



OLYMPIA CITY HALL

Climate Action Update

Olympia Planning Commission
November 15, 2021

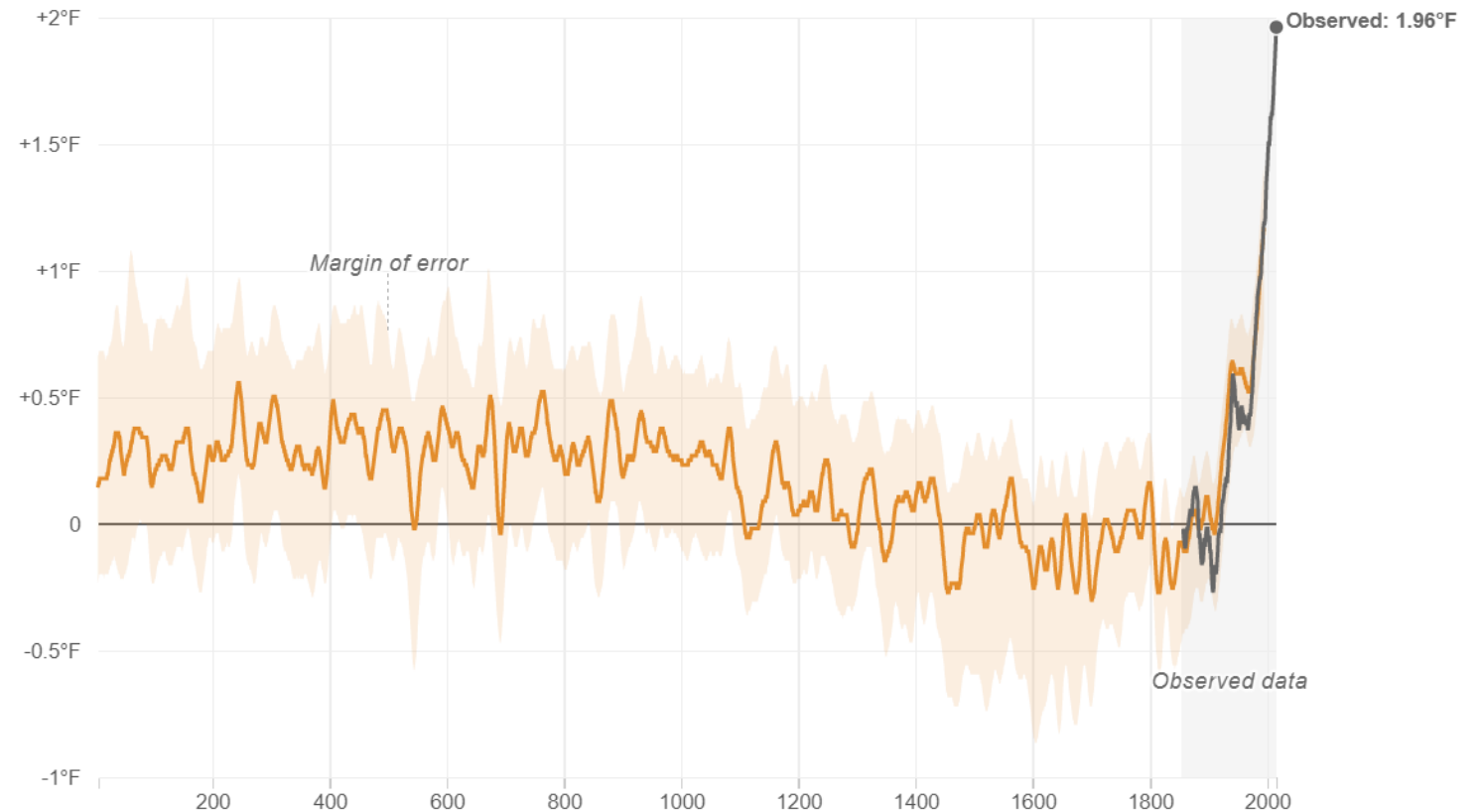
IPCC Report

Intergovernmental Panel on Climate Change
Sixth Assessment: Physical Science Report

Humans have caused rapid and widespread warming.

Global Temperatures Are Rising Quickly

Global temperatures have risen almost 2 degrees Fahrenheit, compared with the period from 1850-1900. **Observed temperatures** (1850-2020) are directly measured, and **reconstructed temperatures** (of the last nearly 2,000 years) are taken from physical records such as trees, caves and ice.



Source: IPCC Summary for Policymakers from *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.*

Credit: Ruth Talbot/NPR

Climate change is already impacting every region on Earth.

Extreme Heat Waves Are Hitting More Often

In the past, a 1-in-50 year extreme heat wave would have a 2% likelihood of happening every year. As the climate warms, that kind of heat wave is likely to occur much more often.

■ Extreme heat wave event

PAST (1850-1900)

0°F (0°C) ■ 1 time

PRESENT

1.8°F (1°C) ■ 4.8 times

FUTURE GLOBAL WARMING LEVELS

2.7°F (1.5°C) ■ 8.6 times

3.6°F (2°C) ■ 13.9 times

5.4°F (3°C) ■ 27.4 times

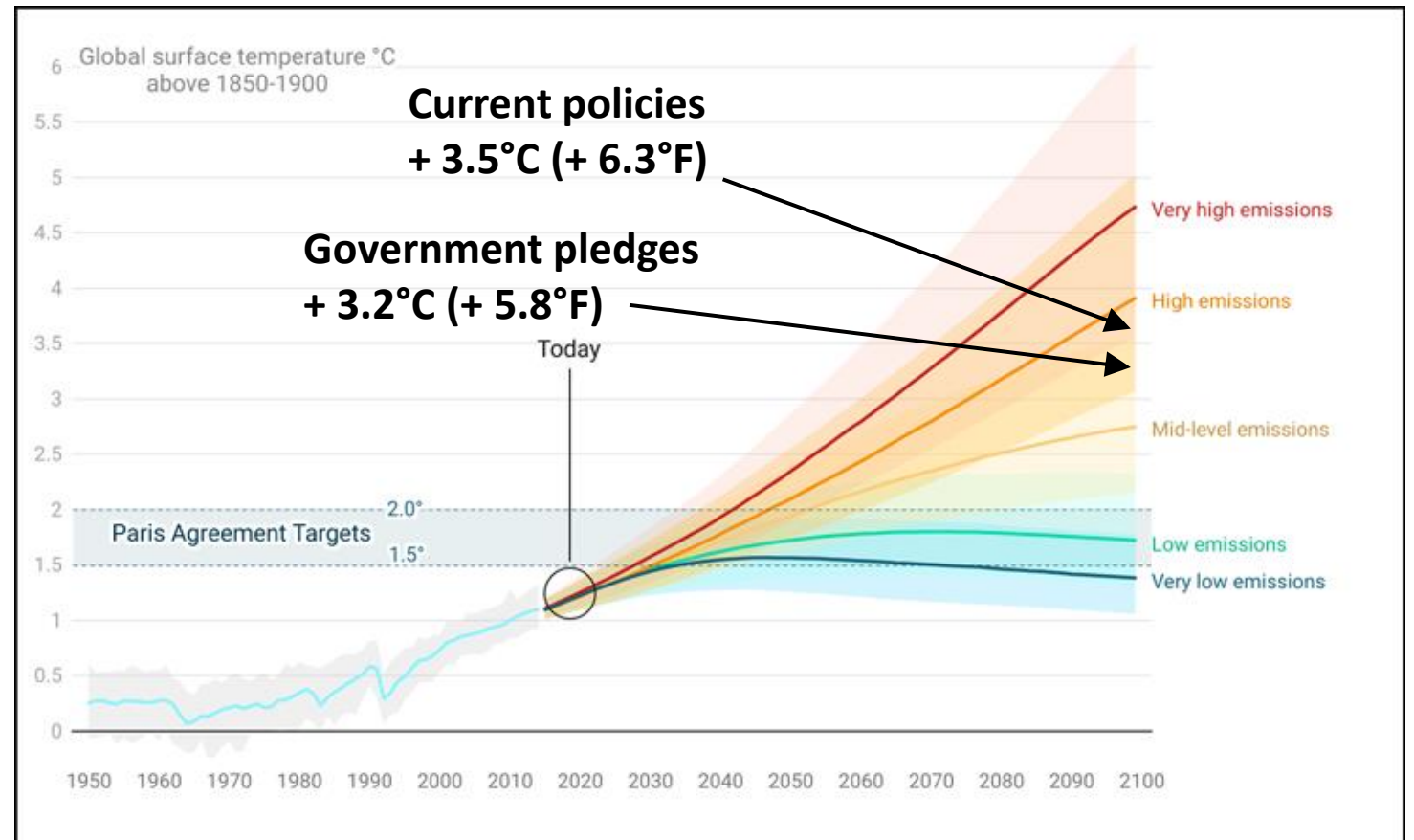
7.2°F (4°C) ■ 39.2 times

Source: IPCC Summary for Policymakers from Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

Credit: Ruth Talbot/NPR

Future Climate Pathways

Limiting global warming to 1.5 degrees C by the end of the century is still within reach, but requires transformational change.



Credit: Jenessa Duncombe. Source: IPCC (2021)

Thurston Climate Mitigation Plan

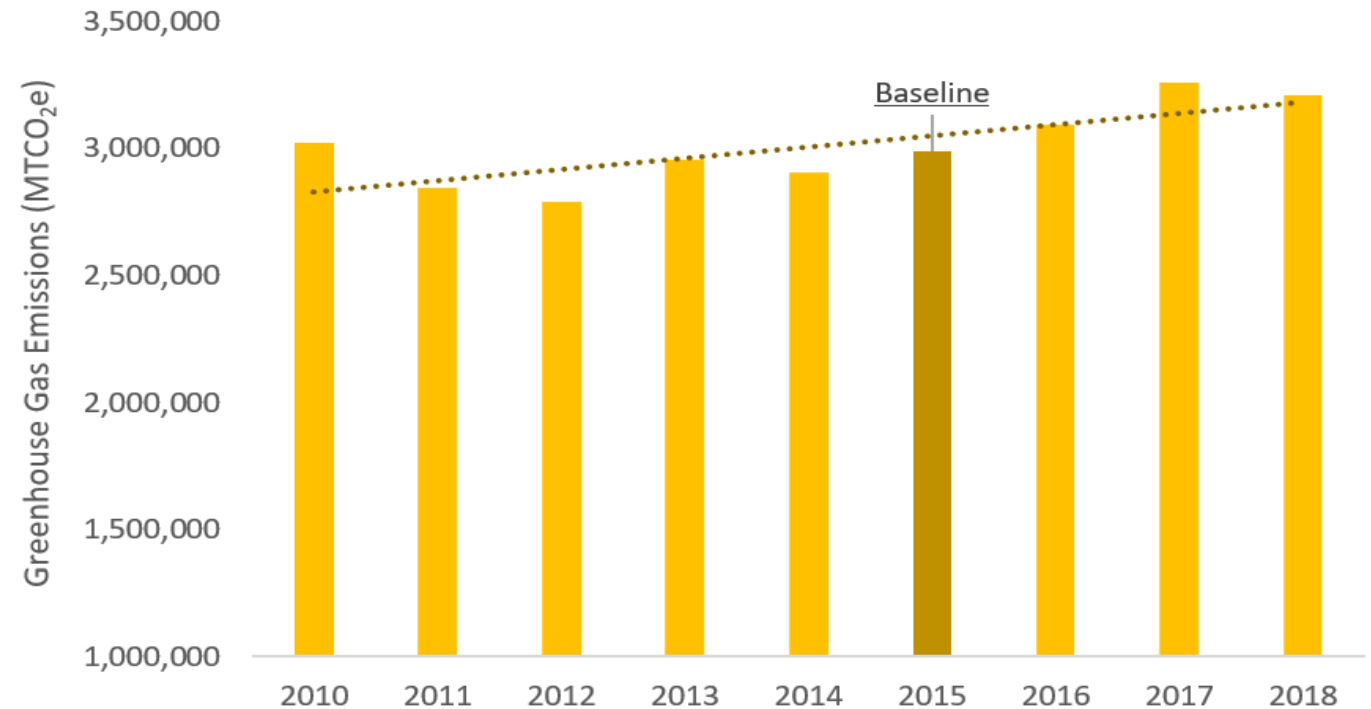
Regional framework for climate action.

Thurston County Greenhouse Gas Emissions

**Total 2018
Emissions:**

3.2 million

metric tons of carbon
dioxide equivalent
(MTCO₂e)

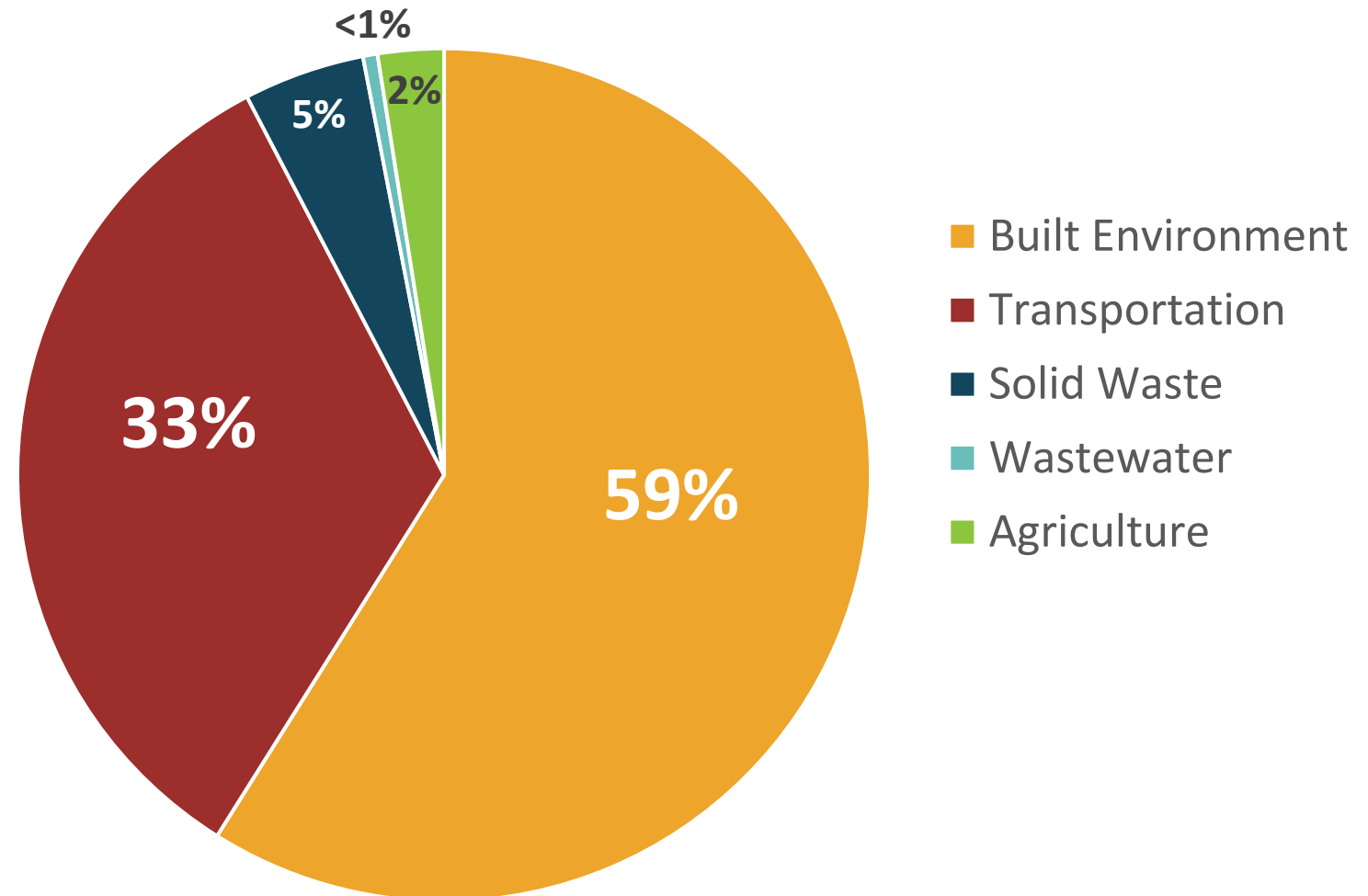


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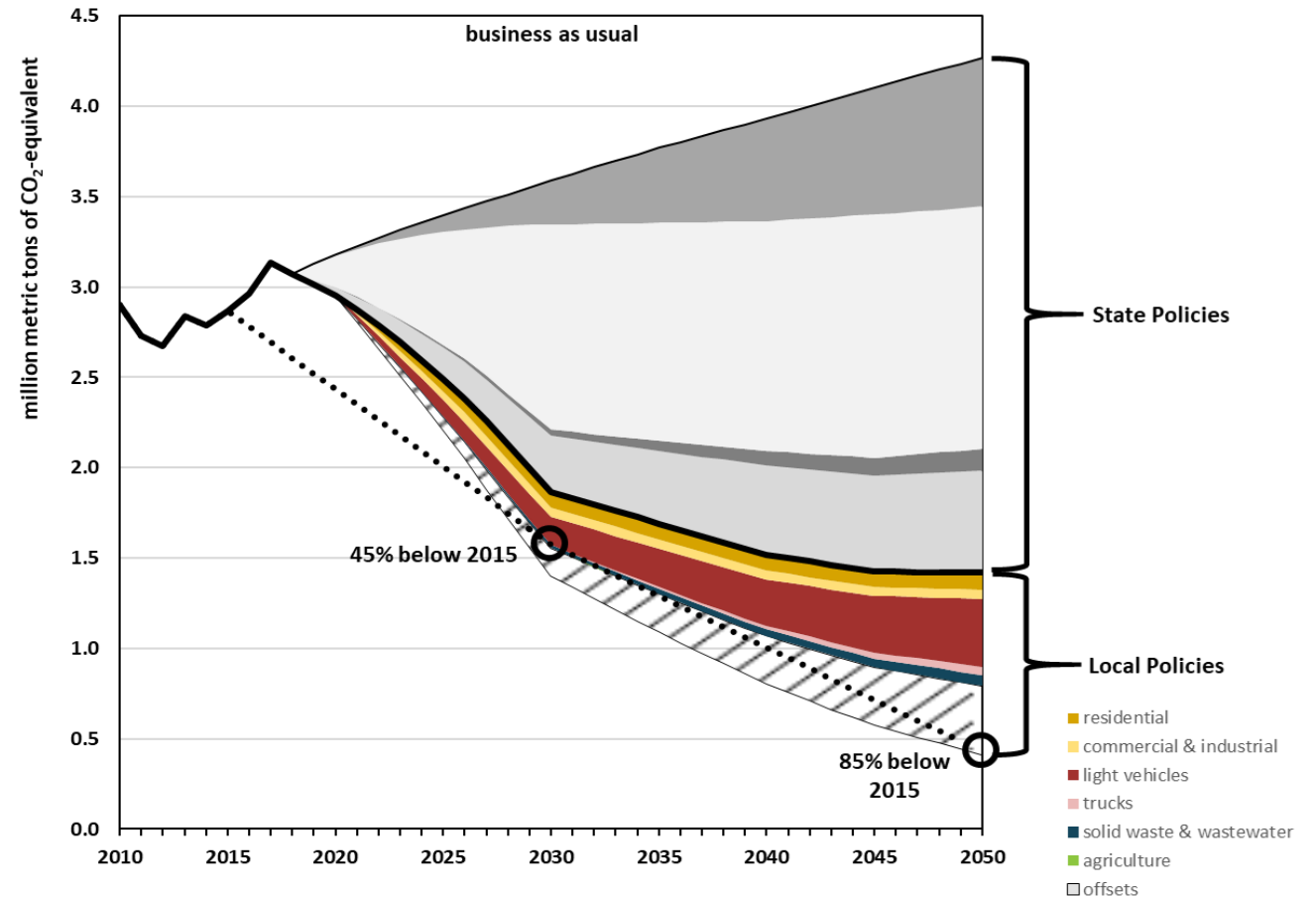


Adopted Regional Emissions Targets

**Reduce
emissions:**

45% below 2015
levels by 2030

85% below 2015
levels by 2050



Climate Mitigation Framework

Equitable distribution of costs and benefits

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

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

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

BUILDINGS AND ENERGY

Energy Efficiency

- Prioritize high-efficiency building envelopes.
- Increase efficiency of appliances.

Building Electrification

- Phase out fossil fuels for heating and cooking.

On-site Solar

- Increase the production of local solar energy.

TRANSPORTATION AND LAND USE

Reduce vehicle miles traveled (VMT)

- Set land use policies that support increased urban density and efficient transportation networks.
- Increase the use of public transit and active forms of travel such as walking and biking.

Vehicle Electrification

- Increase the adoption of electric vehicles.
- Increase the availability of EV charging infrastructure.

CARBON SEQUESTRATION

Forest and Ecosystem Management

- Protect and restore existing forests, prairies, and marine ecosystems.
- Increase forest cover where it is ecologically appropriate.

Regenerative Agriculture

- Increase agricultural practices that sequester carbon.

Forest GHG Accounting

- Calculate annual GHG emissions and removals from forests and trees



Olympia Climate Inheritance Resolution

“...the City commits to working with the youth of Olympia on the collective actions and strategies necessary to achieve a goal of net zero emissions by 2040.”

Next Steps

Cities Race to Zero Pledge

- Reach net-zero emissions by 2040, in line with global efforts to limit warming to 1.5° C.
- Set an interim target, which reflects a fair share of the 50% global reduction in CO2 by 2030.

Adopt a Climate and Equity Lens

- Develop and adopt a climate and climate equity lens for policy, planning, and funding decisions.

Mainstream Climate Action

- Establish cross-departmental Climate Action Team.
- Identify opportunities for climate action within all city programs and departments.

Regional Coordination

- Support regional coordination and implementation of the Thurston Climate Mitigation Plan.

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