

Equity in Climate Resilience:

A survey of progress in
Greater Boston municipalities

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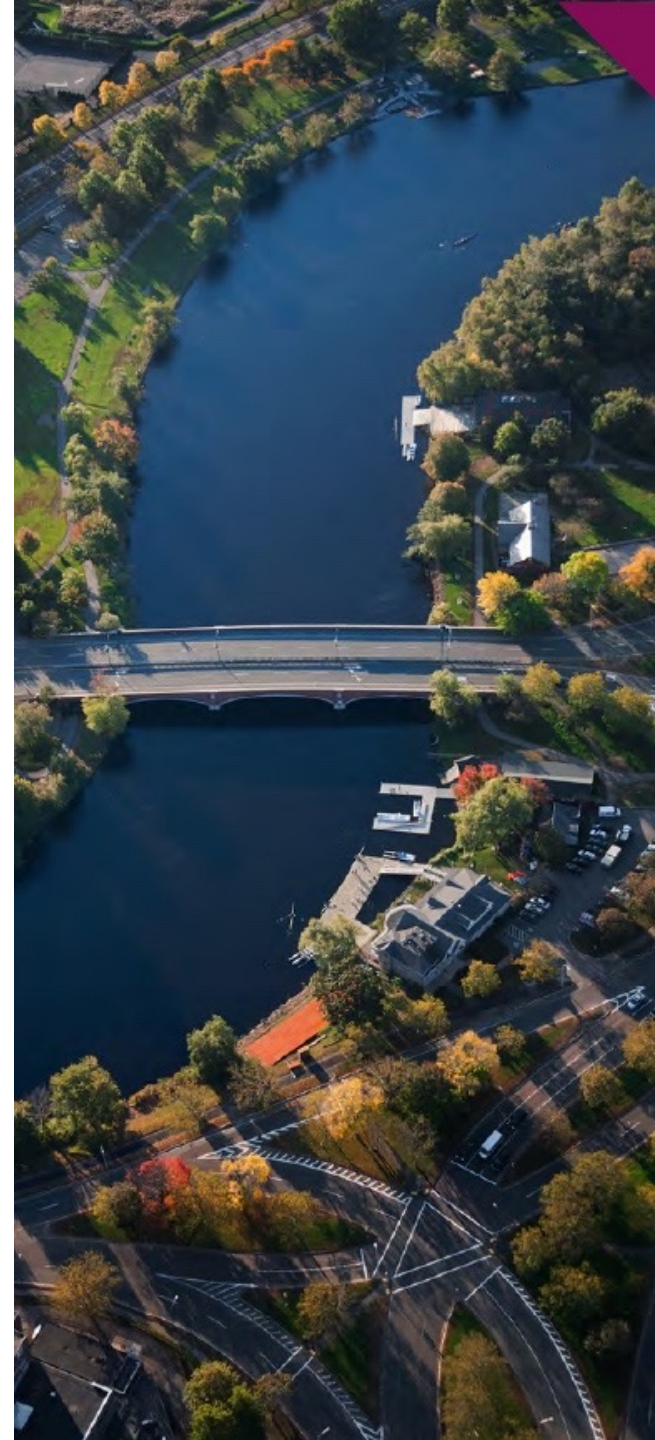


Prepared for:
Barr Foundation

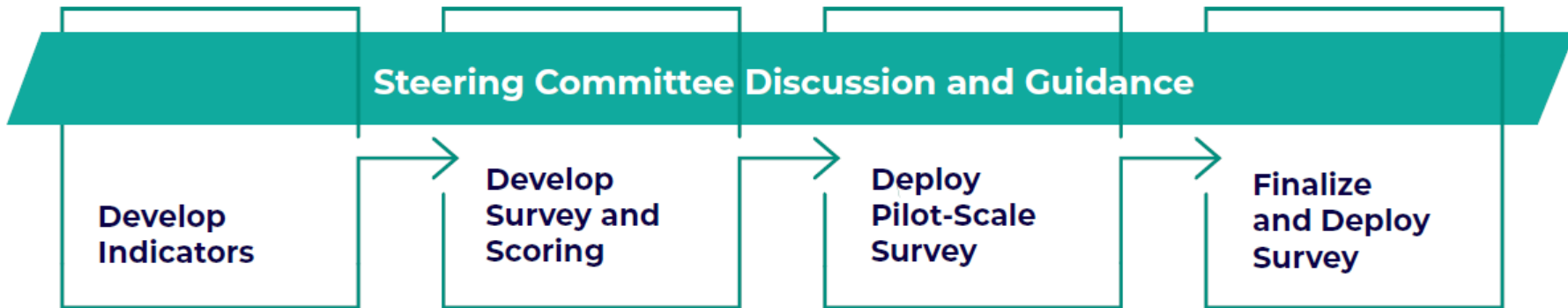
Prepared by:
Stantec Consulting Services, Inc.

Climate Resilience Analysis: Goals

- Establish a rubric to measure progress on policies and practices for climate resilience in Greater Boston, aligned with the Barr Foundation's goals for climate resilience.
- Identify the gains the Greater Boston region has made to become more climate resilient.
- Understand the changing landscape/context in Massachusetts on climate resilience.



Survey Deployment



Indicators:

- Climate Information
- Communication and Engagement
- Fiscal
- Development Policies and Procedures
- Project Design and Implementation

Topics spanning all indicators:

- Equity ← Today's Focus
- Governance
- Partnerships

Steering Committee



Kalila Barnett
Barr Foundation
Senior Program Officer,
Climate Resilience



Van Du
Metropolitan Area
Planning Council
Senior Planner



Melanie Gárate
Mystic River Watershed
Association, Resilient Mystic
Collaborative, Social
Resilience Working Group



Fidel Maltez
City of Chelsea
Public Works
Commissioner



Jillian Wilson Martin
Town of Natick
Director of
Sustainability



Sanjay Seth
City of Boston,
Climate Resilience
Program Manager

Pilot-Scale Survey Deployment

Select municipalities:

- Active in climate resilience conversations
- Individuals in key roles who would be likely to engage
- Array of size, socioeconomic makeup, location, vulnerabilities
- Acton, Cambridge, and Revere responded

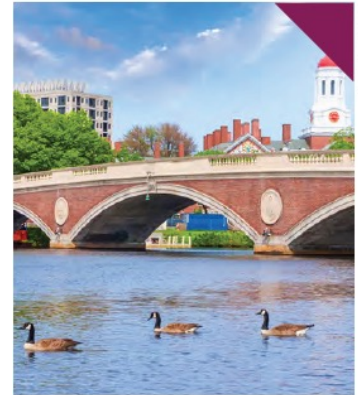
Conducted pilot Oct-Nov 2021.

Outcome: meaningful feedback on question clarity, availability of information, and time spent.

Refined survey for full deployment.



Acton



Cambridge



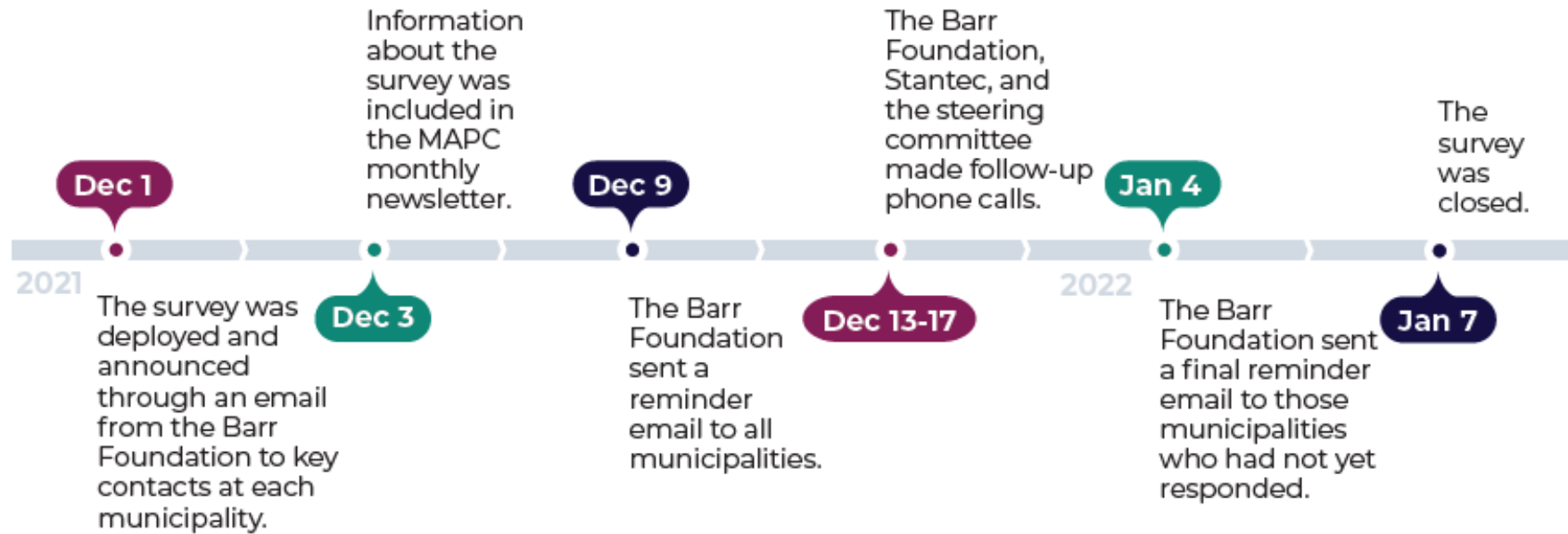
Revere

Survey Deployment

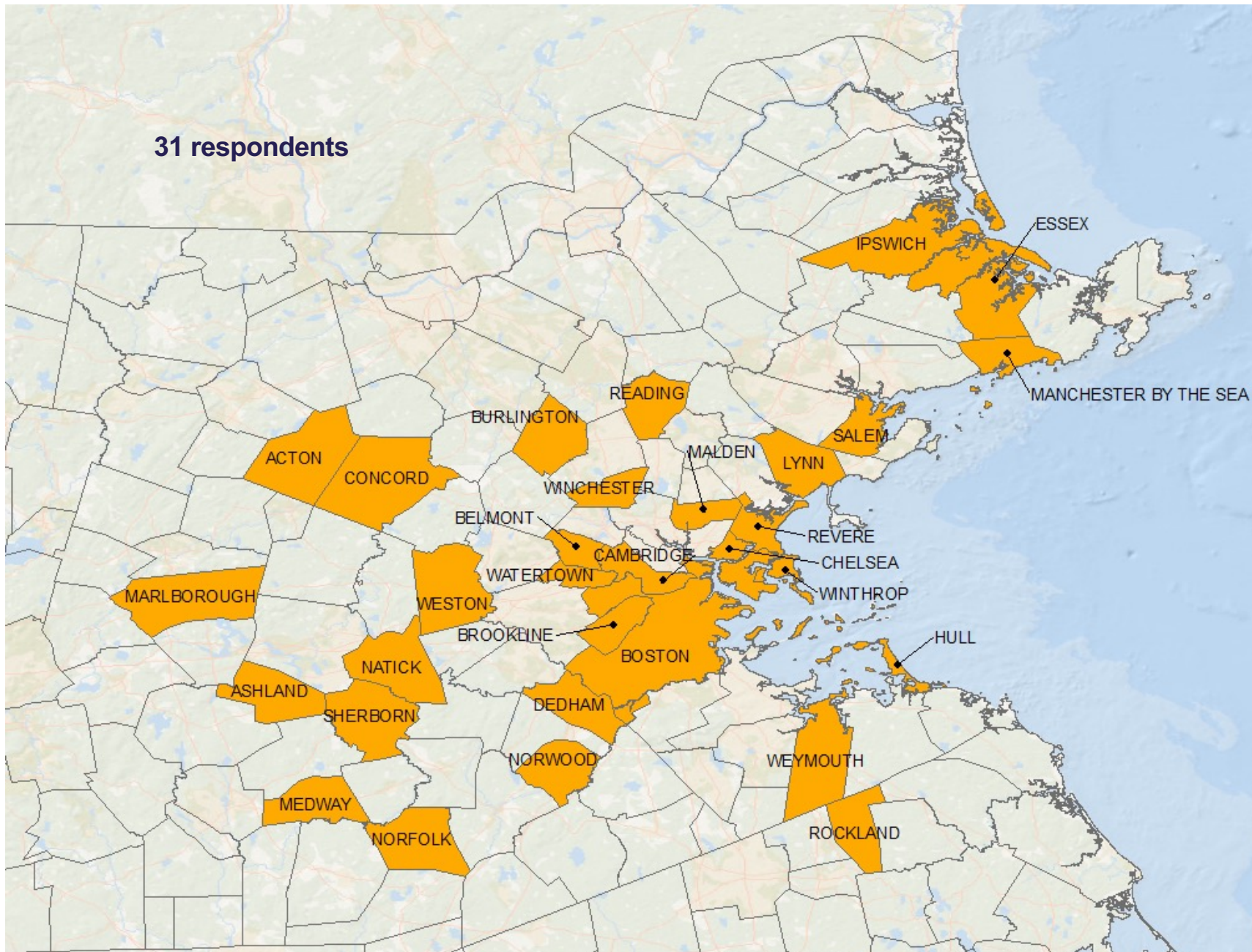
Survey sent to 101 MAPC municipalities – known individuals or Town Planners.

31 responses.

Deployed for just over 5 weeks

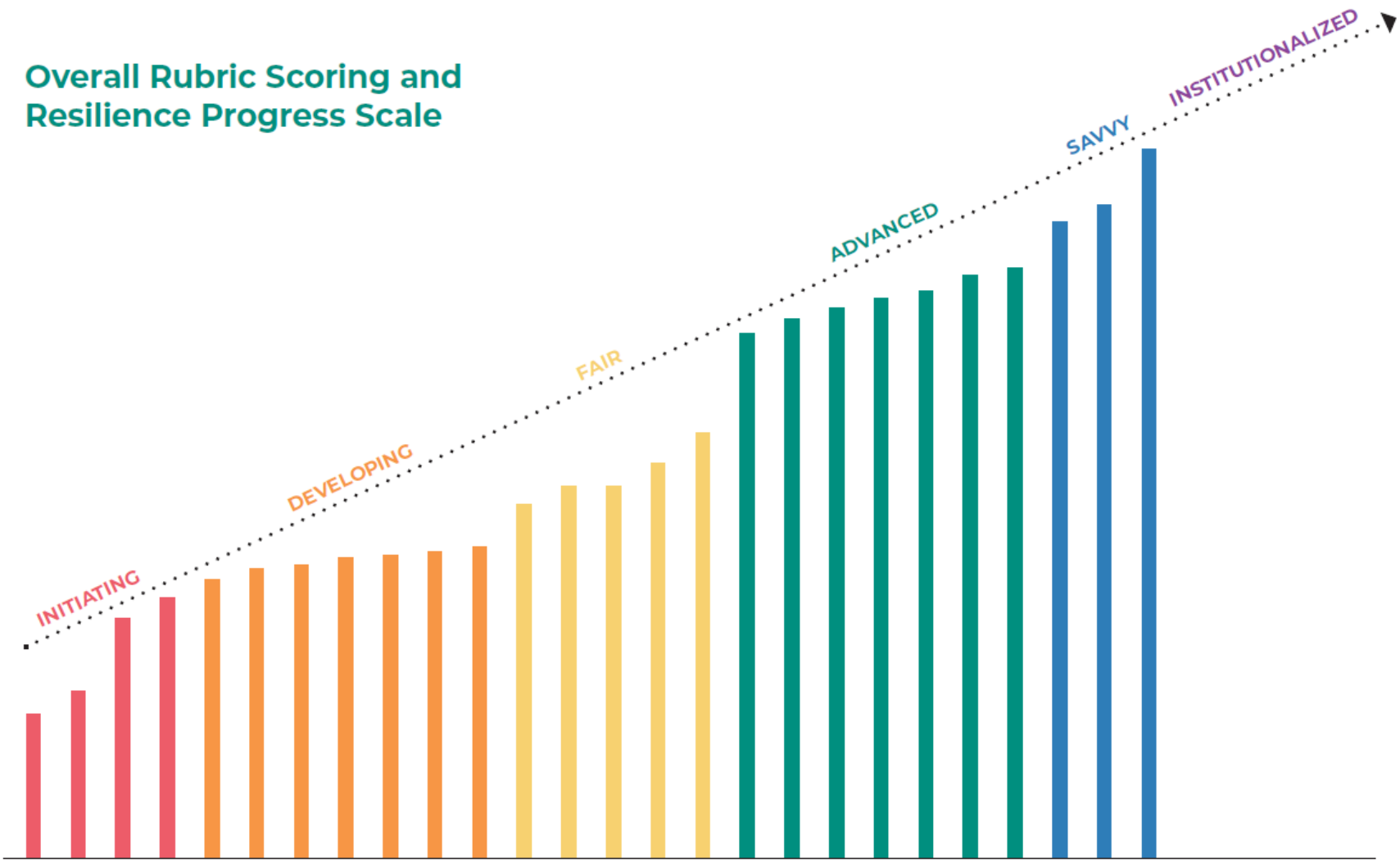


31 respondents



Overall Rubric Scoring and Resilience Progress Scale

BARR FOUNDATION CLIMATE RESILIENCE ANALYSIS



Findings: Climate Information

Accessing, understanding, and using climate information

Flooding hazards are most commonly considered; Multiple impacts are assessed



Physical environment
(buildings, critical facilities)



Natural environment
(green space, biodiversity)



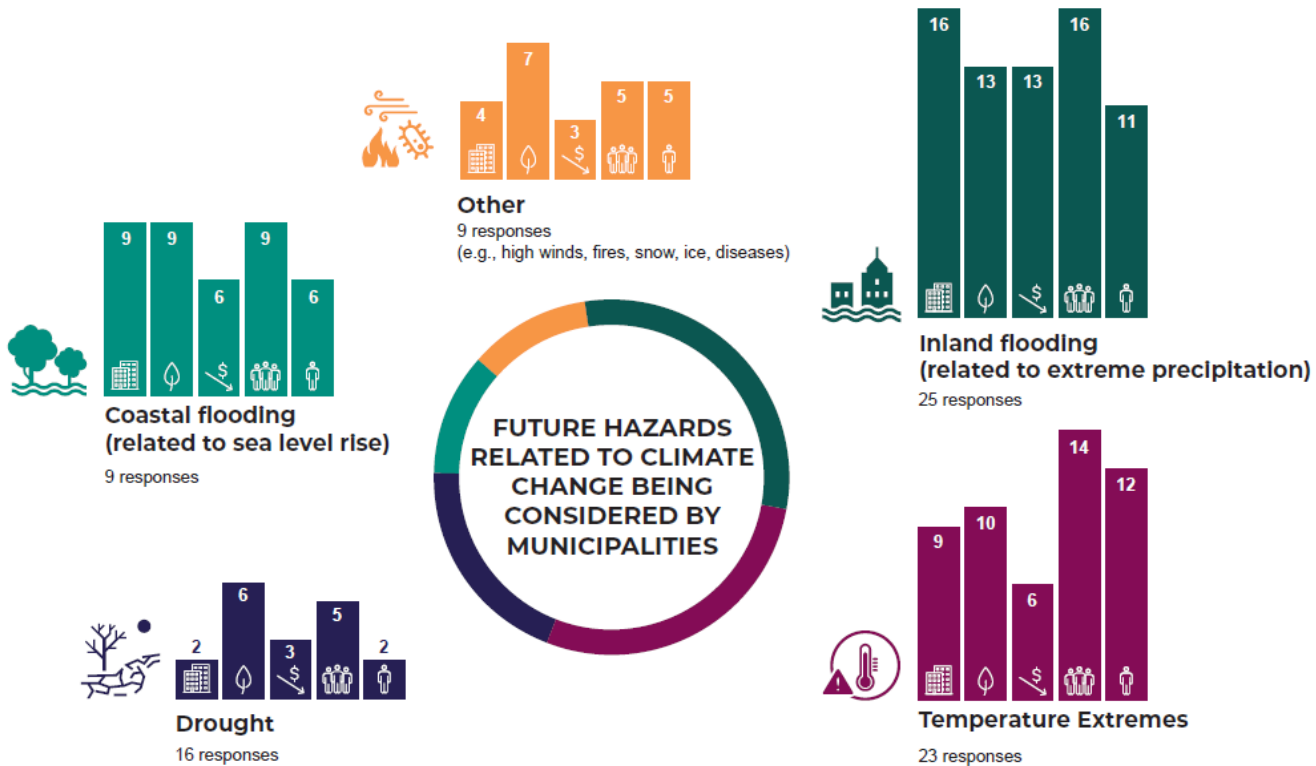
Economic Losses



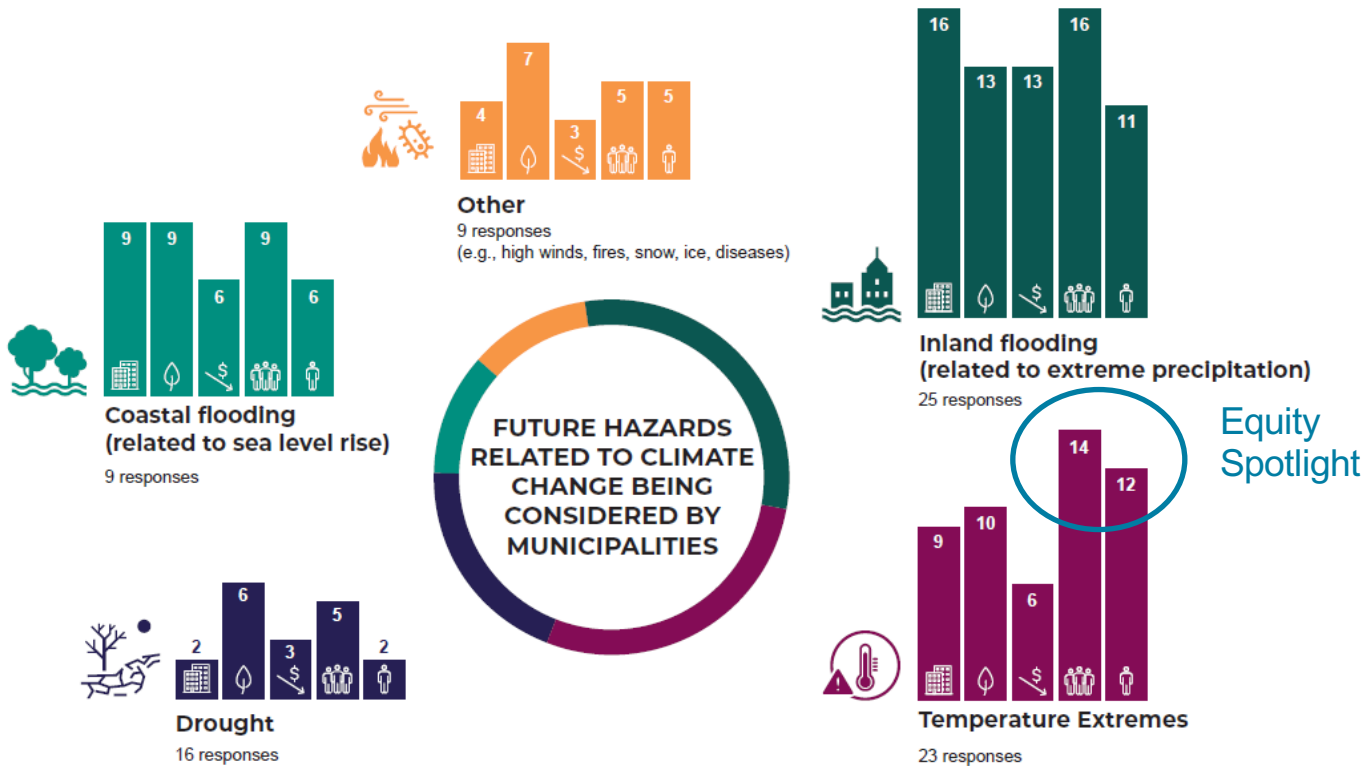
Population
(all residents of the municipality)



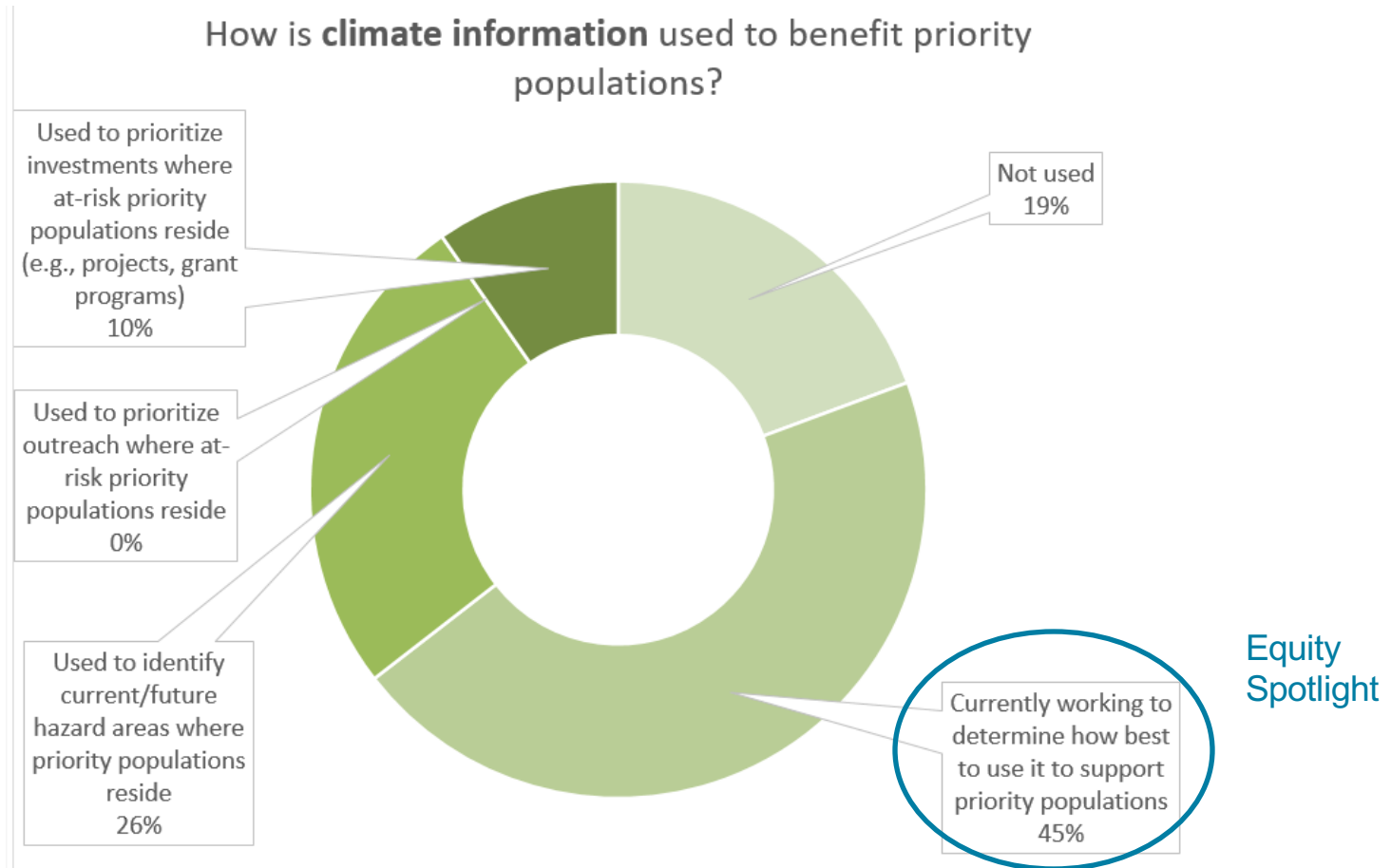
Priority Population



Impacts to priority populations are more commonly assessed for extreme temperatures



Many communities want to use climate information to support priority populations



Findings: Communication & Engagement

Communicating, engaging, and educating the whole community on resilience topics

Removing barriers to engage with priority populations


Equity
Spotlight

How do municipalities remove potential barriers to engage with priority populations? Best practices included:

- Multi-lingual outreach materials and translators
- Virtual and in-person options held at multiple times
- Focus groups for target audience (e.g., renters)
- Use of field workers to meet people where they are
- Offering childcare
- Providing stipends for participation

Findings: Fiscal

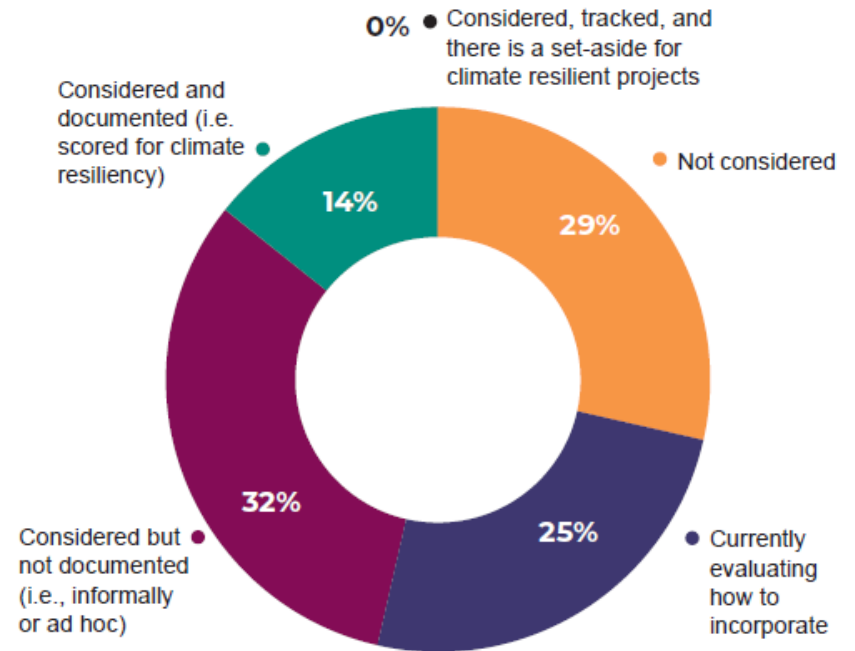
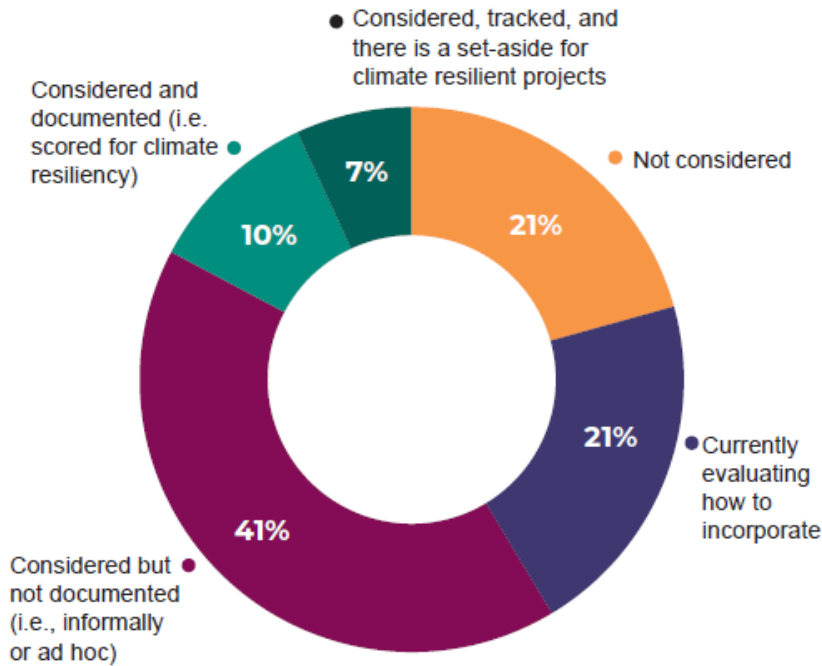
Advancing climate resilience within limited funding resources

Capital planning prioritization: just over half consider climate resilience, and just under half consider social resilience



Is climate resilience integrated into the capital planning process?

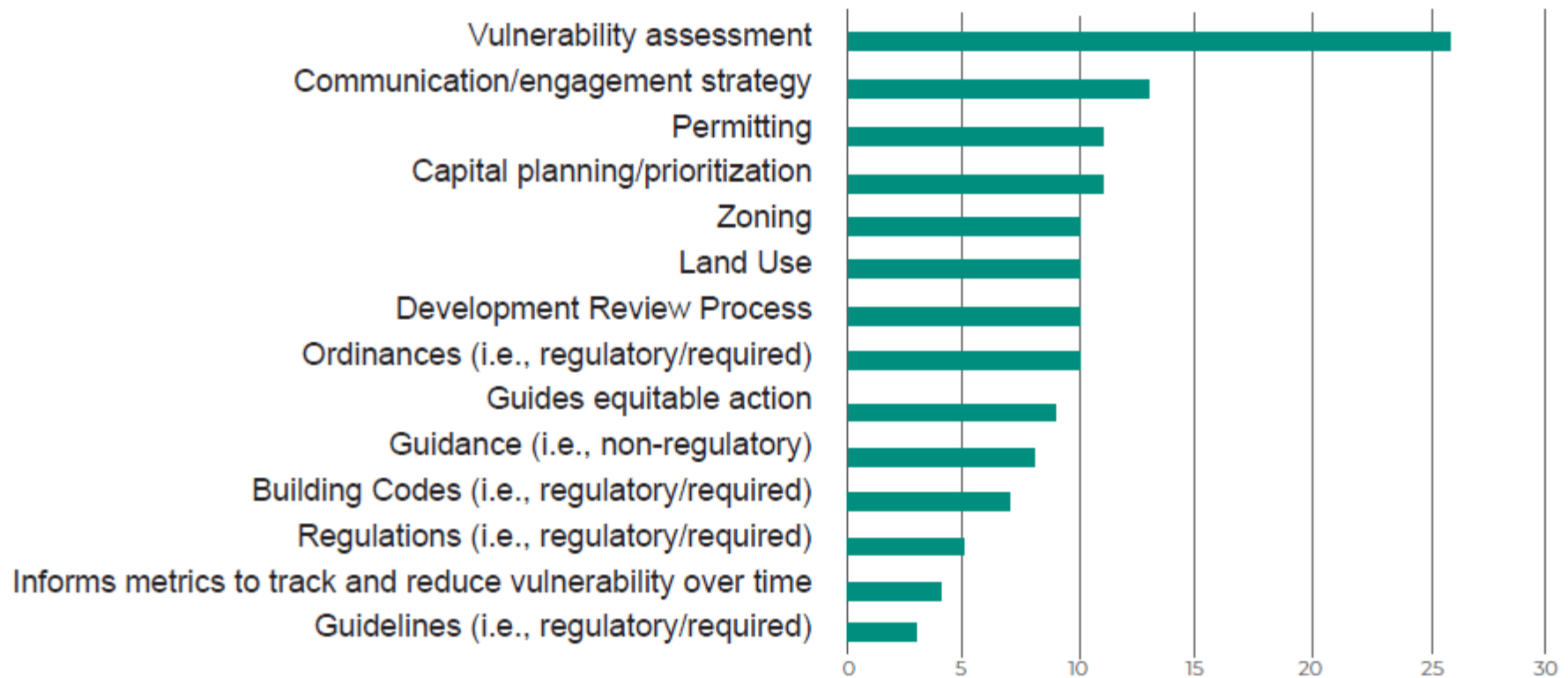
Is social resilience integrated into the capital planning process?



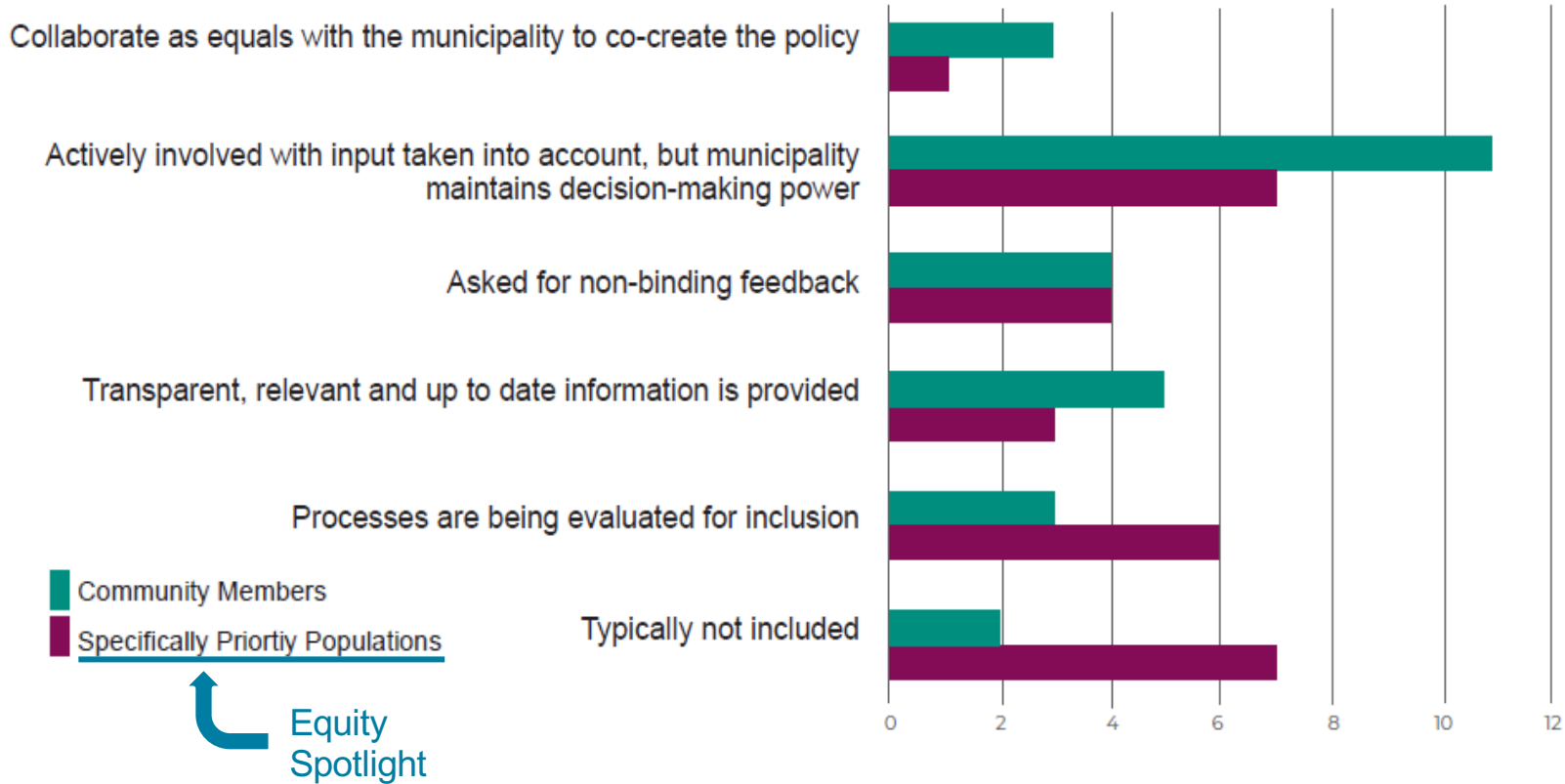
Findings: Development Policies/Procedures

Maintaining policies and planning mechanisms to encourage or require developing in a climate resilient manner

Vulnerability assessment dominates the list of planning mechanisms promoting climate resilience



Community members are meaningfully engaged in creating/updating climate policies; priority population engagement can be improved.



Findings: Project Design/Implementation

Designing, reviewing, and/or approving projects that promote climate resilience

Degree of protection (event / horizon) to which municipalities design varies widely

	Coastal Flooding	Inland Flooding	Temperature Extremes
Range of Time Horizons	2030 - 2070	2030 - 2070	2030 - 2070
Range of Return Period of Events	100 - 500 year return period event	10 - 500 year return period event	10-year return period event

Socially resilient project features

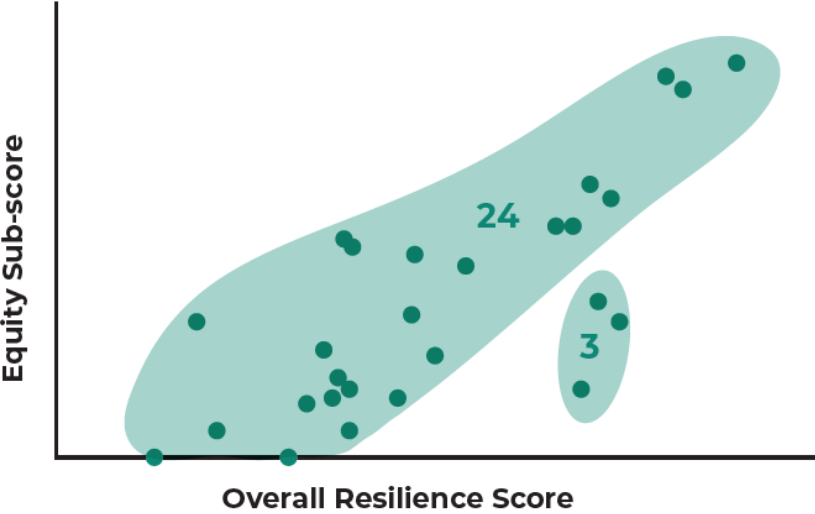
The following projects and features were noted as effective in bolstering social resilience: ← Equity Spotlight

- Various features of park projects, such as shade pavilions and park amenities being required in private development.
- Some affordable housing developments include passive resilience features, trails, and common areas that serve as safe spaces.
- Cooling towels, air conditioners, and fans for vulnerable populations
- Tree planting in areas with lower tree canopies to reduce the urban heat island effect.
- Resilience hubs

Findings: Equity in Climate Resilience

A lens across all indicators

Vulnerability assessment dominates the list of planning mechanisms promoting climate resilience



Conclusions

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Most respondents are leaning into resilience through a range of activities.

Specific opportunities identified to achieve more meaningful change:

- **Bridging the gap between general populations and priority populations.** Climate change engagement and climate change impacts.
- **New or improved technical resources and tools.** Example: distillation of vast climate information into regionally-relevant, high-resolution data sources.
- **Increased measurement and tracking.** Resources and tools to measure and track outcomes, which is often not done.
- **Peer-to-peer knowledge sharing, lessons learned, and best practices.** Examples: climate resilience policies and regulatory mechanisms, improving resilience for existing buildings.

How Have the Results Been Used?

Survey findings have directly influenced the Barr Foundation's grantmaking:

- 2023 Grant to Woodwell Climate Center to increase coverage of their Just Access program that provides granular localized data for municipalities.
- 2024 plans to expand grantmaking to municipalities and community-based organizations for:
 - Increased participation and input from priority populations
 - More equitable outcomes

Questions?

