



RESILIENCE PROJECT

TRANSPORTATION EQUITY ADVISORY GROUP

APRIL 17TH 2019

AILEEN DANEY

OUTLINE

- Why Resilience + ARC?
- The FAST Act
- Project Team
- Project Tasks
- City Simulator Video
- Story Map
- Review Story Map Survey

WHY RESILIENCE + ARC?

- Resilience is already an issue here in the Atlanta region

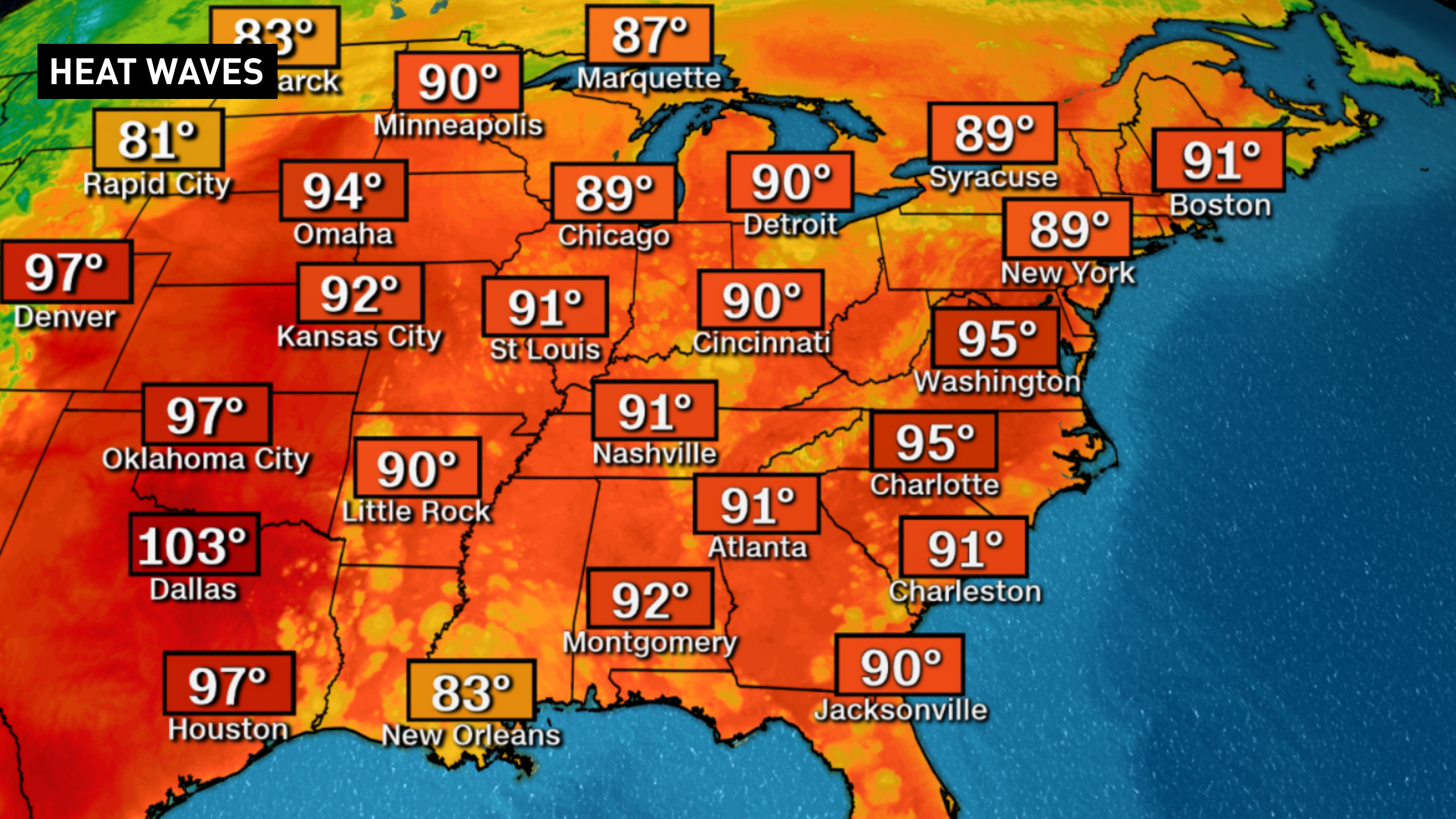
SNOW STORMS



FLOODING



HEAT WAVES



DROUGHT



WHY RESILIENCE + ARC?

- Resilience is already an issue here in the Atlanta region
 - Snow storms, flash flooding, heat waves, drought
- The climate is changing...
 - we should expect more extreme weather events

WHY RESILIENCE + ARC?

- Resilience is already an issue here in the Atlanta region
 - Snow storms, flash flooding, heat waves, drought
- The climate is changing...
 - we should expect more extreme weather events
- What can ARC do to ensure our communities will be resilient?
 - Prepared for, adapt to, and recover quickly from

FAST ACT

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*“It is in the national interest... to encourage and promote the safe and efficient management, operations, and **resilient** development of surface transportation systems.”*

FHWA RESILIENCE PILOT PROJECTS



PROJECT TEAM



Lawrence Frank, CFM – Atkins
*Hazard Mitigation, Floodplain
Management, Disaster Recovery/Rebuild*



Stephen Bourne, PE – Atkins
*Climate Risk and Resilience,
Transportation/Water Engineering,
Analytical Tool Development*



Clark Siler, PhD, GISP – Atkins
*Water Resources Engineering, Analytical
Tool Development, Big Data Processing*



Erin Thoresen, AICP – Gresham Smith
*Community & Transportation Planning,
Community Engagement*



Megha Young, AICP – Gresham Smith
*Transportation Planning, Disaster
Planning, Community Engagement*



Whitney Shephard, PE, LEED AP –
Transport Studio
*Transportation Planning/Engineering and
Public Health*

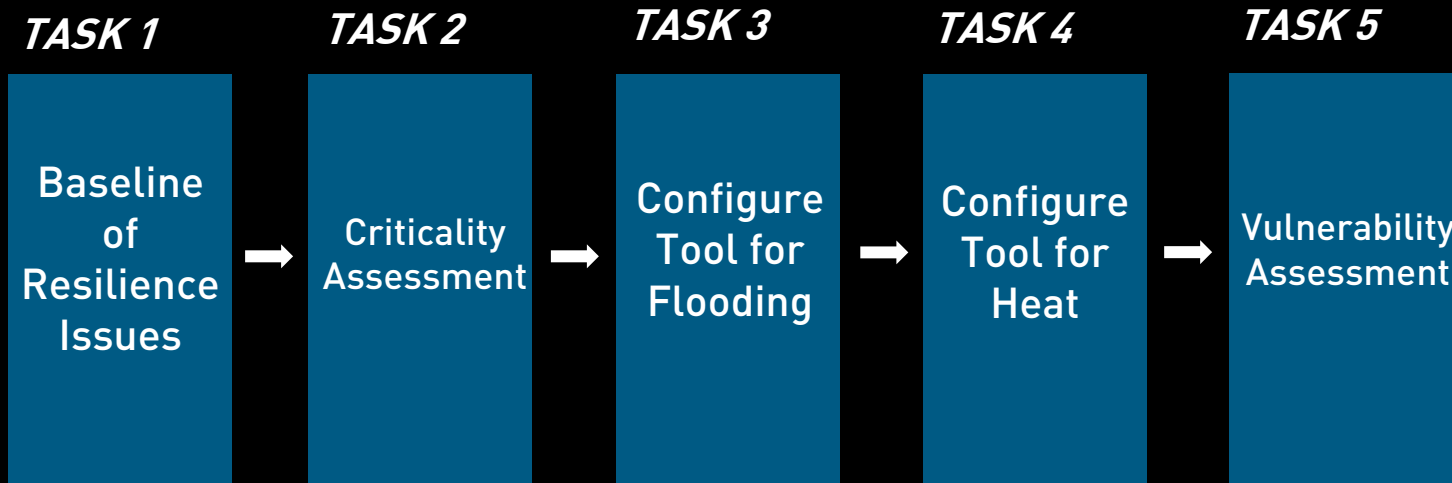


Aileen Daney - ARC
Transportation Project Manager

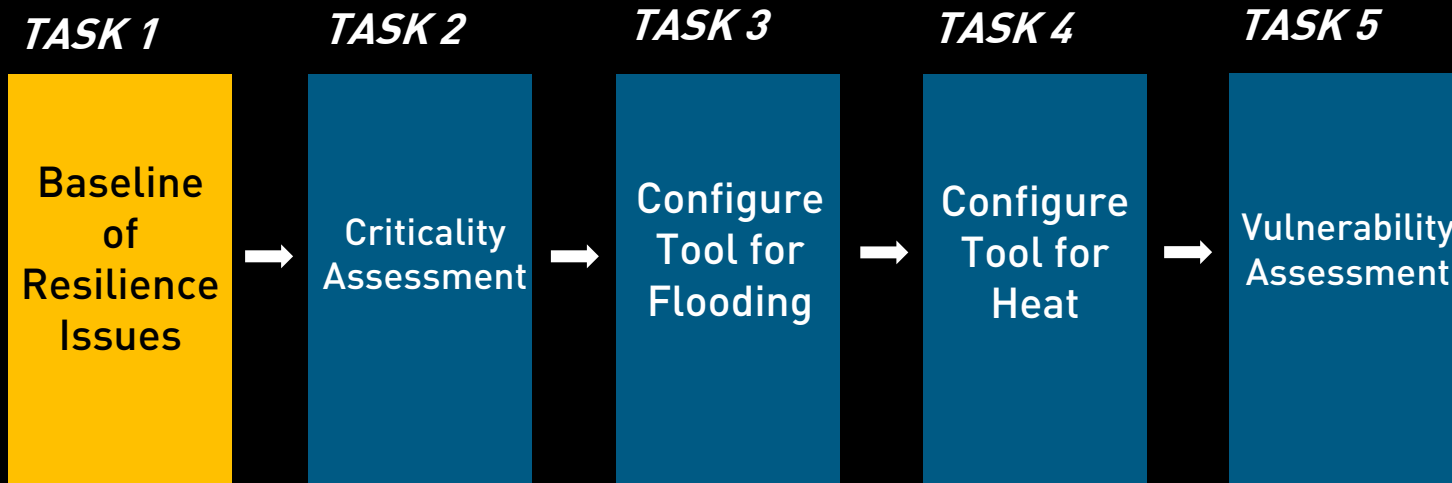


Danny Johnson - ARC
Natural Resources Project Manager

PROJECT TASKS

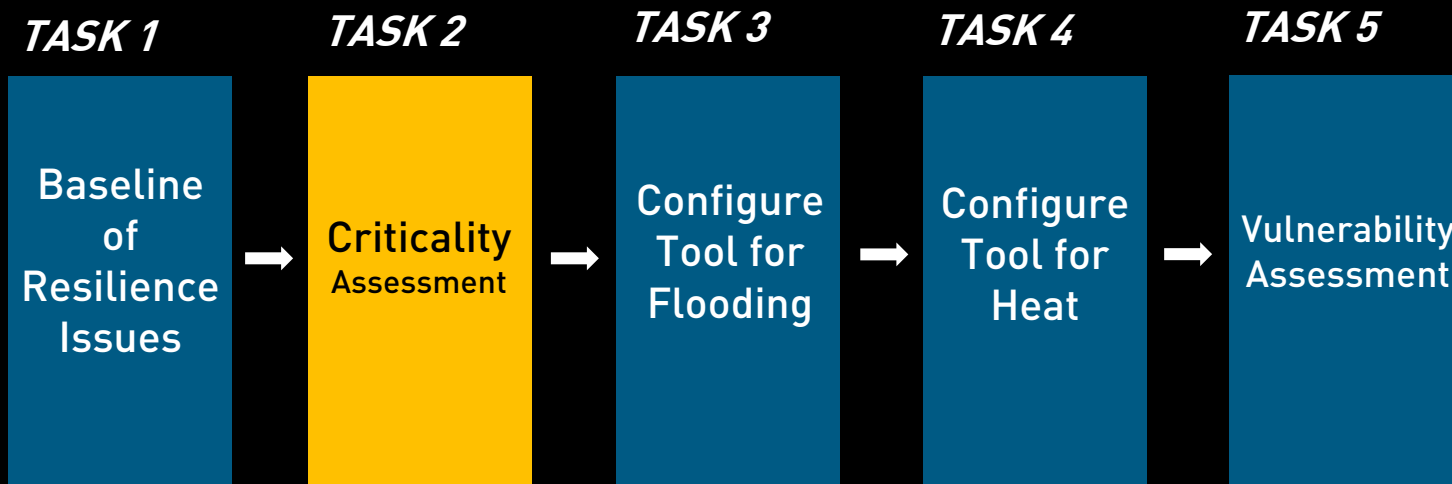


PROJECT TASKS



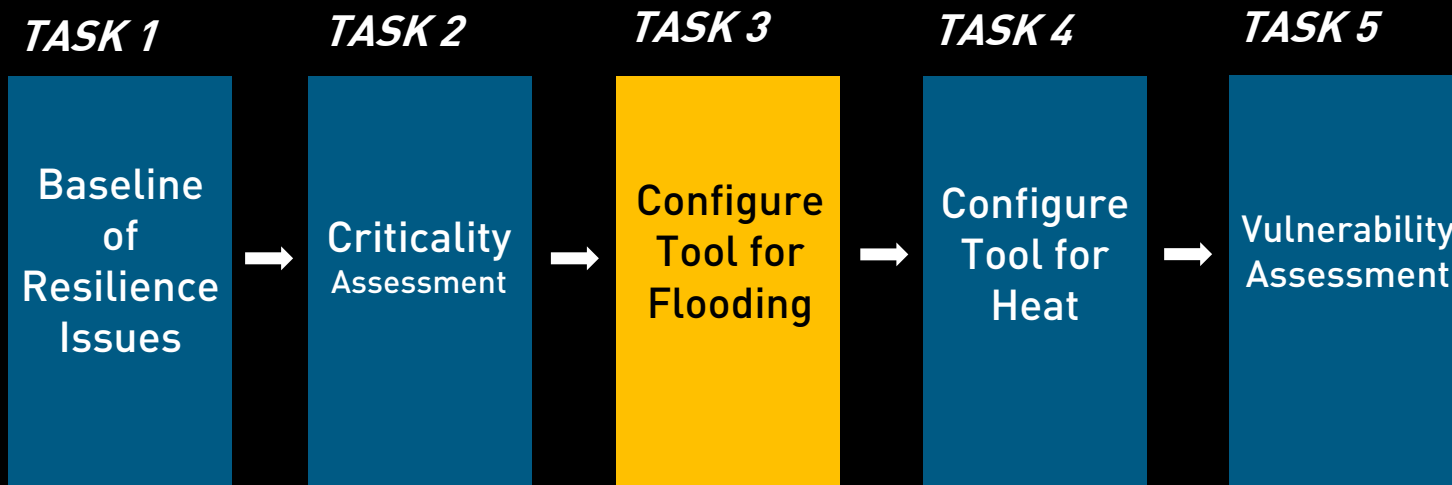
- Data collection for simulator tool
- Case studies: literature review and interviews
- Story map with public reporting component

PROJECT TASKS



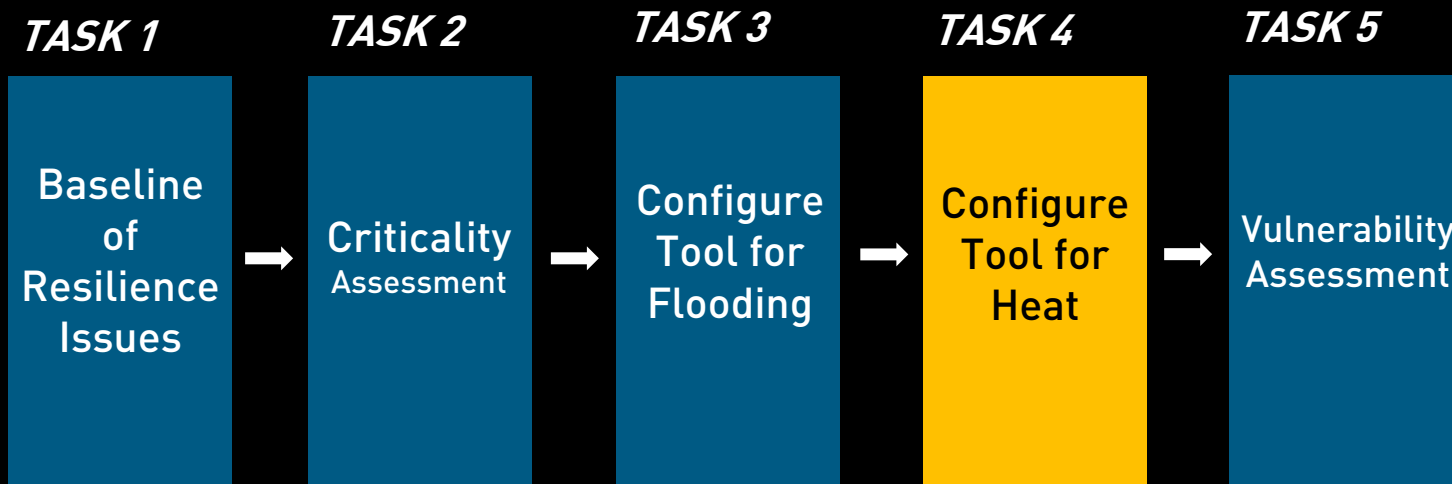
- Catalogue critical community facilities
- Identify pilot project area for simulation tool

PROJECT TASKS



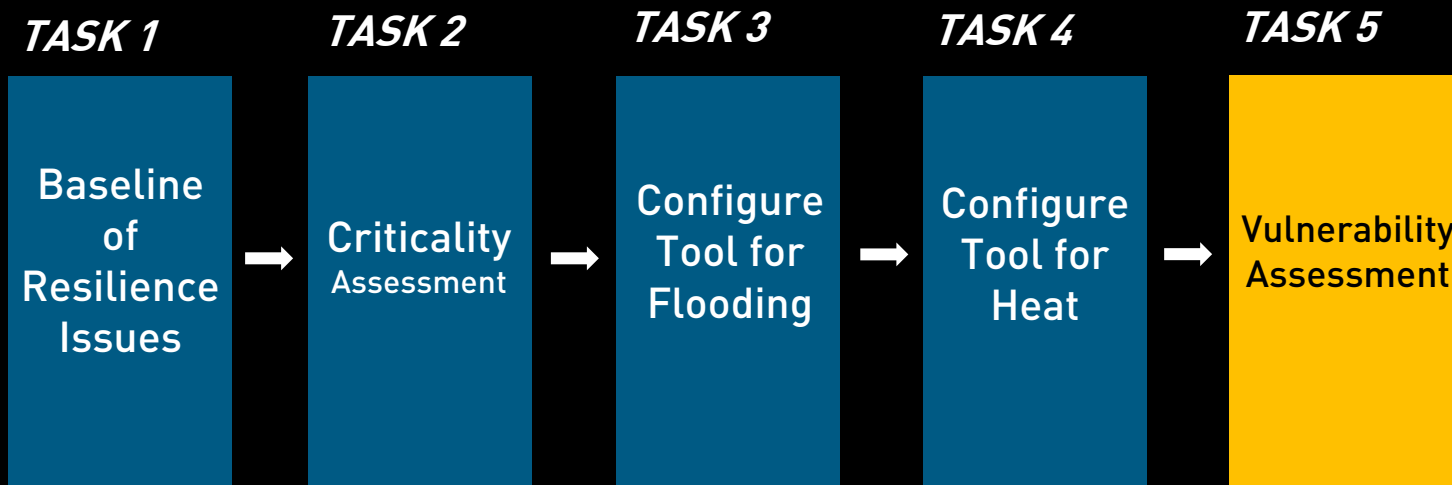
- Identify current and future vulnerabilities to flooding in pilot project area
- Identify strategies ARC could deploy to reduce these risks
- Develop manual and training on implementing tool, replicating regionally

PROJECT TASKS



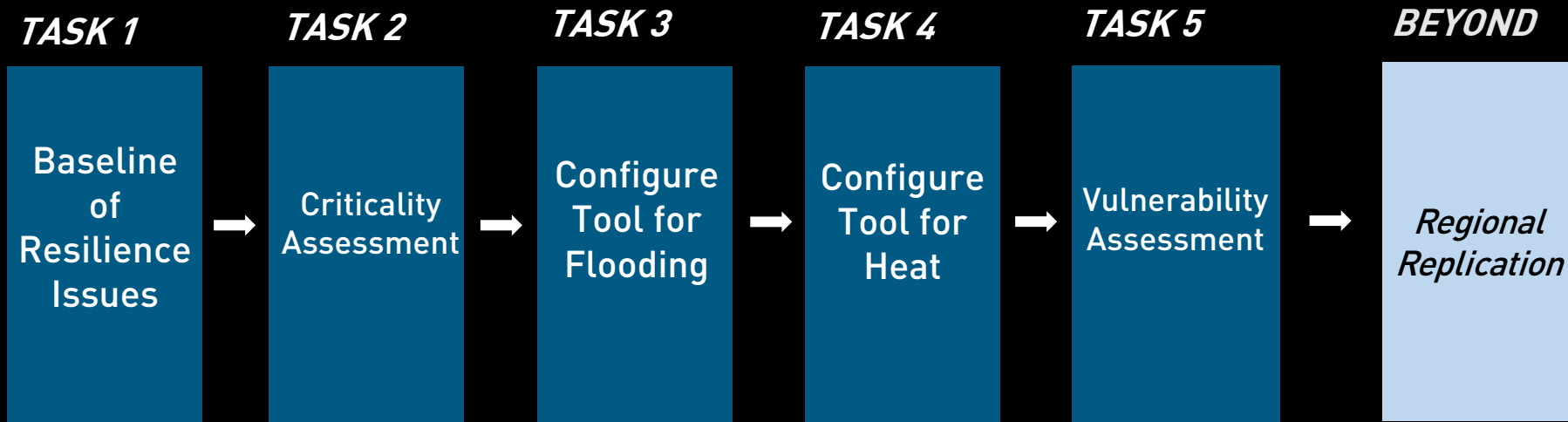
- Identify current and future vulnerabilities to extreme heat
- Identify strategies ARC could deploy to reduce these risks
 - Special attention will be paid to protected classes, transit riders

PROJECT TASKS

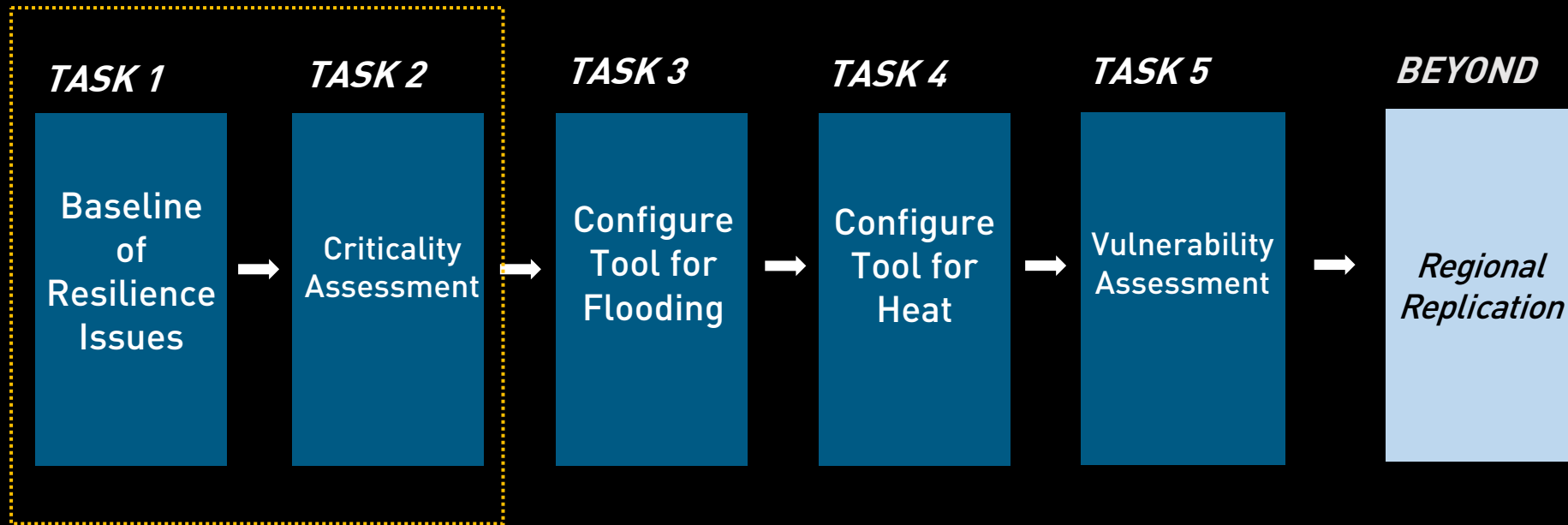


- Develop methodology for vulnerability and risk appraisal for region
- Identify resilience hotspots to help prioritize funding for vulnerable assets and users and inform decision-making process

PROJECT TASKS

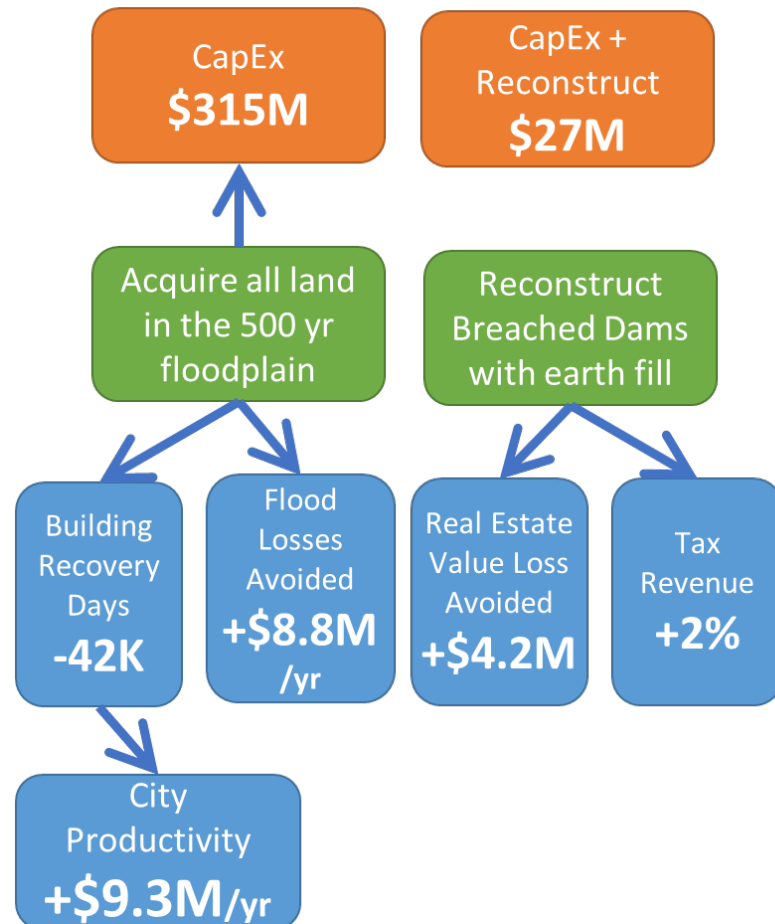


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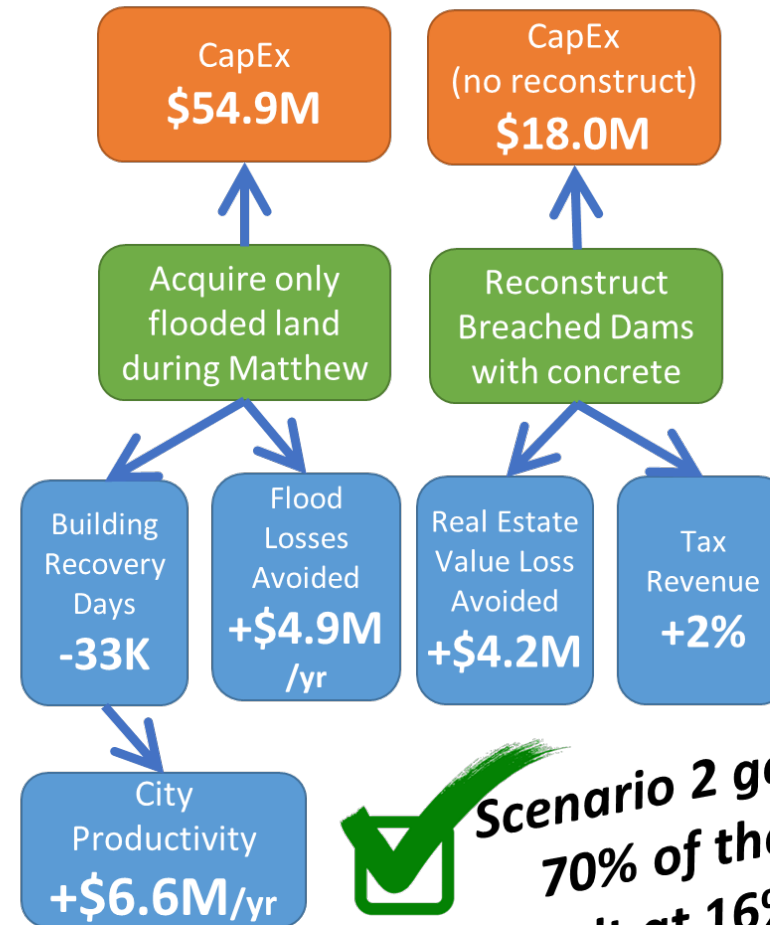



HOW CITY SIM HAS BEEN APPLIED

Scenario 1: High Cost/Low Risk



Scenario 2: Budget Conscious



 Scenario 2 gets 70% of the result at 16% of the cost.

CITY SIMULATOR VIDEO



STORY MAP FUNCTION

Story maps allow us to combine mapped features with narratives, images, and multimedia content to tell a better story.

For this project, we want to crowdsource weather events that have impacted Atlanta region residents, and understand how they were impacted.

Example: New England and Northern NY Forests

STORY MAP OUTLINE

- National and Southeast perspective
 - Describe evidence and impacts of climate change
 - Show examples from across the country beyond heat and flood events
- Atlanta region perspective
 - What does climate change mean for the Atlanta region?
 - 2 local case studies – one heat and one flood event
 - Why is ARC working in this space?
- Tell us your experience with climate change
 - Interactive map
 - Short survey

REVIEW SURVEY

Story map survey



RESILIENCE PROJECT

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