



Climate Program Update

Olympia City Council

July 16, 2024

Manage the unavoidable.

Avoid the unmanageable.

ADAPTATION

ACTIONS TO MANAGE THE
IMPACTS OF CLIMATE
CHANGE



Flood protection

Infrastructure and
building design



Disaster
management &
business
continuity



Urban forest

Complete
communities



Water and
energy
conservation

MITIGATION

ACTIONS TO REDUCE
EMISSIONS THAT CAUSE
CLIMATE CHANGE

Sustainable
transportation



Energy efficiency

Renewable
energy



Agenda

- 1. Climate Mitigation Updates**
- 2. Climate Adaption Updates**
- 3. Comprehensive Plan Climate Element**

Mitigation

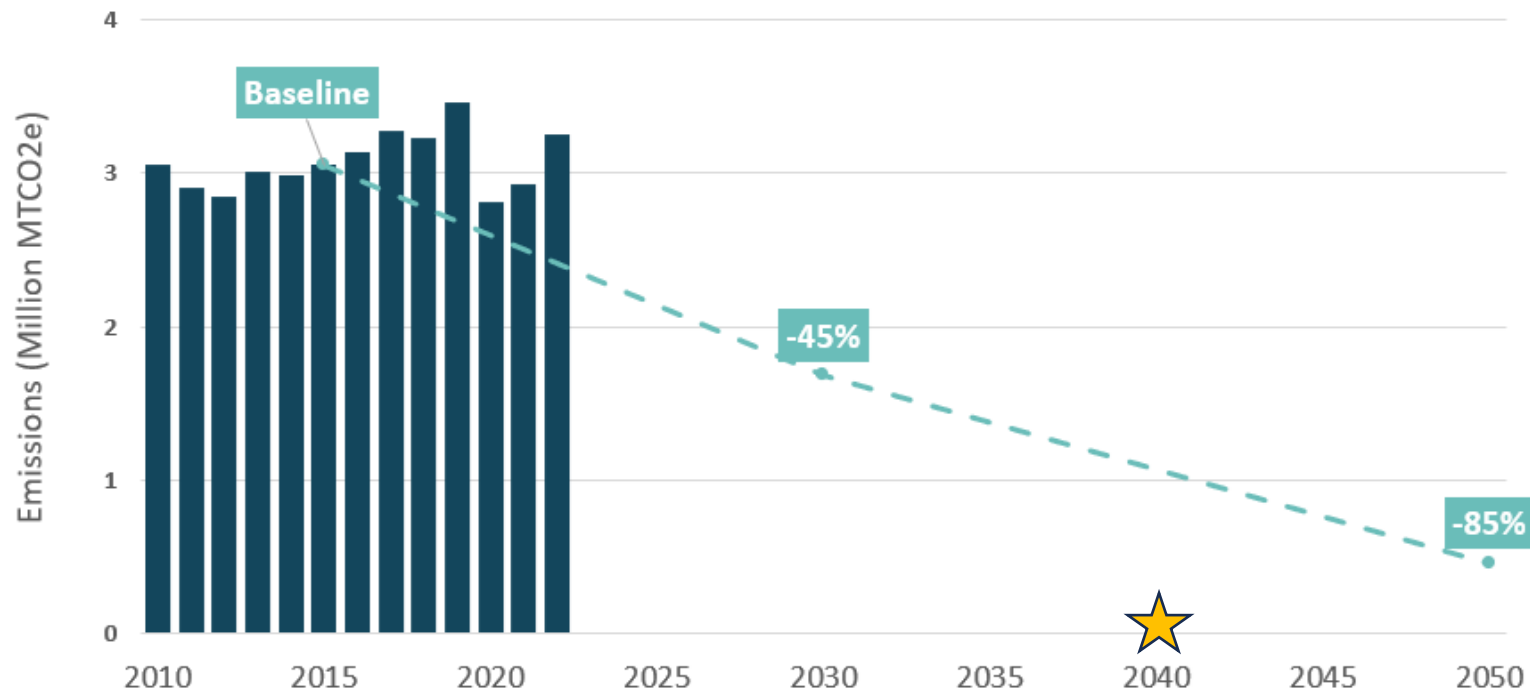
Actions to reduce emissions that cause climate change.

Olympia's Emission Reduction Targets

- **Thurston Climate Mitigation Plan:** Reduce regional greenhouse gas emissions:
 - 45% below 2015 levels by 2030
 - 85% below 2015 levels by 2050
- **Olympia Climate Inheritance Resolution:** Achieve net-zero emissions by 2040.
- **Cities Race to Zero:** Achieve net-zero emissions by 2040 and set an interim 2030 science-based target.

Greenhouse Gas Emissions Trends

Thurston County Community-wide Emissions (2010 – 2022)



2015-2019: ↑ 13.1%

2019-2020: ↓ 18.8%

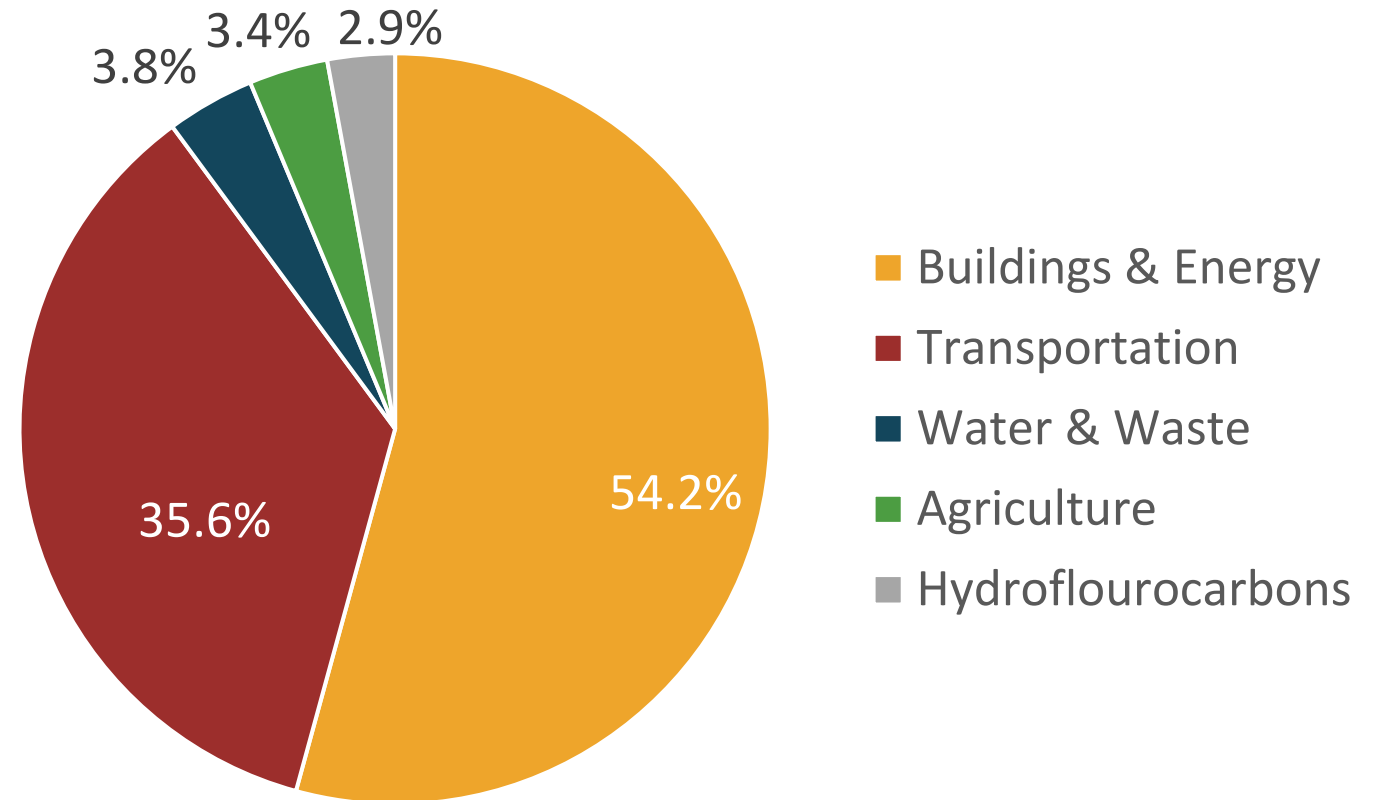
2020-2022: ↑ 16.0%

2015-2022: ↑ 6.6%

Per capita emissions decreased 4.3% from 2015 to 2022.

Greenhouse Gas Emissions Sources

Total 2022 GHG Emissions in Thurston County:
3.26 million
metric tons of carbon dioxide equivalent (MTCO₂e)



Thurston Climate Mitigation Plan

Framework for Climate Mitigation Action

Live Lighter

- Create denser urban neighborhoods where more people can opt to drive less
- Make it easier to telework, walk, bicycle, and ride transit
- Reduce food and other waste

Green Our Grid

- Support State-level action to generate electricity with 100% renewable sources
- Increase energy efficiency of homes and businesses
- Make it easier to install renewables on homes and businesses

Shift Energy Sources

- Switch more appliances, heaters, and vehicles to electricity
- Make it easier to charge electric vehicles in homes and around town

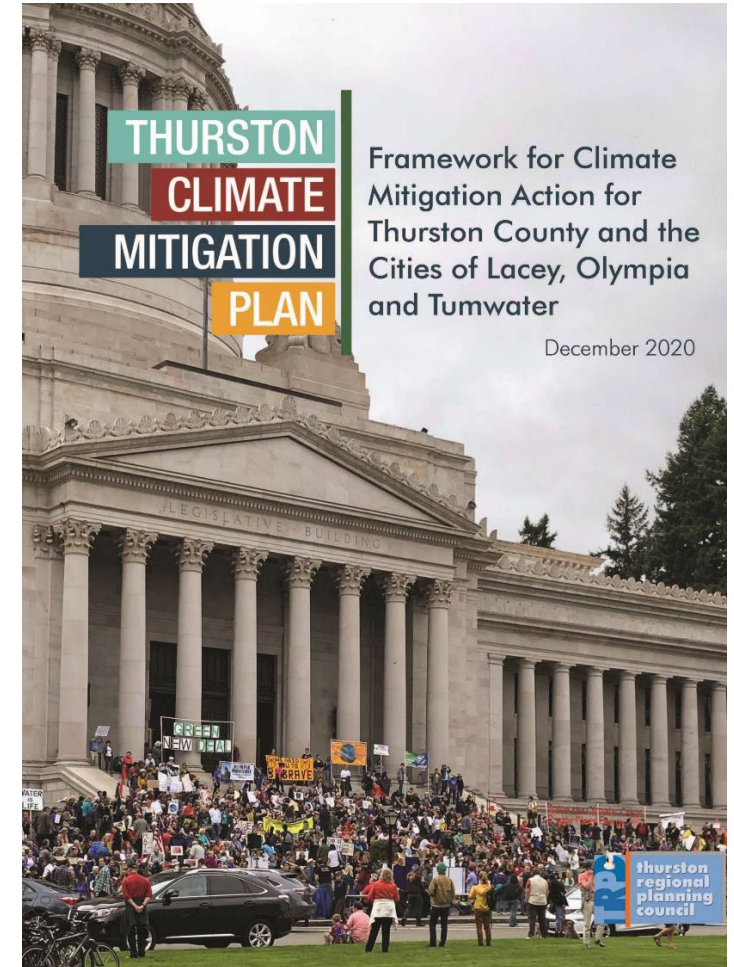
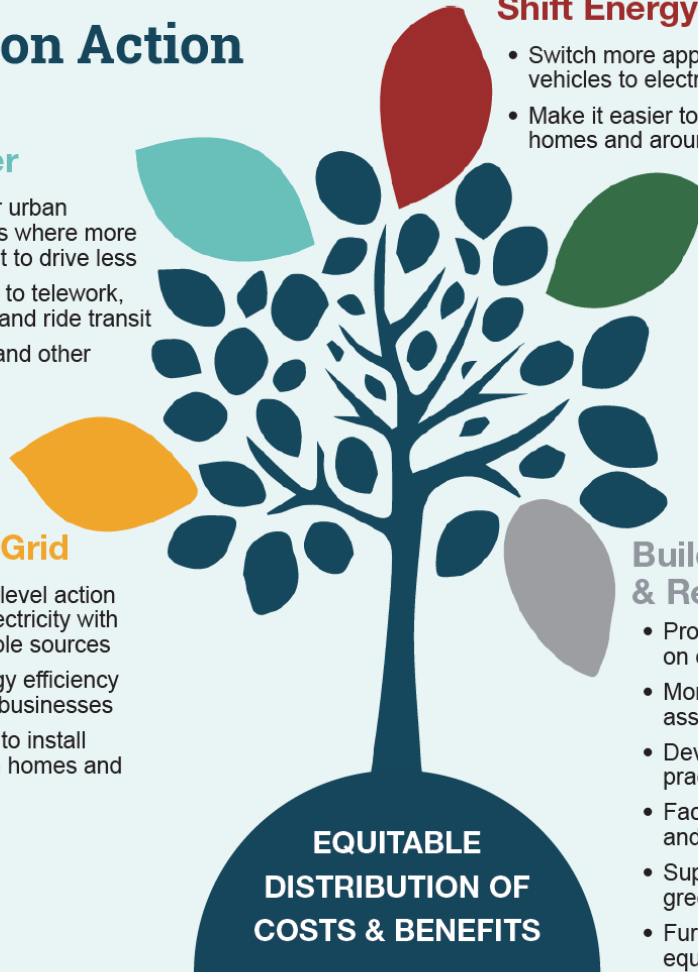
Store Carbon

- Plant trees and preserve tree canopy
- Preserve farmland and increase regenerative agriculture practices
- Preserve and enhance prairies

Build Local Capacity & Resilience

- Provide coordinated leadership on climate action
- Monitor greenhouse gases and assess progress
- Develop expertise in climate-forward practices
- Factor climate impacts into funding and decisions
- Support the development of a green economy
- Further understand and address social equity issues related to climate change

**EQUITABLE
DISTRIBUTION OF
COSTS & BENEFITS**



Climate Mitigation Highlights

1. Energize Olympia
2. Parking and EV Charging
3. Read Along with the Climate Team
4. Thurston Climate Mitigation Collaborative

Energize Olympia

Ductless Heat Pump Group Purchase Program

- Installation discounts and incentives
- Streamlined installer selection and installation
- Community education and outreach
- Guidance and customer support
- Fully funded installations for low and moderate-income households
- Supported by a partnership between the City of Olympia and Habitat for Humanity

Learn more at olympiawa.gov/energize



Energize Olympia

- **67 heat pumps installed** through the 2023 pilot program
 - 22 installations were fully subsidized for low- and moderate-income households
 - 42 households converted to electricity as their primary energy source for heating
 - Nearly \$100,000 in savings through additional discounts and rebates for self-funded installations
- **500 community members engaged** through outreach events and workshops
- More than **\$800,000 in grant funding anticipated** for future campaigns.



Parking and EV Charging

- **Reduced parking requirements for new residential development.**
 - No parking is required within ½ mile of frequent transit route stops or the Capital Mall Triangle area.
 - Parking requirements for all other multifamily development reduced to 0.5 parking spaces per unit.
- **EV-Ready parking requirements, for most new development, wherever parking is provided.**
 - For new multifamily development, 10% of parking spaces will include EV charging. The remaining 90% of parking spaces will be EV-ready or EV-capable.



Read Along with the Climate Team

Developed through a partnership with the Timberland Regional Library.



*Check out our
recommended
Climate Films and
Reads at
olympiawa.gov/blog*

Thurston Climate Mitigation Collaborative

- Updated the TCMP implementation strategy to clarify roles and responsibilities for local implementation and regional coordination.
- Formed the Thurston Climate Mitigation Collaborative (TCMC) to support ongoing regional coordination and collaboration.
- Recruited and appointed the TCMC Community Advisory Workgroup.
- Held first TCMC annual retreat in 2023, and selected two regional initiatives for 2024:
 - Developing a Home Energy Score Model Ordinance
 - Designing an Energy Efficiency and Electrification Campaign



Adaptation

Actions to manage the impacts of climate change.

Adaptation Highlights

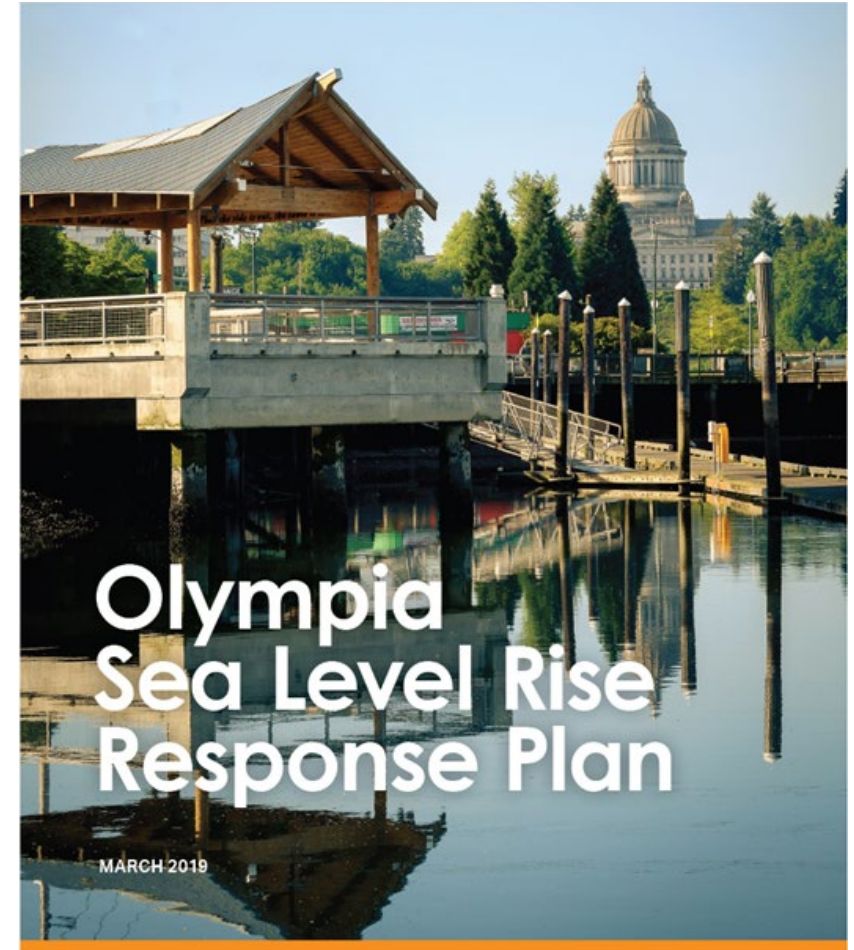
1. Sea Level Rise Response
2. Climate Risk and Vulnerability Assessment

Olympia Sea Level Rise Response Plan

A formal community plan that prioritizes strategies and investments for best responding to sea level rise in downtown Olympia, while protecting downtown's economic, social and environmental values.

The plan identifies:

- SLR Science and Projections
- Vulnerability and Risks
- Adaptation Strategies
- Needed Actions and Next Steps
- Estimated Costs and Resources
- Implementation Schedules



Key Assumptions

- An **incremental approach to protecting downtown is appropriate**: near-term, mid-term and long-term actions are provided.
- Given the extensive infrastructure and investments made in our downtown, **wholesale retreat is not a pragmatic strategy** to pursue during the planning horizon.
- Physical adaptation strategies are envisioned for **construction on public rather than private property**.
- **Coordination and collaboration** across governmental entities, non-profit organizations, and private property owners will be needed.



Olympia, December 27, 2022



Olympia, December 27, 2022

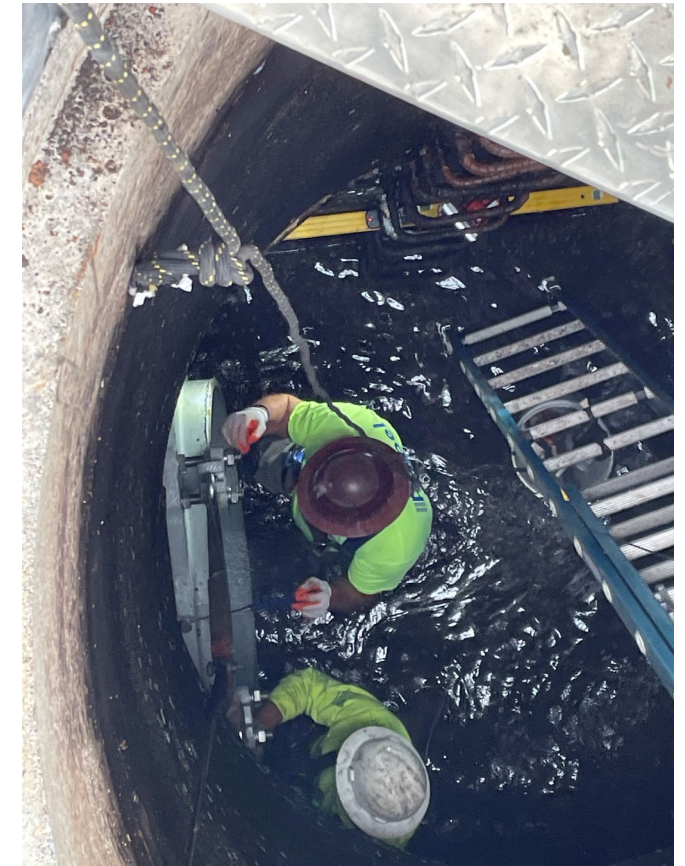
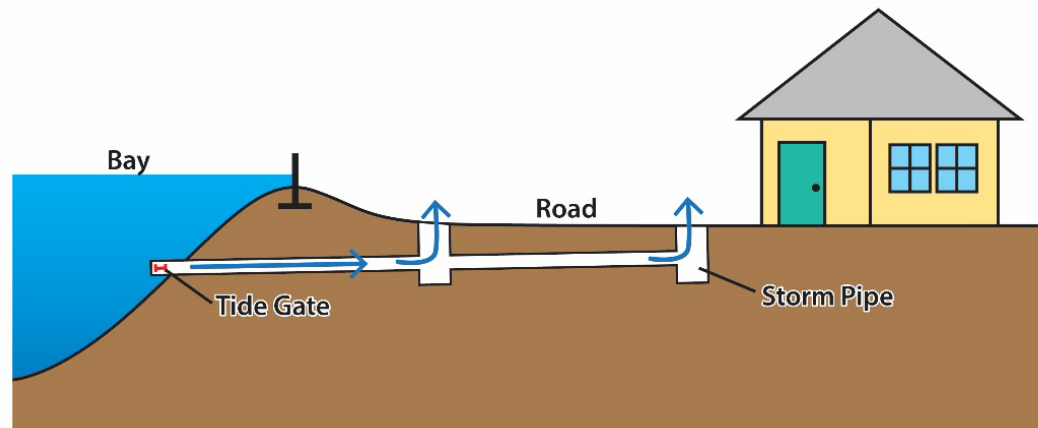


Olympia, December 27, 2022

SLR Near-Term Action Update

Physical Adaptation Strategies

- Since 2018, Olympia's Storm and Surface Water Utility installed 24 tide gates on stormwater outfalls to prevent marine flooding through the stormwater system.

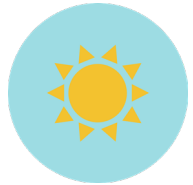


SLR Near-Term Action Update

Filling Information Gaps

- Initiated a **groundwater study** to evaluate the influence of sea level rise on groundwater conditions and the potential for future groundwater flooding behind flood barriers.
- Began evaluating approaches for **monitoring land subsidence** throughout the downtown peninsula.
- Completed a **funding and governance evaluation** to investigate long-term public financing mechanisms for sea level rise adaptation.

Climate Hazards in Olympia



Higher temperatures & extreme heat



More frequent wildfires & smoke exposure



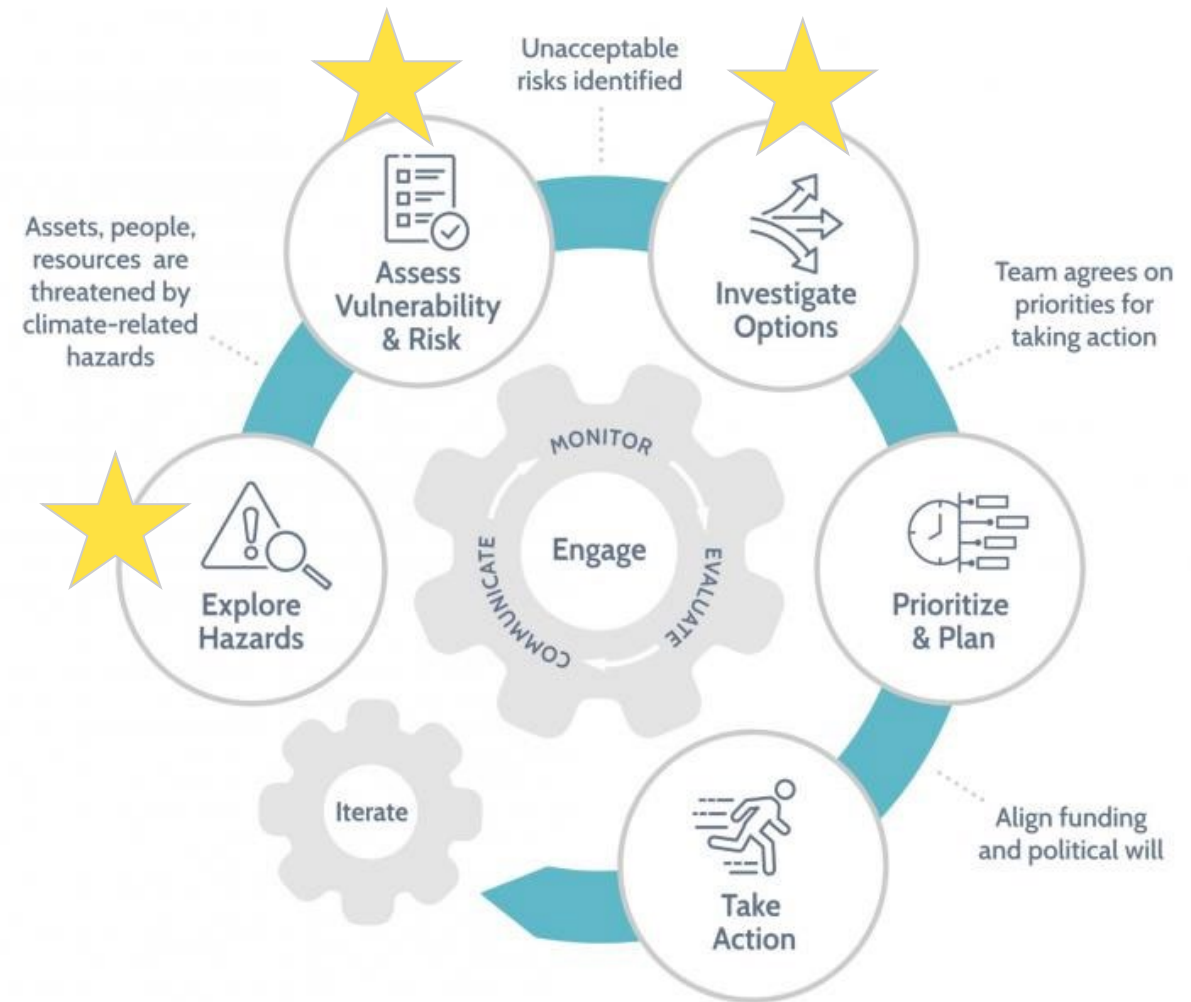
More extreme precipitation events



Sea level rise & increased coastal flooding

Climate Risk and Vulnerability Assessment

A Climate Risk and Vulnerability Assessment (CRVA) assesses the ways in which a community is susceptible to the impacts of climate change.



Climate Risk and Vulnerability Assessment

Community Engagement

- A Community Project Team, made up of 15 City Staff and 15 Community Members, provided more in-depth guidance and feedback throughout the CRVA.

Final report coming soon.

See olympiawa.gov/crva for more details.



Comprehensive Plan Climate Element

Olympia 2045

HB 1181 – Climate Change Planning

Overarching Goals:

- Reduce greenhouse gas emissions
- Reduce vehicle miles traveled
- Improve climate preparedness, response, and recovery efforts
- Maximize co-benefits and prioritize environmental justice in the development of policies/programs to achieve these goals.

GHG Reduction Sub-Element

Steps and Pathways

Pathway 1

Conduct GHG Emissions Estimate

Develop GHG reduction goals and policies using Ecology framework.

Pathway 2

Conduct Vehicle Miles Traveled (VMT) Study or Evaluation

Develop per capita VMT/GHG reduction goals and policies. Only transportation emissions sources are evaluated.

Pathway 3

Create GHG Emissions Inventory

Develop GHG reduction goals and policies based on emissions inventory modeling results.

Integrate goals and policies into comprehensive plan

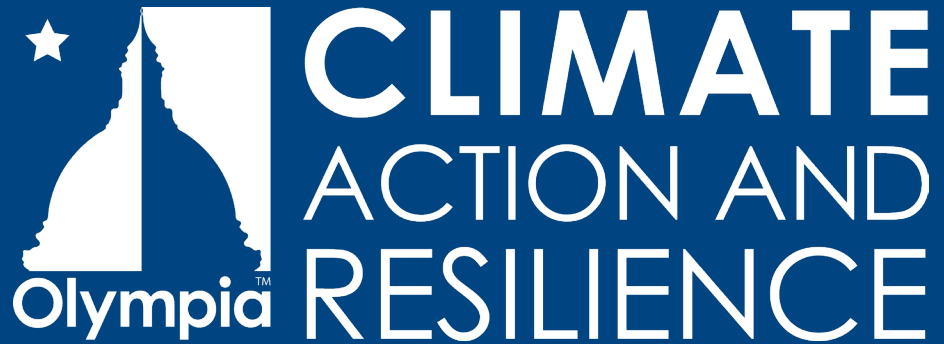
Climate Element Planning Guidance, Dec 2023

Resilience Sub-Element

Steps and Pathways



Climate Element Planning Guidance, Dec 2023



Thank you!

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olympiawa.gov/climate