

# Fostering Social Cohesion for Addressing Urban Heat in Greater Phoenix

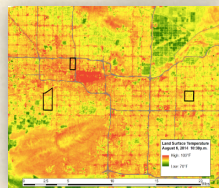


Jarod Chernak  
Sustainability Major – Urban System Dynamics Track  
Supervisor: Maggie Messerschmidt  
Mentor: Riley Andrade



## Setting the Stage

- Urban Heat Island effect within Phoenix is particularly extreme.
- Heat related illness and death a leading cause of preventable death.
- The Nature Conservancy conducted workshops geared towards holding a dialogue with community members regarding heat mitigation and adaptation. The goal is to evolve policy through process that empowers local leaders, builds collaboration, and feeds back to higher levels of governance.



Study Area:  
1. Water Tower Improvement District  
2. Edison Eastlake Neighborhood  
3. Lindo Roesley in South Phoenix

## Methods

- Core Team Member interviews.
- Neighborhood level analysis. (Shown Above)
- Primary data sets include:
  - 2011 Pass data survey
  - Whole Measures Rubric
  - Heat Action Workshop Surveys
- Identified indicators that contribute to willingness and agency to participate in the Heat Action Planning process.
- Core Team Member interviews geared towards assessing change in relationship dynamics between affiliate organizations.

## Motivating Questions

- How does the Nature's Cooling Project contribute to social cohesion for addressing urban heat in Greater Phoenix?
- What indicators can be identified as contributing to willingness and agency to participate in Heat Action Planning?



- The above shows Baseline data for assessing program readiness.
- Above graph shows two study neighborhoods in contrast with state PASS averages.
- PASS, or Phoenix Area Social Survey focuses on capturing and understanding peoples perceptions, values, and behaviors on key environmental issues.
- PASS also focuses on peoples perception of their neighborhood characteristics and attitudes.



Nature's System Cooling Project. Nancy Grimm

## What We Found:

- Connectivity between affiliate organizations increased as a result of project.
- Formalized networks of knowledge exchange proved to encourage reciprocity and collaboration between affiliate organizations.
- Readiness to participate is contingent on various relational dynamics. i.e. Neighborhoods with higher baseline levels of trust and support are indicators of willingness and agency for Heat Action Planning.

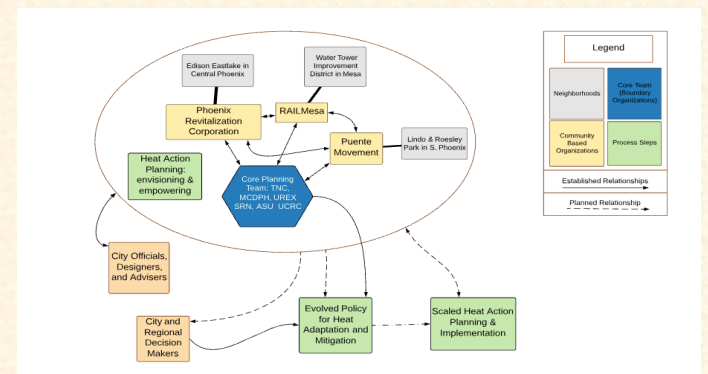


Diagram above shows relationship dynamics of the organizations involved in the Heat Action Planning process. Shows optimal knowledge diffusion from community members downward to regional decision makers.