GENERAL

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-03
Pursue funding to implement highest-priority actions identified in the adopted Hazards Mitigation Plan for the Thurston Region.

ACTION G-04
Factor climate impacts into the planning of operations and the coordination of disaster response and recovery activities among first-responders, including public health, law enforcement, fire, and emergency medical services personnel.

ACTION G-05
Assess potential climate change-induced population migration within and to the Thurston Region, and evaluate response strategies.

ACTION G-06
Create a household preparedness plan and store of food, water, and other supplies (lanterns, bicycles, etc.) to use in case a flood or other hazard cuts off access to goods, services, and emergency responders.

ACTION G-07
Identify a neighborhood site (e.g., a school or other location that’s safe, accessible, and well-known) to serve as a temporary coordination center for local hazard response and recovery efforts, and publicize the hub’s location widely.

ACTION G-08
Encourage neighborhoods to become familiar with residents who have skills and tools to assist others with special needs (e.g., elderly or disabled), should residents need to provide emergency response in the event that police and fire personnel cannot provide immediate assistance.
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ACTION G-09
Encourage residents to organize or participate in regular emergency preparedness, response, and recovery planning and training events.

ACTION G-10
Increase the number of residents who receive Community Emergency Response Team (CERT) training to improve local hazard preparedness, response, and recovery efforts. Ensure such efforts are ongoing.

ACTION G-11
Factor climate impacts into the full life-cycle costs of roads, buildings, parks and other assets – from their initial siting and design to their ongoing operations and maintenance.

ACTION G-12
Increase incentives to make urban infill and redevelopment projects more viable financially.

ACTION G-13
Align land use, hazard mitigation, transportation, capital improvement, and other plans so that they take into account climate change and work toward the same goals.

ACTION G-14
Expand ability to predict drought and flood events by tracking soil moisture, streamflow, precipitation, groundwater levels, tide levels, well levels, reservoir levels, and weather forecasts.

ACTION G-15
Create a website that details health risks exacerbated by climate change and provides information that helps residents prepare for and respond to drought, poor air quality, extreme heat, disease vectors, and other threats.

ACTION G-16
Develop a countywide disaster debris management plan with actions to efficiently dispose of or recycle materials (organic and artificial) after a disaster.
**ACTION G-17**
Advocate for expanding the eligibility of federal disaster-assistance funding to allow for the replacement or relocation of aging or vulnerable infrastructure before it fails.

**ACTION G-18**
Limit access to parks, lakes, and other outdoor recreation areas when natural hazards (e.g., algal blooms, wildfires, floods) pose risks to public safety.
Drought & Water Quality

**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.

**ACTION D-04**
Conduct benefit-cost analyses of adaptation actions that conserve water resources.

**ACTION D-05**
Assess potential climate change-induced population migration within and to the Thurston Region, and evaluate response strategies.

**ACTION D-06**
Set up a water bank in Thurston County’s watersheds to enable water rights trading that supports conservation.

**ACTION D-07**
Implement tiered water pricing.

**ACTION G-07**
Increase incentives for water conservation during dry months.
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ACTION D-09
Incentivize new commercial construction to include on-site rainwater harvesting facilities.

ACTION D-10
Install efficient plumbing fixtures and equipment in buildings so as to conserve water.

ACTION D-11
Evaluate and offer new incentives for residents to install rain gardens on well-draining soils and plant drought-tolerant landscaping (e.g. xeriscaping) to adapt to changes in seasonal precipitation.

ACTION D-12
Construct new water-storage systems (e.g., large cisterns, water towers and reservoirs) to provide back-up water supplies during droughts.

ACTION D-13
Expand Thurston County’s septic system operation and maintenance education and outreach programs.

ACTION D-14
Reduce zoning density for parcels (i.e., “downzone”) and lower limits for impervious surfaces near streams and lakes with nutrient-loading problems.

ACTION D-15
Facilitate new residential water connections to municipal sources, where feasible.

ACTION D-16
Incentivize water metering for all wells.
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Drought & Water Quality

ACTION D-17
Establish a local non-regulatory entity to provide technical assistance to private well owners regarding conserving water and detecting leaks and pollution.
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.

ACTION F-04
Install flood gates and pumps on stormwater outfalls connected to Puget Sound to mitigate back-ups during high tides and heavy rains exacerbated by rising seas.

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 F-06
Require that new or renovated buildings utilize flood-protection measures (such as raised finished-floor levels and temporary flood barriers) to accommodate projected sea-level rise over the structures’ lifespan.

ACTION F-07
Increase education and enforcement efforts to ensure that commercial and residential building owners properly maintain low-impact development (LID) facilities that treat stormwater runoff on site.

ACTION F-08
Assess drinking water wells’ vulnerability to saltwater intrusion and inundation from rising sea levels, and develop adaptation measures (e.g., relocating wells).
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FLOOD & EROSION

ACTION F-09
For sites where elevating or relocating a building is not a viable option in response to flood risks, acquire the property, use the land for appropriate uses (e.g., flood storage or agriculture), and help the occupants resettle in the community.

ACTION F-10
Implement brownfield clean-up strategies/planned actions for low-lying sites that are most vulnerable to sea-level rise.

ACTION F-11
Protect important historical or cultural sites that are at risk of coastal or inland flooding, erosion, and wildfires.

ACTION F-12
Limit construction of buildings and roads in areas where flood and landslide risks are highest.

ACTION F-13
Identify where and how the region could support the natural inland transition of coastal lowlands to estuaries as sea levels rise.

ACTION F-14
Construct flood-storage facilities (e.g., wetlands or artificial ponds) upstream of concentrated development areas that are at risk of flooding.

ACTION F-15
Minimize development, disturbance, and vegetation removal on or near steep slopes (>25% gradient) adjacent to waterbodies.

ACTION F-16
Retrofit or reroute pedestrian/bicycle trails and bridges in areas that are subject to repetitive flooding and/or landslides.
FLOOD & EROSION

ACTION F-17
Decouple remaining combined storm and sewer systems, where cost-effective, so as to add capacity and mitigate back-ups and water-borne disease outbreaks.
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**PLANTS & ANIMALS**

**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.

**ACTION P-04**
Implement monitoring practices that provide early detection of invasive species on land and in water, and expand biological control and manual removal of such plants and insects.

**ACTION P-05**
Evaluate additional assisted migration of vulnerable plant and animal species to suitable habitat.

**ACTION P-06**
Expand efforts to monitor the cause and extent of changes in native and invasive plant distribution.

**ACTION P-07**
Increase organic matter content and water retention in soils within urban and agricultural settings.

**ACTION P-08**
Increase urban agriculture and biointensive farming methods to maximize crop yields and ecosystem services.
ACTION P-09
Protect and enhance marine vegetation, such as eelgrass, so as to help clean water, sequester carbon dioxide, and improve fish habitat and survival.

ACTION P-10
Educate waterfront property owners about the benefits of voluntary oyster seeding and other shellfish production, and encourage such practices.

ACTION P-11
Support Voluntary Stewardship Program (VSP) implementation to encourage conservation of agricultural lands and critical areas (e.g., riparian stream buffers) that provide ecosystem services.

ACTION P-12
Grow woody perennial crops that help conserve water, store carbon, and provide other ecosystem services.
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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-02
Provide additional utility incentives to support energy efficiency and renewable energy investments in buildings.

ACTION T-03
Offer additional utility rebates or bill credits to induce residents to buy and install energy-efficient appliances and other equipment.

ACTION T-04
Elevate, reinforce or relocate 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.

ACTION T-06
Relocate or retrofit low-lying roads vulnerable to coastal or inland flooding.

ACTION T-07
Increase the energy efficiency of the region’s water infrastructure.

ACTION T-08
Build additional large-scale renewable energy projects (e.g., utility-scale solar arrays and wind farms) in Thurston County.
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ACTION T-09
Establish energy goals/benchmarks (e.g., LEED) for new buildings, and adopt permitting practices and building code and/or design guidelines that support clean and efficient energy practices and technologies (e.g., passive design, rooftop solar panels, electric vehicle charging stations).

ACTION T-10
Expand utility outreach to and education of commercial and residential power customers about the benefits of clean and efficient energy technologies and practices.

ACTION T-11
Develop and adopt policies that require residential and commercial properties to undertake an energy audit at the time of sale or during a substantial remodel.

ACTION T-12
Generate additional energy from waste products (e.g., woody biomass and sewage) in Thurston County.

ACTION T-13
Increase resources to monitor air quality, and enforce regulations to reduce the health risks of air pollution (e.g., surface ozone and particulate matter) exacerbated by warmer temperatures and automobile emissions.
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**ACTION W-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.

**ACTION W-04**
Plant drought- and pest-resistant trees, shrubs, and grasses in parks, landscaping strips, and other urban areas.

**ACTION W-05**
Adopt wildfire hazard overlay districts with development regulations (for new structures) based on factors such as slope, structure, and fuel hazards.

**ACTION W-06**
Lower the density of development allowed in areas with the highest risk of wildfire.

**ACTION W-07**
Extend and enforce the rural burn ban when wildfire risks are high.

**ACTION W-08**
Modify building codes, where necessary, to require fire sprinkler systems and enable emergency access/egress in all new residential and commercial construction.
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ACTION W-09
Account for the inclusion of defensible spaces into future developments (e.g., designing roads, pathways, sidewalks, and landscaping to create firebreaks) in areas where there is high wildfire risk.

ACTION W-10
Enhance training and financial support for wildfire response.

ACTION W-11
Expand the region’s urban tree canopy and manage forests responsibly.

ACTION W-12
Install reflective and/or vegetated roofs to reduce building energy consumption and the urban heat island effect.
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**Stressor Setback**

**Increasing Drought**
Move your pawn to the stressor Increasing Drought – the region’s dry spells becoming more frequent and intense.

**Ocean Acidification**
Move your pawn to the stressor Ocean Acidification – Puget Sound’s seawater becoming more acidic and corrosive due to greater absorption of carbon dioxide.

**Increasing Drought**
Move your pawn to the stressor Increasing Drought – the region’s dry spells becoming more frequent and intense.

**Intensifying Precipitation**
Move your pawn to the stressor Intensifying Precipitation – the region’s heavy rain events becoming more frequent and intense.

**Warmer Winter**
Move your pawn to the stressor Warmer Winter – the Puget Sound region’s cool months (October-March) being warmer than they have been historically.

**Sea-Level Rise**
Move your pawn to the stressor Sea-Level Rise – Puget Sound’s seawater rising due to increasing temperatures and melting land ice.

**Population Change**
Move your pawn to the stressor Population Change – temporary or permanent population displacement and migration within and/or to the Puget Sound region due to climate impacts.

**Warmer Water**
Move your pawn to the stressor Warmer Water – warming affecting the chemical, biological and/or physical characteristics of the Puget Sound region’s fresh and marine waterbodies during any season.
**Stressor Setback**

**Increasing Drought**
Move your pawn to the stressor Increasing Drought — the region’s dry spells becoming more frequent and intense.

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Stuck? Well, you're in luck. ... Please create an adaptation action for a climate stressor of your choosing.

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