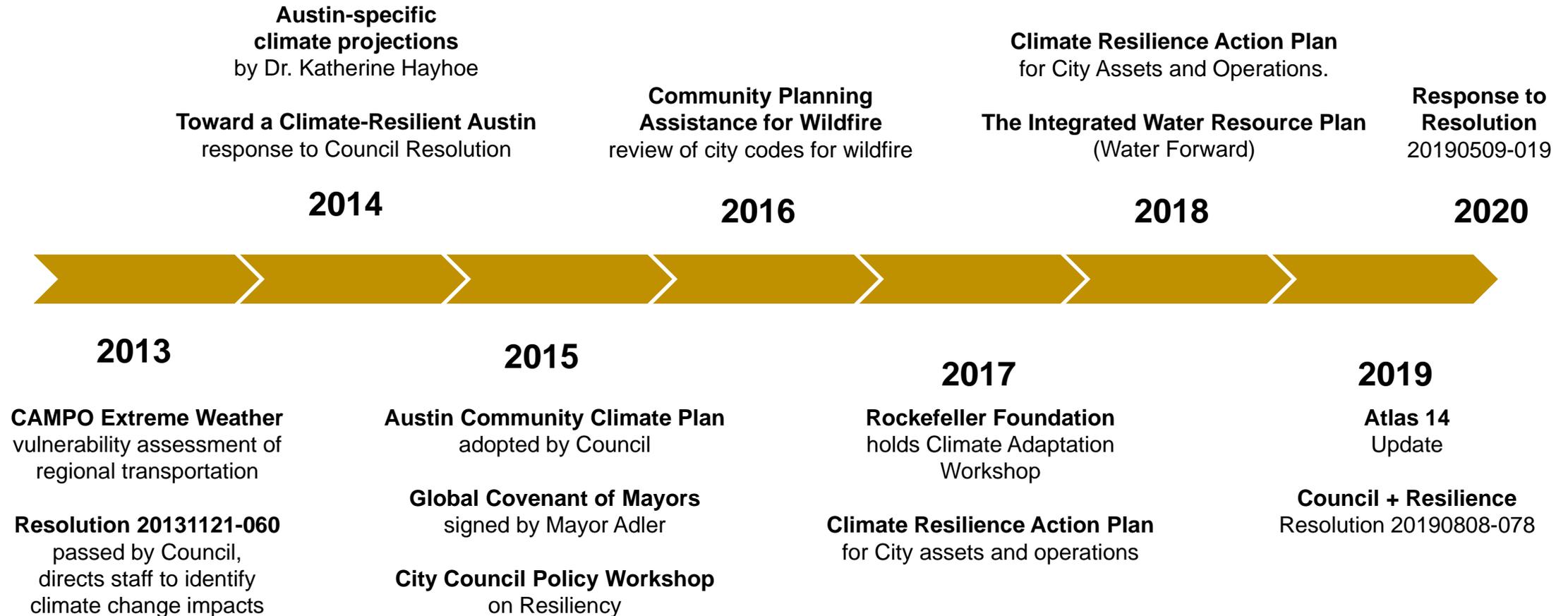




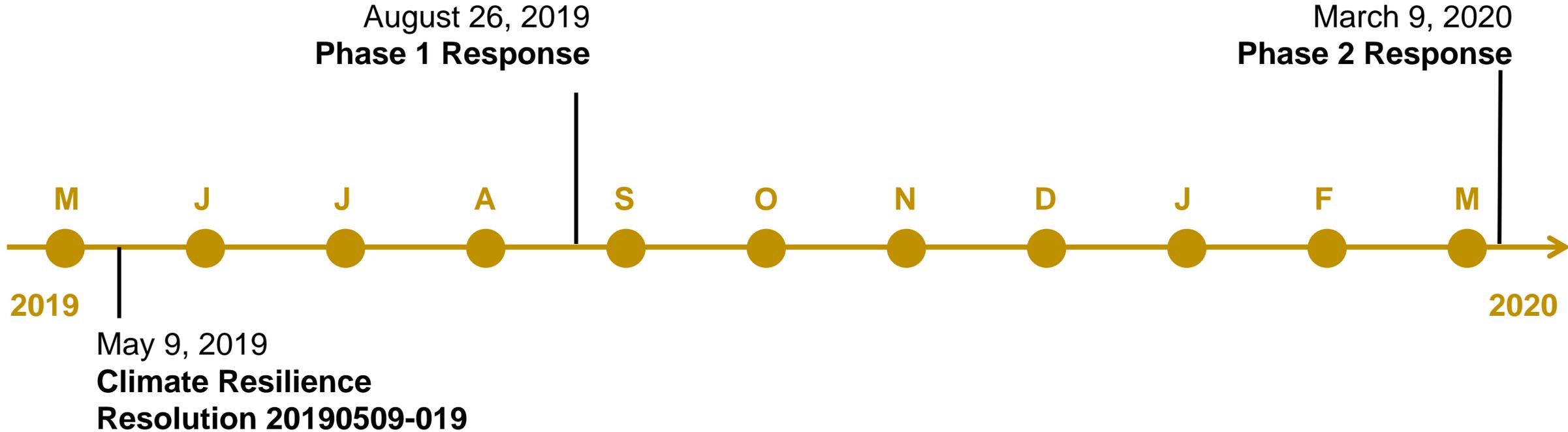
Climate Resilient Austin

Response to Resolution 20190509-019

Climate Resilience Activities Timeline



Council Response Timeline



Climate Resilience Resolution 20190509-019

Resilience Planning Directives

- *“perform a literature review of climate resilience plans of peer cities...”*
- *“explore available, potential partnerships (such as the 100 Resilient Cities model)...”*
- *“recommendations for creating a comprehensive, community-wide climate resilience plan that is fair, just, and equitable...”*

Chief Resilience Officer

- *Recommendations should include funding options, such as grants or other revenue sources, to ...*
 - 1) *fund a position for a Chief Resilience Officer and staff necessary to produce a resilience plan; or*
 - 2) *hire a consultant to draft or assist city staff with drafting a comprehensive resilience plan; or*
 - 3) *other recommendations for achieving this objective.*

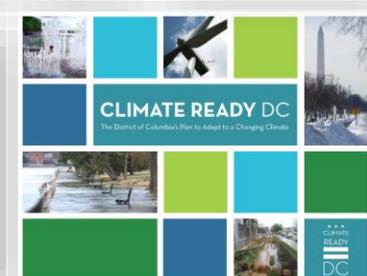
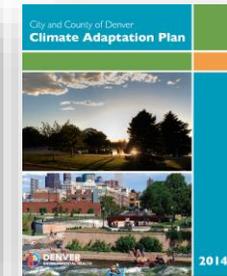
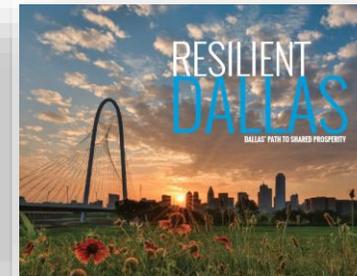
Case Studies

Criteria for selecting cities:

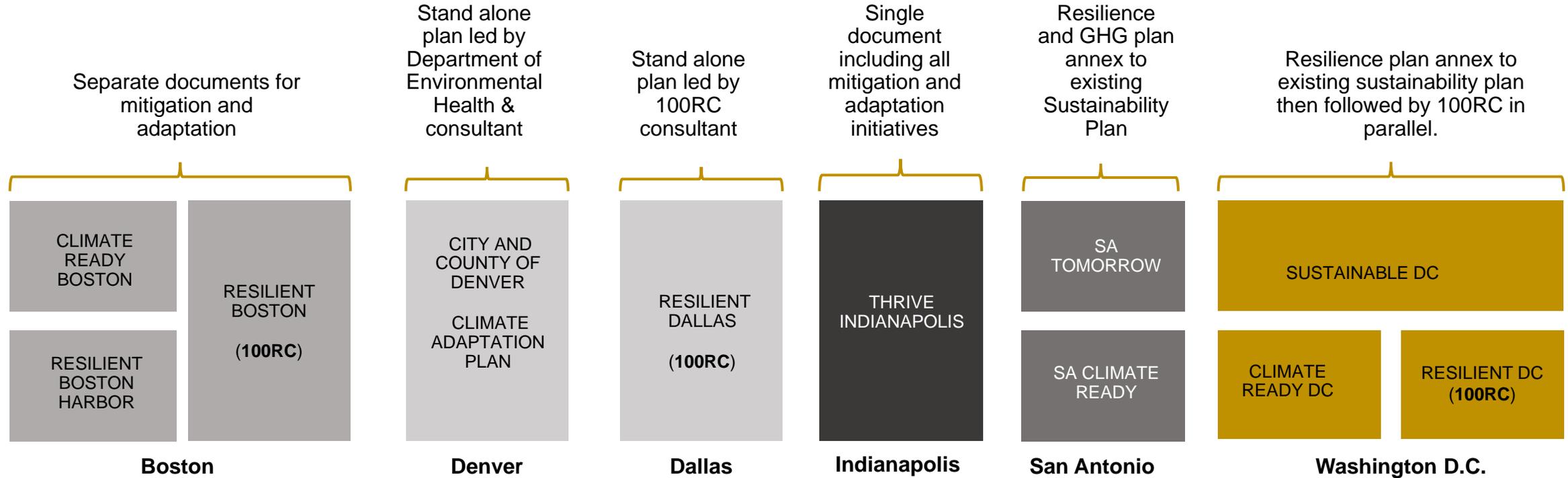
1. Population between **600,000 and 1.5 million**
2. At least **one 100RC** city (Boston, Dallas, DC) and **one non-100RC** city (San Antonio and Indianapolis)
3. At least one city that has attempted a **combo mitigation/adaptation** plan (Indianapolis)
4. At least **two exemplary** plans (Boston, Washington DC. According to USDN CRO)
5. At least **two from Texas** (Dallas and San Antonio)
6. At least **three not directly impacted by sea-level rise** (Dallas, Indianapolis and San Antonio)

Selected Cities:

1. Boston
2. Dallas
3. Denver
4. Indianapolis
5. San Antonio
6. Washington D.C.



Case Studies



Preference: Equity Focus

Lessons Learned

Process

- Incorporate **equity** in all strategies
- Don't diminish **stressors**
- Include hazard **mapping**
- Get community **input**
- Define who is **responsible** for what actions

Resource needs

- More **resources = more** engagement
- Consider **consultant**: technical expertise, community engagement & reporting
- Identify **resources** prior to implementation

Implementation

- Define **metrics** for success
- Focus on **actionable** strategies
- Consider **equitable** distribution of resources/projects



Phase 1 Response – August 26, 2019

Blueprint for a Community-wide Climate Resilience Plan

- *Defining Resilience*
- *Overview of Climate Impacts*

Options

- *Hire a Chief Climate Resilience Officer to provide executive level leadership and coordinate interdepartmental resiliency efforts*
- *Assess existing plans and policies to promote coordination and ensure an aligned approach to the threats of climate change*
- *Undertake GIS mapping to identify locations and populations most vulnerable to climate change to help inform outreach, engagement and planning efforts.*

Requested extension to provide additional recommendations

Resiliency is the capacity of individuals, communities, institutions, businesses, and systems to survive, adapt, and grow from difficult times. (SD23)



ACUTE SHOCKS are sudden, sharp events that threaten a community (Examples include: floods, wildfires, disease outbreaks)

CHRONIC STRESSES weaken the fabric of a city on a day-to-day or cyclical basis (Examples include: prolonged heat, bad air quality, drought, chronic food shortages)

Climate Projections for Austin



HIGHER TEMPERATURES



EXTENDED PERIODS OF DROUGHT



INCREASED RISK OF WILDFIRE



INTENSE RAIN AND FLOODING



DAMAGE TO PROPERTY



POORER HUMAN HEALTH

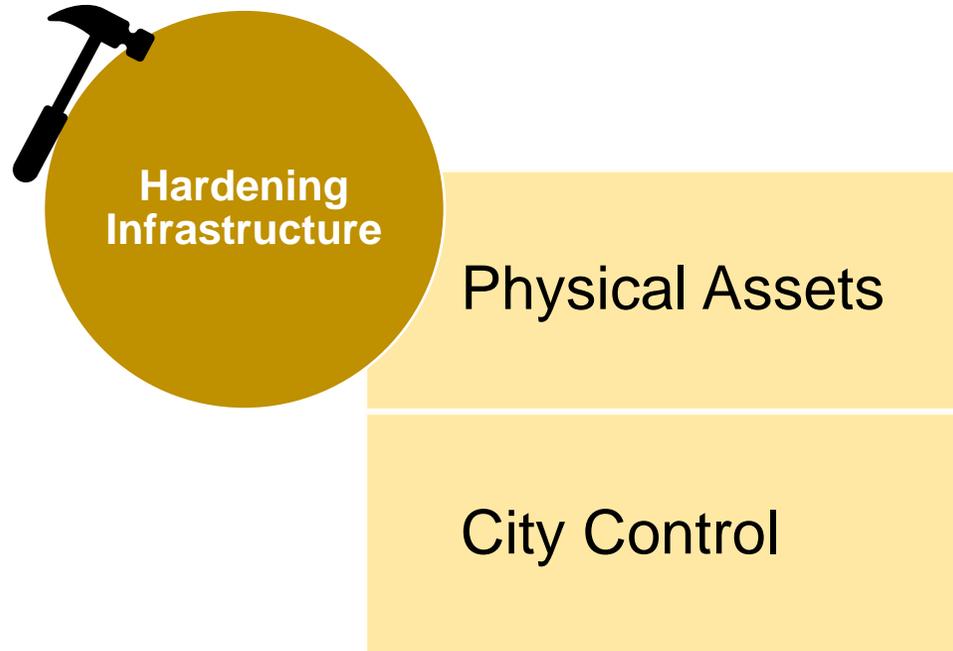


REDUCED AGRICULTURAL PRODUCTION



HIGHER ENERGY COSTS

Categories of Solutions

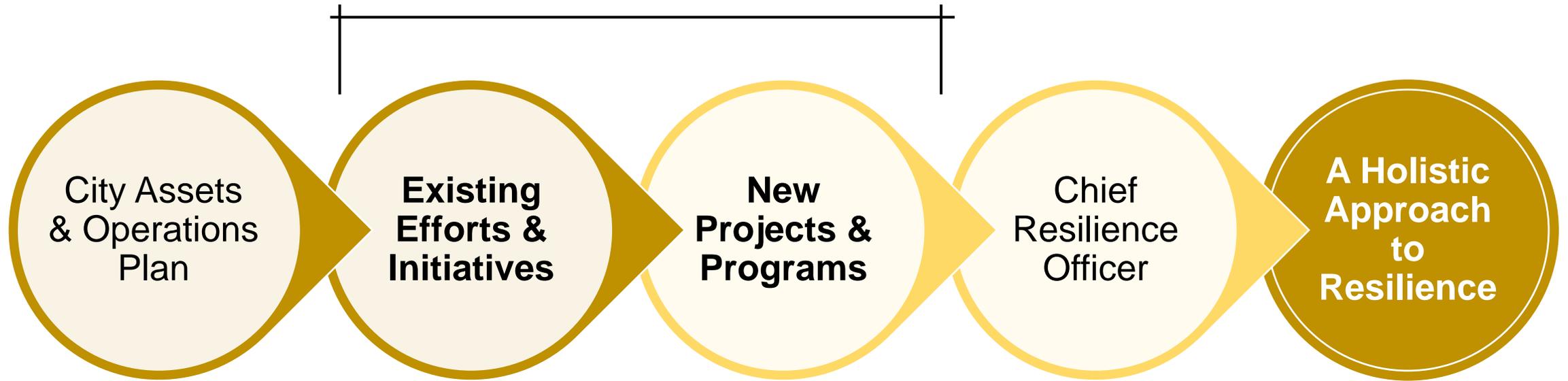


Equity

- Low-income are first hit, worst hit
- Climate shocks/stressors on top of existing economic stressors
- Less resources to evacuate or protect homes in the face of an event
- Less resources to bounce back after an event
- Long term impacts to mental and physical health

Ralph Barrera/Austin American-Statesman/MCT

Phase 2 Response



Overview: Efforts Currently Underway

1. Create digital atlas that maps locations and populations most impacted by climate change. - OOS
2. Create an integrated Green Infrastructure Plan- OOS
3. Implement Water Forward, Austin's 100-Year Water Plan.- AW
4. Reduce wildfire risk and adoption of the Wildland Urban Interface (WUI) Code.– AFD
5. Conduct creek flooding mitigation planning.– WPD
6. Investigate impact of heat on students at 3 Elementary Schools. - PARD
7. Implement recommendations from October 2018 Flood Event Engineering Review.
8. Continue implementing Climate Resilience Action Plan for City Assets and Operations. – Varies/Multiple
9. Conduct Air Quality Assessment Pilot. - OOS

Overview: Menu of New Options

Community Capacity to Prepare and Bounce Forward

1. Hire a Climate Resilience Officer.
2. Place Community Emergency Response Teams in three pilot neighborhoods.
3. Help small businesses prepare for and recover from climate-related disasters
4. Conduct a City-wide Emergency Preparedness campaign.

Robust & Resilient Infrastructure

5. Assess critical community facilities for energy and water needs per the Colorado River Flooding After-Action Report.
6. Perform wildfire evacuation assessment.
7. Evaluate Austin's resilience to food shortages.
8. Install neighborhood Resilience Kiosks.
9. Conduct Resilience Hub Assessment and prepare an Action Plan.

Next Steps

1. Create publication and promotion plan for The Austin Area Sustainability Indicators (A2SI) Community Climate Vulnerability Maps
2. Publish Phase 1 Green Infrastructure Storymap and Green Infrastructure Atlas
3. Dove Springs Health Center - complete feasibility assessment of Resilience Hub features
4. Continue to pursue external partners and funding including Rockefeller Foundation
5. Compile lessons learned from COVID-19 pandemic to inform ongoing and future efforts





Questions?

1. Hire a Resilience Officer

As outlined in the in the August 26, 2019 response to council (Resolution 20190509-019)

Lead Department

- Homeland Security and Emergency Management (HSEM) or Office of Sustainability

Staffing Impact

- 1 new Resilience Officer position for HSEM and/or Sustainability
Reclassify or repurpose existing vacant PCNs OR
- create new temporary or permanent position

Partners

- None currently, potential grant funding (USDN, Global Resilient Cities Network)



2. Place Community Emergency Response Teams in three pilot neighborhoods.

Goal: Engage residents to better understand the specific impacts of climate shocks and stressors.

Category: Building Community Capacity

SD23 Indicators

- S.C.1
- S.C.2
- S.C.3
- S.C.4
- HE.E.2
- HE.E.5.a and b

Lead Department

- Homeland Security & Emergency Management

Support from

- Austin Fire Department, Austin Public Health, Office of Sustainability, Equity Office

Staffing Impact

- 1 new Community Engagement Specialist position for HSEM, 1 new Research Analyst position for HSEM
- Reclassify or repurpose existing vacant PCNs OR create new temporary or permanent positions

Partners

- None currently, potential grant funding (USDN and/or St. David's)



3. Help small businesses prepare for and recover from climate-related disasters

Goal: Help small businesses in Austin prepare for and recover from climate-related disasters.

Category: Building Community Capacity

SD23 Indicators

- HE.E.5. a, b, and c
- EOA.A.6

Lead Department

- Economic Development Department

Staffing Impact

- 1 new Community Engagement Specialist position for Economic Development
- Reclassify or repurpose existing vacant PCNs OR create new temporary or permanent position

Partners

- Potential grant funding from the Federal Economic Development Agency.
- Nonprofit community lenders such as PeopleFund and Business and Community Lenders of Texas may be able to support.



4. Conduct a City-wide Emergency Preparedness campaign

Goal: At-large effort to educate the community.

Category: Building Community Capacity

SD23 Indicators

- S.C.1
- S.C.2
- S.C.3

Lead Department

- Homeland Security and Emergency Management (HSEM)

Staffing Impact

- N/A

Partners

- No funding partners have been identified for this work. Potential partners could include CAPCOG and Travis County.
- \$250,000 (one time) for creative/production costs
- \$150,000/year for annual media buys



5. Assess critical community facilities for energy and water needs per the Colorado River Flooding After-Action Report

Goal: Developing a culture of resilience within agencies throughout the broader community.

Category: Infrastructure Hardening

SD23 Indicators

- HE.E.2
- HE.E.5.a. b, and c

Lead Department

- Office of Sustainability

Support from

- Austin Energy Green Building
- Austin Public Health Office of Sustainability
- Parks & Recreation
- Austin Water

Staffing Impact

- N/A

Partners

- Potential grant funding
- \$150,000 (one-time) for geospatial software



6. Perform wildfire evacuation assessment.

Goal: Planning for ingress/egress routes and procedures.

Category: Infrastructure Hardening

SD23 Indicators

- SD23 HE.E.5.c

Lead Department

- Austin Fire Department

Support from

- Austin Police Department
Austin Transportation Emergency Medical Services
CAMPO

Staffing Impact

- N/A

Partners

- Potential funding from CAPCOG, FEMA, and the Texas A&M Forest Service. \$100,000 (one-time) for consultant to model and assess ingress/egress evacuation routes



7. Evaluate Austin's resilience to food shortages.

Goal: Evaluate how our regional food supply chain infrastructure might react to disruption.

Category: Infrastructure Hardening

SD23 Indicators

- HE.F.1
- HE.F.2
- HE.F.5

Lead Department

- Office of Sustainability

Support from

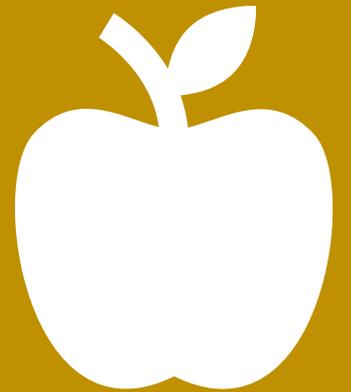
- Economic Development Department

Staffing Impact

- N/A

Partners

- Potential grant funding from the Natural Resources Defense Council.
- Methodology developed by Johns Hopkins University would be adapted for use in Austin with the help of research partners at the University of Texas at Austin.
- \$50,000 (one-time) To contract with Johns Hopkins University to map and evaluate food supply systems.



8. Install neighborhood Resilience Kiosks.

Goal: Install 4 new neighborhood-based, publicly accessible solar-powered phone charging kiosks.

Category: Infrastructure Hardening

SD23 Indicators:

- S.C.2
- S.C.3
- HE.E.2

Lead Department

- Office of Sustainability

Support from

- Parks & Recreation Austin Public Health Austin Public Library Austin Energy Green Building Homeland Security & Emergency Management

Staffing Impact

- N/A

Partners

- \$36,000 (one-time) for 4 solar-powered phone charging kiosks.



9. Conduct Resilience Hub Assessment and prepare an Action Plan.

Goal: Plan for implementation of community-serving Resilience Hubs for municipal facilities.

Category: Infrastructure Hardening

SD23 Indicators:

- S.C.2
- S.C.3
- HE.E.2

Lead Department

- Office of Sustainability

Staff support

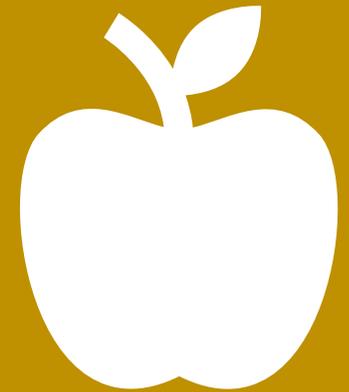
- Parks & Recreation Austin Public Health Austin Public Library Austin Energy Green Building Homeland Security & Emergency Management

Staffing Impact

- N/A

Partners

- Potential funding from federal agencies including Department of Energy, HUD CDGB-DR and FEMA.
- \$75,000 (one-time) For contracting with an engineering firm to prepare a facility assessment and recommendations for new investments.



Climate Vulnerability

Climate Vulnerability =
**Exposure + Sensitivity +
Adaptive Capacity**

Address inequities by:

- Decreasing exposure
- Decreasing sensitivity
- Increasing adaptive capacity

