# Presenting Overview

- Review of Fall Engagement Efforts
- Overview of Draft Plan & Actions

## Timeline for Thurston Climate Adaptation Plan

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<tbody>
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<td>2016</td>
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<td>2017</td>
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<td>2018</td>
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<td>Review Science</td>
<td>Assess Vulnerabilities</td>
<td>Assess Risks</td>
<td>Evaluate Actions</td>
<td>Write Plan</td>
<td>Present &amp; Adopt Plan</td>
<td>Implement Plan</td>
<td>TRPC Council</td>
<td>Community</td>
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<td>Science Advisory Committee</td>
<td>Stakeholder Advisory Committee</td>
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Fall Public Engagement

- **October**
  - Posted draft plan online, elicited comment
  - Presented plan and *Resilience Road* game around region to spark interest, input

- **November**
  - Revised and reposted plan
  - Presented plan and action overview to:
    - Thurston County Planning Commission
    - Board of County Commissioners

- **Total Engagement #s:**
  - Met with 20+ organizations
  - Reached 50,000+ people

Arts Walk

- **Oct. 6:**
  - Hosted “Art of Change” event during fall Arts Walk

- **TRPC partners:**
  - City of Olympia
  - Timberland Regional Library
  - Puget Sound Estuarium
  - Local artist Carrie Zeigler

- **Event details:**
  - Pop-up library
  - Project posters and handouts
  - Ocean Acidification mural
  - *Resilience Road* board game
Additional Events

- **Oct. 10:**
  - Presented plan, poster and game at *Northwest Climate Conference*
  - Attended by regional climate scientists, planners, engineers, policymakers, communicators ...

- **Oct. 25:**
  - Collaborated with Evergreen’s *Sustainability in Prisons Project*
  - Presented project and game at Stafford Creek Corrections Center
  - Led interactive climate action exercise with ~150 inmates

Plan Overview

- Explores how observed and projected climate impacts affect our region

- Recommends “adaptation” actions to prepare for and respond to impacts:
  - 100 pages
  - 8 chapters
  - 91 actions
  - 5 appendices
Plan Organization

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

Plan Design

- Enhances text with maps, photos, and graphics
- Explains complex information simply
- Connects science to policy clearly
- Includes technical documents in appendices
Plan Resources

- Created Resilience Toolkit with links to TRPC’s Hazards Vulnerability map, climate data, preparedness resources:
  - [www.trpc.org/resiliencetoolkit](http://www.trpc.org/resiliencetoolkit)

Resilience Toolkit

- The following money, preparedness, and planning and data resources were combined to enhance climate resilience in Thurston County and beyond.

Actions Overview

Process Recap:

- Used climate models to assess impacts
- Assessed risk consequence, likelihood
- Chose to “take action” for big risks
- Educated public and elicited ideas
- Drafted 91 actions
- Selected 25 priorities
- Selected leads, partners, timeframe
General Actions

18 General Actions, including 4 priorities:

- **Action G-01**: Direct government staff members to develop their technical expertise and skills to prepare for and respond to climate change impacts.

- **Action G-02**: Create hazard recovery plans and prioritize the restoration of vital public safety facilities and other essential community assets (e.g., hospitals and major bridges).

- **Action G-04**: Factor climate impacts into the planning of operations and the coordination of disaster response and recovery activities among first-responders.

Drought & Water Quality

17 actions, including 4 priorities:

- **Action D-01**: Develop and implement a comprehensive drought-response strategy that sets action levels for different drought stages.

- **Action D-02**: Evaluate and secure sustained funding to support long-term monitoring of ground and surface water quality and quantity.

- **Action D-03**: Increase reuse of reclaimed water for irrigating plants, supplementing low streamflow, and other purposes.
Flood & Erosion

17 actions, including 6 priorities:

- **Action F-01**: Evaluate and secure sustained funding to restore and protect riparian vegetation along freshwater and marine shorelines.

- **Action F-02**: Incorporate projected sea-level rise and flooding information into the designation of regulatory hazard areas.

- **Action F-03**: Design new and replacement stream culverts and other drainage infrastructure to accommodate projected higher peak flows associated with more frequent and intense heavy precipitation events.

Plants & Animals

12 actions, including 3 priorities:

- **Action P-01**: Increase funding, education, and incentives for private landowners to manage lands in ways that enhance ecological and economic resilience (e.g., protecting and restoring forests, prairies, and shoreline/riparian areas).

- **Action P-02**: Use best-management practices, such as installing large woody debris in rivers, to improve water temperature, streamflow, and channel conditions.

- **Action P-03**: Create/Update basin plans that integrate climate impacts, and include goals and targets for protecting natural resources and habitat.

Flood & Erosion Actions

- *Projected rising sea levels and heavier rain events increase the risk of flooding, erosion, and landslides that threaten people, plants, and animals. Impacts include:*
  - **Stormwater**: Heavy rainfall and runoff can overwhelm stormwater systems (e.g., roadside swales, drains, and pipes), especially in urban communities.
  - **Wildfire Habitat**: Heavy rainfall and runoff can erode streambeds and streambanks and degrade sensitive habitat for fish and wildlife.
  - **Floods and Flooding**: Heavy rainfall and saturated soil can trigger landslides that endanger homes, roads, and trees near steep slopes. Sea-level rise and more intense storms increase risks to coastal bluff.
  - **Marine and Coastal**: Sea-level rise can cause low-lying coastal areas to be under water more frequently and for longer periods of time. This can turn our region’s coastal marshes and wetlands into mudflats and other habitat for birds and land animals.

The following actions can help the region reduce and respond to these and other climate impacts identified through the project’s vulnerability and risk assessments.

Plants & Animals Actions

- *Projected changes in temperature and precipitation threaten the health and resilience of our region’s plants and animals. Impacts include:*
  - **Salinization**: As the oceans become warmer and more acidic, shellfish have a harder time developing shells. Land-based pollution can exacerbate these threats and make shellfish toxic and dangerous to consumers.
  - **Agriculture**: Crop yields and timber can decrease or fail when summers are drier and hotter for longer periods of time. Extreme heat and flooding also threaten cattle, horses, and other large livestock.
  - **Vegetation**: Warmer, drier summers can stress sensitive plants and habitats, including riparian vegetation and urban landscaping. This can leave them more vulnerable to drought, pests, and pathogens.
  - **Sediment**: Changes in stream temperature and volume can threaten critical habitat for juvenile salmonids that develop in streams and rivers, going adults that return to spawn.

The following actions can help the region reduce and respond to these and other climate impacts identified through the project’s vulnerability and risk assessments.
Transportation & Energy

- 14 actions, including 5 priorities:
  
  - Action T-01: Expand and retrofit the region's energy distribution, monitoring, and storage infrastructure to support more on-site renewable energy generation.
  
  - Action T-04: Evaluate strategies to protect important electrical equipment that is within critical areas at risk of flooding and/or landslides.
  
  - 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.

Wildfire & Extreme Heat

- 12 actions, including 3 priorities:
  
  - Action T-01: Create and maintain a map of the region's high-risk wildland urban interface communities and locations of wildfires.
  
  - Action W-02: Require new developments in high-risk wildfire areas to submit a fire-protection plan during site plan review.
  
  - Action W-03: Provide private forestland owners and residents living in Wildland-Urban Interface (WUI) areas information about fire prevention/Firewise practices, and encourage application of such practices.
Next Steps

- Seek TRPC adoption in January
- Integrate actions into local policy documents
- Monitor climate impacts and update Thurston Climate Adaptation Plan periodically
- Continue public engagement
- Assess and reduce the region’s emissions (mitigation)

Questions?

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