Regional Climate Change Planning

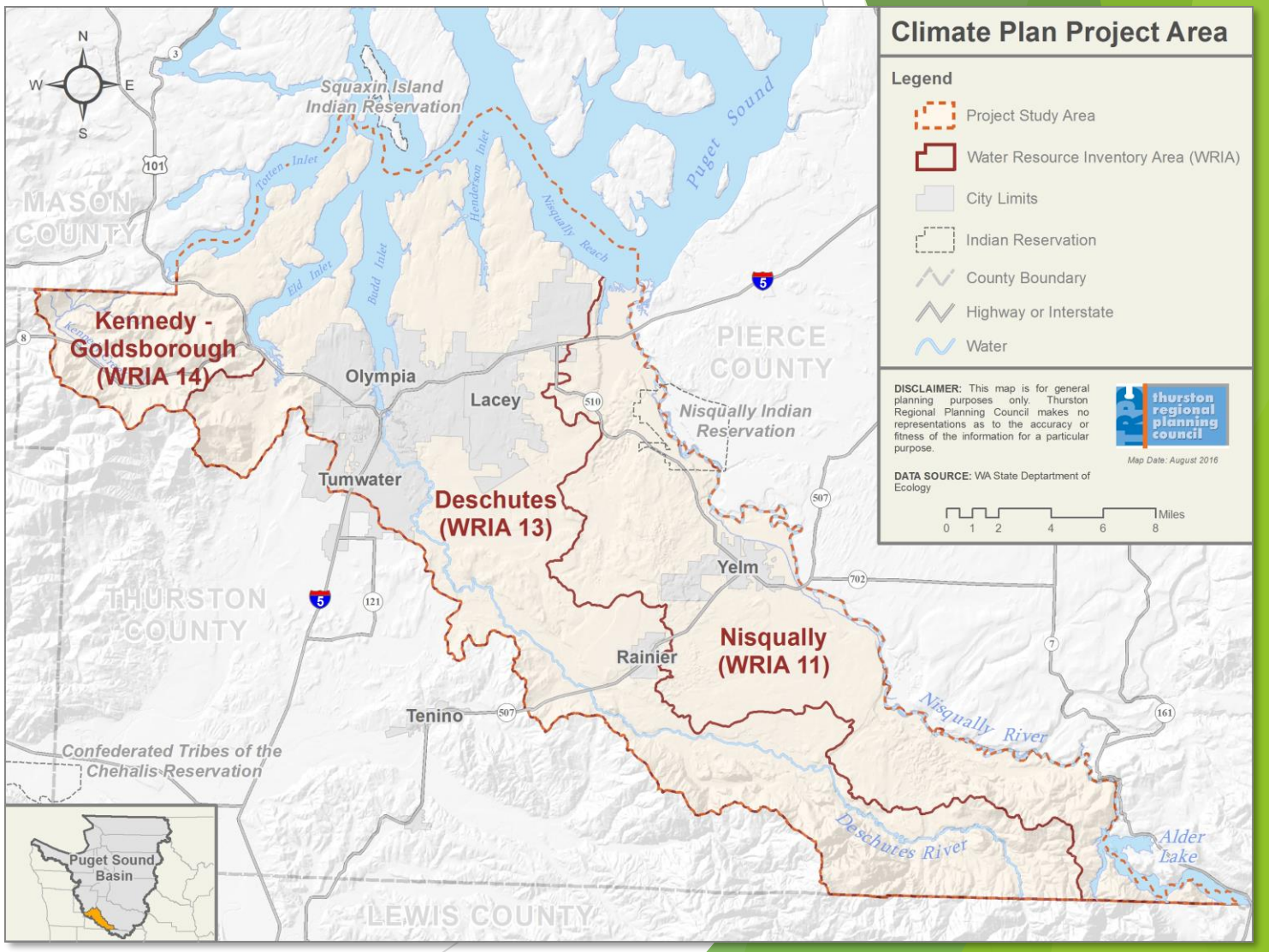
Dec. 5, 2018

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



Plan Organization

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

Climate Impacts

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

Plan Actions

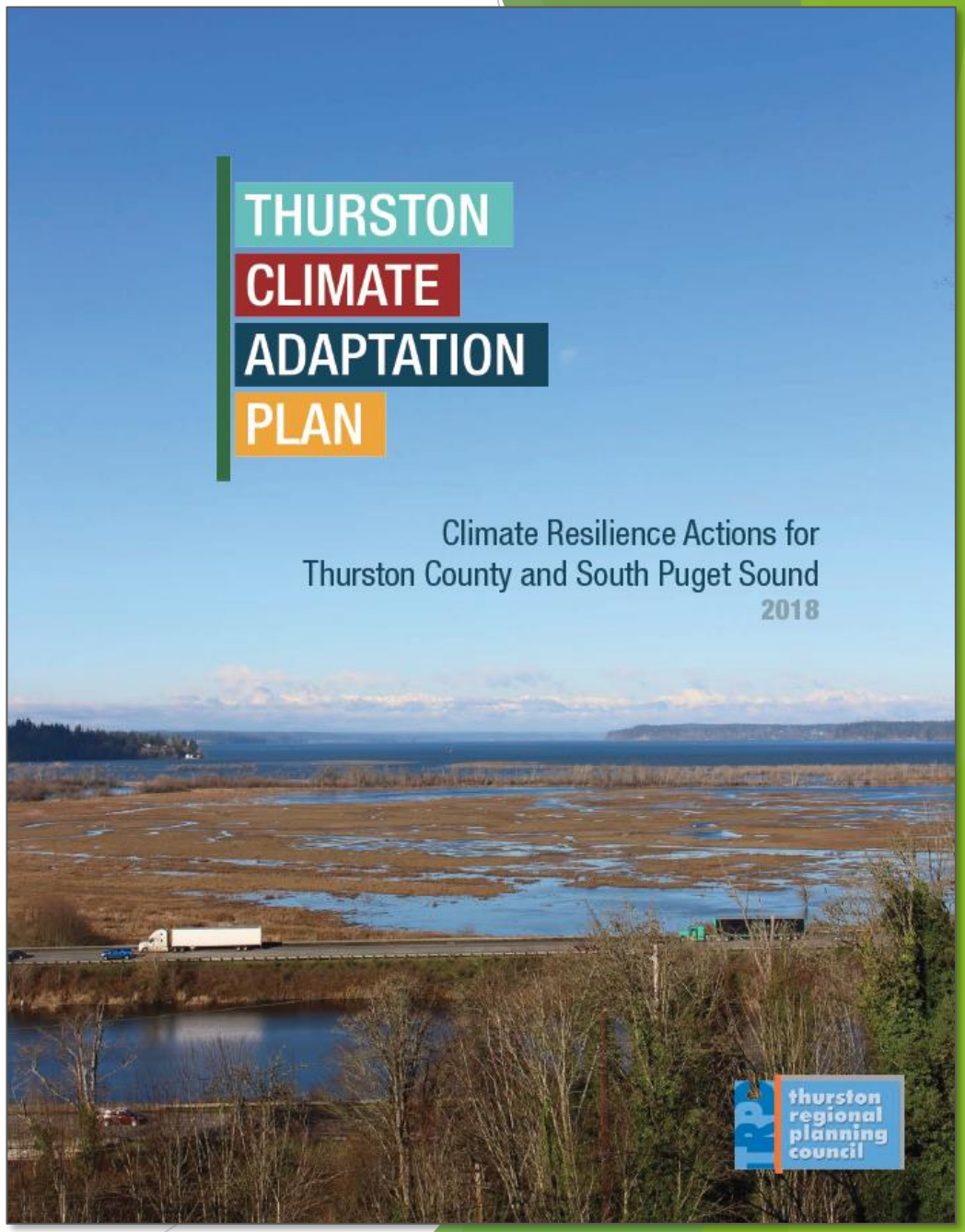
- Selected **25 priority actions** based on risk assessment
- Identified a lead, partners, and timeframe

Examples:

- **Action G-01:** Create hazard recovery plans and prioritize the restoration of vital public safety facilities and other essential community assets (e.g., hospitals and bridges).

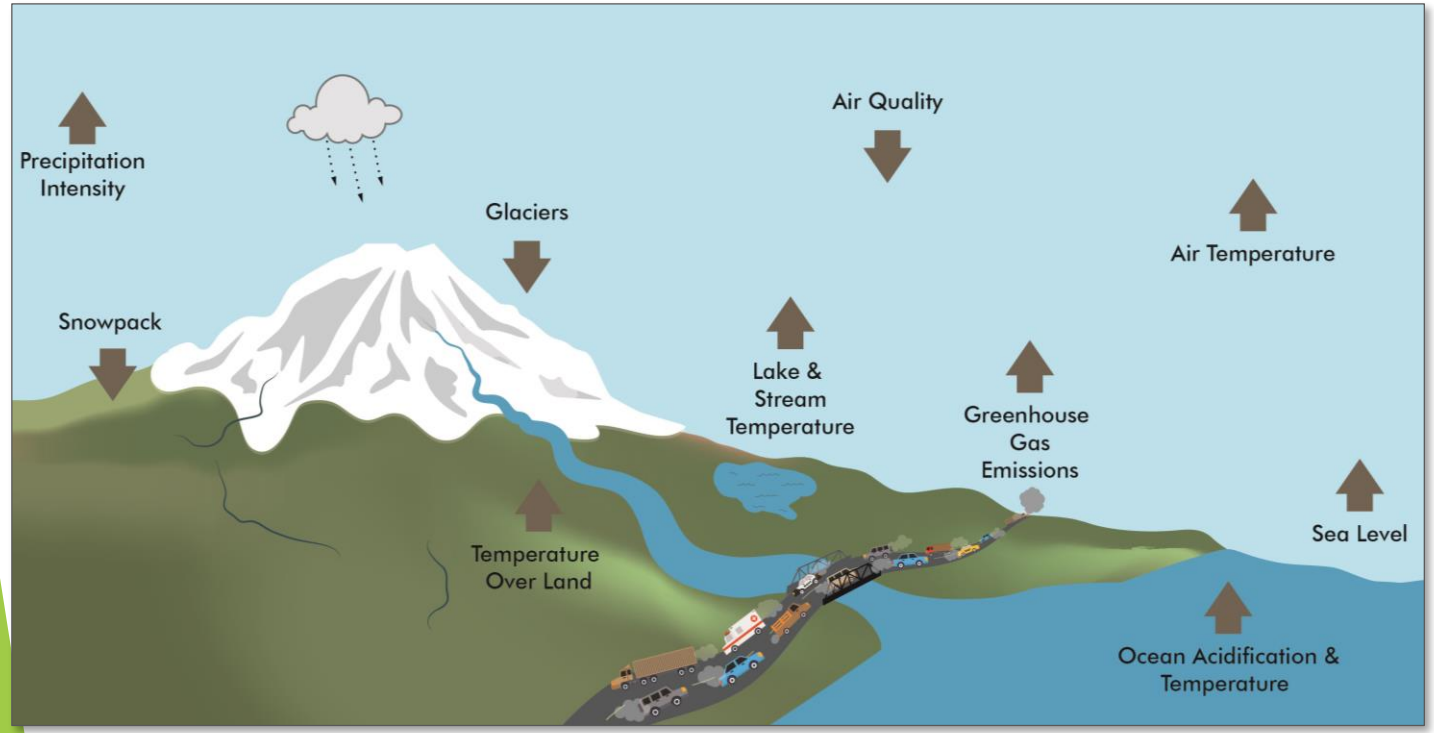
- **Action F-05:** Build floodwalls or other protective structures around critical facilities located in areas vulnerable to flooding as a result of sea-level rise and heavy precipitation.

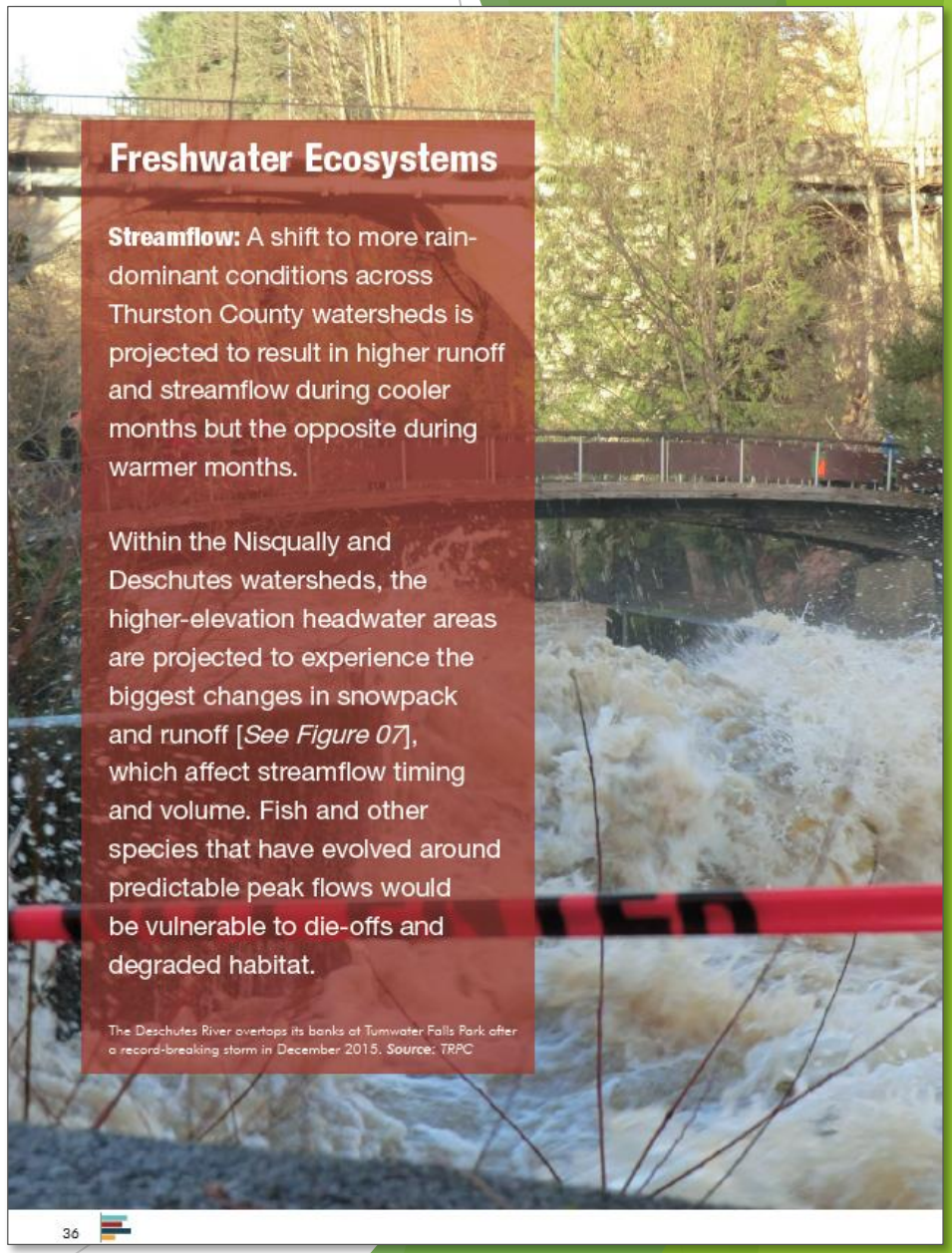
- **Action T-05:** Map transportation infrastructure that is vulnerable to repeated floods and/or landslides, and designate alternative travel routes for critical transportation corridors when roads must be closed because of natural hazards.



Plan Design

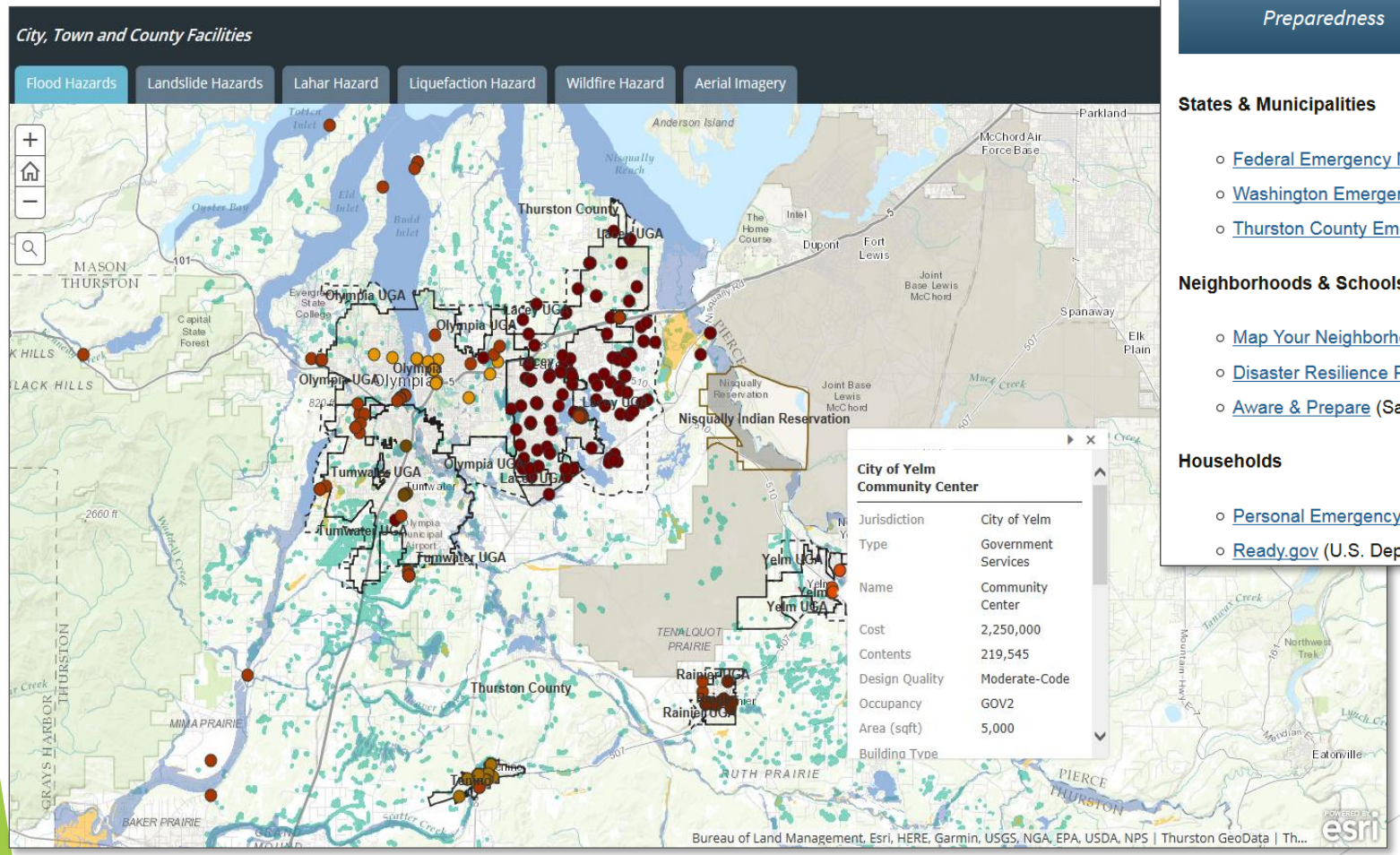
- **Online: www.trpc.org/climate**
- Explains complex information simply
- Enhances text with maps, photos, and graphics
- Includes technical information in appendices





Plan Resources

- Created **Resilience Toolkit** 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

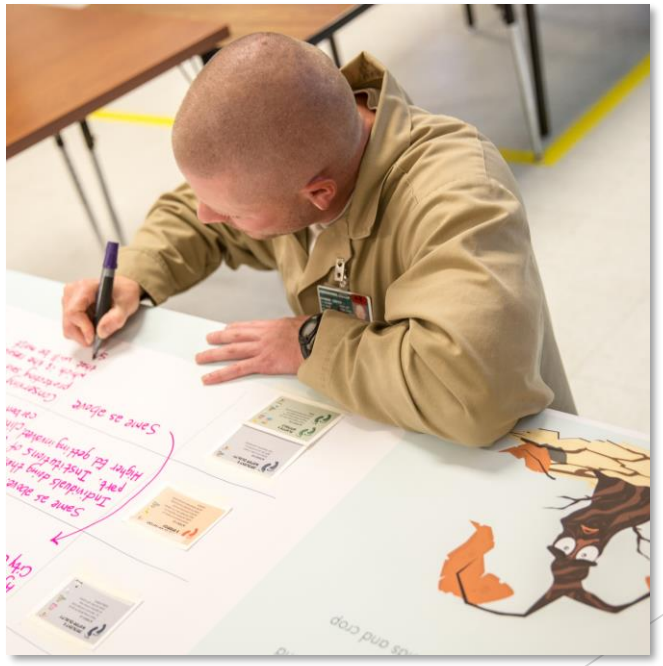
- Personal Emergency Preparedness (Thurston County)
- Ready.gov (U.S. Department of Homeland Security)

Public Engagement

- **Multimedia Tools:**
  - Meetings with 20+ groups
  - Newspaper editorial
  - E-mail messages
  - Social media posts
  - Online video and surveys
  - Community forums
  - Board game (*right*)

Taking the Show on the Road

- Hosted *"Art of Change"* event during Arts Walk **(*top right*)**
  - Pop-up library with climate books, plankton acidification mural, draft plan
- Presented *"Resilience Road"* board game and poster at Northwest Climate Conference in Seattle **(*bottom left*)**
- Presented project and facilitated interactive game at TESC Sustainability in Prisons Project climate symposium **(*bottom right*)**



Implementation & Awards

- **Implementation:**
  - TRPC adopted plan in January 2018
  - Olympia, Port of Olympia and LOTT integrated actions into a sea-level rise response strategy for downtown Olympia
  - Thurston County integrated actions into its draft comprehensive plan
  - Squaxin Island Tribe considering actions and analysis to integrate into its tribal planning work

- **Awards:**
  - American Planning Association – Sustainability Division
  - National Association of County Planners / APA County Division
  - Planning Association of Washington / APA-Washington Chapter

Regional Climate Mitigation Plan

Overview

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Phase 1 Overview

- Thurston County, Olympia, Lacey, Tumwater, and TRPC agreed in April 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.

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 — about 2.84 million metric tons of CO_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 2^0 C above pre-industrial levels (*Paris Agreement*) by 2100 and avoids severe climate impacts

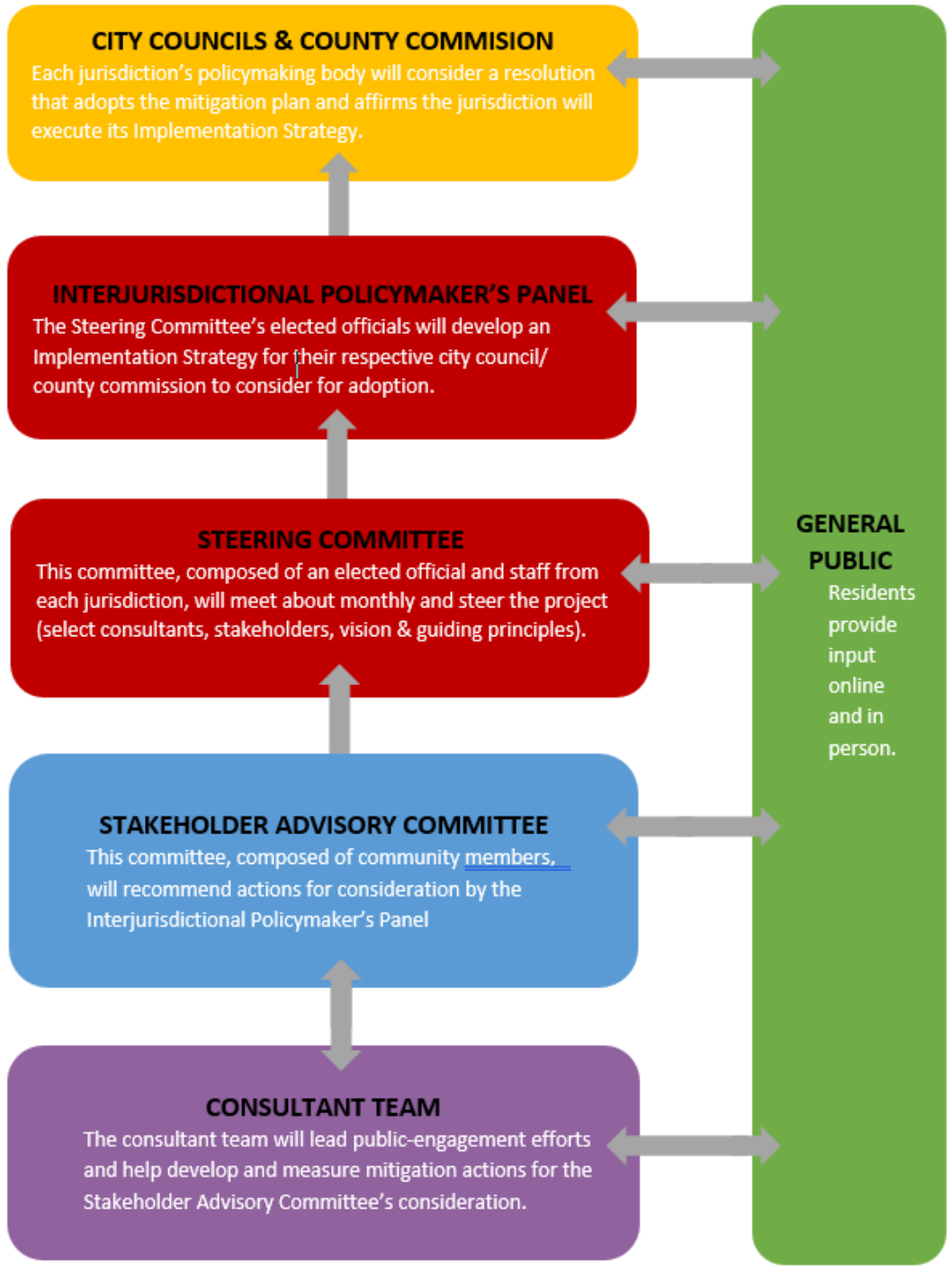
45 x 30
&
85 x 50

Phase 2 Overview

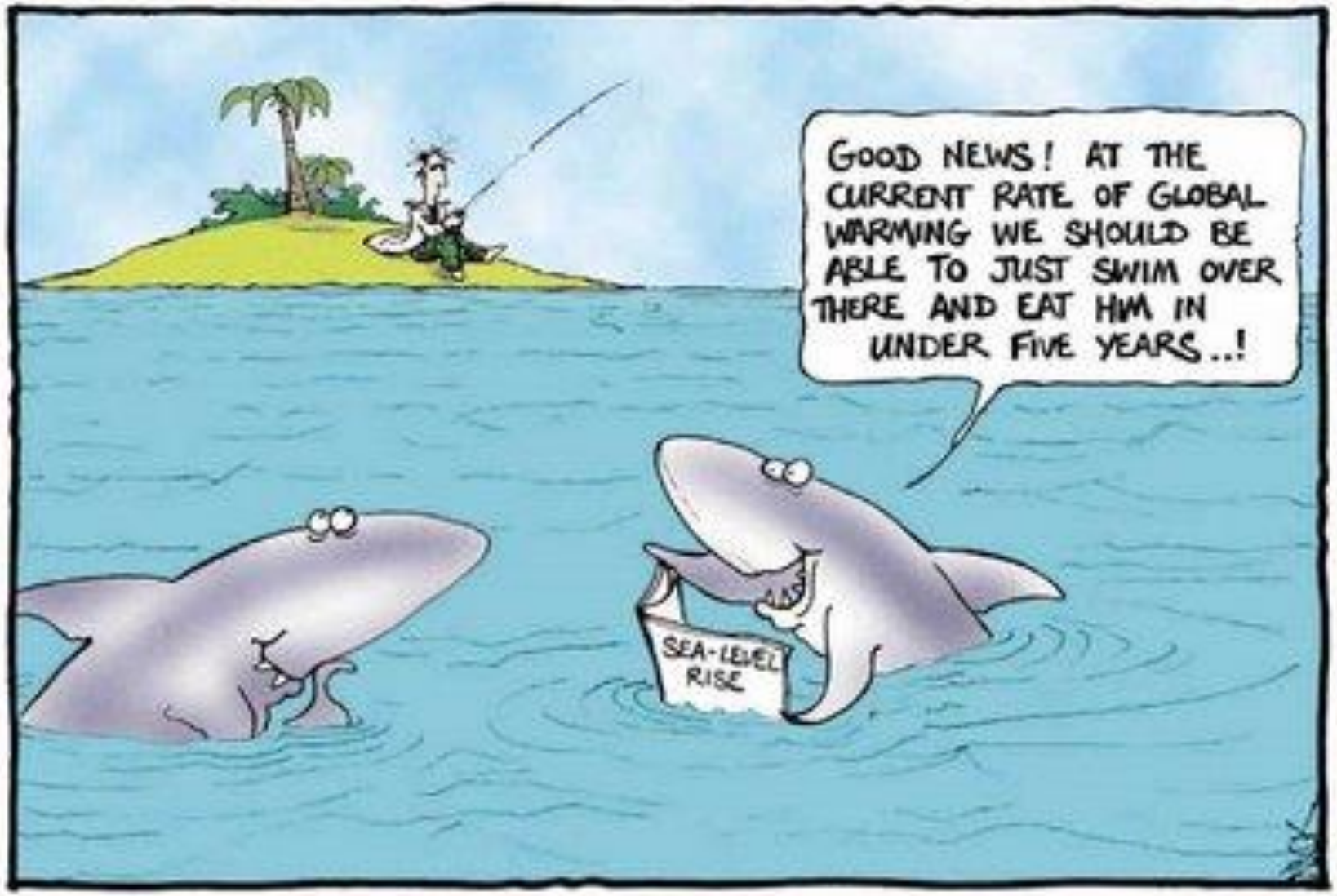
- **Steps:**
  - Drafting mitigation actions and eliciting public input
  - Assessing actions' cumulative impact quantitatively
  - Identifying leads, partners, and funding sources for actions
  - Creating an implementation strategy for each jurisdiction (shared and individual actions)
  - Seeking adoption and implementation

- **Action Examples:**
  - Boosting building energy efficiency
  - Boosting wind, solar and other "clean" power
  - Creating local green jobs
  - Increasing transportation alternatives (transit, EVs, etc.)

Project Diagram



Questions?



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