Regional Climate Action

An Overview

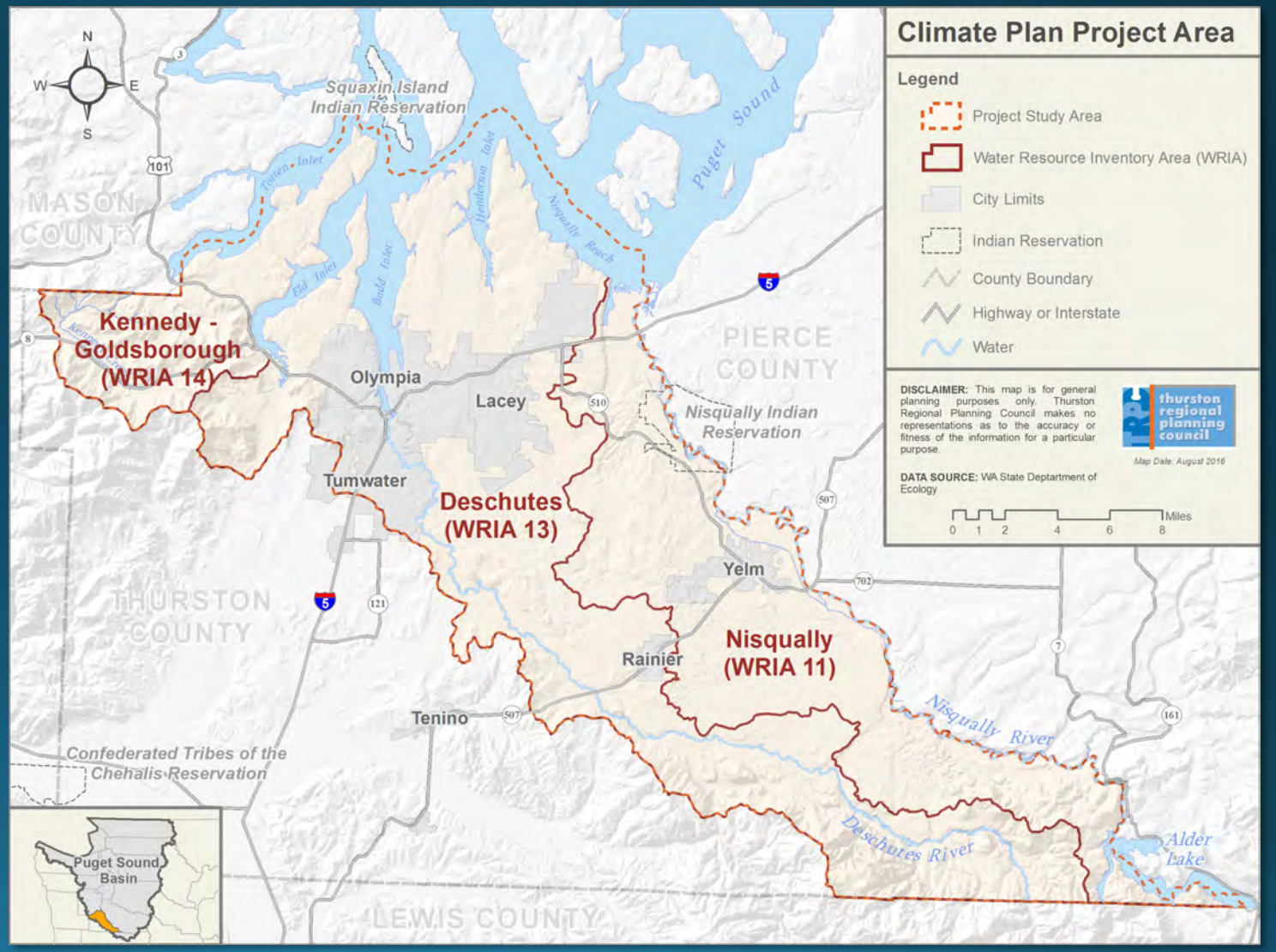
Feb. 6, 2019

thurston regional planning council

THURSTON CLIMATE ADAPTATION PLAN

Overview

- **Funds:**
  - $250K grant from U.S. EPA (2015)
- **Purpose:**
  - Develop plan to help the region prepare for and cope with climate impacts ("adaptation")
- **Project Area:**
  - South Puget Sound watersheds in Thurston County, WA
- **Policies:**
  - Recommends **91 actions** for local municipalities, tribes, businesses, neighborhoods, etc.
    - Actions could be taken throughout South Puget Sound … and beyond



THURSTON CLIMATE ADAPTATION PLAN

Plan Organization

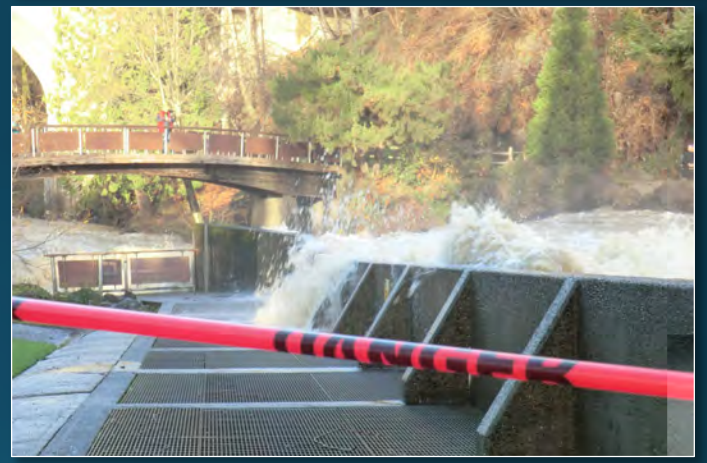
- **Integrates stakeholder input:**
  - Project vision, goals & guiding principles
- **Summarizes deliverables:**
  - Science Summary
  - Vulnerability Assessment
  - Risk Assessment
  - Action Evaluation & Prioritization
- **91 actions within 6 themes:**
  - General
  - Drought & Water Quality
  - Flood & Erosion
  - Plants & Animals
  - Transportation & Energy
  - Wildfire & Extreme Heat

THURSTON CLIMATE ADAPTATION PLAN

Climate Impacts

- **Outlook:**
  - Average annual air temperate continues to rise over 21st century
    - Generally, **warmer, wetter winters** and **hotter, drier summers**
  - Changes anticipated to **worsen hazards** (floods, landslides, wildfires) and **introduce threats** (invasive plants and insects, diseases).

- **Risks & Impacts:**
  - Shrinking snowpack = Changes runoff timing and streamflow volume
  - Changing oceans = Threatens local fisheries (acidification and temp.)
  - Rising sea levels = Exacerbates coastal flooding and erosion
  - Warmer waters = Threatens water quality for humans, salmon, etc.
  - Bigger storms = Damages infrastructure, endangers people
  - Deeper droughts = Spurs water shortages, wildfires, crop losses



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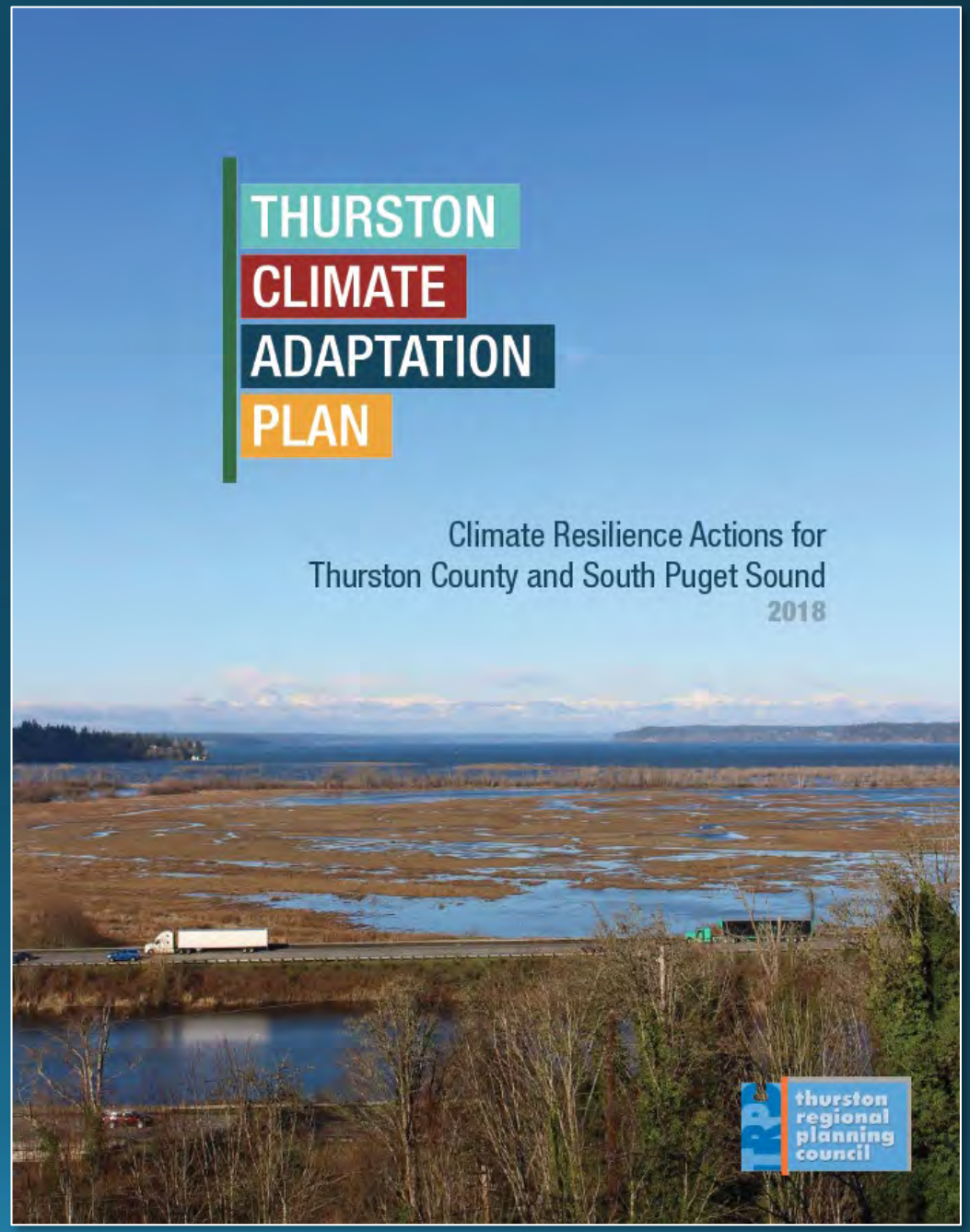
Plan Actions

- Selected **25 priority actions** based on risk
- Identified a lead, partners, and timeframe

Examples:

- **Action F-03:** Design new and replacement stream culverts and other drainage infrastructure to accommodate projected higher peak flows associated with more frequent heavy precipitation events.
- **Action F-05:** Build floodwalls or other protective structures around critical facilities located in areas vulnerable to flooding as a result of sea-level rise and heavy precipitation.
- **Action T-05:** Map transportation infrastructure that is vulnerable to repeated floods and/or landslides, and designate alternative travel routes for critical transportation corridors when roads must be closed because of natural hazards.



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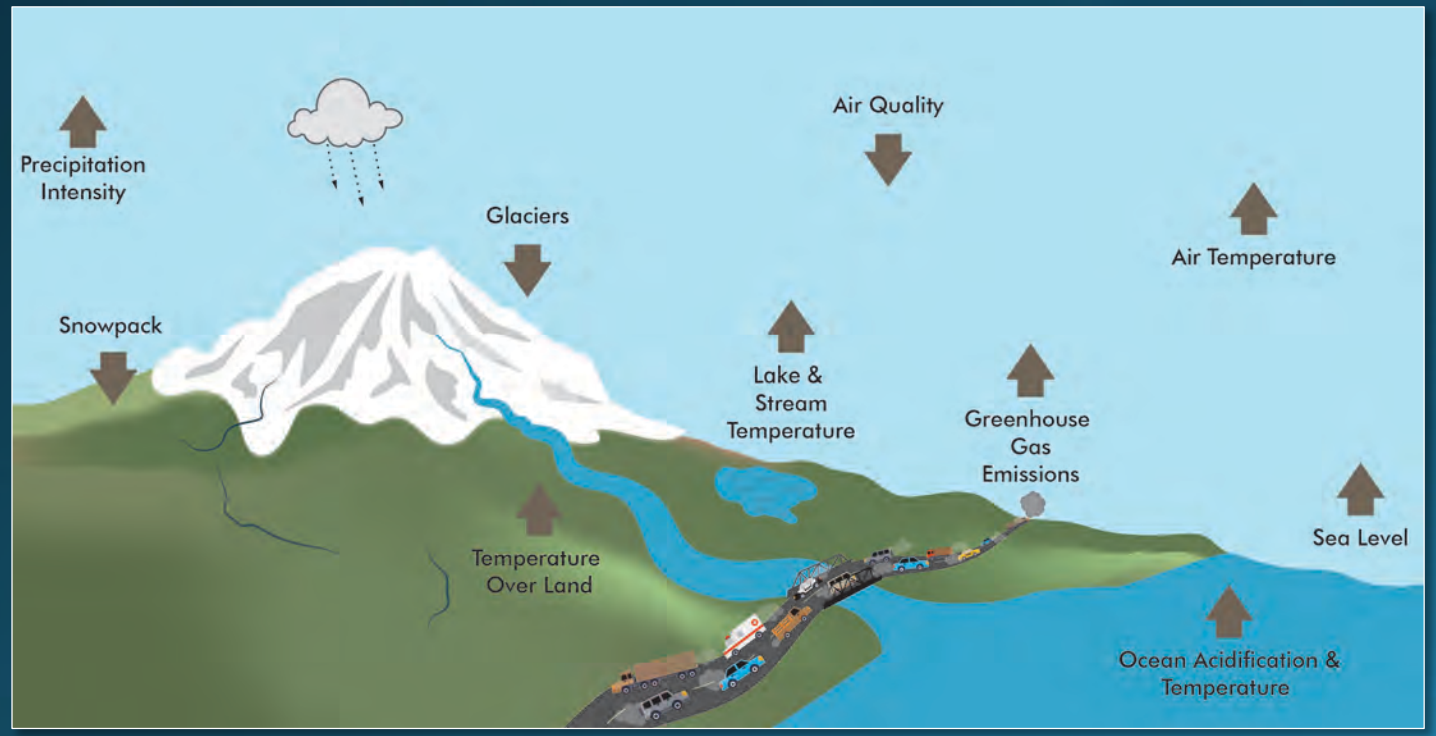
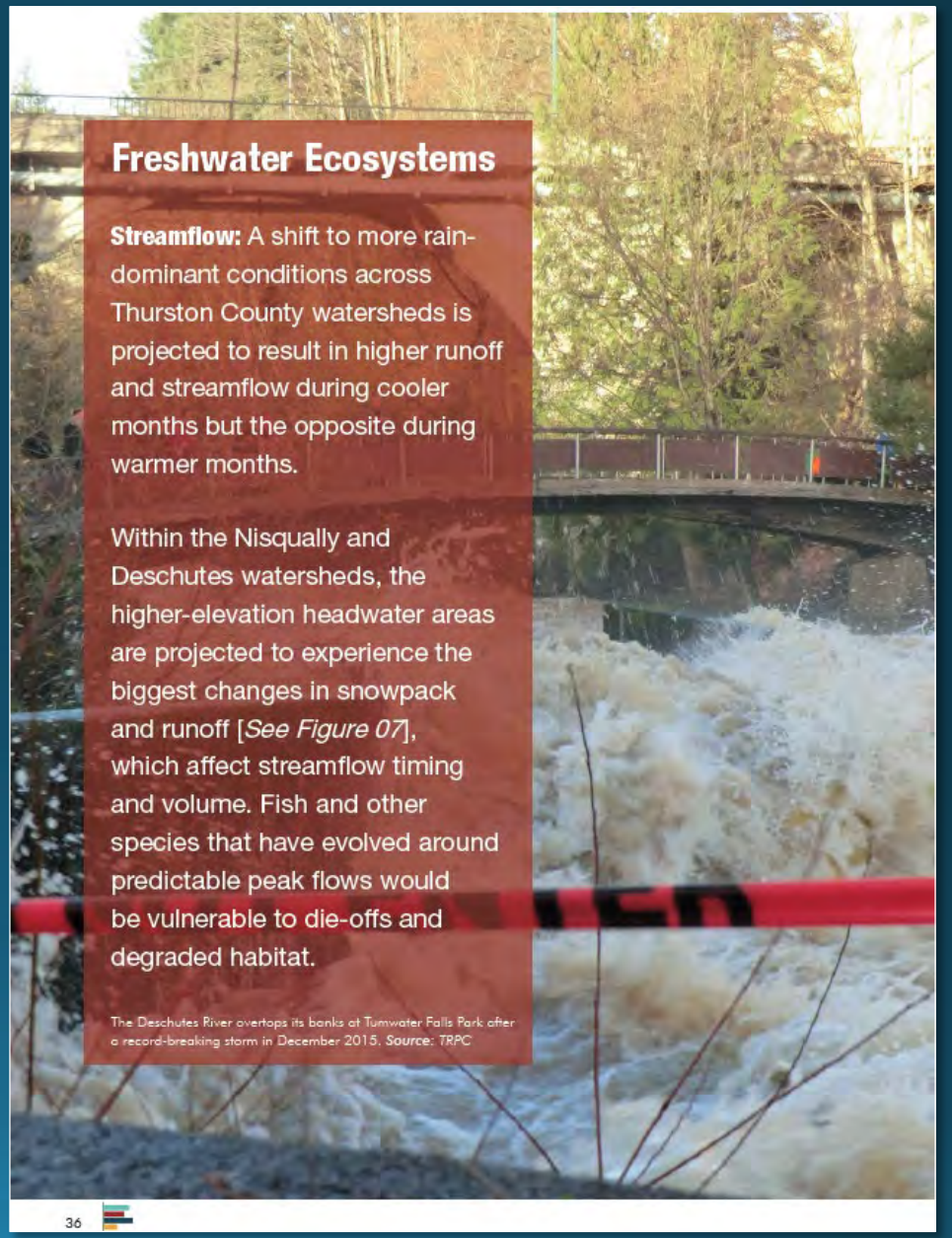
Plan Design

- **Online: www.trpc.org/climate**
- Explains complex information simply
- Enhances text with maps, photos, and graphics
- Includes technical information in appendices

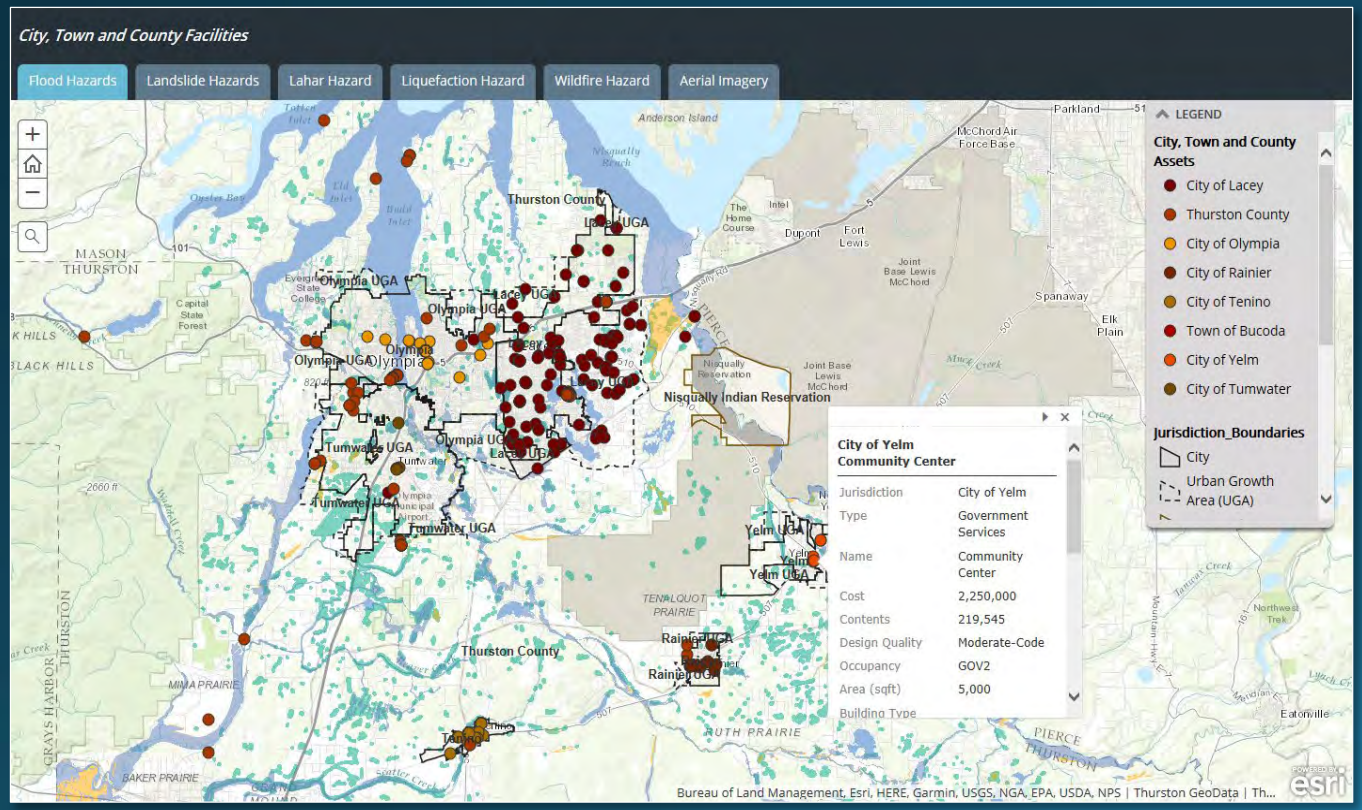




THURSTON CLIMATE ADAPTATION PLAN

Plan Resources

- Created **Resilience Toolkit** (*right*) with links to TRPC's Hazards Vulnerability map (*below*), climate data, emergency preparedness resources:
  - www.trpc.org/climate



Resilience Toolkit

The following literacy, preparedness, and planning and data resources were curated to enhance climate resilience in Thurston County and beyond.

Preparedness | *Planning & Data* | *Maps* | *Literacy*

States & Municipalities

- Federal Emergency Management Agency (FEMA
- Washington Emergency Information & Resources (State)
- Thurston County Emergency Management (Thurston County)

Neighborhoods & Schools

- Map Your Neighborhood (Thurston County)
- Disaster Resilience Program for Schools (Thurston County)
- Aware & Prepare (Santa Barbara County, Calif.)

Households

- Personal Emergency Preparedness (Thurston County)
- Ready.gov (U.S. Department of Homeland Security)

THURSTON CLIMATE MITIGATION PLAN

Overview of Phases 1&2

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THURSTON CLIMATE MITIGATION PLAN

Phase 1 Overview

- Thurston County, Olympia, Lacey, Tumwater, and TRPC agreed in April '18 to complete Phase 1 of a plan to reduce regional emissions that contribute to global climate change.

- **Phase 1 of entailed:**
  - Assessing each jurisdiction's climate goal or target.
  - Adopting a common emissions baseline and targets.
  - Assessing actions each jurisdiction has adopted or implemented.
  - Approving an interlocal agreement and scope of work for Phase 2.

THURSTON CLIMATE MITIGATION PLAN

Emissions Targets

- **The Target:**
  - Reduce communitywide emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050.

- **The Baseline:**
  - Reflects a 2015 inventory of countywide emissions — ~2.84 MMTCO$_2$ equivalent — which provides a reliable figure from which we can measure and manage future emissions.
  - Incorporates real energy, solid waste, agricultural, and transportation data from PSE, TRPC, and other sources.

- **The Upshot:**
  - Ensures our region does its part to keep the global average temperature from rising more than 2° C above pre-industrial levels (*Paris Agreement*) by 2100 and avoids severe climate impacts

45 x 30

&

85 x 50

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Phase 2 Overview

- **Steps:**
  - Eliciting public input and drafting actions
  - Assessing actions' cumulative impact quantitatively
  - Identifying leads, partners, and funding sources for actions
  - Creating an implementation strategy for each jurisdiction (interjurisdictional and jurisdictional actions)

- **Action Examples:**
  - Improving building energy efficiency
  - Boosting wind, solar and other "clean" power generation
  - Protecting and enhancing forests and "carbon sinks"
  - Creating local green jobs (e.g., servicing solar panels)
  - Increasing transportation alternatives (transit, EVs, etc.)

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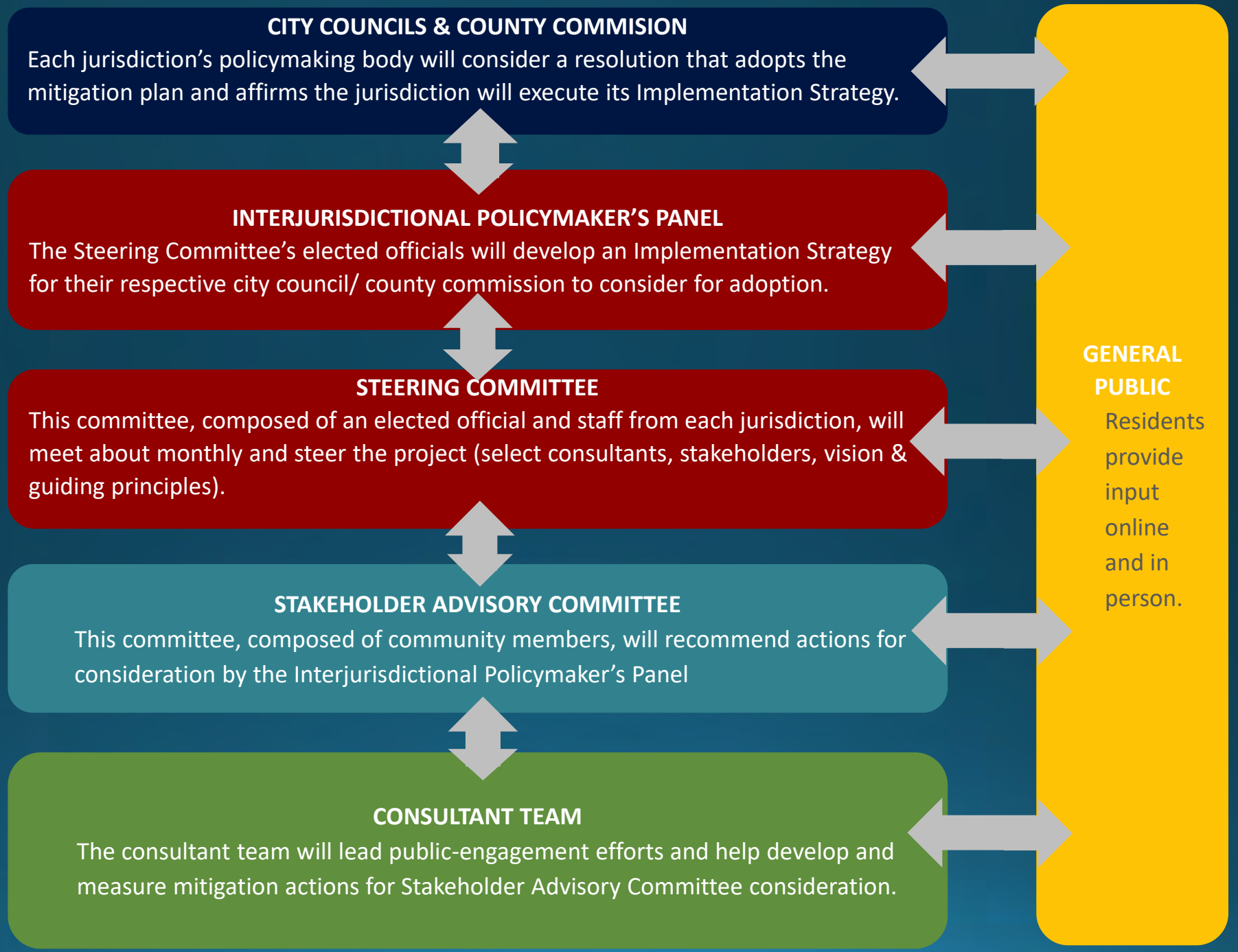
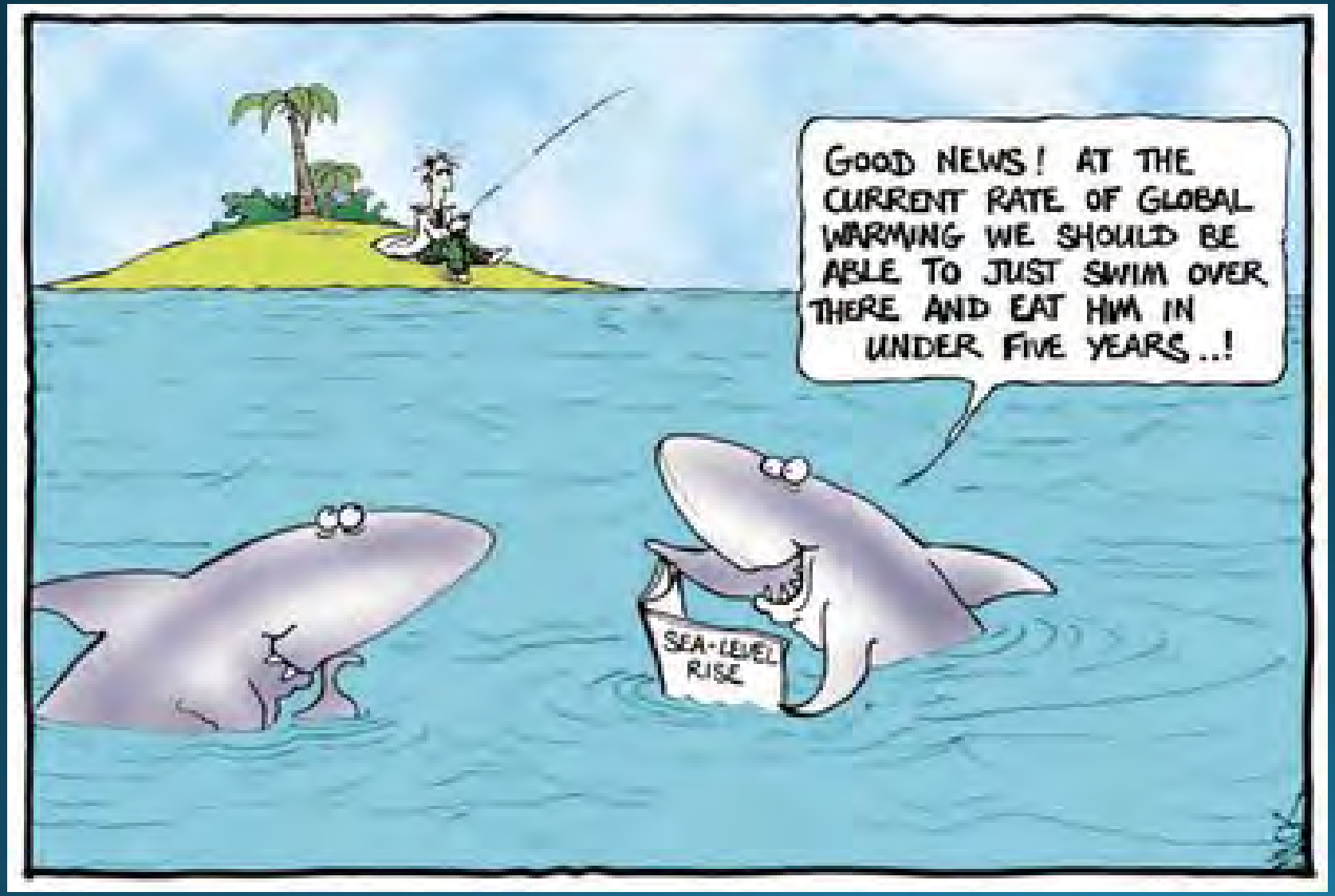
Project Diagram



Questions?



www.funnyandjokes.com/sharks-looking-foward-to-global-warming.html