ULI San Franc



Resilient Futures: Advancing San José's Climate Adaptation and Resilience Plan

San José, California

MARCH 18-19, 2026

Before We Start…

Audience will be **muted** throughout the session.



This webinar is being recorded and will be sent to you following the session.



Closed Captioning is available for this session.



Use the **Q&A** function to submit your questions. Use the “like” button to upvote questions.



Thank You City of San José

CITY OF SAN JOSE

CAPITAL OF SILICON VALLEY

THE MISSION OF THE URBAN LAND INSTITUTE

Shape the future of the built environment for transformative impact in communities worldwide

MISSION COMMITMENTS

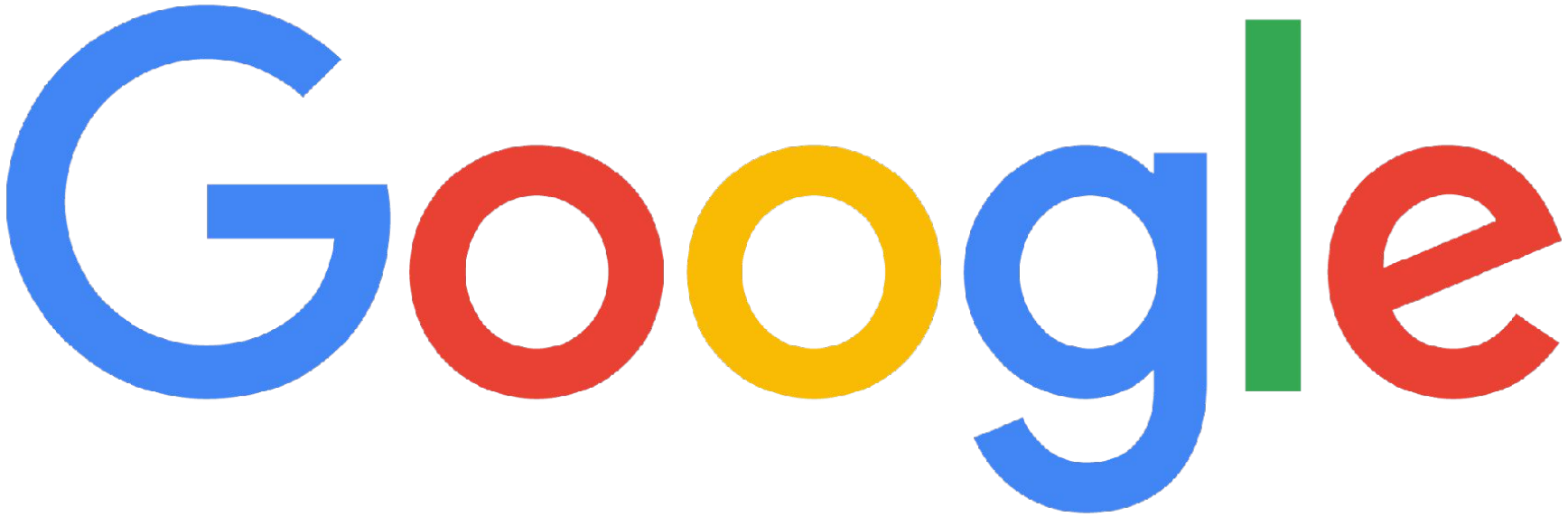
CONNECT active, passionate, diverse members through the foremost global network of interdisciplinary professionals

INSPIRE best practices for equitable and sustainable land use through content, education, convening, mentoring, and knowledge sharing

LEAD in solving community and real estate challenges through applied collective global experience and philanthropic engagement

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Technical Assistance Panel (TAP) Program

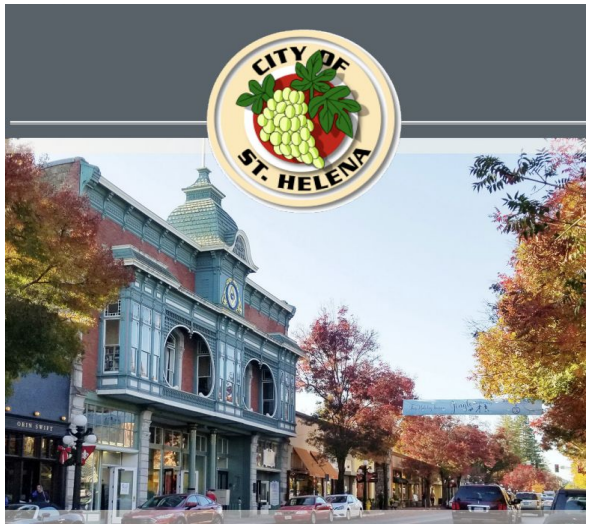
Provides independent, objective, candid advice on important land use and real estate issues

Highly focused and intensive process

- Months of prep by City staff
- Engagement by panelists for at least one month prior
- Two-day on-site engagement

41 TAPs conducted throughout the Bay Area since 2006









Panel Co-Chairs

Jessica von Borck, Executive Director, Land Use Planning, Stanford University

Samantha Lubow, Associate Director, Climate Action, Stanford University



Panelists

Mathew Bamm, Civil Engineer, ARUP

Julia Chase, Chief Resilience Officer, City of San Diego

Erin Feeney, Associate, David Baker Architects

Poonam Narkar, Principal, WRT

Aysha Pamukcu, Policy Fund Director, San Francisco Foundation

Sean Quinn, Director of Regenerative Design, HOK

Charge to the Panel

- **Knowledge.** What additional research and studies and/or best practices should be explored and need to be completed to support the implementation of CARP measures 1 and 2?
  - **Measure 1: Site- and System-Specific Vulnerability Studies**
  - **Measure 2: Climate Resilience and Adaptation Funding**
- **Governance + Policy.** What are the best practices and strategies for establishing resilient design standards that would support the implementation of CARP measure 9?
  - **Measure 9: Resilient City Infrastructure Design Standards**
- **Structural.** How can the City ensure equity is at the forefront of considerations in the CARP implementation phase, particularly focused on supporting implementation measure 13?
  - **Measure 13: Community-Serving Facility Upgrades and Resilience Hubs**
- **Communication.** What are best practices for ensuring ongoing community engagement, input, and communication during the implementation of the CARP as they relate to the implementation of the measures highlighted in questions 1-3?

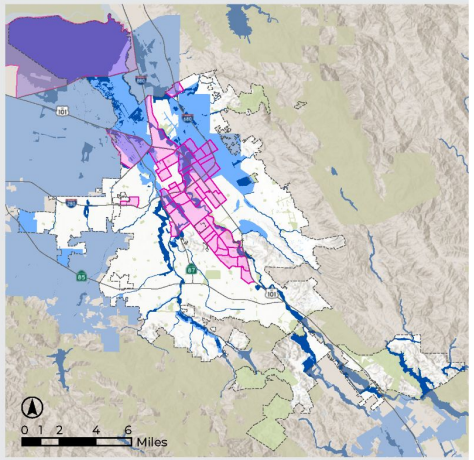
Where We Started

Figure 8. Socially Vulnerable Communities and Climate Hazard Exposures

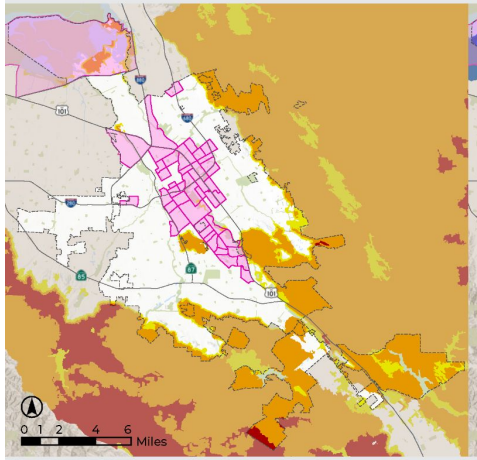
General Legend

City Limits
Interstate/Highway
Socially Vulnerable Communities

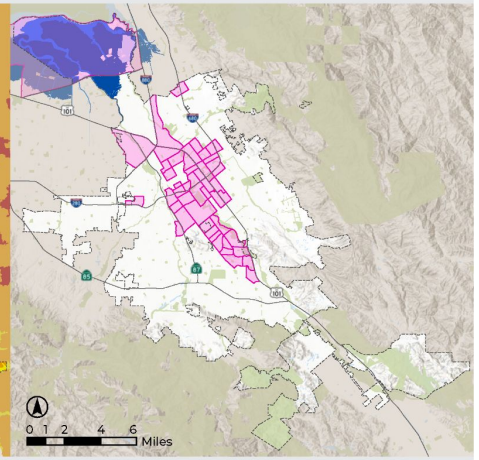
1. Socially Vulnerable Communities and Flood Zones
   Sources: City of San José, CARI 3.0, California Protected Areas Database (CPAD), FEMA.
2. Socially Vulnerable Communities and Fire Hazard Severity Zones
   Sources: City of San José, CARI 3.0, California Protected Areas Database (CPAD), CalFire.
3. Socially Vulnerable Communities and Sea Level Rise Zones*
   Sources: City of San José, CARI 3.0, California Protected Areas Database (CPAD), Adapting to Rising Tides.
   **Note SLR extent does not include storm surges.*



1 Flood Zones
100-year Flood Zone
500-year Flood Zone



2 Fire Hazard Severity Zones
Very High
High
Moderate



3 Sea Level Rise Zones
2050 Extent of SLR (High SLR/Low Risk Tolerance)
2100 Extent of SLR (High SLR/Low Risk Tolerance)

KNOWLEDGE

MEASURE 1—VS

Site- and System-Specific Vulnerability Studies

Measure: Conduct studies to better understand site- and system-specific vulnerabilities and potential interventions for mobilehome parks, City facilities, and water system.

Several issues were ident
Vulnerability Assessment
more data collection and
before specific recomme
can be developed. Target
will fill these knowledge
provide a better underst
of site- and system-speci
vulnerabilities and suppo
development of interven
can reduce exposure or t
contribute to providing c
services. The departmen
out the studies should re
to City Council or other C
upon their completion to
their findings and provid
recommendations for fu

#	STRATEGY D
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VS-2	Identify facili • Serve and/ communit • Are located • Align with
VS-3	Conduct eng feasibility at
VS-4	Identify syste non-potable

12. For this measure only, each str different key collaborators.

MEASURE 2—AF

Climate Resilience and Adaptation Funding

Measure: Explore options to fund the CARP climate resilience and adaptation efforts.

Funding sources fo
Some resilience me
investments being
specific funding pr
continuously resea

#	STRAT
AF-1	Pursue and re replen
AF-2	Deterr throug When • Asse nece addi • Asse or co depa
AF-3	Develo
AF-4	Develo
AF-5	Provid less fa consul
AF-6	Pursue impac other f financ measu

38 | San José Climate Ac

MEASURE 9—CD

Resilient City Infrastructure Design Standards

Measure: Incorporate climate change projections and climate hazards into design and siting decisions for City infrastructure.

City investments in inf
and constructed to be
hazards including extr
indicated by the Vulne
events are projected t
coming decades. This
City infrastructure anc
its investments and m
by siting and designin
to climate change. Sor
interdepartmental coc
sustainable building m

Infrastructure project
include nature-based
landscaped medians,
or incorporating shad
reflective surfaces cou
accumulation. In City
considerations could i
or elevated in areas su
requiring battery back
is impacted by extrem

#	STRATEG
CD-1	Adopt and current ar and wildfi infrastruc
CD-2	Develop E continuec related en
CD-3	Review th advancem City buildi

CITY OF SAN JOSE
Climate Adaptation & Resilience Plan
Adoption Draft
January 2026

CLIMATE SMART SAN JOSE
SAN JOSÉ

STRUCTURAL

MEASURE 13—RH

Community-Serving Facility and Resilience Hubs

Measure: Upgrade community-serving municipal facilities (such as recreation facilities, community centers, cultural facilities, and libraries) to ensure functionality during climate hazard events and establish accessible resilience hubs across San José.

As climate-related emergencies become more frequent and severe, communities need safe, accessible spaces that can provide support during disruptions. These "resilience hubs" will be able to provide shelter, resources, and essential services to residents during emergencies. To meet this need, the City can upgrade community-serving municipal facilities such as recreation centers, libraries, cultural spaces, and community centers so that they remain functional and accessible during climate hazard events.

The City should create a network of resilience hubs across the City to ensure geographic coverage and redundancy. These locations will be identified by Strategy VS-2 in Measure 1 Site- and System-Specific Vulnerability Studies. In the event of an evacuation, resilience hubs can be a destination for transit services to drop-off evacuees from areas of high risk and serve as EV charging hubs. Currently, some community centers in the City serve as cooling centers, offering WiFi, charging stations, and emergency preparedness workshops. There is potential to expand, formalize, and better fund this network to enhance its effectiveness and reach. Some Measure T projects may present strong opportunities to implement resilience upgrades at key Community Center Hubs: Roosevelt, Mayfair, Seven Trees, Bascom, Camden, Evergreen, Berryessa, and Almaden.

Resilience hubs should be concentrated in socially vulnerable

Key Collaborators
DOT (RH-3); ED (RH-1) LIB; OEM (RH-5); PRNS; PW

Implementation Timeframe
Mid-Term (2-5 years)

Climate Hazard(s) Addressed

Related CARP Measures
VS, AC, CD, TE, UH, TF

Cost
$$$

Co-Benefits
Public health
Emergency preparedness
Community cohesion

Tracking Metrics
Percent of Council Districts that have a City resilience







City Briefing & Site Tour







Interviews to Inform the Panel

City of San José

- Clean Energy Department
- Fire Department
- Planning, Building, and Code Enforcement (PBCE)
- Climate Smart & Electric Mobility

Community Partners

- Bay Area Council
- CALFIRE Urban Forestry Program
- Climate Resilience Communities
- Our City Forest
- San José/ Santa Clara Water Pollution Control Plant
- Santa Clara Valley Water
- SPUR
- Watershed Protection Division

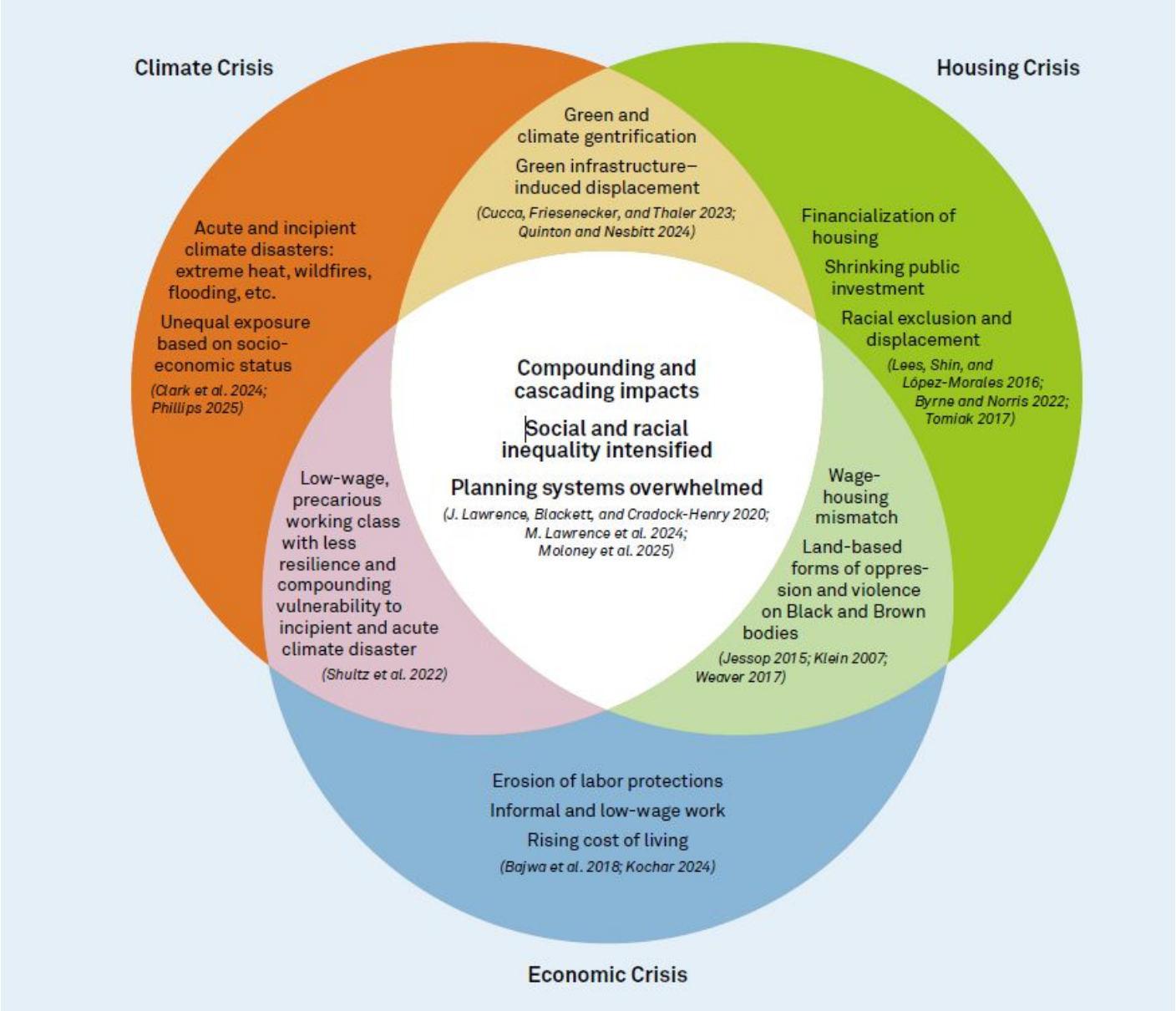
What We Heard



What We Heard

- **Department priorities need better alignment:** Centralized leadership is needed to help departments align priorities. *The wastewater treatment plant is a powerful example of successful collaboration that advances climate resilience.*
- **Funding and capacity constraints:** Limited staff capacity and reliance on external funding slow progress
- **Equity and engagement gaps:** Vulnerable communities are identified, but additional outreach and trust-building is needed
- **Near-term actions:** Staff seek practical first steps to implementing the CARP
- **Resilience should be integrated:** Embedding resilience into existing priorities like housing will strengthen overall outcomes

Planning in a Polycrisis



Source: https://www.lincolninst.edu/publications/policy-focus-reports/planning-in-polycrisis/

KNOWLEDGE



Knowledge

What additional research and studies and/or best practices should be explored and need to be completed to support the implementation of CARP Measures 1 and 2?

MEASURE 1—VS

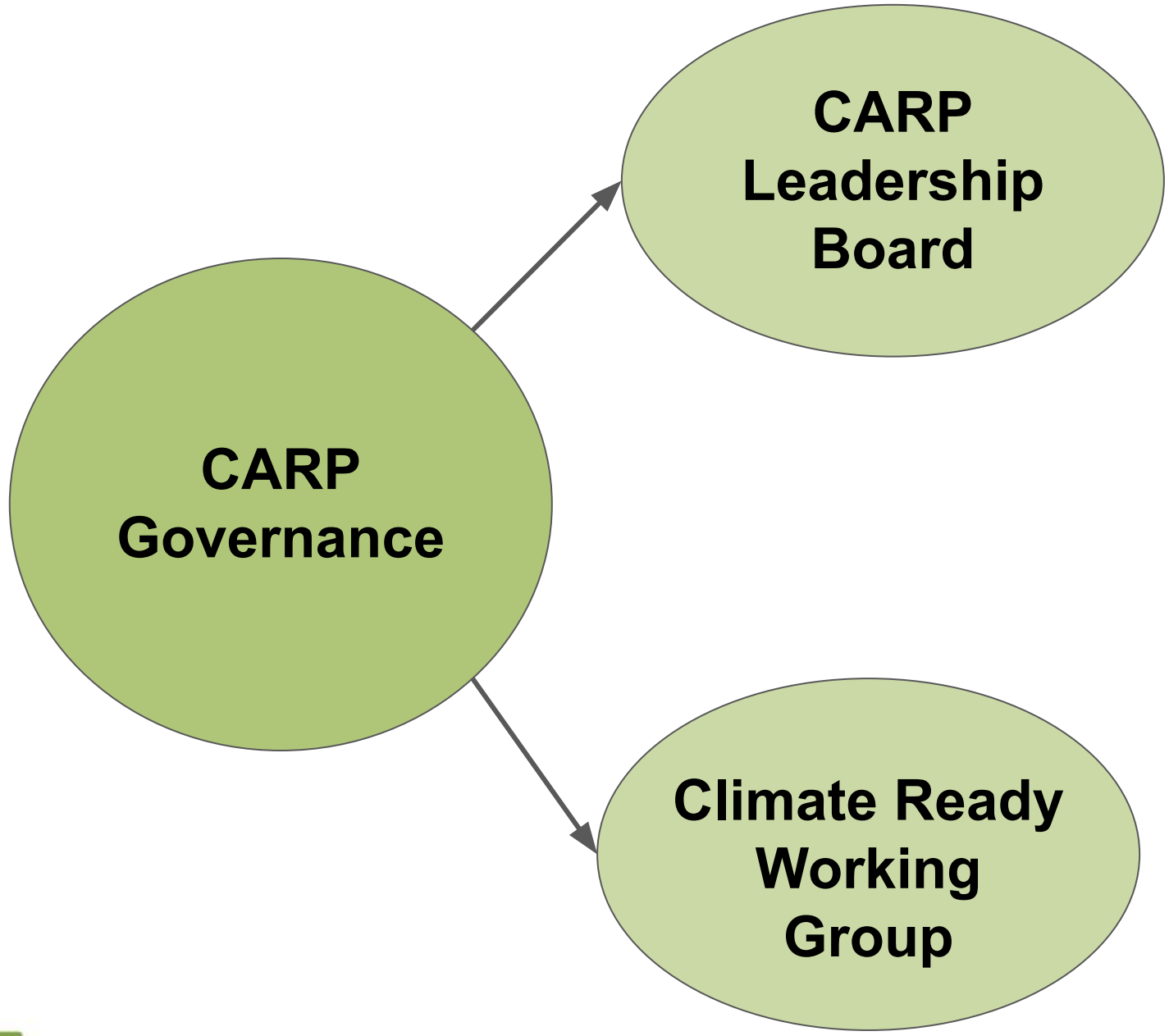
Site- and System-Specific Vulnerability Studies

Measure: Conduct studies to better understand site- and system-specific vulnerabilities and potential interventions for mobilehome parks, City facilities, and water system.

MEASURE 2—AF

Climate Resilience and Adaptation Funding

Measure: Explore options to fund the CARP climate resilience and adaptation efforts.



Who

- City Manager's Office
- Department Directors
- CARP Lead Staff (ESD)

Purpose

- Streamline decision making, improve resource allocation and efficiency, and ensure alignment of efforts
- Quarterly meetings

Who

- Staff leads for each implementing department
- CARP Lead Staff (ESD)

Purpose

- Build upon working group established for CARP development
- Quarterly meetings
- Support implementation coordination

Measure 1: Site- and System- Specific Vulnerability Studies

Table 5. SV 2.0 (2021) Regional Wastewater Facility Vulnerability to Climate Hazards in 2050 and 2100, High Emissions Scenario

Asset Type	Timeframe		Extreme Heat	Riverine Flooding*		Sea Level Rise		Sea Level Rise + 100-Year Storm Surge		Wildfire
				100-year flood	500-year flood	Likely 2050: 1 ft 2100: 2 ft	Worst-Case 2050: 3 ft 2100: 7 ft	Likely 2050: 1 ft SLR + 4.5 ft 2100: 2 ft SLR + 3.5 ft	Worst-Case 2050: 3 ft SLR + 4 ft 2100: 7 ft SLR + 4 ft	
Regional Waste-water Facility Total: 783 acres	2050	Acres	None	563	762	None	None	39	38	None
		% of total	0%	72%	97%	0%	0%	5%	5%	0%
	2100	Acres	None	563	762	9	142	142	752	None
		% of total	0%	72%	97%	1%	18%	18%	96%	0%

With limited funding and resources, which assets get prioritized first for resilience investments?

Prioritization Framework

- Align strategic investments
- Improve transparency and accountability
- Maximize risk reduction and ROI
- Center equity
- Supports proactive investments
- Repeatable process



Prioritization Framework

Risk Reduction

- Does the project reduce risk to critical infrastructure?
- Avoided damages / service disruption

Asset Criticality

- Emergency response? Community impact?

Equity & Community Benefit

- Benefits to disadvantaged or climate-vulnerable populations
- Reduces disproportionate impacts

Cost-Effectiveness

- Benefit-cost ratio
- Lifecycle savings (avoidance of future repair)

Co-Benefits

- Public health, recreation, innovation
- Alignment with climate mitigation goals

Readiness & Feasibility

- Design readiness, permitting, funding leverage

Policy Priorities

- Housing, Community Development, etc.

→ Categories can have weighted scores based on priorities
→ Projects are ranked based on their scoring
→ Can be an update to existing CIP prioritization process

Measure 2: Climate Resilience and Adaptation Funding

Map Measures

Map out all measures within CARP and department lead for each measure

ID Funding Needs

Identify which measures are already funding within existing programs or funding streams

Categorize Funding Type

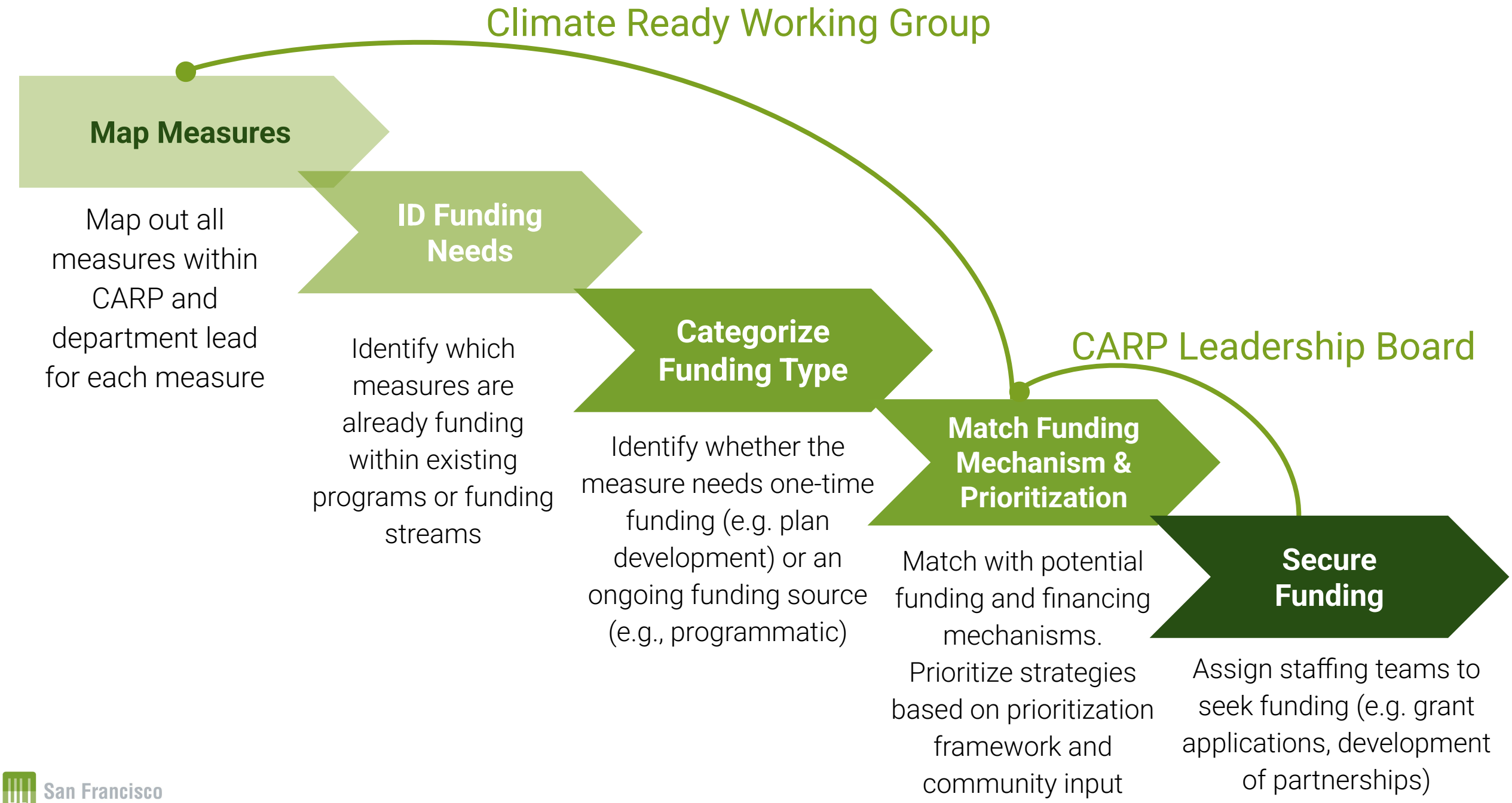
Identify whether the measure needs one-time funding (e.g. plan development) or an ongoing funding source (e.g., programmatic)

Match Funding Mechanisms

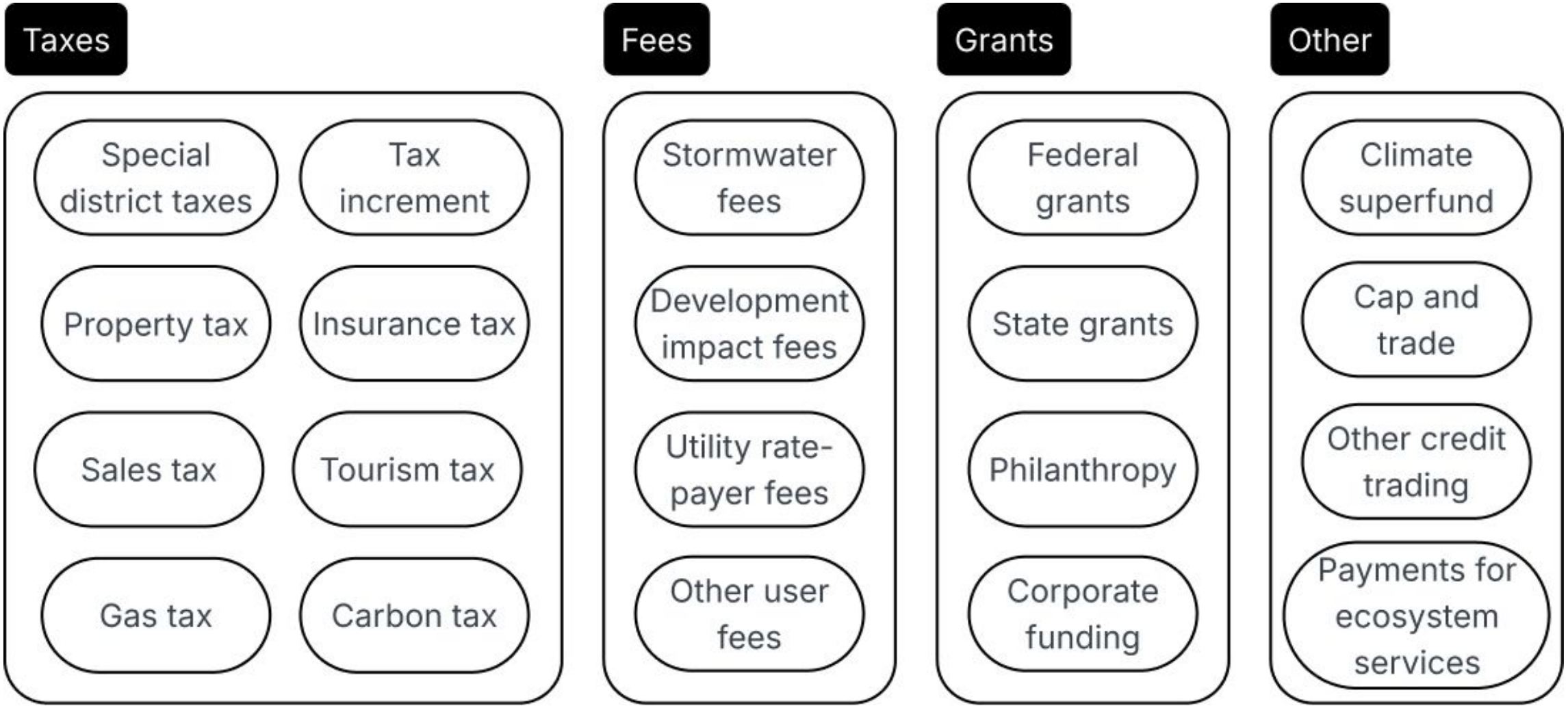
Match with potential funding and financing mechanisms

Secure Funding

Assign staffing teams to seek funding (e.g., grant applications, development of partnerships)

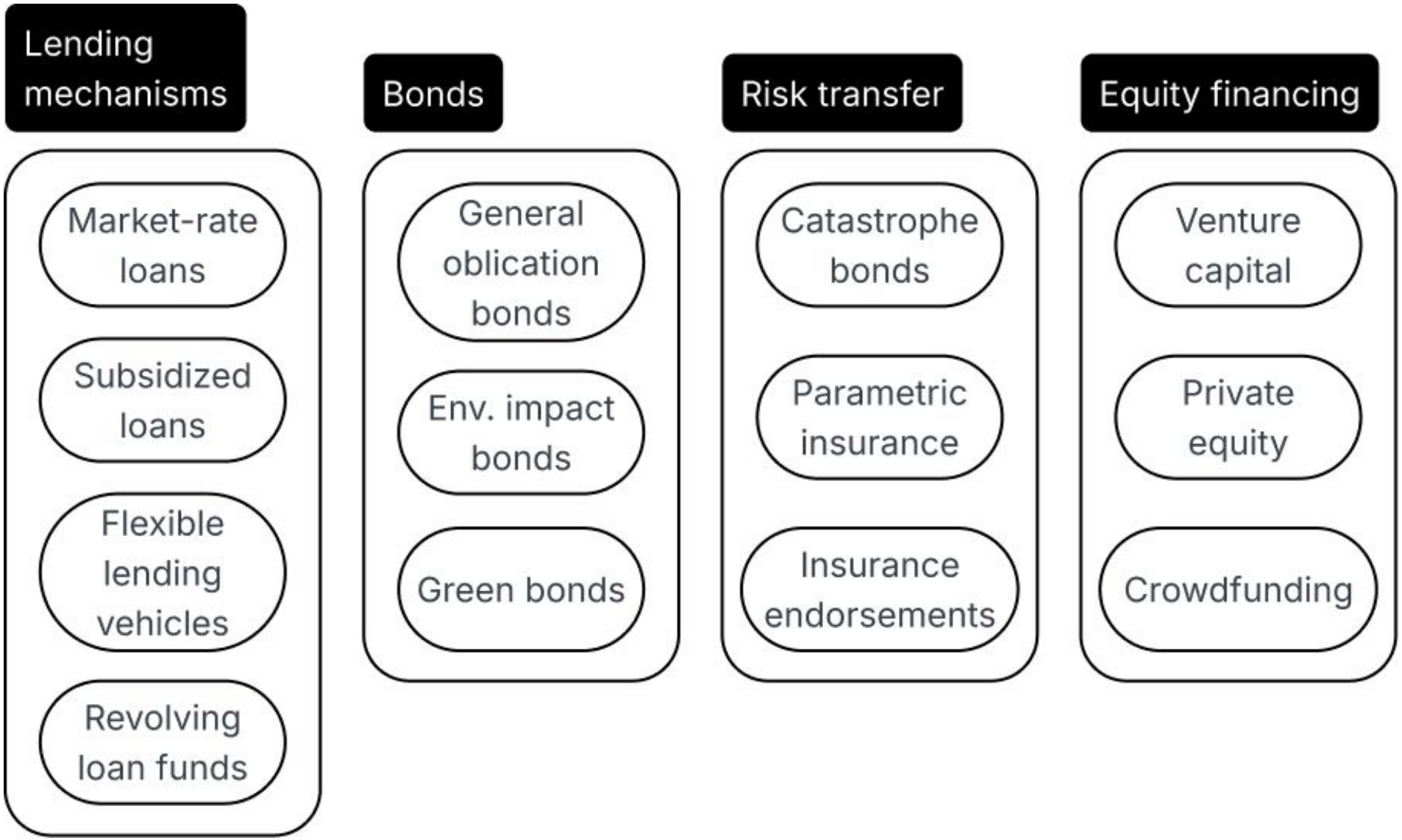

Climate Ready Working Group
Map Measures
Map out all measures within CARP and department lead for each measure
ID Funding Needs
Identify which measures are already funding within existing programs or funding streams
Categorize Funding Type
Identify whether the measure needs one-time funding (e.g. plan development) or an ongoing funding source (e.g., programmatic)
CARP Leadership Board
Match Funding Mechanism & Prioritization
Match with potential funding and financing mechanisms. Prioritize strategies based on prioritization framework and community input
Secure Funding
Assign staffing teams to seek funding (e.g. grant applications, development of partnerships)

Climate Adaptation Funding Options



Source: https://cafwd.org/news/funding-and-financing-options-for-resilience-investments/

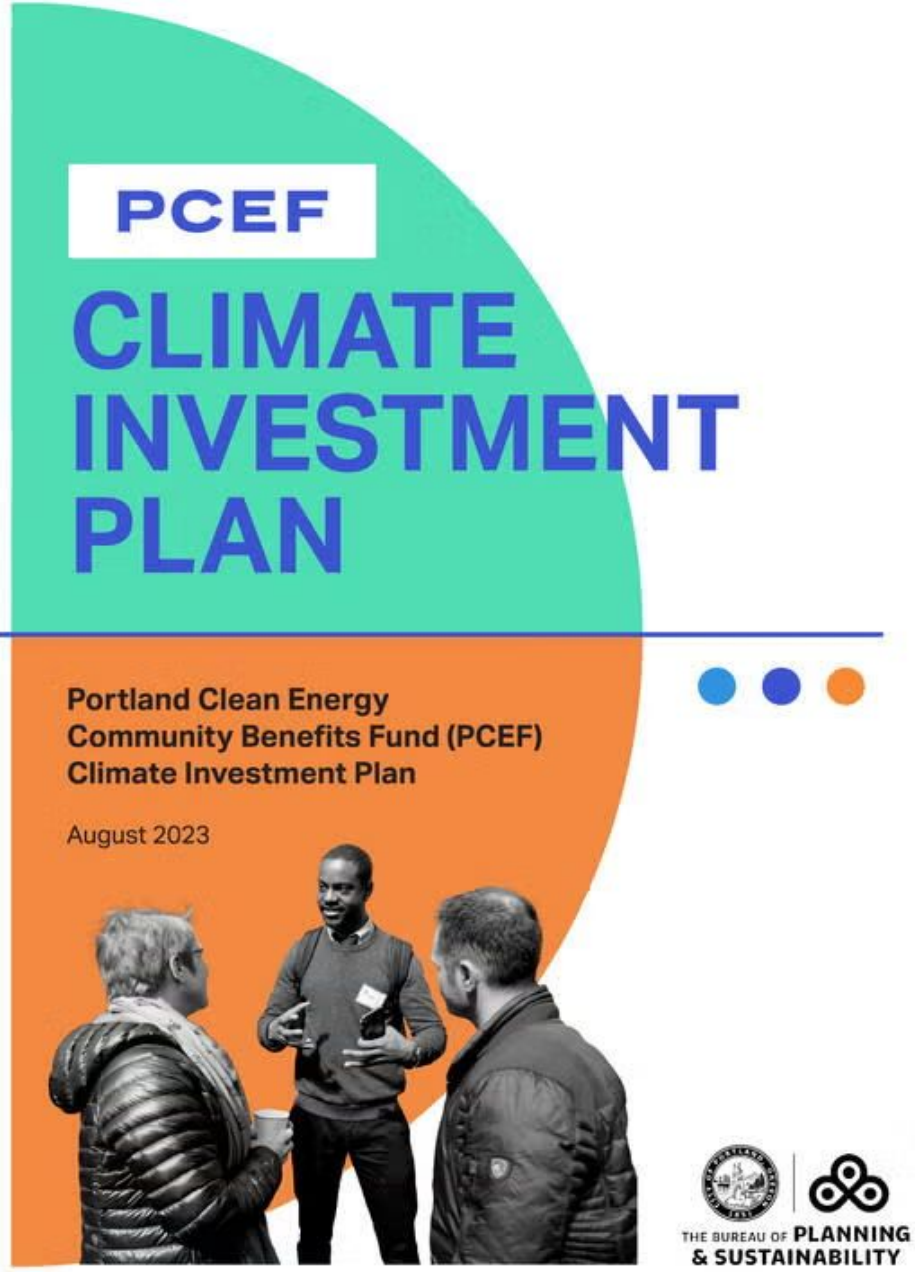
Climate Adaptation Financing Options



Source: https://cafwd.org/news/funding-and-financing-options-for-resilience-investments/

Case Study: Portland, Oregon

- Clean Energy and Community Benefits fund, approved by ballot measure in 2018
- 1% surcharge on large retailers
- Funds clean energy, energy efficiency, climate resilience, and workforce development
- Prioritization for low-income communities and communities of color
- Initially projected to generate ~$90M in revenue annually, now >$190M
- Community input through Climate Investment Plan



Source: https://www.portland.gov/bps/cleanenergy/climate-investment-plan/cip-development-process



GOVERNANCE + POLICY

Governance + Policy

What are the best practices and strategies for establishing resilient design standards that would support implementation of **CARP Measure 9: Update Design Standards for City-owned assets and buildings.**

"Incorporate climate change projections and climate hazards into design and siting decisions for city infrastructure."

Core Objectives

- Ensure city projects will be prepared for future climate change
- Translate future-looking climate change projections into technical guidance for City agencies to use in design of public projects
- Protect public investment and minimize operational disruptions
- Integrate nature-based design solutions
- Develop EV and battery storage infrastructure for emergency operations

Governance + Policy

What are the best practices and strategies for establishing resilient design standards that would support implementation of **CARP Measure 9: Update Design Standards for City-owned assets and buildings.**

Core Values

- Make resilience mandatory, measurable, and iterative
- Embed standards in how projects are scoped, designed and funded
- Treat resilient design as core infrastructure governance
- Leverage community co-benefits through nature-based solutions
- Design for vulnerable communities ensuring reliable access to critical services

Resilience Design Process

CARP Measure 9

Scope Development

Collect information on type of project, useful life, **criticality, operational goals, expected location,** and budget.



Hazard Analysis

Establish resiliency factors for a project site. **Identify** concerns, impacts, and **exposure**.



Vulnerability, Risk & Cost Benefit Analysis

Assess property's vulnerability to **hazards** and establish risk hierarchy. Identify benefits of investment.



Risk Mitigation & Adaptation Strategies

Prepare a **comprehensive strategy** to address key concerns and right-size risk mitigation & adaptation approach.



Implementation & Adaptation

Formalize strategies, **performance criteria and systems**. Develop a long-term **implementation plan** based upon risk and funding availability.



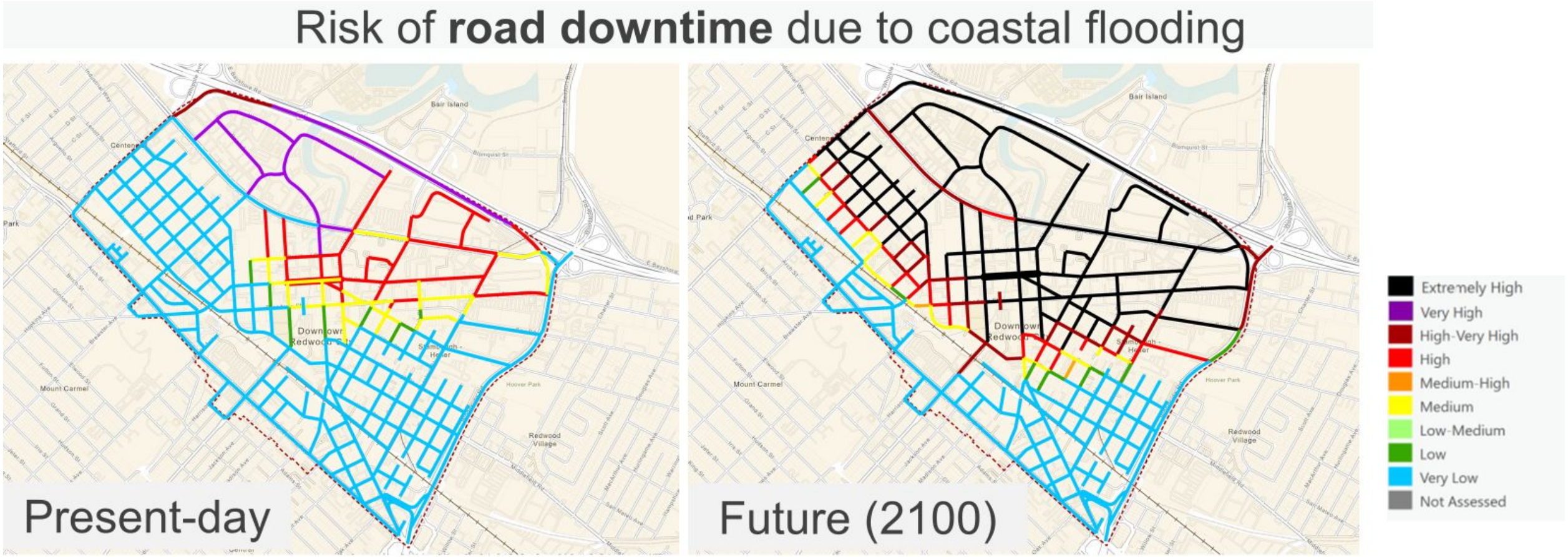
Risk Matrix

CARP Measure 9

Likelihood [Return period]	Consequence [Downtime]				
	< 1 hour *(Negligible)*	1 hour – 1 day *(Minor)*	1 day – 1 week *(Significant / Moderate)*	1 week – 1 month *(Major)*	> 1 month *(Severe / Catastrophic)*
< 11 years *(99% - 100% in 50 years)*	*Low-Medium*	*Medium-High*	*High-Very High*	*Extremely High*	*Extremely High*
11 - 22 years *(90% - 99% in 50 years)*	*Low*	*Medium*	*High*	*Very High*	*Extremely High*
22 - 46 years *(66% - 90% in 50 years)*	*Very Low*	*Low-Medium*	*Medium-High*	*High-Very High*	*Very High*
46 - 125 years *(33% - 66% in 50 years)*	*Very Low*	*Low*	*Medium*	*High*	*High-Very High*
125 - 224 years *(20% - 33% in 50 years)*	*Very Low*	*Very Low*	*Low-Medium*	*Medium-High*	*High*
224 - 391 years *(12% - 20% in 50 years)*	*Very Low*	*Very Low*	*Low*	*Medium*	*Medium-High*
391 - 808 years *(6% - 12% in 50 years)*	*Very Low*	*Very Low*	*Very Low*	*Low-Medium*	*Medium*
808 - 1,642 years *(3% - 6% in 50 years)*	*Very Low*	*Very Low*	*Very Low*	*Low*	*Low-Medium*
1,642 - 3,308 years *(1.5% - 3% in 50 years)*	*Very Low*	*Very Low*	*Very Low*	*Very Low*	*Low*
> 3,308 years *(0% - 1.5% in 50 years)*	*Very Low*	*Very Low*	*Very Low*	*Very Low*	*Very Low*

Risk Matrix - Downtime

CARP Measure 9



Redwood City GDAP - Infrastructure Resilience Strategy Development

Design Standards Development

CARP Measure 9

Define the Risk
Translate assessed risk into a clear problem statement (what must be protected, from which hazards, and over what time horizon)

Identify and Compare Adaptation Options
Develop a range of structural, nature-based, operational, and policy strategies sized to the level of risk and asset criticality

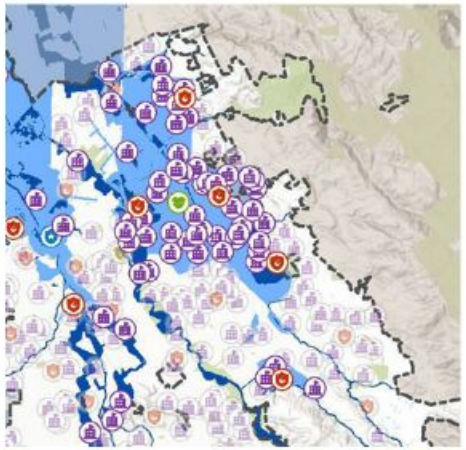
Right-Size Interventions
Match strategy intensity to risk magnitude by aligning solutions with projected conditions and asset lifespan

Evaluate Benefits and Tradeoffs
Assess lifecycle costs, avoided losses, co-benefits, equity impacts, and flexibility to inform Cost-Benefit Analysis and ultimate adoption



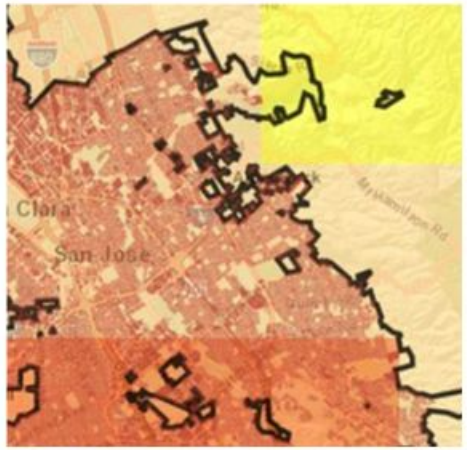
Design Standards for Urban Cooling and Low Impact Design

Considering the Key Risks



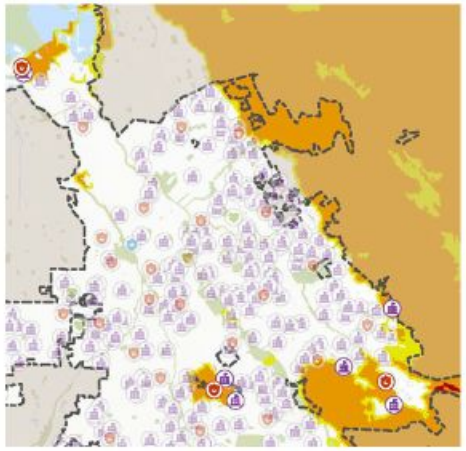


Sea Level Rise & Stormwater Management





Extreme Heat





Wildfire & Smoke Risk





EV Fleet Infrastructure (Emergency Operations)



STRUCTURAL

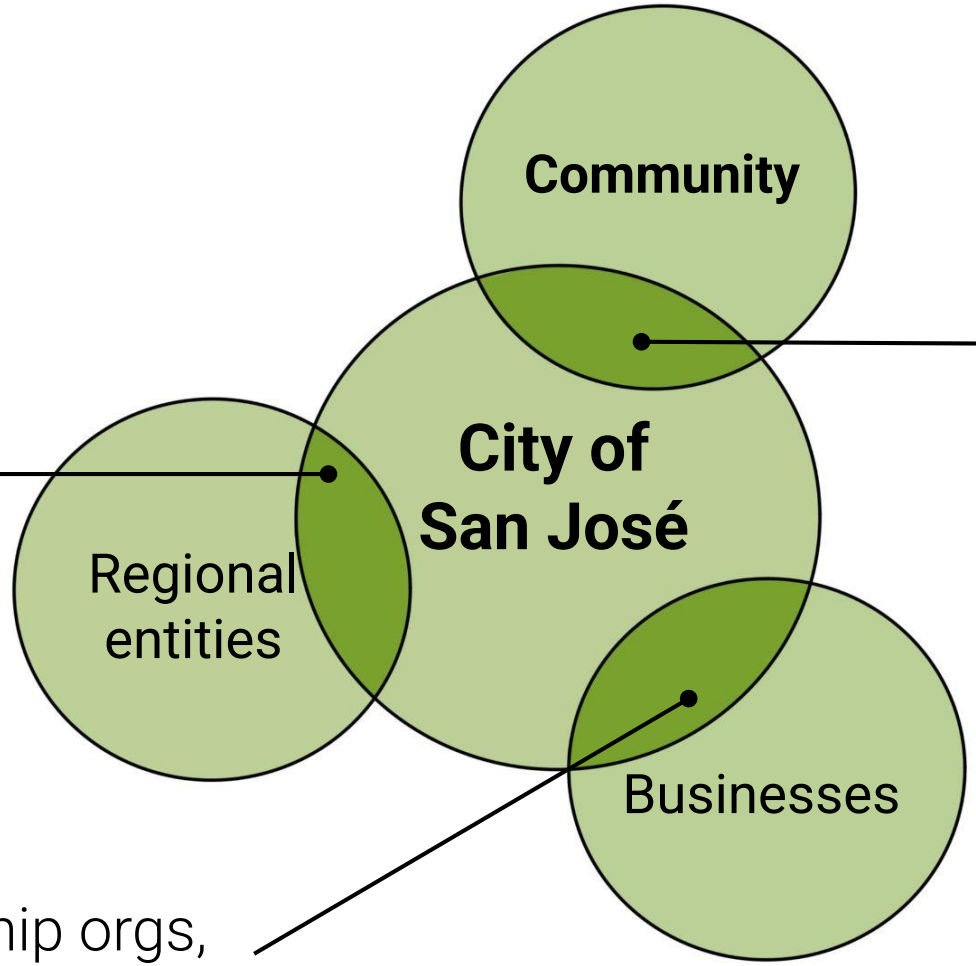
Structural

How can the City ensure equity is at the forefront of considerations in the CARP implementation phase, particularly focused on supporting implementation measure 13?



Equity	Prioritize action with where the need is greatest
Efficiency	Boost resilience capacity by aligning existing resource investments with goals
Expansion	Build broad relationships with potential partners to maximize impact and achieve a faster timeline

The City is ONE Partner in a Broader Resilience Ecosystem



e.g., regional think tanks & governance bodies, academic institutions, community foundations

e.g., CBOs, resident-led groups, mutual aid networks

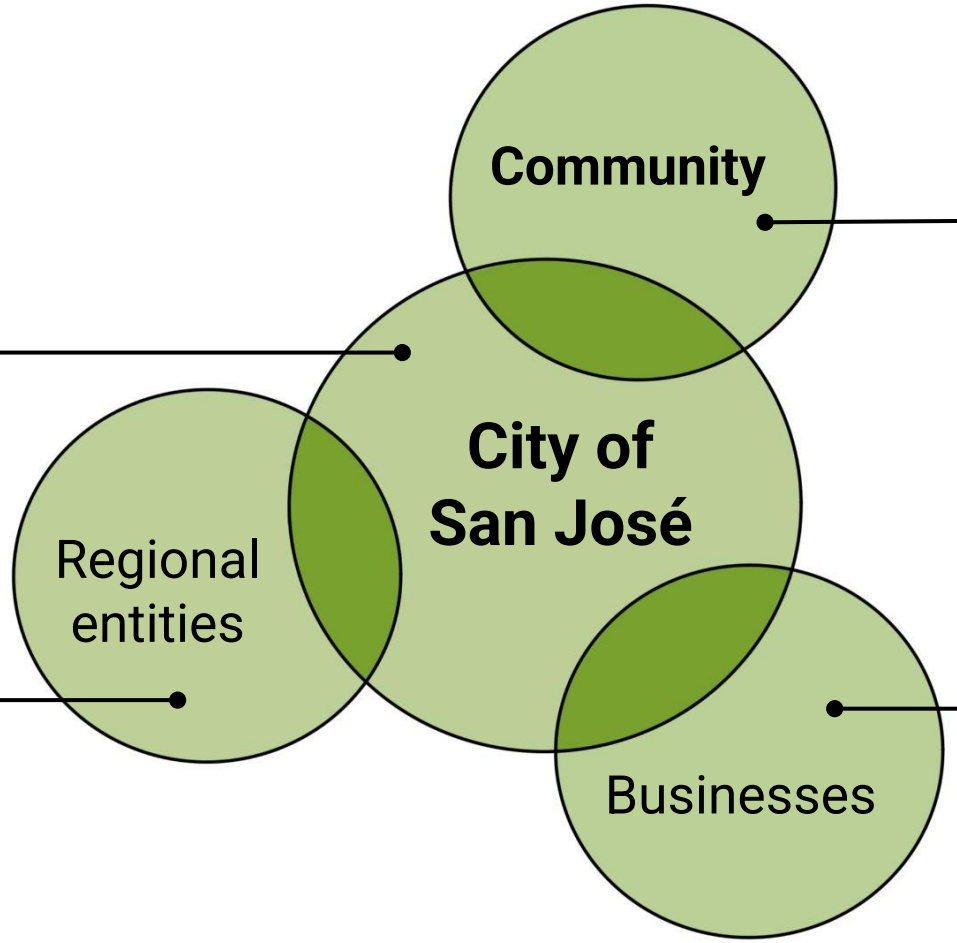
e.g., membership orgs, small businesses, Chamber of Commerce

*"Public service is **relationship building**."*

Roles & Ecosystem Contributions

Formal authority, coordination, resources

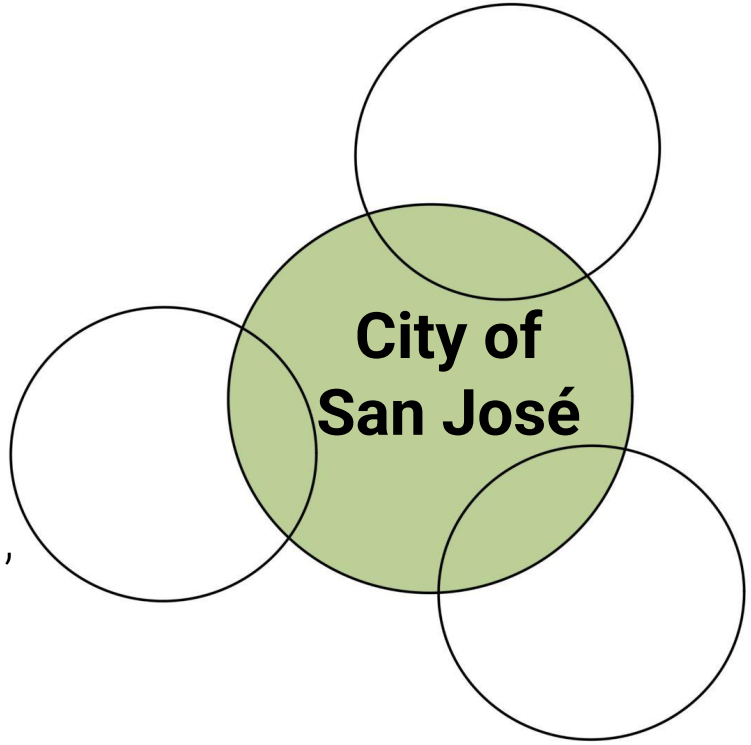
Policy alignment, funding, technical expertise



Trust, lived experience, local networks & assets

Capital, innovation, speed, scale

City of San José



Role in ecosystem

- Leadership (vision, priorities, and accountability)
- Catalyze change
- Set and track metrics
- Connecting partners
- Share decision-making power with communities

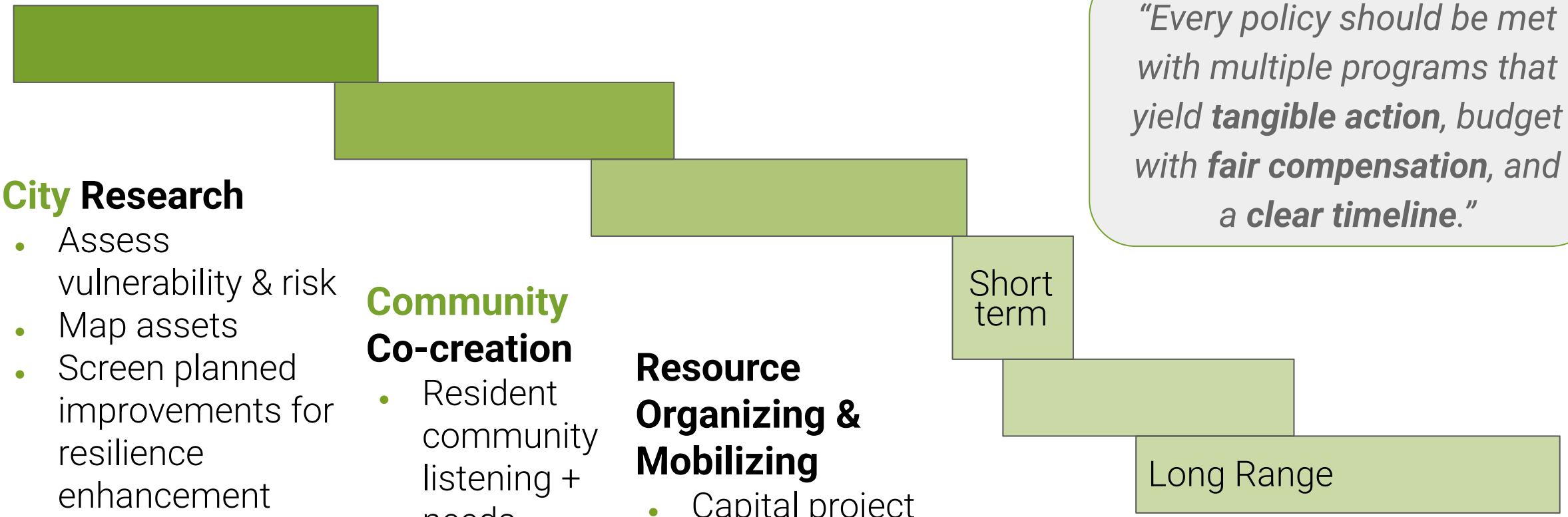
Short-term wins

- Streamline bureaucracy
- Establish empowered internal lead and cross-dept alignment
- Leverage technical assistance
- Support and resource partners

Long range

- Adaptable model for tangible adaptation implementation
- Coordinated, citywide resilience ecosystem
- Scaling and replicating success

Resilience Hub Timeline



*"Every policy should be met with multiple programs that yield **tangible action**, budget with **fair compensation**, and a **clear timeline**."*

City Research

- Assess vulnerability & risk
- Map assets
- Screen planned improvements for resilience enhancement
- Technical guides
- Establish streamlined approvals

Community Co-creation

- Resident community listening + needs
- Re-review assets
- Education + outreach

Resource Organizing & Mobilizing

- Capital project alignment
- Grant writing
- **Business** partnerships

Implementation

- Staff training + supply distribution
- Urban forestry + low impact development
- Building retrofits, eg, HVAC upgrade
- PV + battery installation

Research

*Some of the geographic vulnerabilities are "**not always intuitive**"*

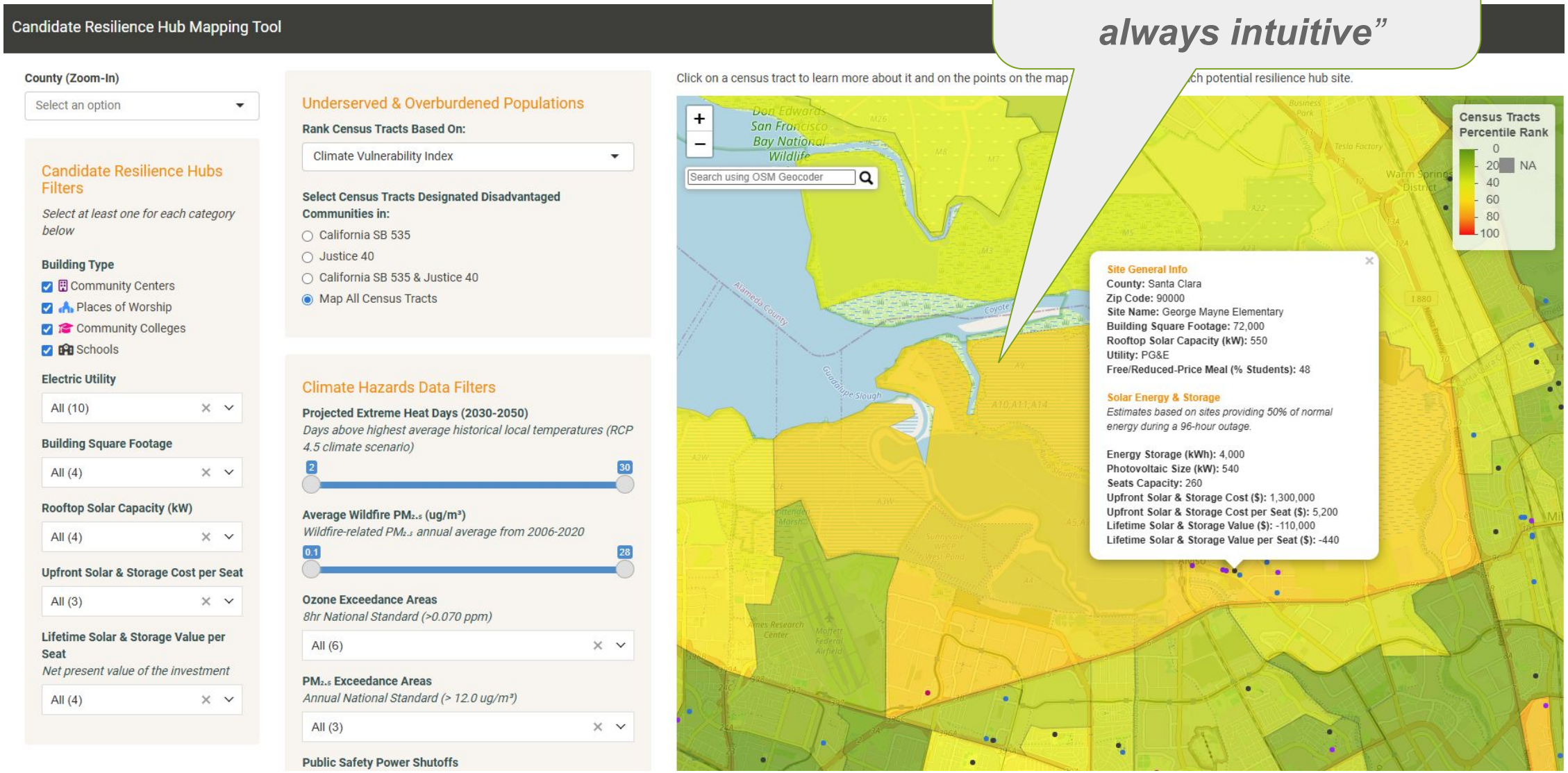
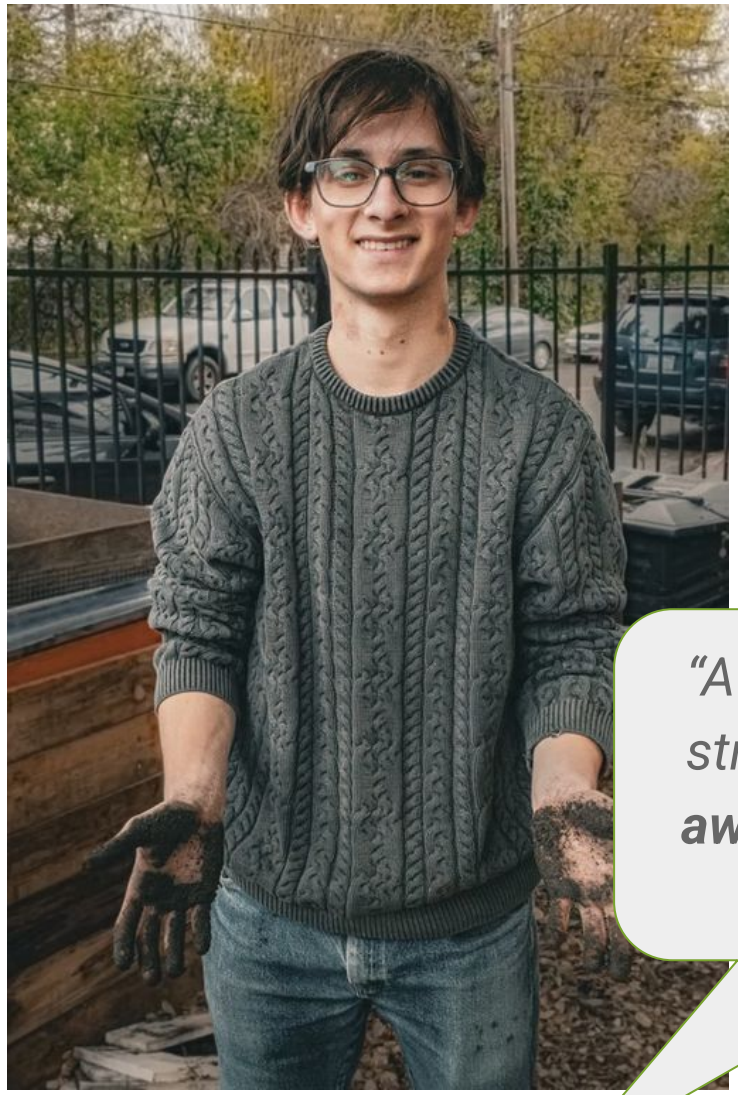


Image from Candidate Resilience Hub Mapping Tools, https://psehealthyenergy.shinyapps.io/climate_vulnerability_index/

Community Co-creation

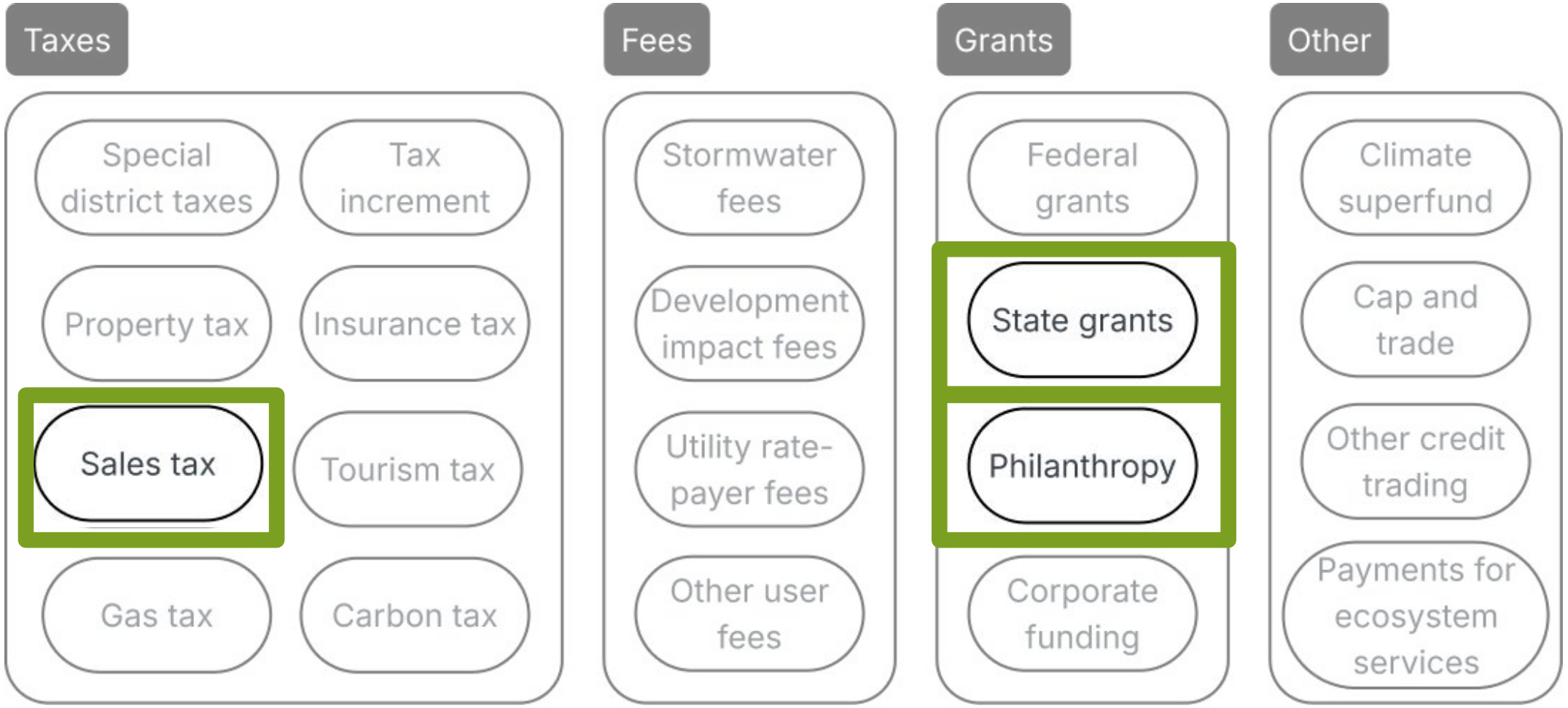




*"A resilience hub is only as strong as the **community's awareness and confidence** in that place"*

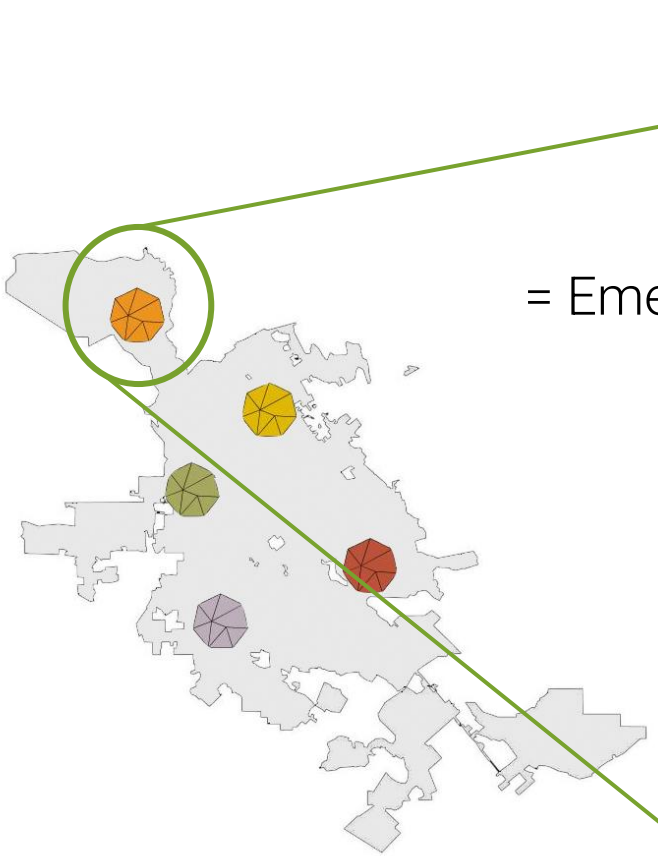
Photos from Climate Resilient Communities, www.crcommunities.org/

Resource Organizing & Mobilizing



Align with resilience hub scope

Implementation: Resilience Hub Ecosystem



= Emergency Shelter

School

= Clear Air Refuge
(upgrade HVAC)

Park Rec Center

2 miles

Community Center

= Cooling Center
(add PV+battery)

Library

= Flood refuge

Image inspired by 2023 ULI LA TAP Report, https://knowledge.uli.org/reports/tap/2023/building-resilience-ecosystems

Case Study: School = Clean Air Refuge

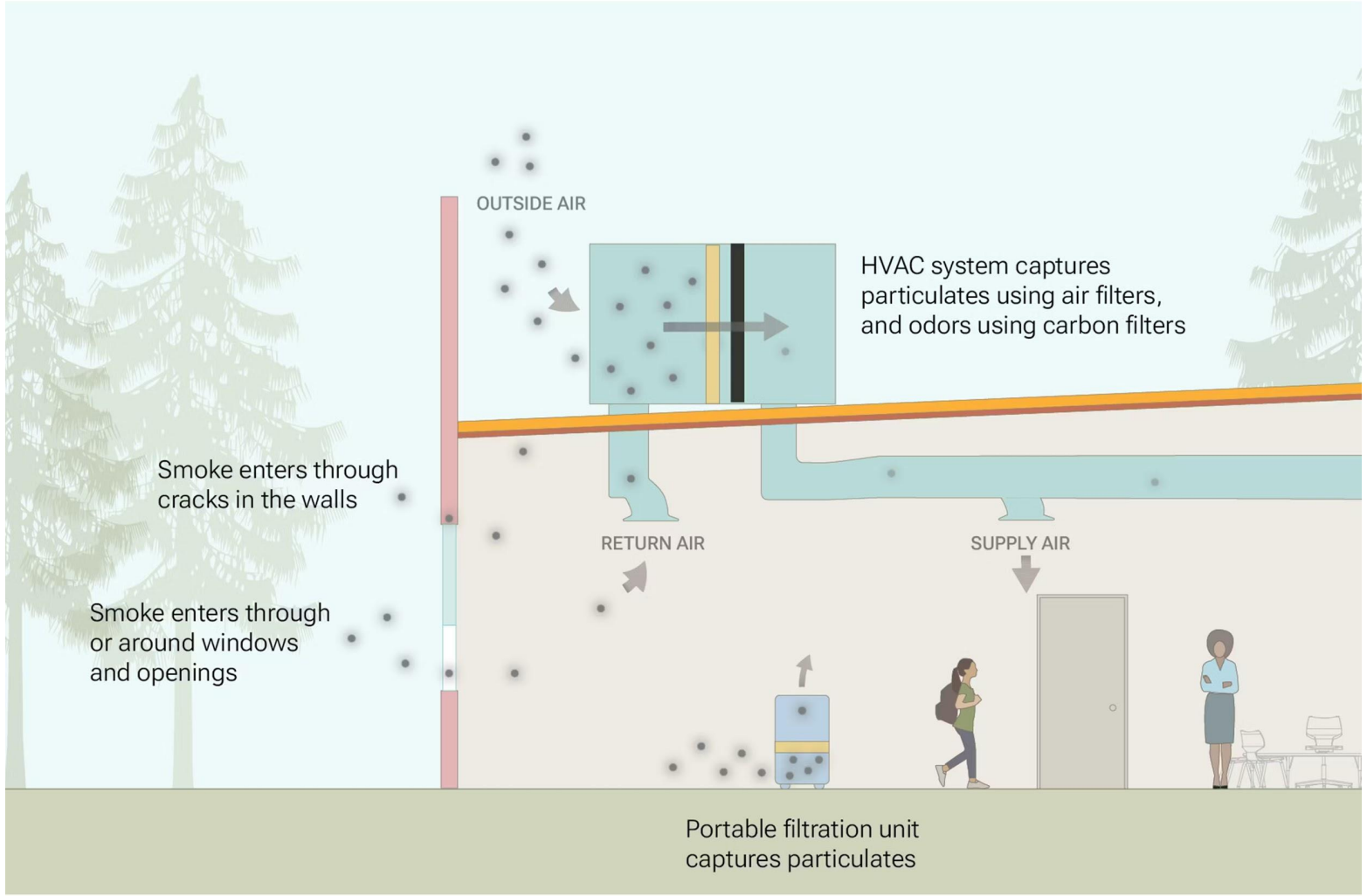


Image from SMM EPA pilot, https://smm.studio/en-us/work/epa/

- Outdated mechanical equipment
- Central location + daily community use = social resilience
- Vulnerable population at risk of health impacts from poor air quality
- Co-benefit of reduced disease transmission
- Showcase of innovative all electric technology in partnership with local business



COMMUNICATION

Communicate at **All Levels**



Prioritize Building Trust

Community Best Practices

- Build on what has already been successful and identify gaps
- Focus on **education** and **transparency**
- Learn from community's **lived experiences**
- Identify **near-term community needs** while planning for the long-term
- **Follow through** on promises



Source: CARP Community Engagement Summary, City of San Jose

Prioritize Building Trust

Community Best Practices

- **Be inclusive**
- Prevent engagement fatigue and compensate time
- **Meet the community where they are**
- Work with Community Partners
- Establish **success metrics** for community engagement



Source: WRT

Early Engagement and a Place at the Table

Community Partners Best Practices

- Create space for community partners to **inform city policies** and **implementation actions**
- Lean on your partners to **expand staff capacity** and access **funding opportunities**



Source: WRT

Coordinate Efforts on Multi-benefit Projects

Department Partnerships Best Practices

- **You don't have to do this alone!**
- Coordinate with departments partners to identify projects and funding that can deliver multi-benefit outcomes



Source: City of San Jose

Coordinate Efforts on Multi-benefit Projects

Agency Partnerships Best Practices

- Align local resilience and adaptation projects with regional efforts
- Collaborate with regional and state agencies, peer communities, and non-profit organizations to align respective climate goals and **improve competitiveness for funding**

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SVLG
SILICON VALLEY
LEADERSHIP GROUP

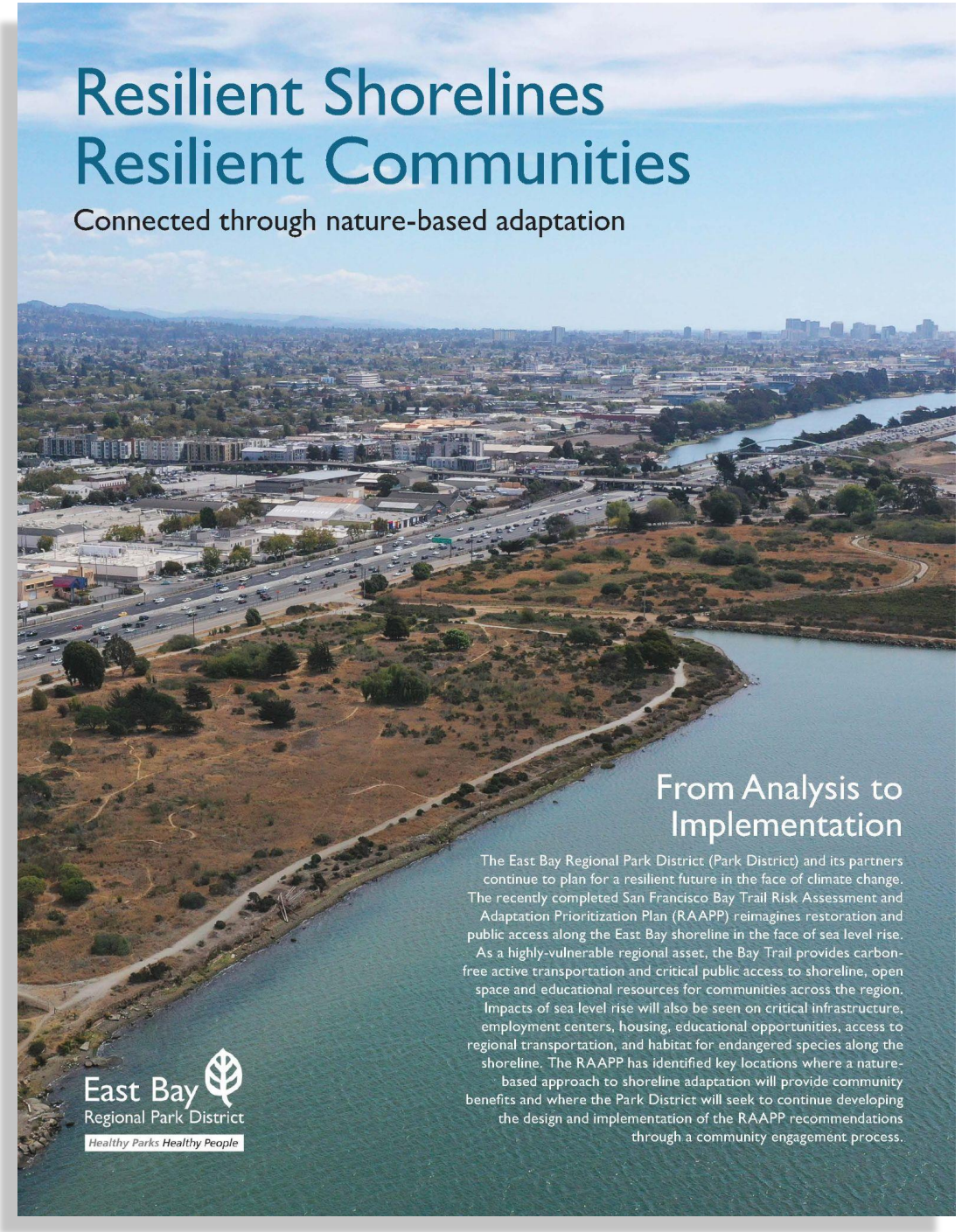
SAVE THE BAY

Tell Your Story!

"Pave the path with quick wins and others will want to walk along."

Best practices for outreach to potential partners and funders

- **Celebrate wins** and gain momentum
- Continue to build the ecosystem of your partners
- Engage educational institutions and students for a "living lab" experience
- Reduce barriers to partnership



Source: WRT & EBRPD

RECOMMENDATIONS



Summary of TAP Recommendations

- Establish a strong **Co-governance Structure** (shared decision-making between the City and communities) supported by City leadership, strong cross-departmental alignment and meaningful community partnerships.
- Develop a **Roadmap** to conduct targeted risk assessments, identify existing resources and potential funding, and prioritize projects with a realistic implementation timeline
- **Tell Your Story** through collaborative marketing to gain external and internal champions

The City doesn't have to – nor should it – go at this alone!

Early Actions

- Reconstitute the Climate Working Group from CARP and launch a CARP Leadership Board
- Create Community Engagement Plan that can also serve as a resource for the General Plan environmental justice element update. Partner with the community to identify local needs, priorities and trusted physical spaces that might contribute to a Community Resilience Hub ecosystem
- Implement a resilience design process: define risk, develop design standards, evaluate benefits and tradeoffs, and inform operational policies
- Encourage broader collaboration by removing barriers to partnership and streamlining implementation processes.


Q&A
Thank You!