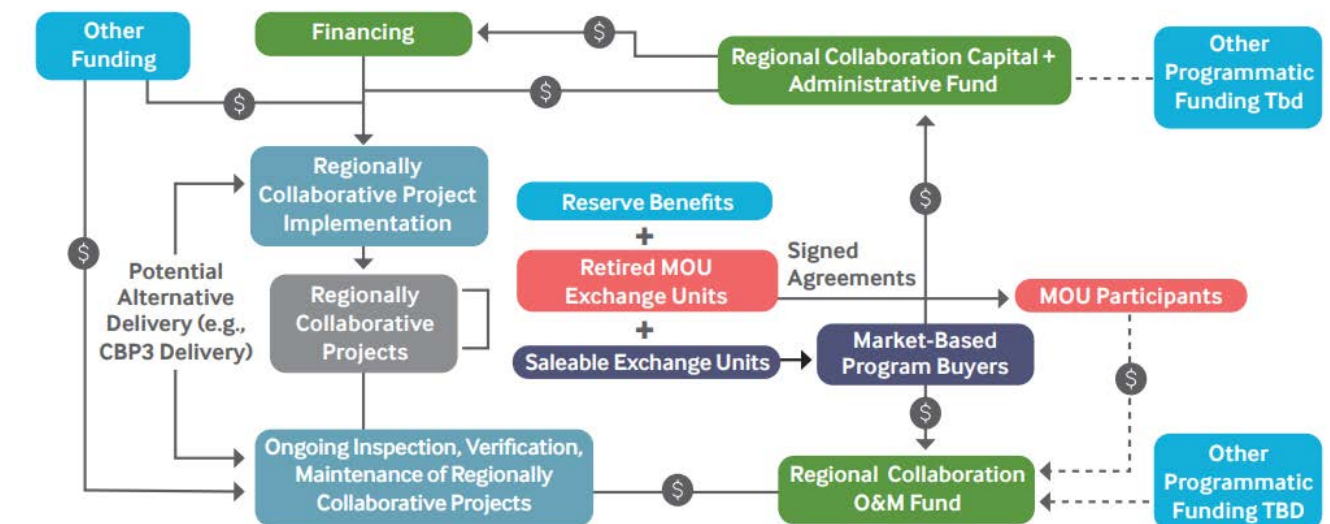


San Mateo Countywide Sustainable Streets Master Plan  
FINAL January 2021



## REGIONAL COLLABORATIVE

Geosyntec developed a Countywide Regional Collaborative framework with input from the project Technical Advisory Committee, which highlights the project's findings:



This effort built from previous work conducted by C/CAG, including the Stormwater Resources Plan (SRP) for San Mateo County (completed in 2017), Pollutant Control Measures Implementation Plan and Reasonable Assurance Analysis for San Mateo County - Scenarios to Achieve PCBs and Mercury San Francisco Bay TMDL Wasteload Allocations (completed in 2020), and the Sustainable Streets Master Plan (completed in 2021).

This work was funded through a grant awarded by the California Natural Resources Agency



# Putting the Pieces Together to Build Resilience in San Mateo County



## 1 OneWatershed Shared-Risk Asset and Community Vulnerability Data Inventory

### Community vulnerability indicators:

- Income
- Access to healthcare, food, transportation, services



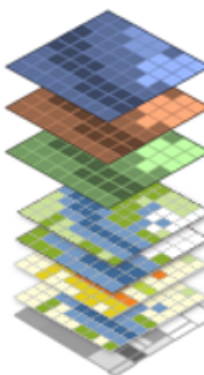
### Climate hazards:

- Flooding
- Storm surge
- Sea level rise
- Heat
- Drought



### Built environment:

- Conveyance
- Water
- Sewer
- Storm drain
- Pavement condition
- Impervious surface
- Gas/Fuel lines



### Community Data

- Lived experience (e.g., observational and anecdotal data)
- Historical data (e.g., written and verbal community records)
- Community approaches (social infrastructure, established community processes / tools)
- Vulnerability indicators: linguistic isolation, race, etc.

### Natural environment:

- Groundwater levels
- Soils
- Slope
- Tree cover

### Co-Learning

- EPC Group Workshops
- CCC Team Meetings
- Surveys
- Event attendance



### Adaptive Capacity

Validating technical data with community experience and building a community of practice composed of agency and community expertise that empowers participants to continue momentum.

## 2 San Mateo County OneWatershed Climate Resilience Framework

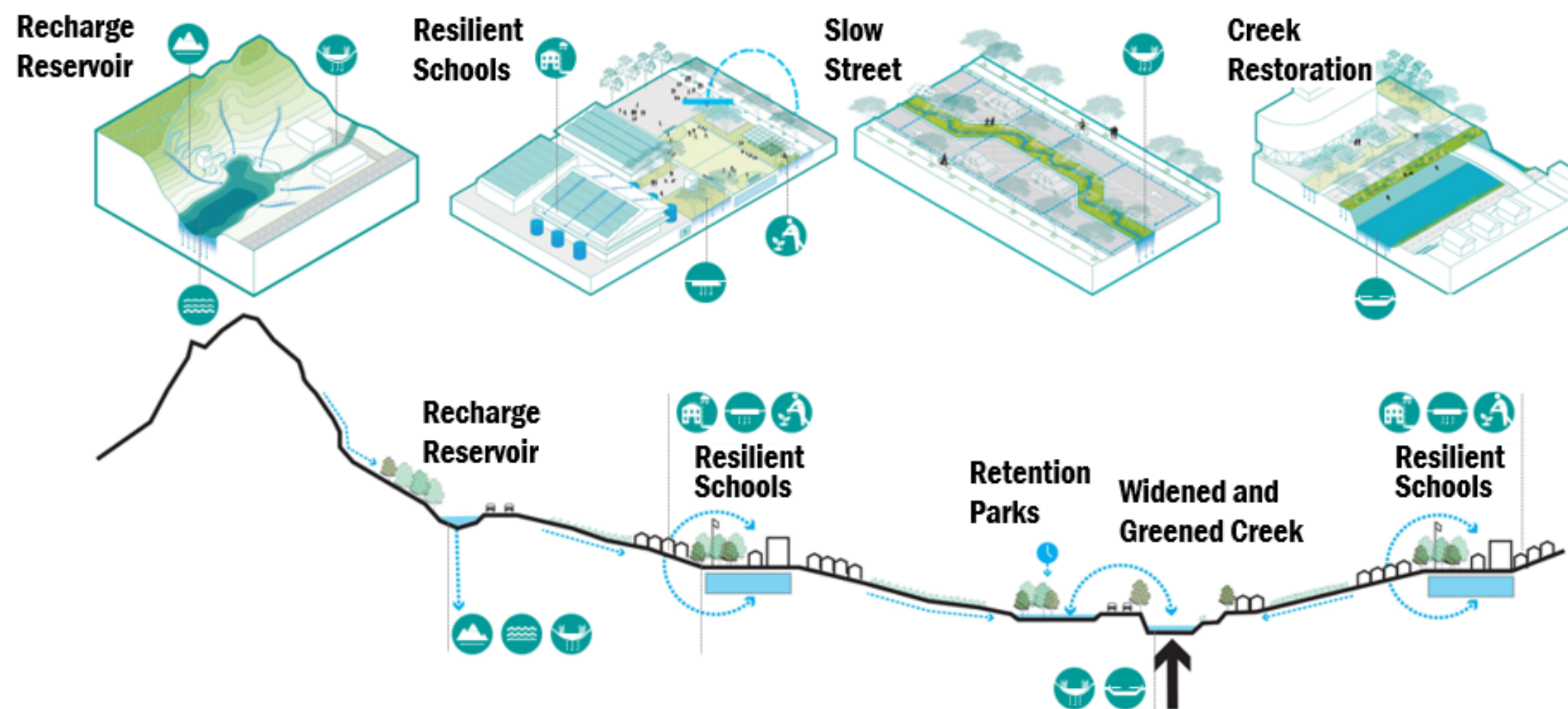
- Identified areas of shared agency and community risk
- Community-defined benefit scoring
- Risk reduction scoring
- Adaptive capacity strategies (projects, policy updates, and/or programmatic and institutional needs identification)
- Enhanced data visualization tools for viewing shared risk geographies and OneWatershed project opportunities and benefits

## 3 San Bruno Creek OneWatershed Climate Resilience Plan

- Apply framework to create a roadmap for building community adaptive capacity

**1-3 Project concepts from Framework application and outreach**

# Putting the Pieces Together to Build Resilience in San Mateo County



The Resilient by Design Challenge “Collect and Connect South City” conducted a watershed-scale analysis of the Colma Creek Watershed and identified green infrastructure opportunities at varying watershed elevations and benefits including water reuse, groundwater recharge, recreation, flood mitigation, water quality, and heat mitigation.

# One Watershed 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)





# Geosyntec Team

- Geosyntec
  - Prime contractor
- Paradigm
  - OneWatershed Dashboard Lead
- Craig Communications
  - Outreach Support
- Hazen
  - Water Supply Data Lead
- EOA
  - Wastewater Data Lead and Technical Advisor
- Carollo
  - Technical Advisor

Geosyntec   
consultants



**Hazen**



**carollo**<sup>®</sup>

Geosyntec   
consultants

# Geosyntec Team 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

- Community-scale Vulnerability Assessment
- Pilot of OneWatershed Framework
- San Bruno Creek OneWatershed Climate Resilience Plan

5.1

## NOAA Grant Application

- NOAA Climate Resilience Regional Challenge Grant Application (submitted Feb 2023/notices summer 2024)

5

## Project Administration

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

# One Watershed Climate Resilience Implementation Program (NOAA Grant)



Program Collaborators (the Partnership):

7 projects in 5 communities, program developments + Pilot Workforce Development Program



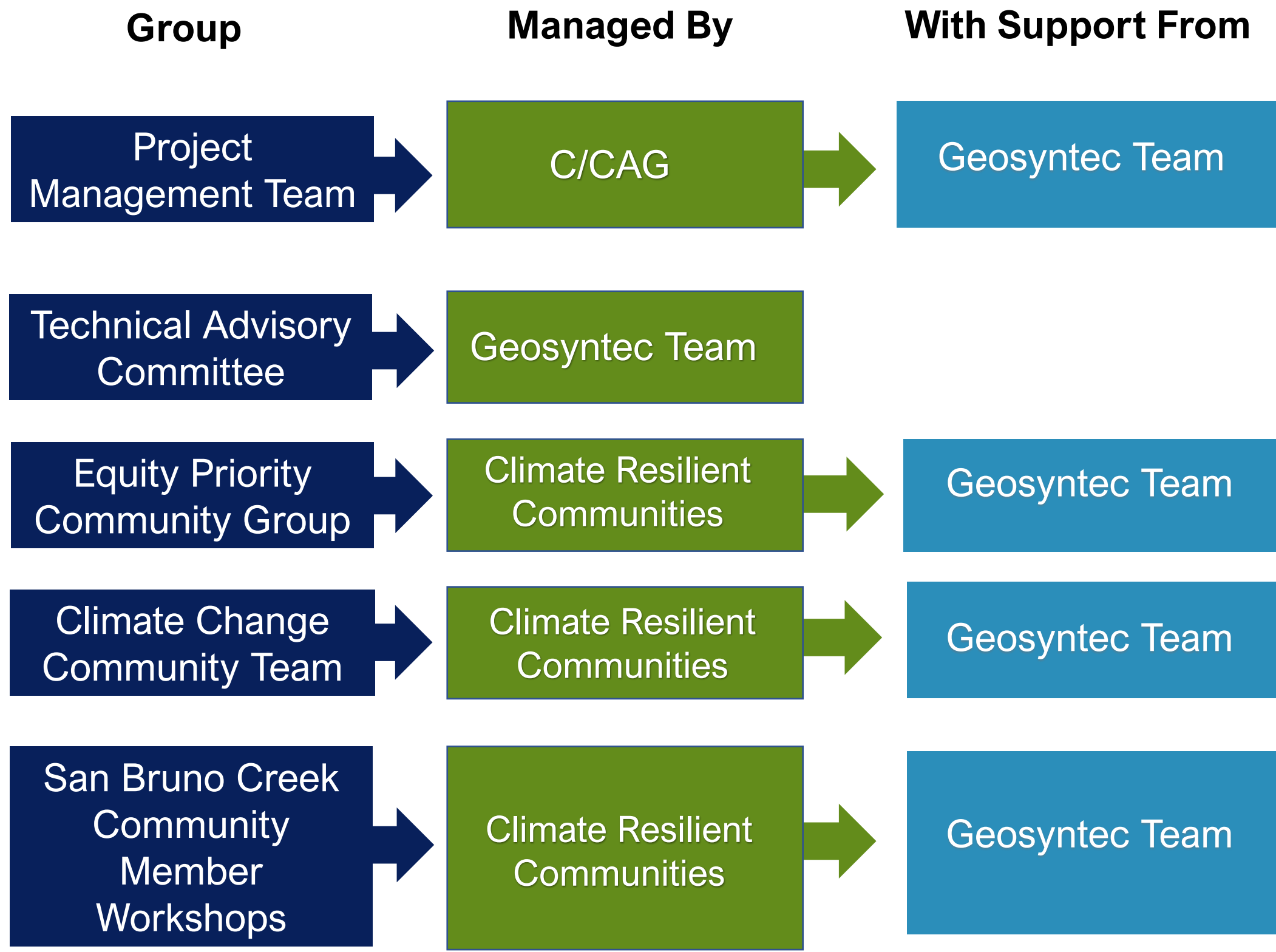
ReScape



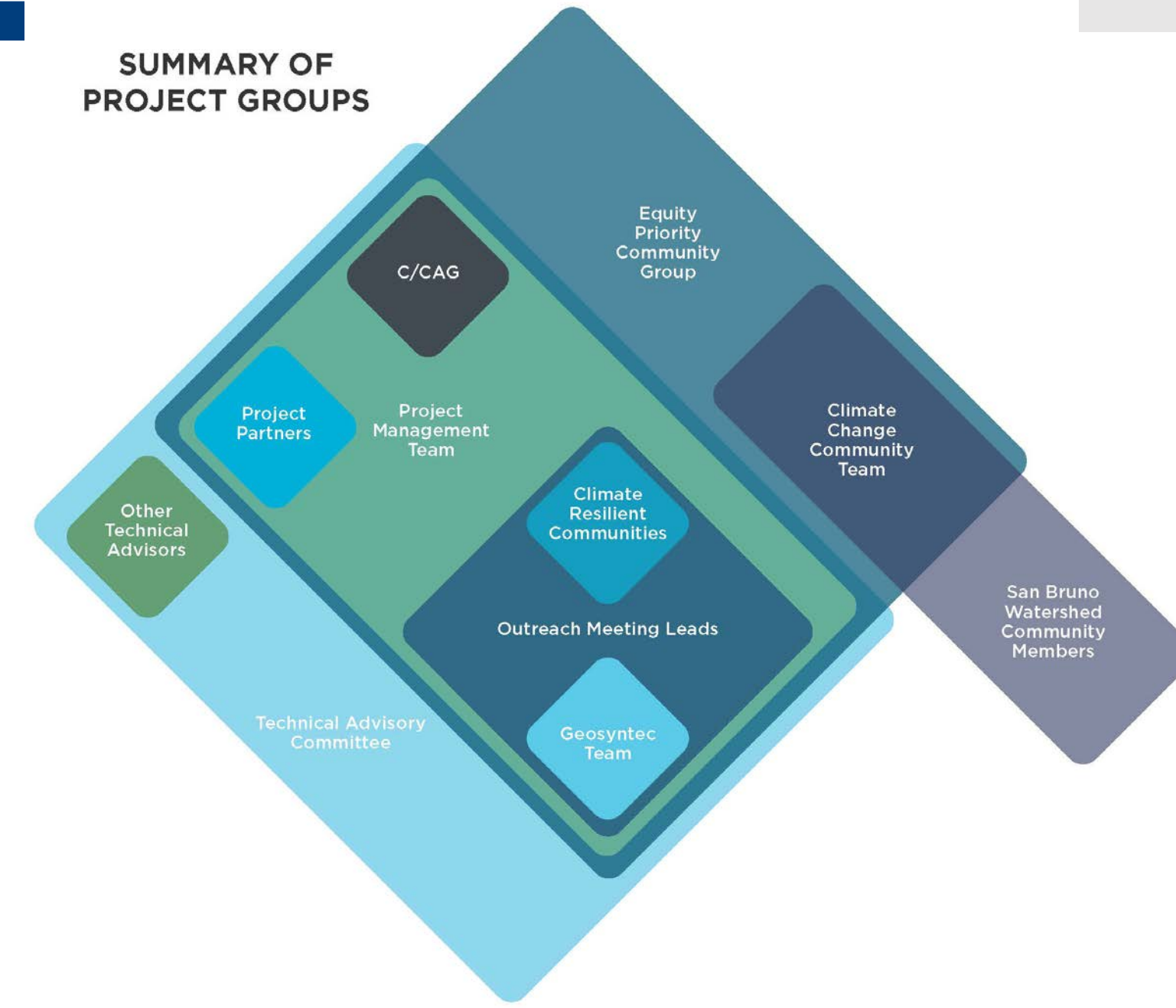
Green Schoolyards America



# Project Outreach Approach

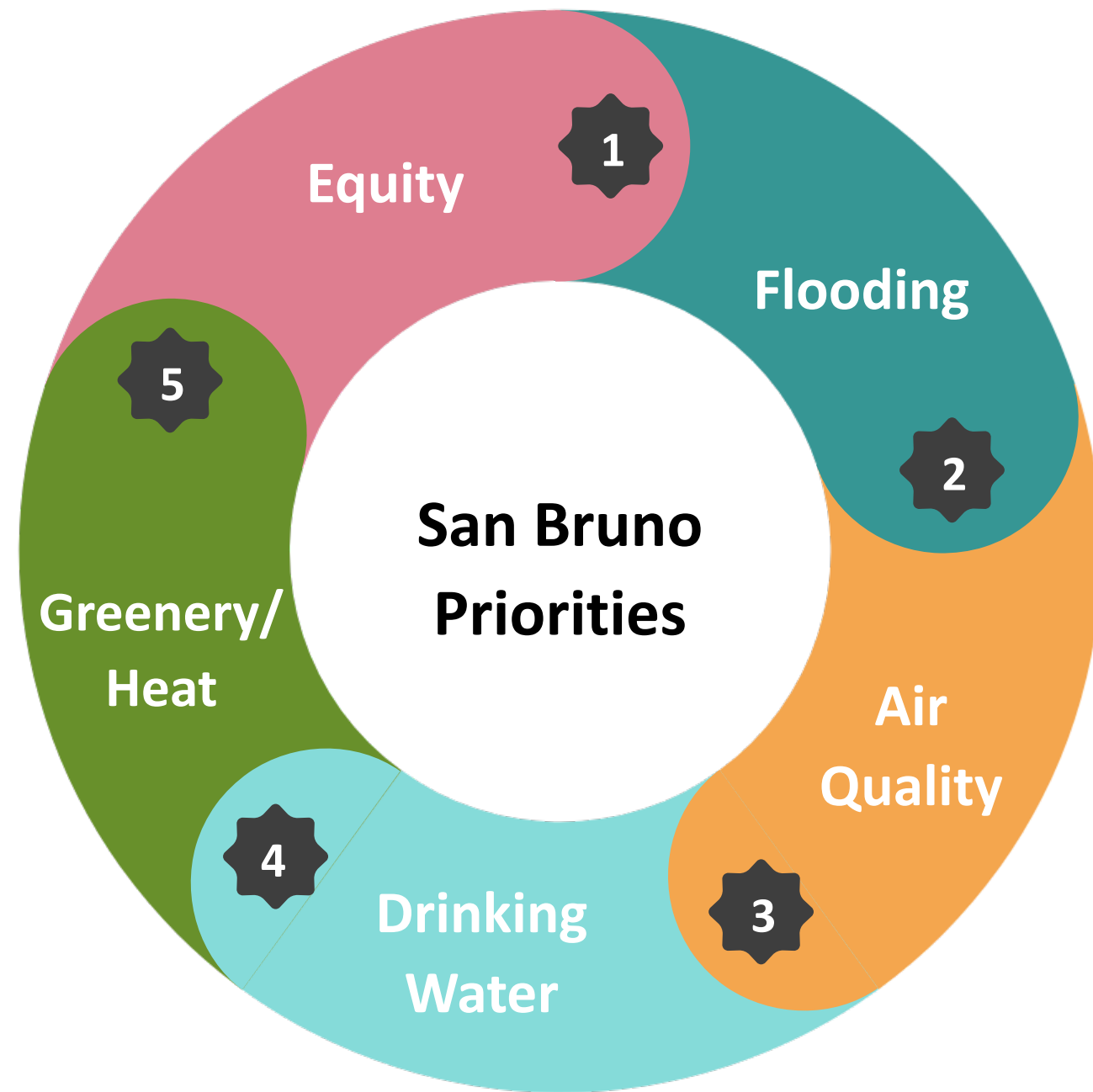


## SUMMARY OF PROJECT GROUPS



Plays a key role in outreach activities for Project

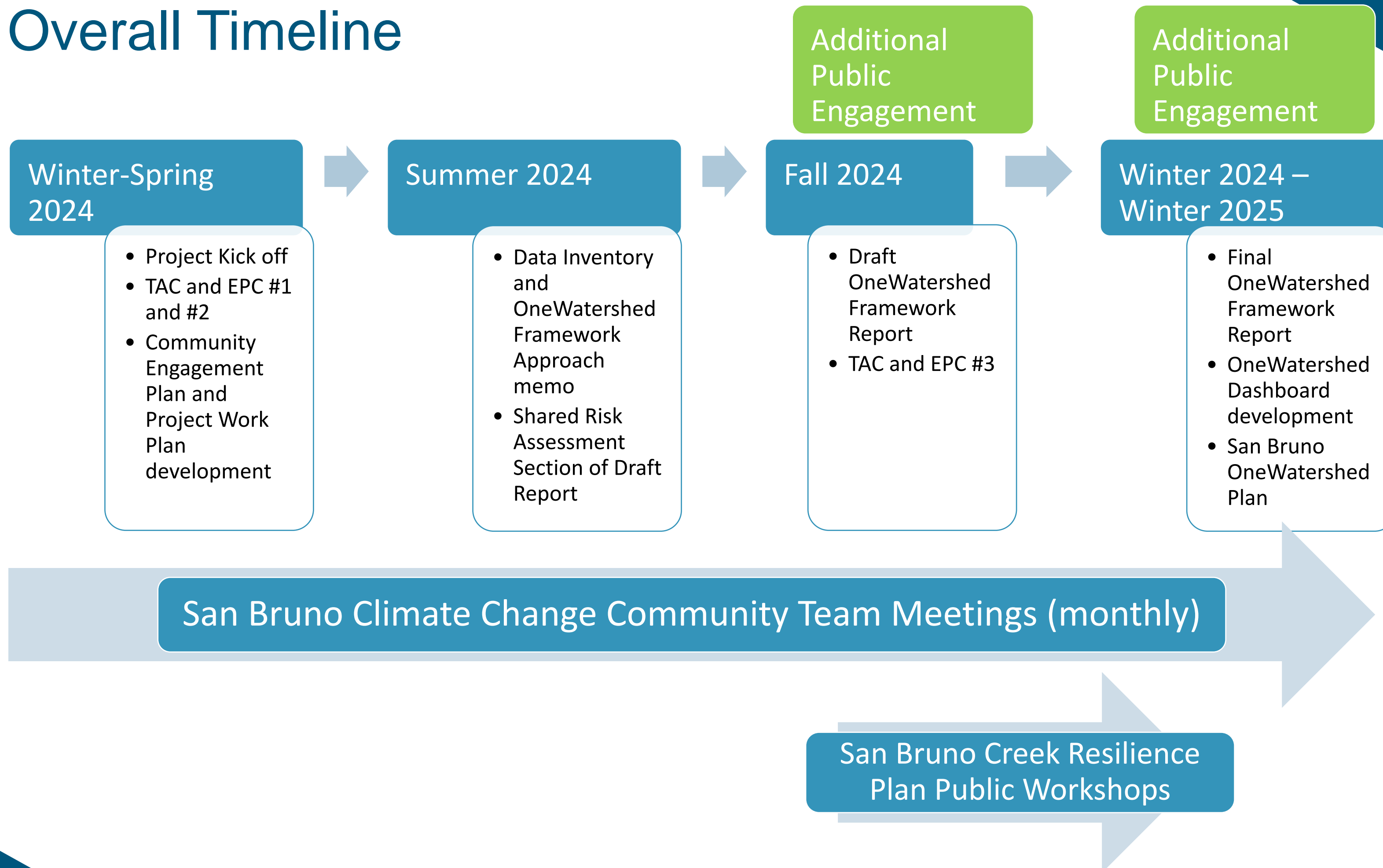
# Resilient San Bruno CCCT



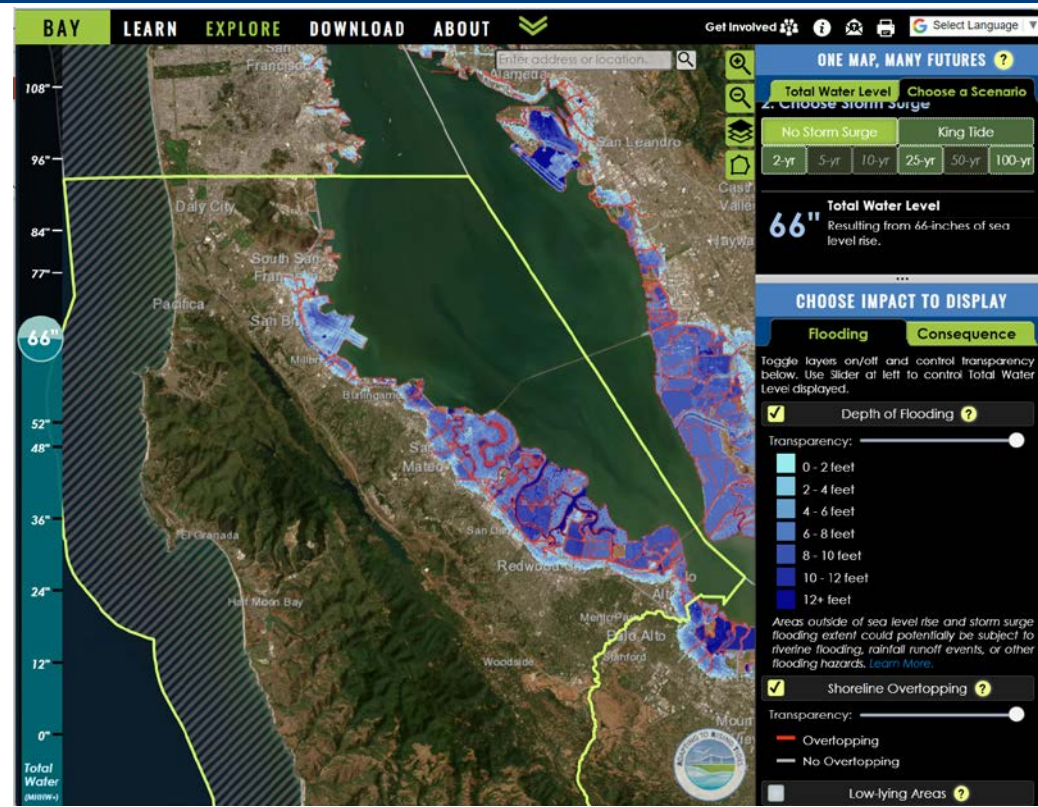
## The Resilient San Bruno CCCT

- Primarily impacted community members with City Council involvement
- Meets monthly following model for grass roots community organizing with support from Climate Resilient Communities
- Community-driven discussions regarding climate change impacts
- Focusing on highest priorities and opportunities to take action as a group and with other community members and organizations (including mobilization around potential ballot measure to fund infrastructure and other needs)
- CRC is providing \$15K for a community scale project chosen by the members

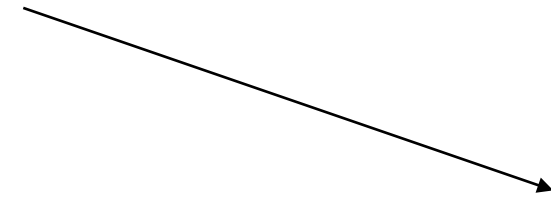
# Overall Timeline



# OneWatershed Data



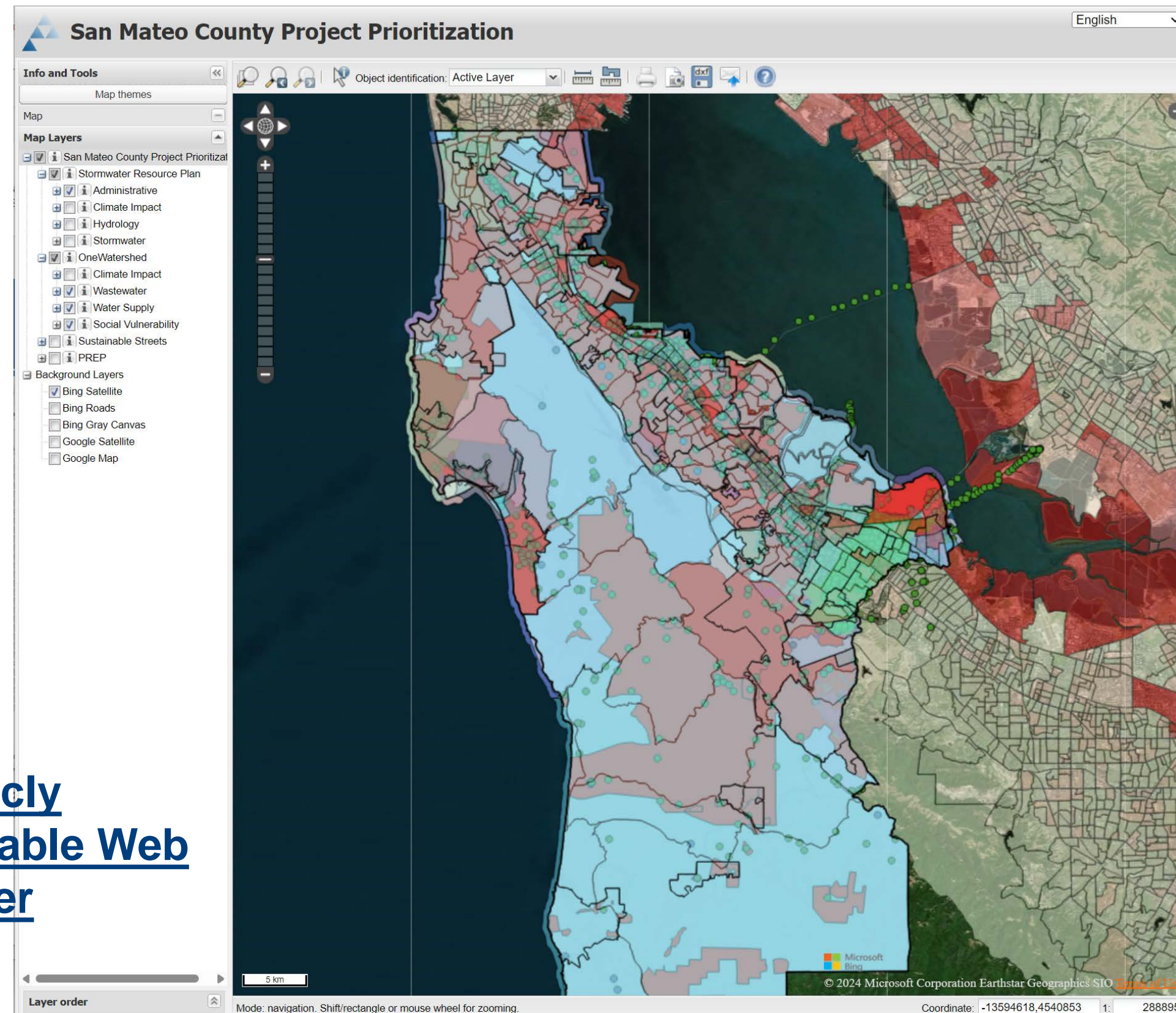
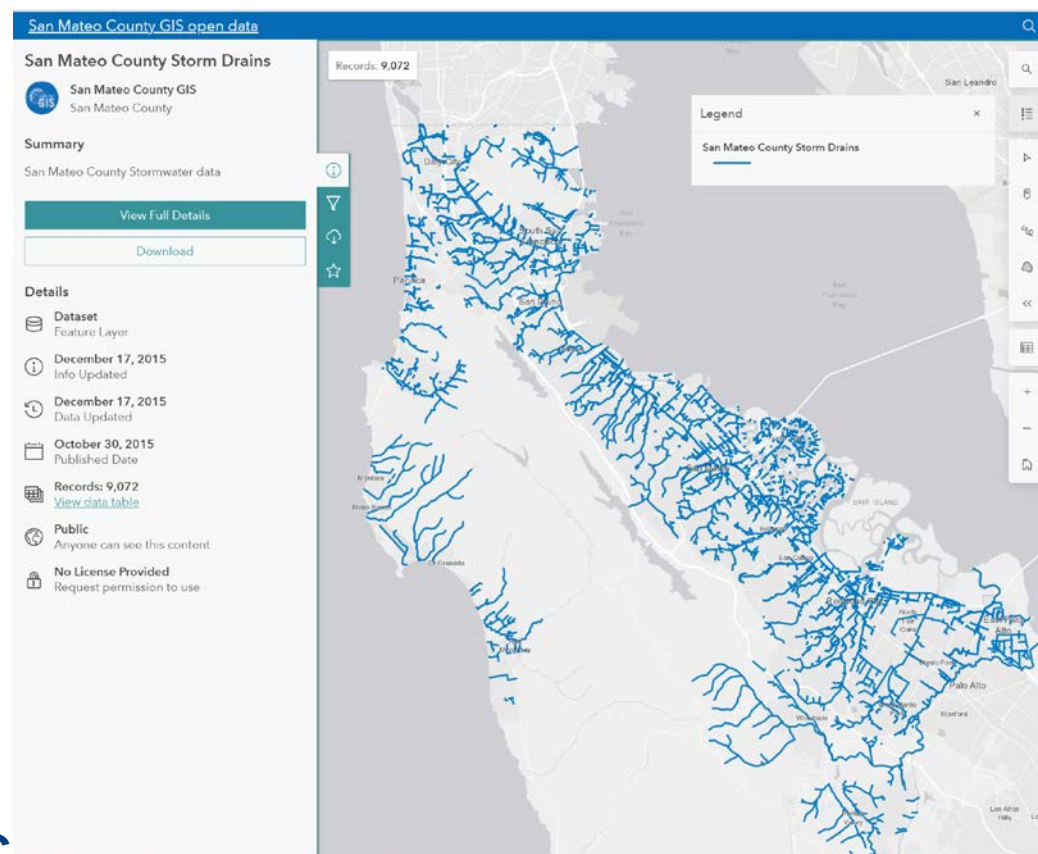
Climate Risk Data



Asset Data



Publicly Available Web Viewer



# Shared Risk Approach



## Four Future Climate Scenarios (Consistent with BCDC RSAP)

Time Frame	Emissions Scenario	Sea Level Rise	OneWatershed Scenario
2050	Intermediate	1 foot	Mid-Century – Intermediate
2100	Intermediate	3.1 feet	End of Century – Intermediate
2100	Intermediate-High	4.9 feet	End of Century – Intermediate-High
2100	High	6.6 feet	End of Century – High

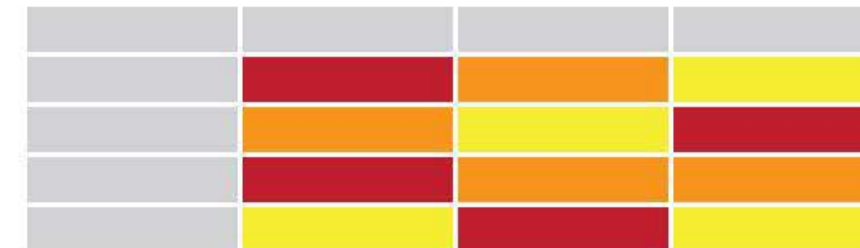
### Climate Risk Data



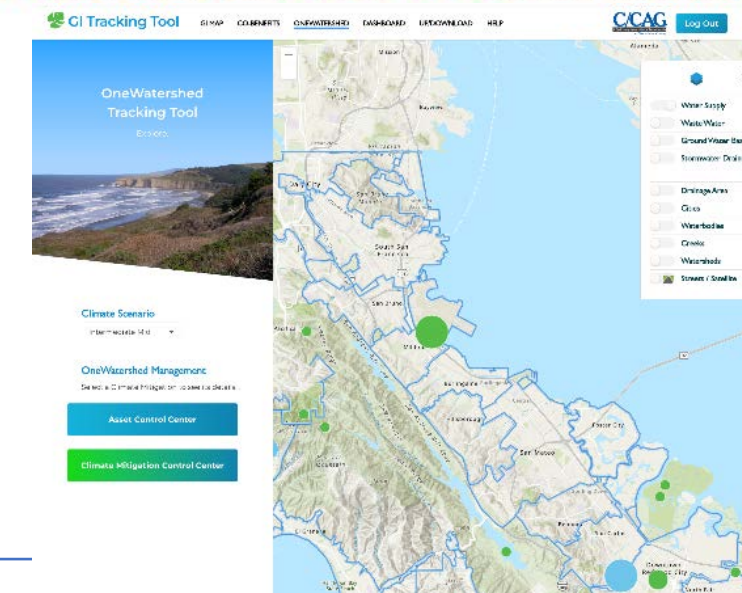
### OneWatershed Infrastructure Data



### Climate Impact Shared Risk Analysis



### Countywide OneWatershed Infrastructure Risk Exposure





# Shared Risk Approach



We are examining the risk exposure for the following climate impact categories based on available studies:

- Sea Level Rise
- Extreme Heat
- Extreme Precipitation
- Hydrologic Drought
- Wildfire

We identified “Low”, “Moderate”, and “High” exposure risk thresholds for each climate impact

We identified available climate impact study scenarios that corresponded with OneWatershed scenarios

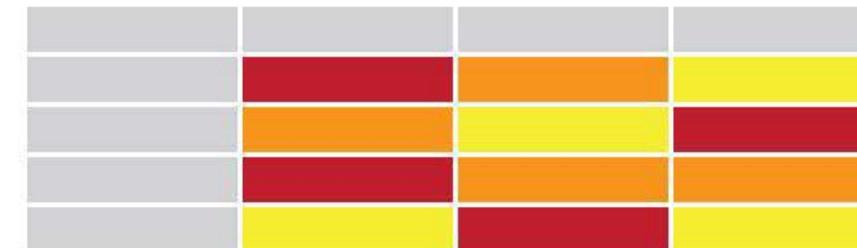
## Climate Risk Data



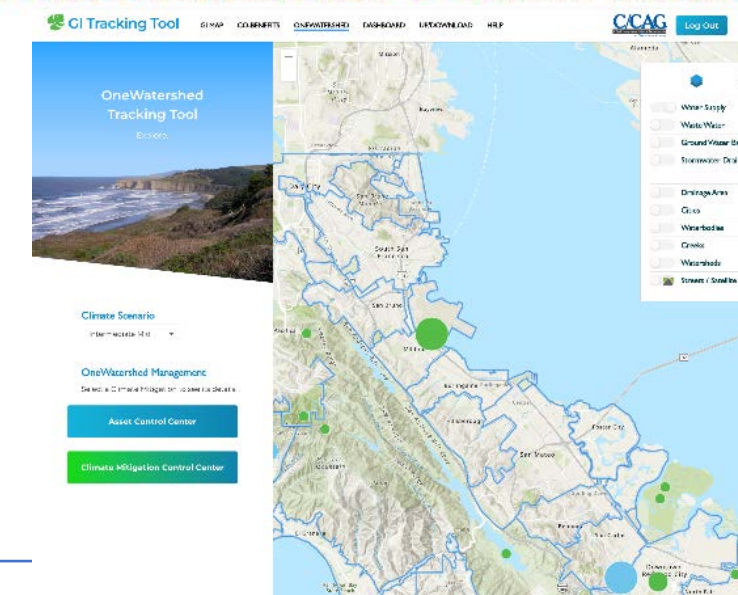
## OneWatershed Infrastructure Data



## Climate Impact Shared Risk Analysis



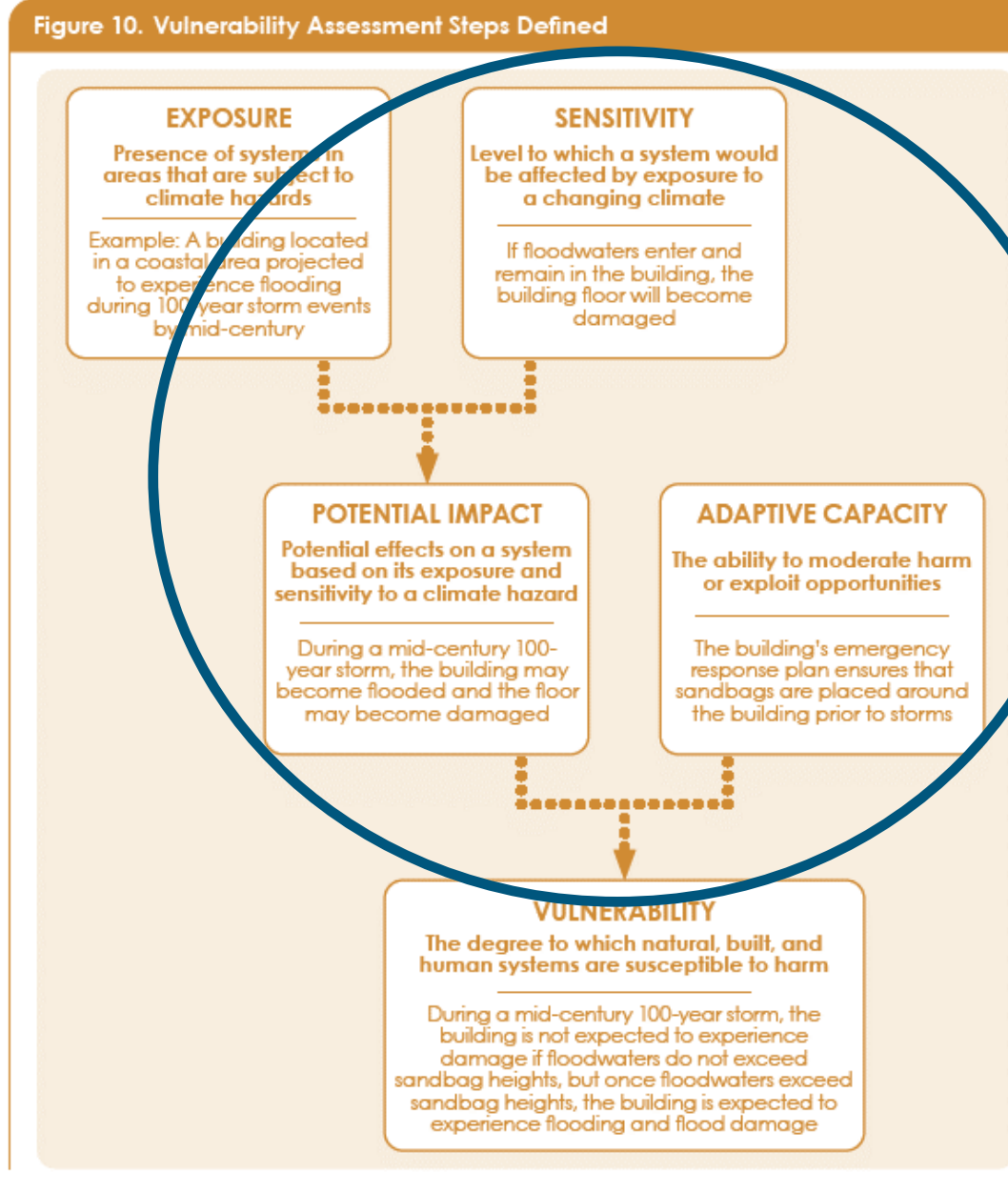
## Countywide OneWatershed Infrastructure Risk Exposure



# OneWatershed Framework



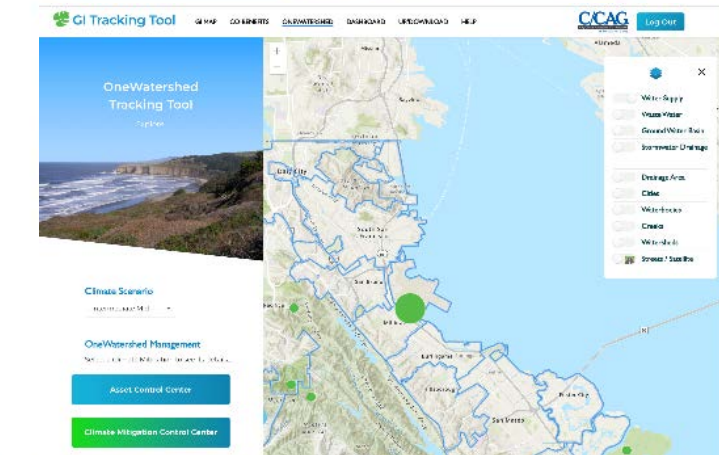
## OneWatershed Framework – Watershed Scale Application



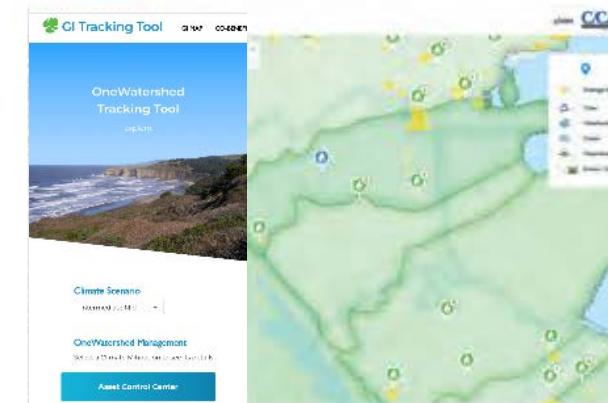
Community Vulnerability Assessment



## Watershed Scale Risk Exposure



Community Prioritized Vulnerable OneWatershed Infrastructure



Governor's Office of Emergency Services, 2020



Community-led OneWatershed Climate Resilience Project, Program, and Policy Selection

# OneWatershed Tracking Tool

Explore.

## Climate Scenario

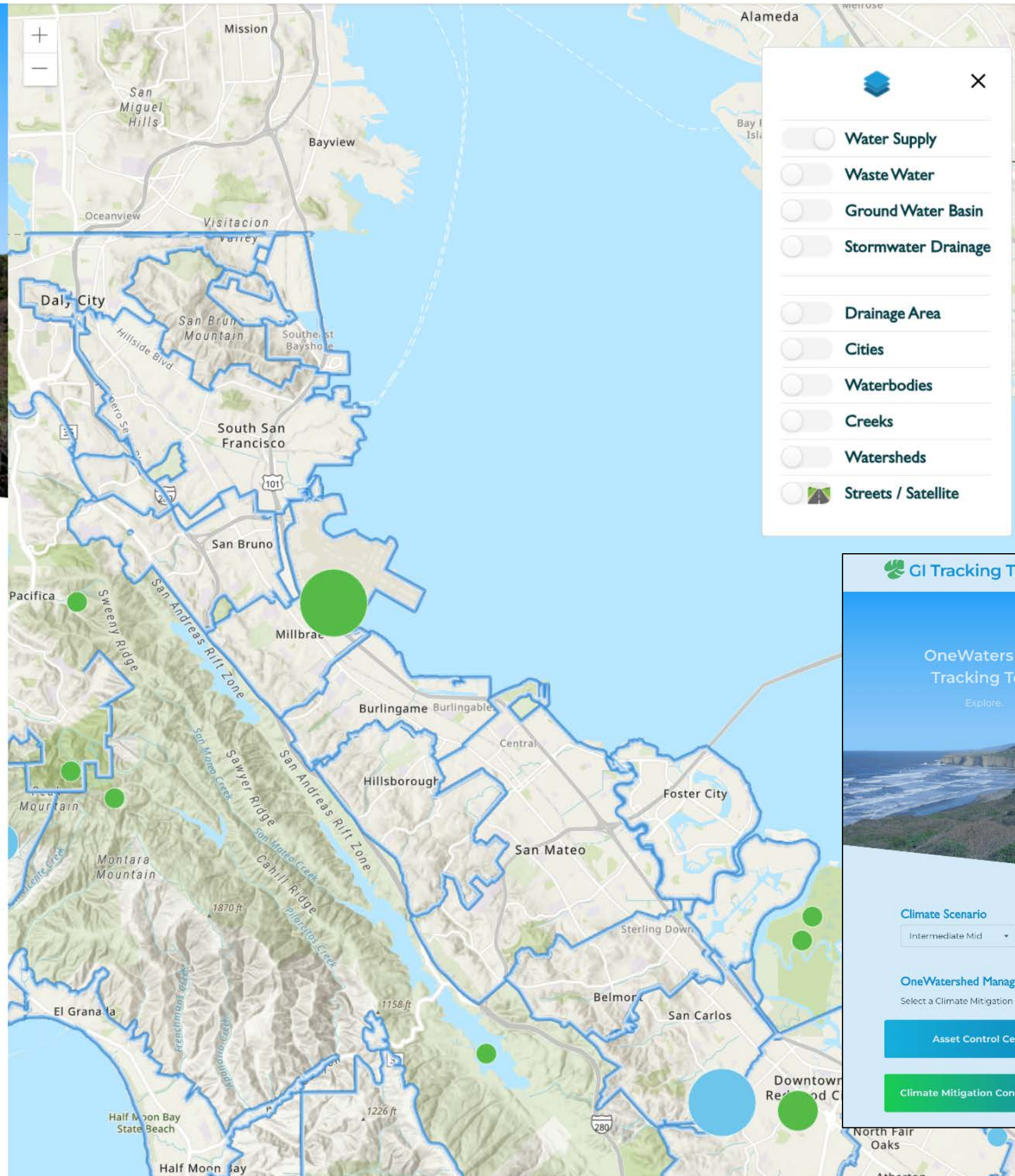
Intermediate Mid

## OneWatershed Management

Select a Climate Mitigation to see its details...

Asset Control Center

Climate Mitigation Control Center



# OneWatershed Dashboard

GI Tracking Tool | GI MAP | CO-BENEFITS | ONEWATERSHED | DASHBOARD | UP/DOWNLOAD | HELP | C/CAG | Log Out

## OneWatershed Tracking Tool

Explore.

### Climate Mitigation Control Center

Create New Climate Mitigation

Actions	Name	Owner
<input checked="" type="checkbox"/> <input type="checkbox"/>	Green Infrastructure	Sample Owner 1
<input checked="" type="checkbox"/> <input type="checkbox"/>	Rainwater Harvesting Center	Sample Owner 2
<input checked="" type="checkbox"/> <input type="checkbox"/>	Water Conservation Program	Sample Owner 3
<input checked="" type="checkbox"/> <input type="checkbox"/>	Firebreak Zone	Sample Owner 4
<input checked="" type="checkbox"/> <input type="checkbox"/>	Urban Greening	Sample Owner 5
<input checked="" type="checkbox"/> <input type="checkbox"/>	Climate-Resilient Infrastructure	Sample Owner 6
<input checked="" type="checkbox"/> <input type="checkbox"/>	Floodplain Management Center	Sample Owner 7
<input checked="" type="checkbox"/> <input type="checkbox"/>	Drip Irrigation	Sample Owner 8
<input checked="" type="checkbox"/> <input type="checkbox"/>	Water Conservation Program	Sample Owner 9
<input checked="" type="checkbox"/> <input type="checkbox"/>	Forest Management Center	Sample Owner 10

Climate Scenario: Intermediate Mid

OneWatershed Management: Select a Climate Mitigation to see its details...

Asset Control Center

Climate Mitigation Control Center

# C/CAG Committee Input

- Presentation of OneWatershed Framework vision, goals, data inventory development and OneWatershed Framework approach to Stormwater Committee in July
- Presentation of OneWatershed Framework development to the CMEQ Committee in November
- Return to Committees and C/CAG Board in December with the draft OneWatershed Framework Report
- Plan for public webinar on draft OneWatershed Framework Report in December



# Community Change Grant Application

## Background:

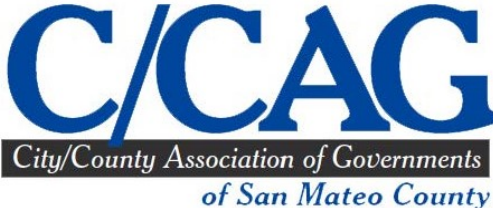
- US EPA Community Change Grant Program has \$2B in Inflation Reduction Act funds for implementation of community-driven climate resilience/pollution prevention projects that directly benefit designated Disadvantaged Communities (DACs)
- Focus on building capacity to address environmental and climate justice challenges with community input
- No match, but projects must be located within or provide direct benefit to designated DACs from the EPA IRA Disadvantaged Communities and Environmental Justice Program Map
- Track 1 - \$10-20M for up to ~150 projects



# Community Change Grant Application



EPA IRA Disadvantaged Communities and Environmental Justice Program Map





# Community Change Grant Application

## Background:

- Proposals must include at least one Community Based Organization (CBO) as a lead partner and a Statutory Partner that can be another CBO or a government entity
- The lead CBO and Statutory Partner must enter into a Partnership Agreement as part of the application
- Applications are accepted on a rolling basis, due no later than Nov 21, 2024



# Community Change Grant Application

## C/CAG's Proposal:

- C/CAG is working with Climate Resilient Communities (CRC) on a proposed application for Track 1 to fund several interrelated climate resilience/pollution prevention projects
- Focus on leveraging NOAA application projects
  - OneWatershed strategy
  - Pipeline sustainable streets projects (EPA/Daly City/SSF)
  - Workforce Development Pilot Program
  - Schoolyard greening
- C/CAG will be lead applicant and CRC will be Statutory Partner
  - Additional partners (Canopy, Grass Roots Ecology, Nuestra Casa, YUCA, Green Schoolyards America, County Office of Education, JobTrain, Rescape CA)





# Community Change Grant Application

## Preliminary Draft Scope/Budget:

No.	Strategy	Lead	Location	Budget
<b>1 OneWatershed Community Change Infrastructure Planning and Implementation</b>				
a)	Implementation (full or partial) of Sustainable Streets projects in East Palo Alto/Daly City/SSF	C/CAG	EPA/DC/SSF	\$ 5,425,000
c)	San Bruno Walnut Pump Station Retrofit and Creek Restoration	OneShoreline	San Bruno	\$ 5,725,000
e)	San Mateo Countywide OneWatershed Strategic Plan	C/CAG	Countywide	\$ 265,000
<b>2 Community Change Engagement Activities and Pilot Greening</b>				
a)	Expand community capacity-building through rain gardens at residential properties and public sites	CRC	EPA/NFO/RWC/Daly City/San Bruno/SSF	\$ 3,500,000
b)	Schoolyard tree-planting pilot projects/District Resilient Schoolyards Training + Symposium	Canopy/COE/GSA	School Districts in eligible DACs countywide	\$ 2,835,000
<b>3 Community Change Workforce Development Pilot Program</b>				
a)	Pilot Green Workforce Development Program focusing on urban forestry and GSI maintenance	JobTrain/Rescape/Canopy	EPA/Menlo Park Pilot	\$ 1,800,000
<b>4 Grant Management/Administration</b>				
a)	C/CAG Admin	C/CAG		\$ 200,000
b)	Grant Management	C/CAG/Consultant		\$ 250,000
Grant Total				\$ 20,000,000



# Community Change Grant Application

## Next Steps:

- Finalize scope and budget with project partners
- Develop grant application (leveraging EOA Task Order-17 for Fiscal Year 2024-25 not to exceed \$21,500) in partnership with CRC consultant lead
- Execute Partnership Agreement with CRC in November (C/CAG Board approval November 14)
- Submit application no later than November 21 via [grants.gov](https://grants.gov)

# Rain Barrel Rebate Campaign

## FY21-22 Pilot Bulk Order Campaign

- Two events - San Mateo/Lyngso
- ~730 barrels distributed

## FY22-23 Bulk Order Campaign

- Four events
  - Daly City
  - Millbrae
  - Redwood City
  - San Mateo
- Estimated ~825 barrels

## FY23-24 Bulk Order Campaign

- One event - San Mateo
- ~300 barrels distributed



# Rain Barrel Rebate Campaign

## FY 24-25 Rain Barrel Campaign

- Two events
  - Hillsborough Town Hall – Dec 7
  - San Carlos Corps Yard – Dec 14

All residents of San Mateo County may participate

Estimated 600 barrels to be distributed

Will continue to program future years and seek new partner agencies to host sites



# Any Questions?

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