Flooding and Sea Level Rise Work Group Meeting

Santa Clara County
Climate Collaborative

December 2, 2025

Welcome!

Please introduce yourself in the chat:

- Name

- Organization

- What are you looking forward to in 2026 (professionally or personally… or world cup)?

Meeting Objectives

- Share Work Group and Santa Clara County Climate Collaborative (SC4) updates

- Reflect on Work Group priorities and gather input on priority areas for the coming year

- Provide feedback on the Healthy Watersheds & Thriving Cities (HW&TC) opportunity area identification approach

Agenda

1:30-1:35	**Welcome and Introductions**
1:35-1:50	**Work Group and SC4 Updates**
1:50-2:25	**Reflections and work Group Priority Planning**
2:25-3:25	**HW&TC Project – Opportunity Area Identification**
3:25-3:30	**Next Steps**

SC4 and Work Group Updates

Collaborative Updates

- SC4 Fall Meeting on 10/30

  - Funding volatility & capacity constraints highlighted

  - New partnership ideas generated

  - Expressed interest in resource sharing and joint grant applications

- Launched the new Resilience Hubs Work Group

SC4 Work Group Updates

Equity in Community (EiCWG) Work Group: Adopted a Governance and Action Plan, recently held the first EiCWG field trip at Martial Cottle Park in San Jose, hosted by Our City Forest, to learn about and work on bioswales for flood protection.

Heat and Air Quality Resilience (HAQR) Work Group: Launched a HAQR Research Sub Work Group, held their quarterly meeting in November and discussed potential projects to apply for the upcoming extreme heat funding.

Santa Clara Valley Urban Forestry Alliance (SCVUFA): Reviewing the draft Urban Forestry Master Plan, priority planning for 2026.

Climate Pollution Reduction Grant (CPRG) Work Group: Submitted Comprehensive Climate Action Plan (CCAP) to EPA on December 1.

Resilience Hubs Work Group: New work group formed to develop a coordinated, community-driven approach to preparing for climate impacts by ensuring that every neighborhood has the resources to thrive before, during, and after disasters.

FSLR Work Group Updates: SB 1 Grant Award

Sub-regional Shoreline Adaptation Plan Project Map

DRAFT
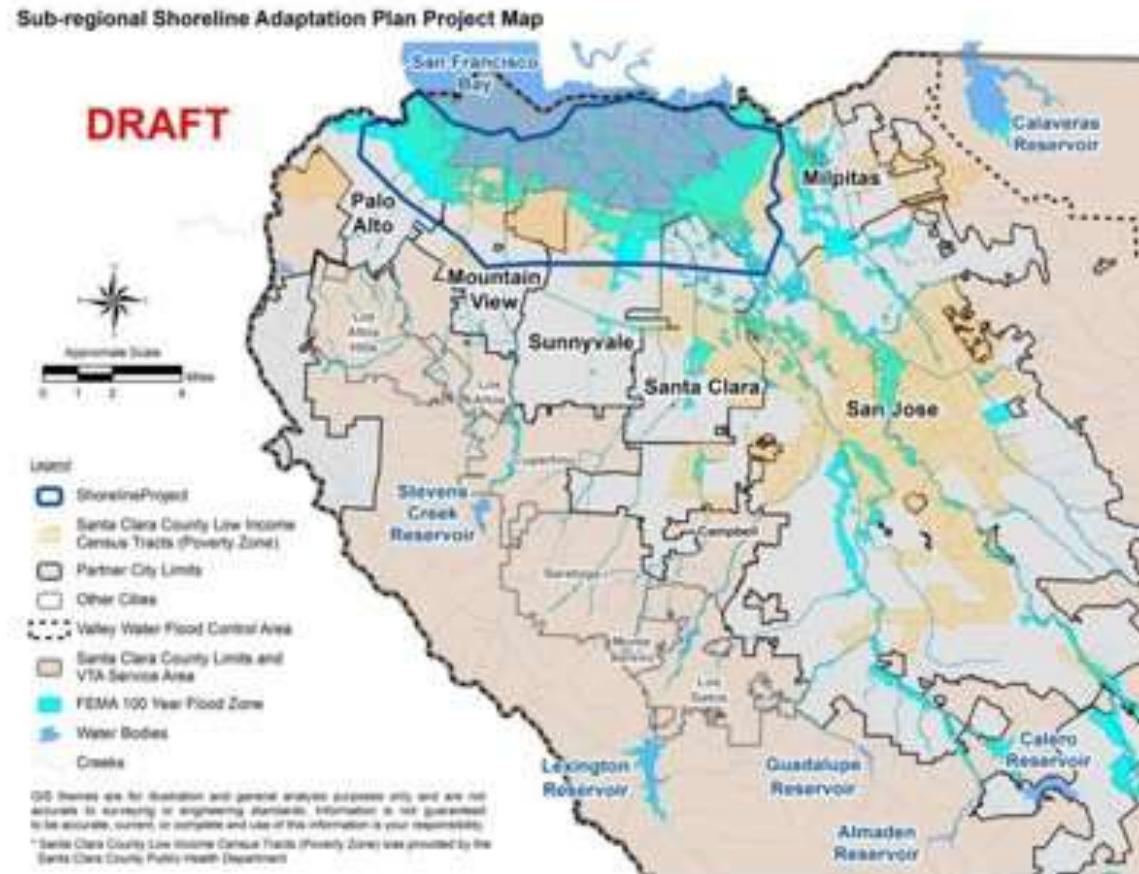
- Awarded $2.6M SB 1 Grant for development of the Santa Clara County Subregional Shoreline Adaptation Plan

- Co-led application with **Valley Water**

- **Partners:** Cities of Palo Alto, Mountain View, Sunnyvale, San Jose, Milpitas, Santa Clara, and Valley Transportation Authority

- **Work plan includes:**
    - Vulnerability Assessment
    - Economic Consequences Analysis
    - Adaptation strategies and pathways
    - Implementation plan with funding strategy for each partner city

- Next steps include a coordination meeting with project partners in Dec/Jan

FSLR Work Group Updates: NFWF Tool is Live!

Reflections & Priority Planning

Work Group Priority Areas

- Identify regional scale projects
- Expand partner network
- Develop monitoring metrics
- Create consistent guidelines for nature-based strategies (NBS)
- Collect model policies and guidelines for flood resiliency

Group Reflection Exercise

- **Goal:** We want to make sure the work group is meeting your agency's needs: helping you secure resources, align projects, and coordinate countywide

- **Structure:** 1-2-4-All
  - Individual reflection → discuss in pairs → share in quads → report back to the group

- **Output:**
  - Shared document with group reflections
  - Top themes to guide work group planning

- **Time:** 20 minutes
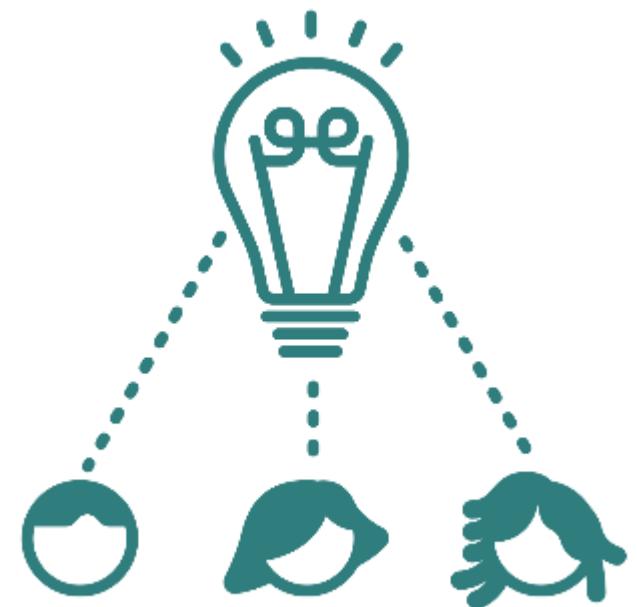
Individual Reflection (1 minute)

- 📍 **Identify regional scale projects**

- 🤝 **Expand partner network**

- 📊 **Develop monitoring metrics**

- 🌳 **Create consistent guidelines for nature-based strategies (NBS)**

- ✓ **Collect model policies and guidelines for flood resiliency**

Privately (in your own notes):

Which two of these priority areas would most move your agency's work forward in the next year?

If what's most helpful is outside of these priorities, note that.

12

Share in Pairs (3 minutes)

- 📍 **Identify regional scale projects**

- 🤝 **Expand partner network**

- 📊 **Develop monitoring metrics**

- 🌳 **Create consistent guidelines for nature-based strategies (NBS)**

- ✓ **Collect model policies and guidelines for flood resiliency**

Which <u>two</u> of these priority areas would most move your agency's work forward in the next year?

If what's most helpful is outside of these priorities, write that down.

Please share and discuss your chosen priority areas and consolidate where overlap occurs.

Brainstorm in Quads (8 mins)

- 📍 **Identify regional scale projects**

- 🤝 **Expand partner network**

- 📊 **Develop monitoring metrics**

- 🌳 **Create consistent guidelines for nature-based strategies (NBS)**

- ✓ **Collect model policies and guidelines for flood resiliency**

Identify specific actions or opportunities the work group could take over the next year to support these priorities.

Add your group's reflections to <mark>this document</mark> – assign 1 notetaker, 1 timekeeper, and 1 reporter.

Reflect as a Group (8 minutes)

Share out to the group:

- What were the top opportunities or needs identified in your groups?

- What themes cut across these groups?

Reflect as a Group (10 minutes)

Share out to the group:

- What were the top opportunities or needs identified in your groups?
- What themes cut across these groups?

- **Voting on top priorities:**
  - Everybody gets 3 votes – you can assign them all to 1 priority, or spread them out
  - Add an X next to the priority/ies that you want to vote for

Healthy Watersheds & Thriving Cities

Agenda

- Opportunity Area Identification approach & methods development

- Upcoming project activities

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Opportunity Area Identification

Where should urban greening be placed on the landscape?

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Opportunity Area Identification

Where are the **most impactful opportunities to apply urban greening projects to meet multiple local needs,** such as urban heat mitigation, flood and stormwater management, and biodiversity support?

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Developing our approach

Background literature and precedent review

Question: What are recent approaches and specific methods for identifying Opportunity Areas at the watershed scale?

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Developing our approach

Background literature and precedent review

- Looking for examples that incorporated
  - Multiple benefit types
  - Multiple urban greening project types
  - A single practical Opportunity Area output map for a large region or watershed

Photo by SFEI

SFEI

Developing our approach

Background literature and precedent review

Most aimed for one priority benefit (stormwater or water quality) with other benefits added afterward.

- Looking for examples that incorporated
  - Multiple benefit types
  - Multiple urban greening project types
  - A single practical Opportunity Area output map for a large region or watershed

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Developing our approach

Background literature and precedent review

Most aimed for one priority benefit (stormwater or water quality) with other benefits added afterward.

- Looking for examples that incorporated
  - Multiple benefit types
  - Multiple urban greening project types
  - A single practical Opportunity Area output map for a large region or watershed

Number and types of UG projects varied

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Developing our approach

Background literature and precedent review

Most allowed for multiple benefits but prioritized/ optimized a single benefit (i.e., stormwater management/water quality) with other benefits as add-ons.

- Looking for examples that incorporated
  - Multiple benefit types
  - Multiple urban greening project types
  - A single practical Opportunity Area output map for a large region or watershed

Number and types of UG projects varied

One: single Opportunity Area map considering multiple benefits & UG projects across parcel, block, or neighborhood scales

Most: 100s of maps, relied on specific known sites, or were too complex for practical use

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An example approach

5 steps to an Opportunity Areas Map

#1 Map existing conditions and benefit gaps → **#2 Rank and weight benefits** → **#3 Create a single Prioritization Map from all benefit gaps and weights** → **#4 Map UG project suitability and feasibility** → **#5. Single Opportunity Area Map**

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biodiversity

accessibility
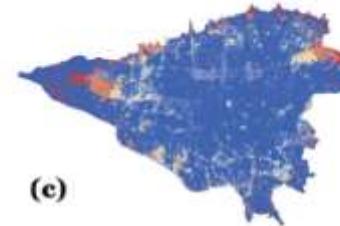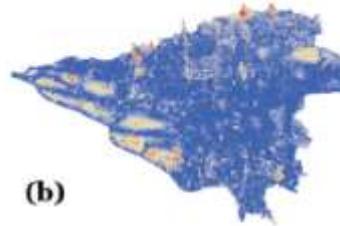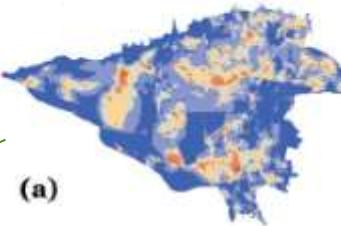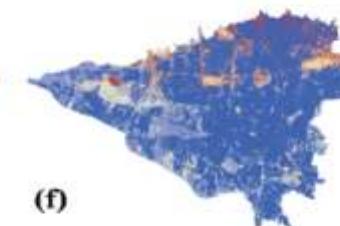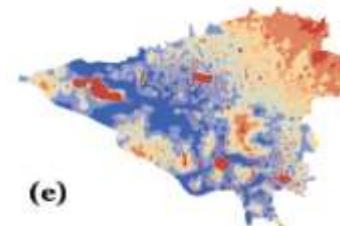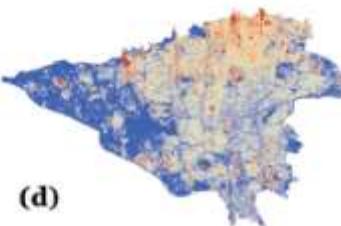
runoff reduction

cooling

carbon storage
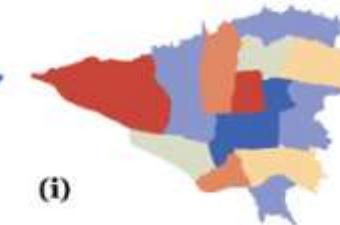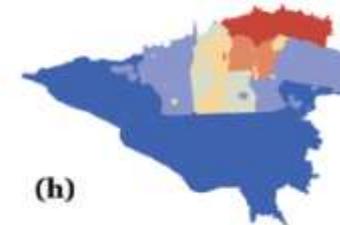
+ **Community and Tribal-defined needs**
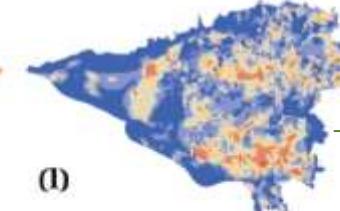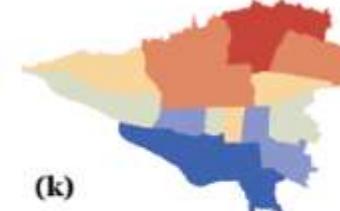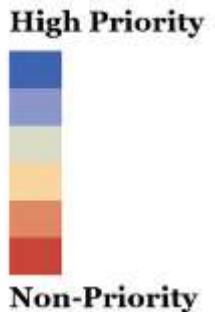
riparian & floodplain functioning

High Priority

Non-Priority

From Aghaloo and Sharifi (2025)
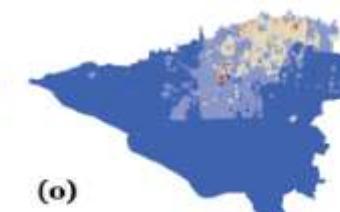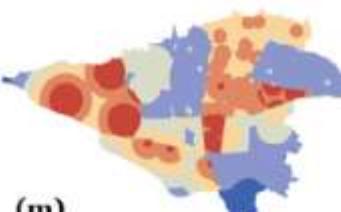
- Formulaic and repeatable method for user groups to rank benefits in terms of their importance

- Assumes the goal is to **maximize multiple-benefits** (but different goals could be set)

- Ranking could be done by one or more groups (possibly technical advisors, RWG, and/or community & Tribal group)

Co-benefits and their optimal weights

Benefit	Weight
Runoff infiltration and reduction	0.120
Air purification	0.048
Cooling effect	0.048
Noise pollution mitigation	0.024
Biodiversity and habitability	0.096
Accessibility	0.019
Carbon storage	0.097
Poverty	0.016
Inequality	0.016
Marginality	0.016
Livability	0.016
Social Vulnerability	0.355
Health	0.032
Welfare	0.032
Social capital	0.032
Security	0.032

- Based on step #2 weights and step #1 benefit gaps

- Different user groups can generate different weighted maps based on priorities.
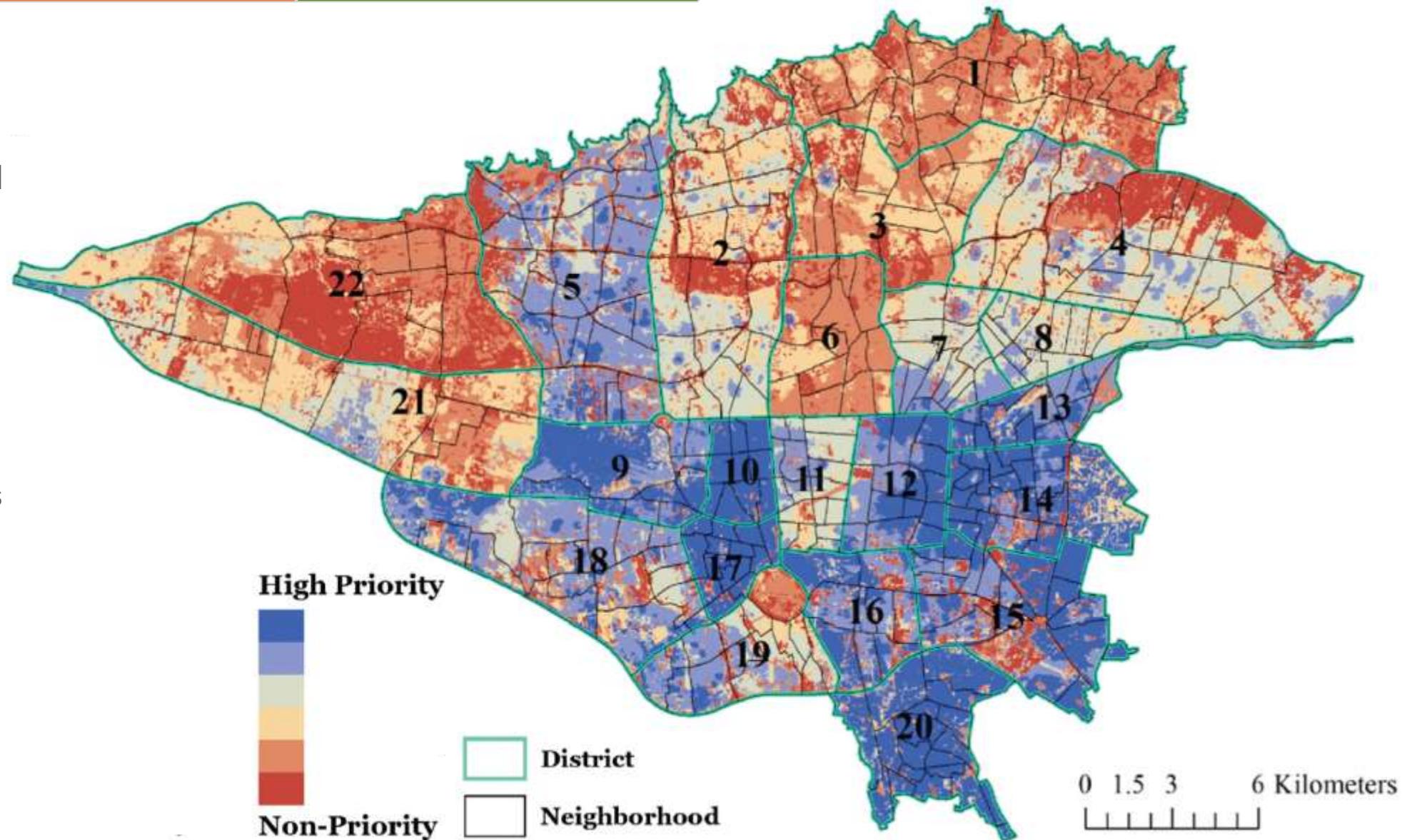
High Priority

Non-Priority

District

Neighborhood

0 1.5 3 6 Kilometers

From Aghaloo and Sharifi (2025)

#1 Map existing conditions and benefit gaps → #2 Rank and weight benefits → #3 Create a single Prioritization Map from all benefit gaps and weights → #4 Map UG project suitability and feasibility

- Evaluates feasibility of different selected Urban Greening project types

- Feasibility criteria could include, e.g., ownership, area limitations, slope, soil type, etc.
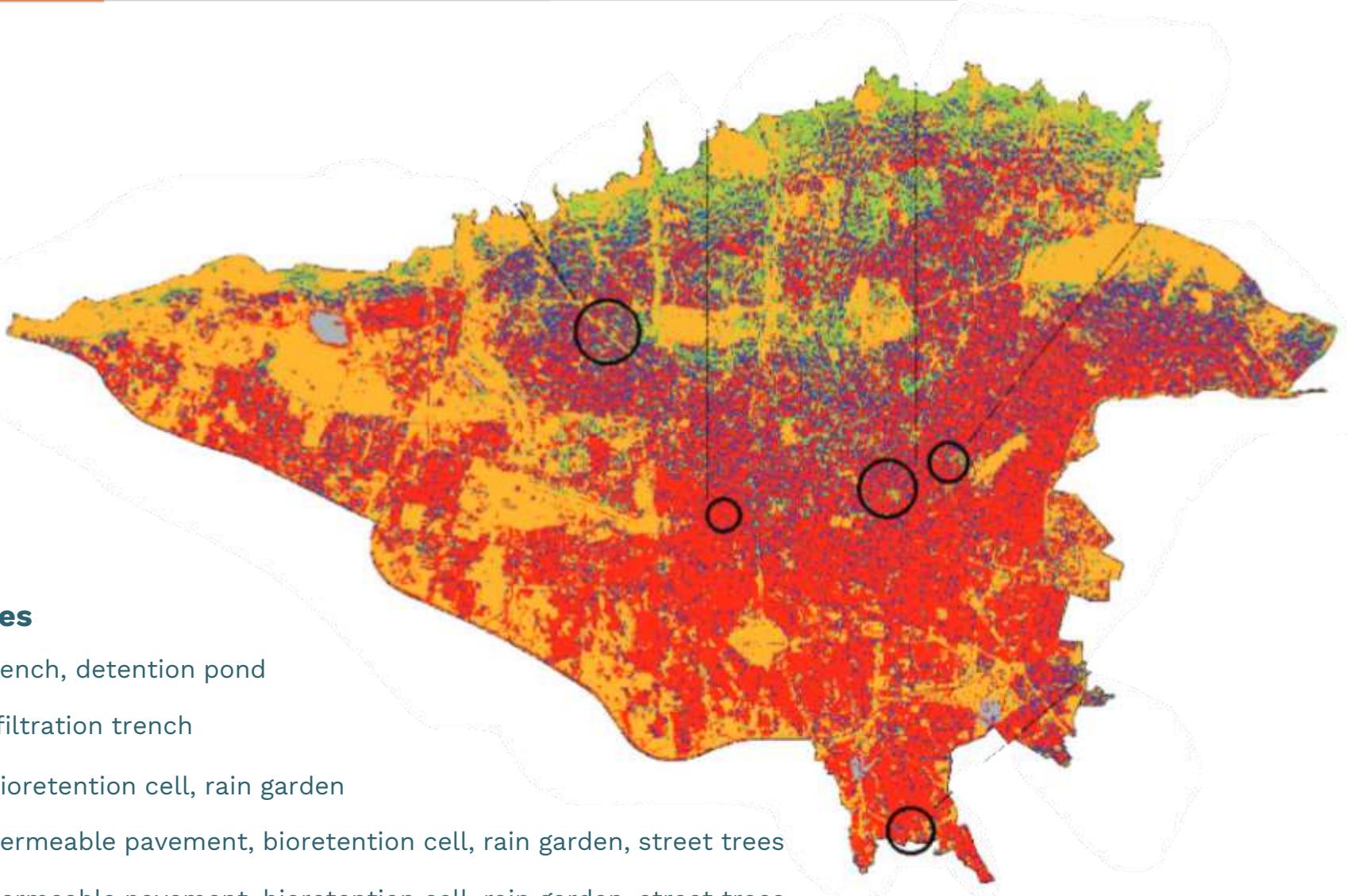
Feasible combinations of UG project types

- 3 types: rainwater harvesting, infiltration trench, detention pond
- 4 types: street trees, park, urban forest, infiltration trench
- 4 types: green roof, rainwater harvesting, bioretention cell, rain garden
- 6 types: green roof, rainwater harvesting, permeable pavement, bioretention cell, rain garden, street trees
- 8 types: green roof, rainwater harvesting, permeable pavement, bioretention cell, rain garden, street trees, bioswale, park

From Aghaloo and Sharifi (2025)

Benefit Gap Prioritization
(high priority, dark blue)
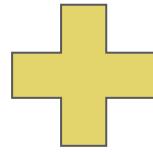
UG Project Feasibility
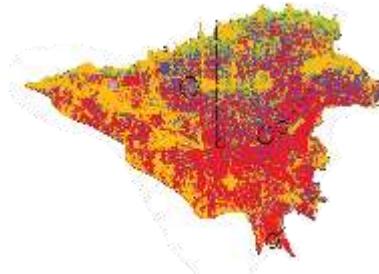
Single Opportunity Area Map
(Zoomed in to specific neighborhoods here)

From Aghaloo and Sharifi (2025)

#1 Map existing conditions and benefit gaps

#2 Rank and weight benefits

#3 Create a single Prioritization Map from all benefit gaps and weights

#4 Map UG project suitability and feasibility

#5. Single Opportunity Area Map

Steps can be adjusted for our specific needs

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#1 Map existing conditions and benefit gaps

#2 Rank and weight benefits

#3 Create a single Prioritization Map from all benefit gaps and weights

#4 Map UG project suitability and feasibility

#5. Single Opportunity Area Map

Which benefits we want to analyze

Steps can be adjusted for our specific needs

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#1 Map existing conditions and benefit gaps

#2 Rank and weight benefits

#3 Create a single Prioritization Map from all benefit gaps and weights

#4 Map UG project suitability and feasibility

#5. Single Opportunity Area Map

Which benefits we want to analyze

Employ different ranking objectives

Have different user groups perform rankings

Steps can be adjusted for our specific needs

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#1 Map existing conditions and benefit gaps → #2 Rank and weight benefits → #3 Create a single Prioritization Map from all benefit gaps and weights → #4 Map UG project suitability and feasibility → #5. Single Opportunity Area Map

Which benefits we want to analyze

Employ different ranking objectives

Have different user groups perform rankings

Adjust break points along the Priority gradient

Steps can be adjusted for our specific needs

SFEI

#1 Map existing conditions and benefit gaps

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Which benefits we want to analyze

Employ different ranking objectives

Have different user groups perform rankings

Adjust break points along the Priority gradient

More strictly define feasibility to more strongly filter UG project options

Steps can be adjusted for our specific needs

SFEI

#1 Map existing conditions and benefit gaps	#2 Rank and weight benefits	#3 Create a single Prioritization Map from all benefit gaps and weights	#4 Map UG project suitability and feasibility	#5. Single Opportunity Area Map

Which benefits we want to analyze

Employ different ranking objectives

Have different user groups perform rankings

Adjust break points along the Priority gradient

More strictly define feasibility to more strongly filter UG project options

Adjust number or scale of Opportunity Areas

Encompass greater or fewer site options

Steps can be adjusted for our specific needs

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Questions / Comments?

Questions for the RWG:

Co-benefits and their optimal weights

Benefit	Weight
Runoff infiltration and reduction	0.120
Air purification	0.048
Cooling effect	0.048
Noise pollution mitigation	0.024
Biodiversity and habitability	0.096
Accessibility	0.019
Carbon storage	0.097
Poverty	0.016
Inequality	0.016
Marginality	0.016
Livability	0.016
Social Vulnerability	0.355
Health	0.032
Welfare	0.032
Social capital	0.032
Security	0.032

Benefit importance ranking:

- What do you think about a potential process where a few different user groups rank benefits, resulting in a few versions of the Opportunity Area map?

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Questions for the RWG:

Final Opportunity Area map:

- Is a single Opportunity Area Map your preference?

  Or

- Would it be useful to have a few different maps? For example, with different types of benefit ranking/weights or different prioritization cut-offs?

Questions for the RWG:

Final Opportunity Area map:

- What would be the ideal number or extent of Opportunity Areas to choose from in a single map?

Questions for the RWG:

Scale of Opportunity Area map:

In past meetings and surveys RWG attendees have indicated that benefit and Opportunity Area maps at the scale of sub-watershed (HUC10) or smaller would be most useful.

To clarify, and given today's example, what would be most useful for:

i. The size/scale of individual delineated Opportunity Areas?

ii. Scale of detail within Opportunity Areas?

(i)

(ii)

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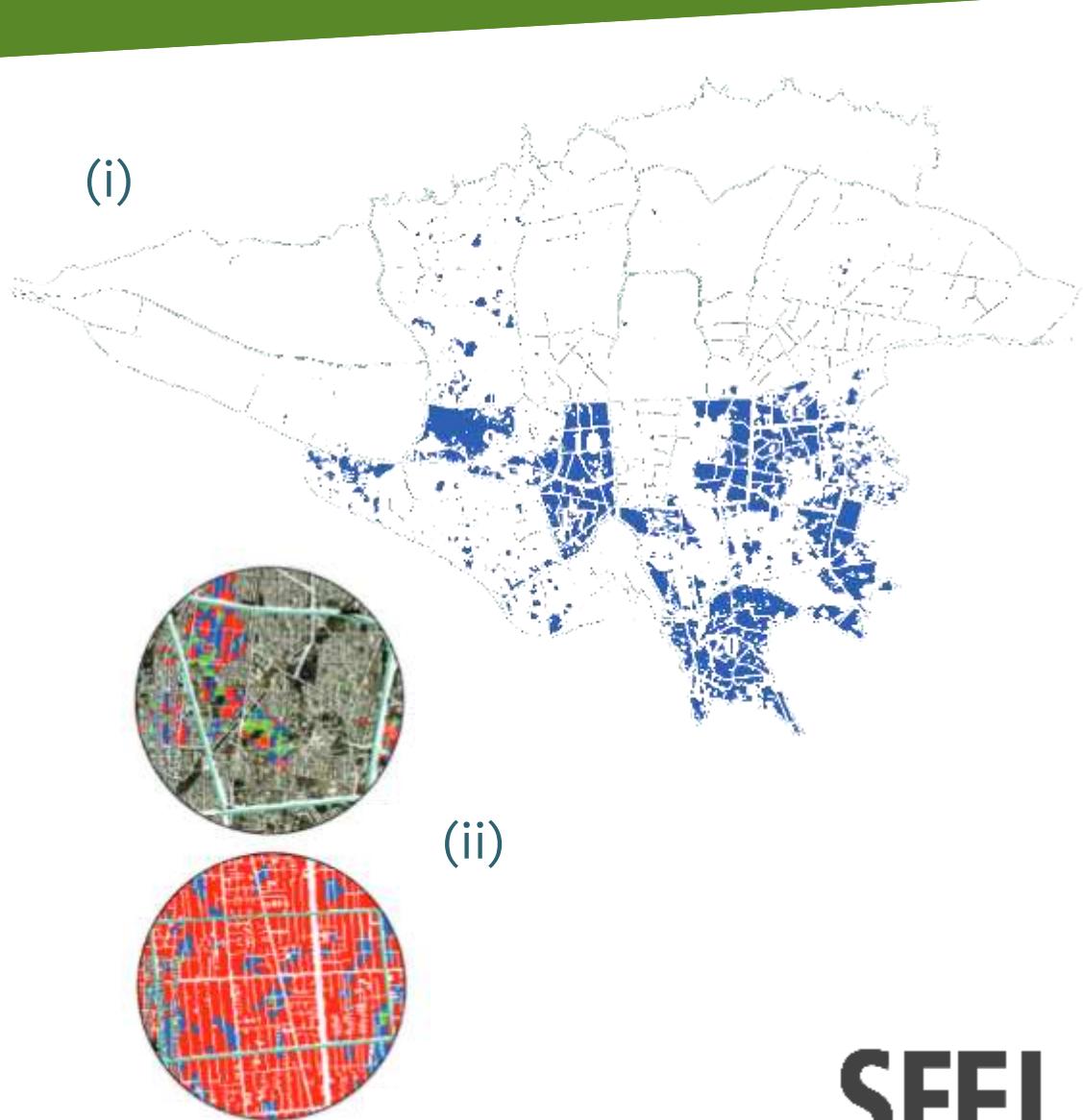
Questions for the RWG:

What priorities have you already identified and should these be incorporated into (and possibly be weighted more heavily in) Opportunity Area identification?

Photo by S. Bezalel
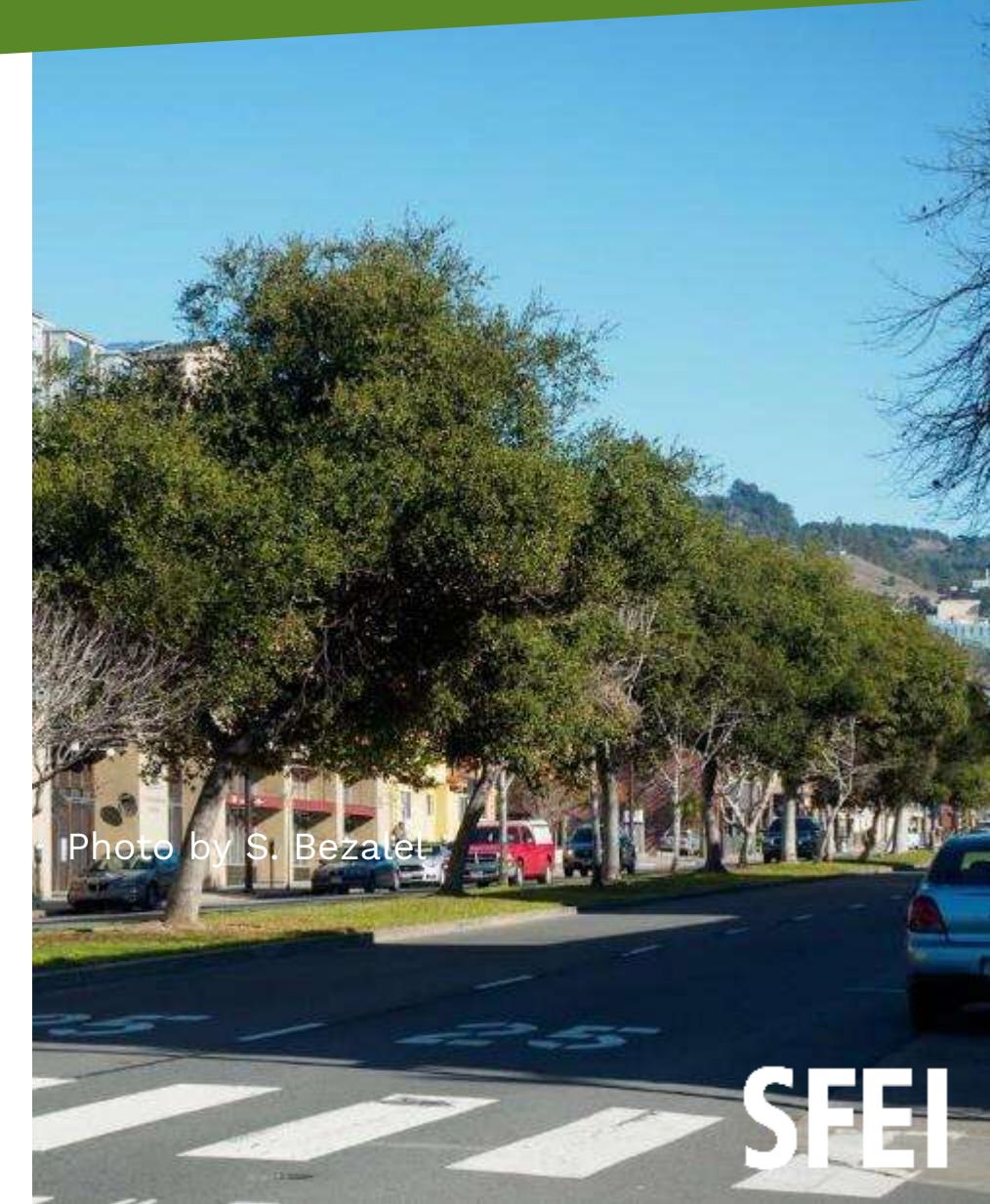
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Questions for the RWG:

Are there existing targets or thresholds that would inform map creation?
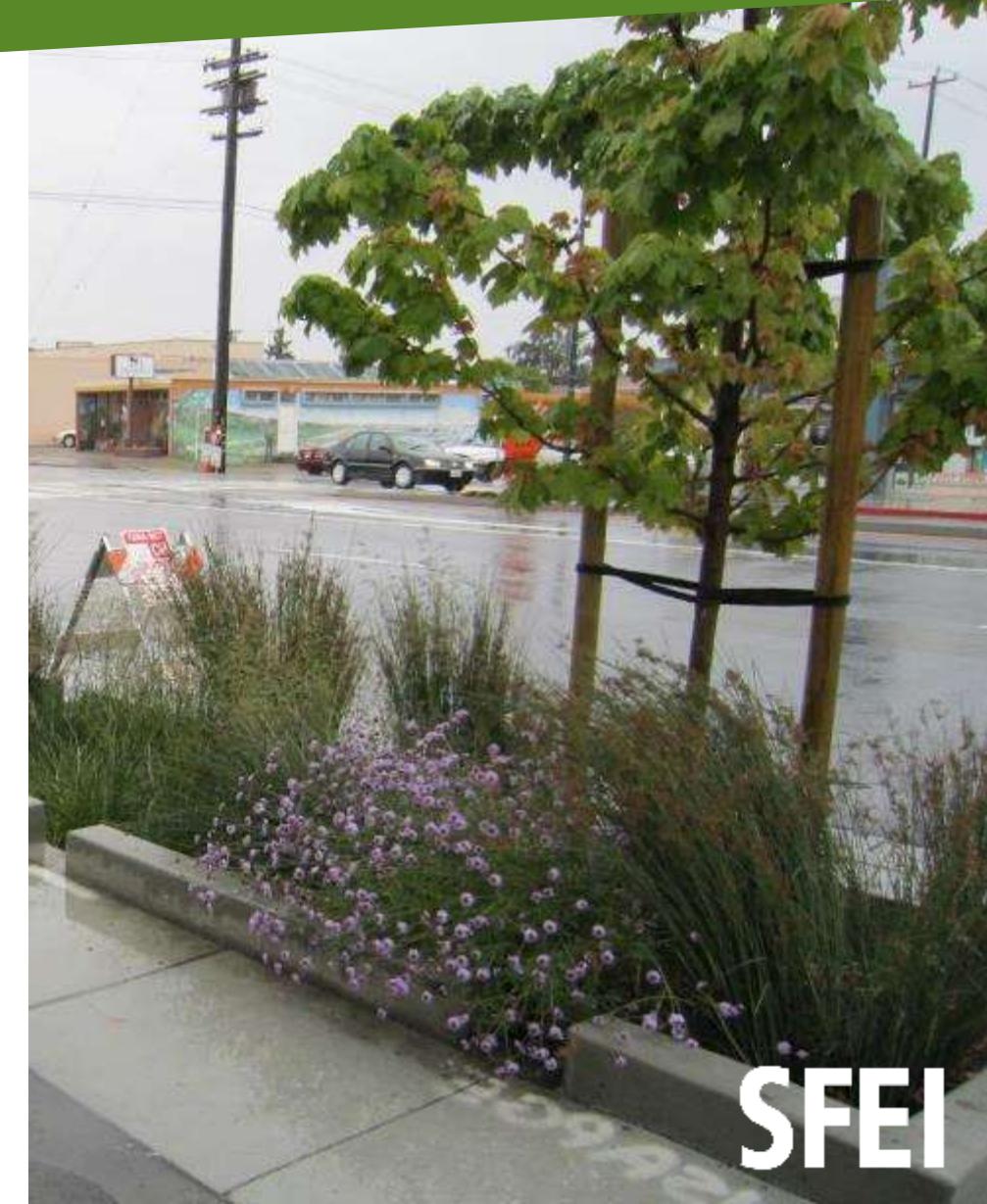
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Questions for the RWG:

Are there other factors that should contribute to the identification of Opportunity Areas? (Other than benefit needs prioritization; benefit importance by user groups; and Urban Greening project feasibility).

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Wrap up and Next Steps

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Coming up...

- Next meeting: tentatively September 2026

- Current condition analysis completed by July 2026 (SFEI)

- Outreach planning to elected officials ongoing (Save the Bay)

- Community Team meetings monthly (CRC)

- Implementation project design (SFEI with cities of San José and Santa Clara)

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Thank you!

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Meeting Wrap Up

Next Steps

- Proposed 2026 Work Group Meeting Dates:
  - February 3, April 7, September 1, December 1 (First Tuesday of each month)
  - 1:30pm-3:30pm
- Upcoming funding opportunities shared via email
- Complete 2025 Annual Survey
- Work Group Resources

Flooding and Sea Level Rise Work Group

The Flooding and Sea Level Rise Work Group is a coalition of local stakeholders, cities/towns, and organizations working through community challenges and needs to reduce the impacts of riverine flooding and sea level rise throughout Santa Clara County.

Work Group Resources — Coming soon

Meeting Materials

May 22, 2024
Topics:
- NFWF Watershed and Community Resilience Tool
- BCDC Regional Shoreline Adaptation Plan (RSAP)

[Agenda] [Slides]

January 22, 2024
Topics:
- Bay Conservation and Development Commission's Regional Shoreline Adaptation Plan and SB 272
- Phase I of the National Fish and Wildlife Foundation (NFWF)

[Agenda] [Slides]