

Thurston Climate Mitigation 2021 Progress Report

January 2022



Thurston County and the cities of Lacey, Olympia, and Tumwater are working together with Thurston Regional Planning Council to take action on climate change. In 2020, the four partners completed the Thurston Climate Mitigation Plan, a framework for regional climate mitigation action.

Where are we headed?

The four jurisdictions have adopted shared targets to reduce locally generated greenhouse gas emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050.

The Thurston Climate Mitigation Plan includes 22 strategies and 72 actions targeted to reduce local contributions to climate change. Read on for highlights from the past year's work. Additional information can be found at www.ThurstonClimatePlan.com

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

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

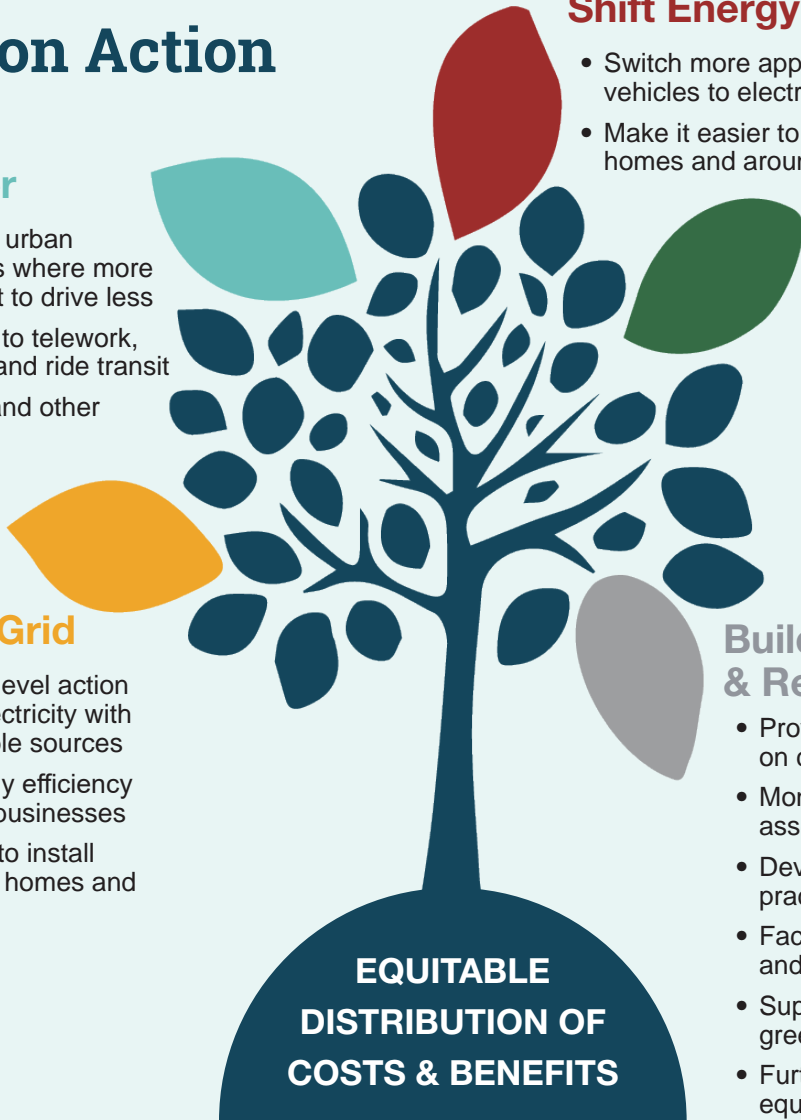
- Plant trees and preserve tree canopy
- Preserve farmland and increase regenerative agriculture practices
- Preserve and enhance prairies

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

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**

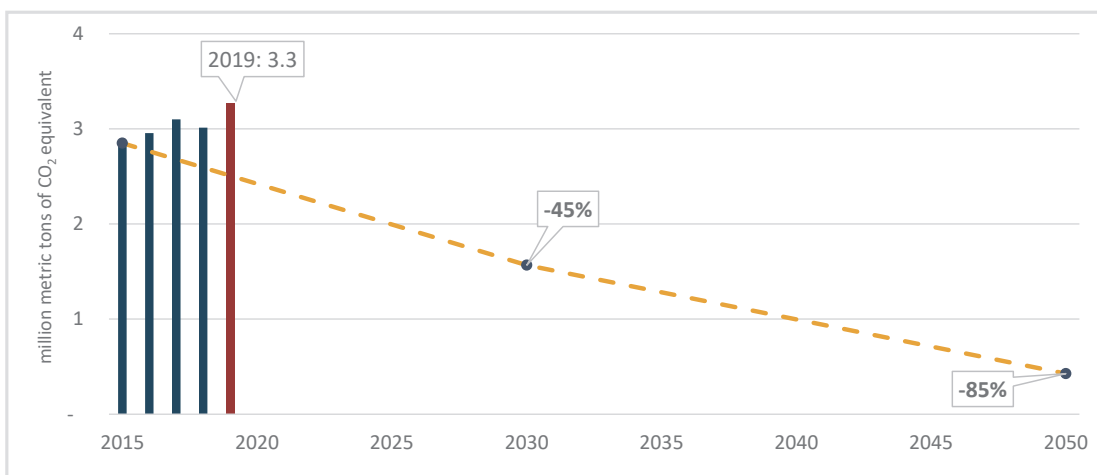
Overall Emissions

How Are We Doing?

The most recent greenhouse gas emissions data we have was collected before the completion of the Thurston Climate Mitigation Plan and the COVID-19 pandemic, but provides a look at overall trends. The data show the region is not on track to meet our emissions reduction targets.

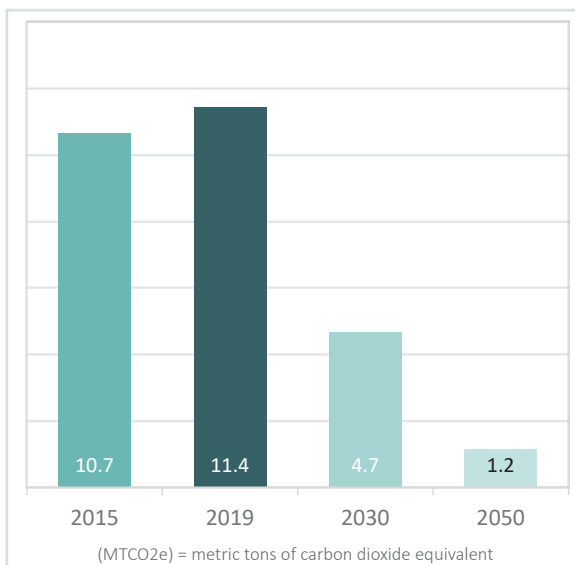
- **Countywide greenhouse gas emissions continue to increase.** In 2019, the region's estimated carbon footprint was 3.3 million metric tons of carbon dioxide equivalent. This marked a 9% jump from 2018 and a 15% increase since 2015.

Thurston Countywide Emissions and Reduction Targets



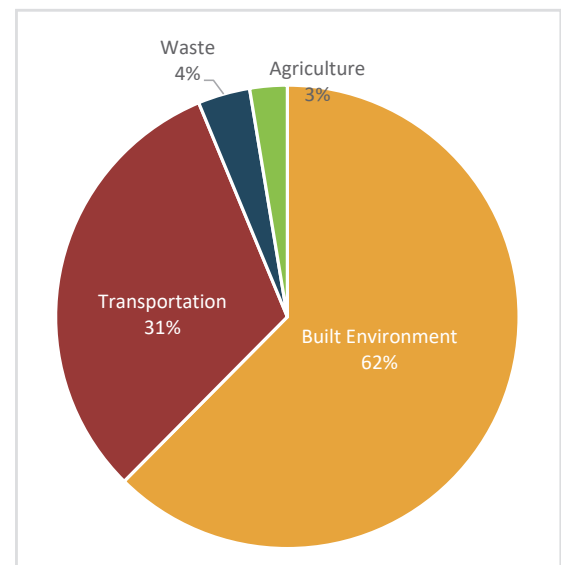
Per Capita Emissions

have increased 7% since 2015



Emissions by Sector

Energy use in buildings and transportation continue to be the two largest sectors, accounting for more than 90% of local emissions.



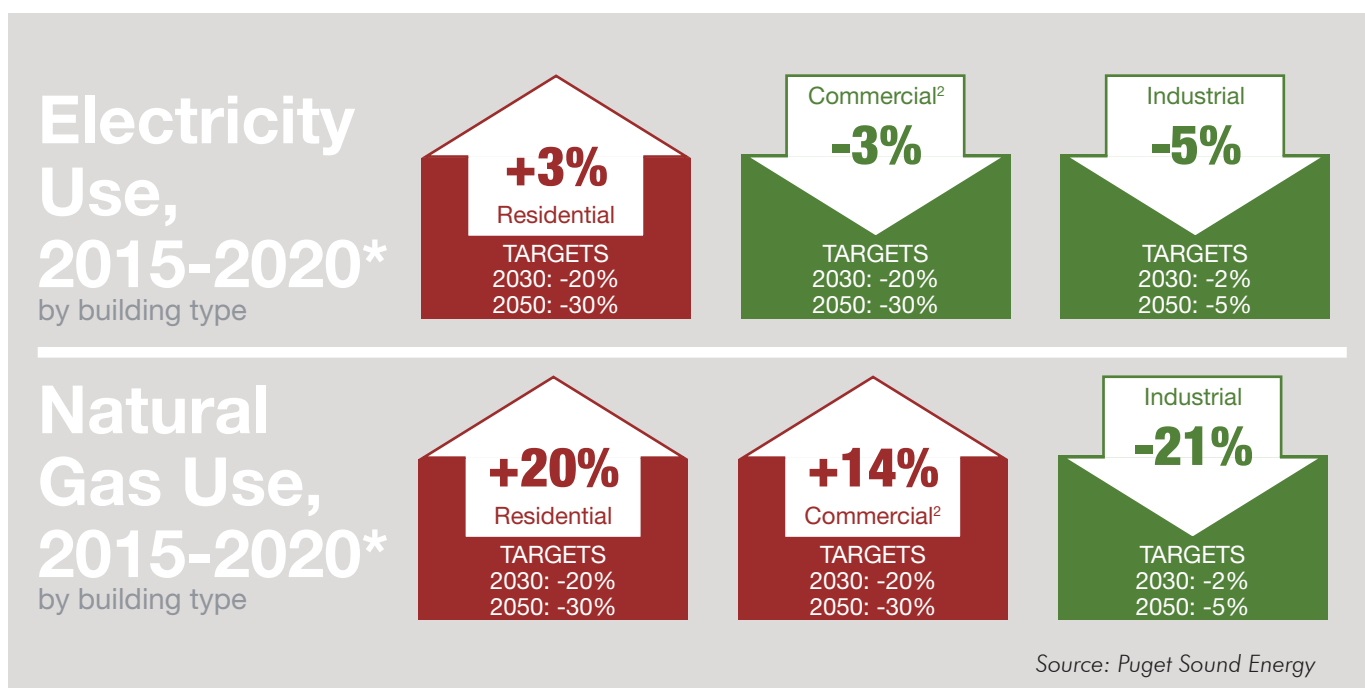
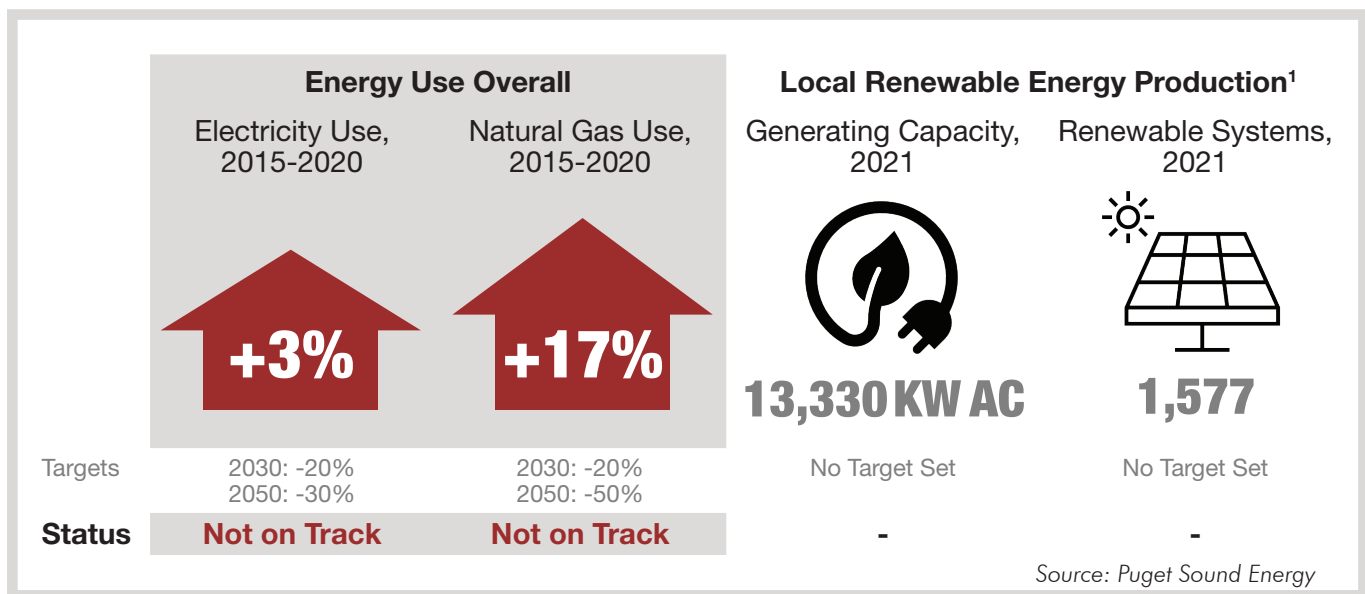
Source: Greenhouse Gas Inventory Report for Calendar Years 2015-2019, Thurston Climate Action Team (December 2021).

Buildings and Energy

Energy use in buildings is our largest source of greenhouse gas emissions. Strategies to address this sector include reducing energy use in existing and new buildings, increasing the production of local renewable energy, and converting to cleaner fuel sources.

How are We Doing?

Energy use in the region has risen overall since 2015, though both electricity and natural gas use decreased in 2020. The COVID-19 pandemic changed where people spent time, with sharp decreases among commercial customers, and a slight rise in energy use in homes. The amount of renewable energy permitted in Thurston County is increasing, with most of the growth in 2021 among residential customers.



¹Only includes renewable energy systems tracked by Puget Sound Energy.

²Includes street lighting.

2021 Buildings & Energy Highlights

- **Commercial Financing.** Thurston County established a Commercial Property Assessed Clean Energy and Resilience (C-PACER) program. The program makes it easier for commercial property owners to finance qualifying energy efficiency, renewable energy, water conservation, and resiliency improvements for their buildings.
- **Municipal Lighting Efficiency.** All four partner jurisdictions have continued efforts to install more efficient LED lighting in public-sector buildings and infrastructure, like streetlights. Olympia upgraded 145 light fixtures at the Regional Fire Training Center. (Action B2.3)
- **Community Solar.** The region saw the successful launch of several community solar projects on public sites, including at the Olympia Farmer's Market (Olympia Community Solar's Sunflower Project) and Olympia High School (Puget Sound Energy). Both projects were fully subscribed, and added a combined 274 kilowatts of solar capacity. (Action B5.3)
- **Solar Group Purchasing.** Olympia Community Solar's Solarize Thurston campaign connected 139 households with discounted solar installations and financing rates, representing more than 2.7 million dollars investment and 1,400 kilowatts of solar capacity. The cities of Olympia and Lacey, and Thurston County supported the campaign's outreach efforts. (Action B5.10)

Image from a Solarize Thurston installation. Credit: Olympia Community Solar

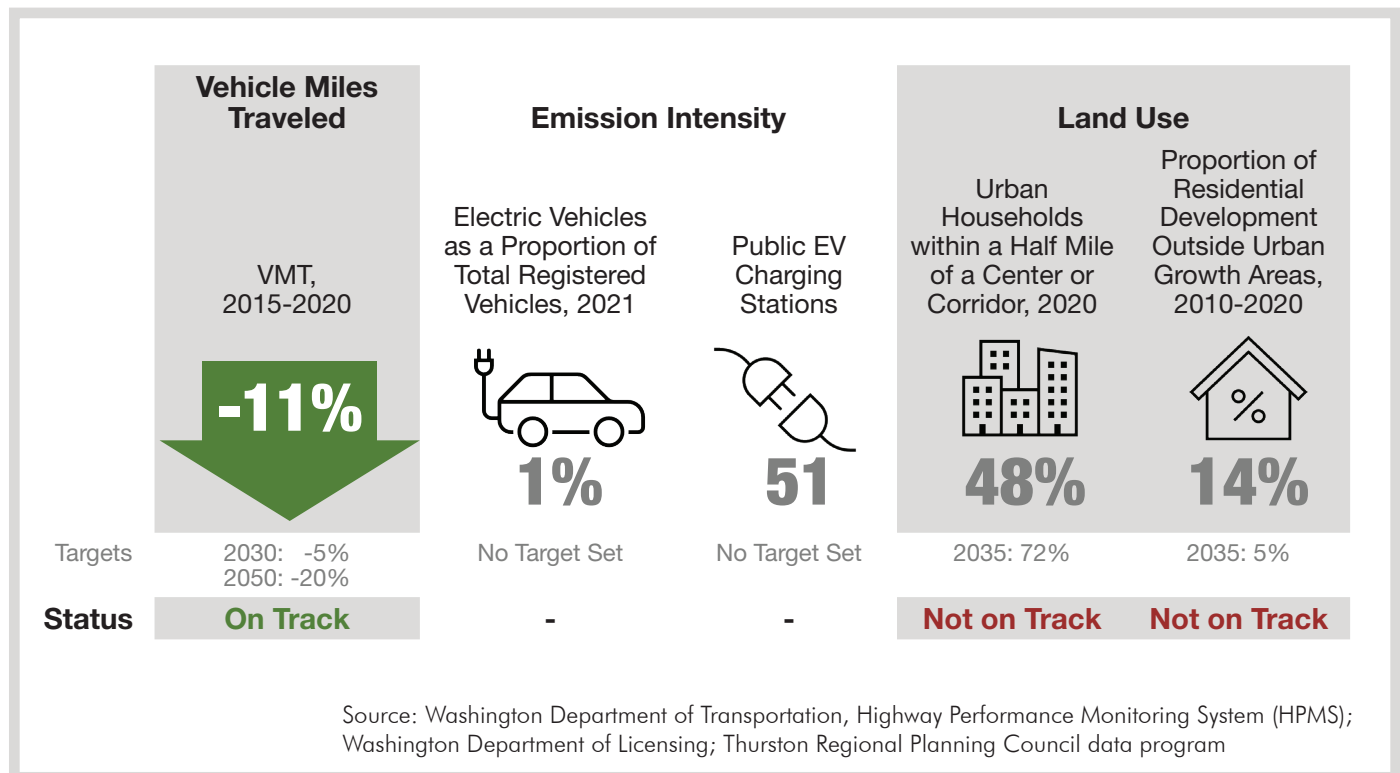


Transportation and Land Use

Transportation accounts for a third of emissions in our region. Passenger vehicles are the largest source, followed by heavy duty trucks and commercial vehicles. Strategies to shrink this sector include improving options to walk, bike, take the bus, telework, or drive an electric or more efficient vehicle. Land use planning is a critical component – creating denser urban neighborhoods where people can easily access their daily needs will enable more people to opt out of driving.

How Are We Doing?

The miles driven annually in Thurston County has been growing since 2015, but 2020 saw a steep decline due to the COVID-19 pandemic. The pandemic also impacted transit ridership, with boardings for Intercity Transit and ruralTransit down by half compared to 2019. The market for electric vehicles is increasing, though they still make up a very small portion of total registered vehicles.



2021 Transportation & Land Use Highlights

- **Middle-Density Housing and ADUs.** Lacey, Olympia, and Tumwater adopted Housing Action Plans with actions to increase the variety of available housing types. All four partner jurisdictions have updated regulations and programs to allow for Accessory Dwelling Units (ADUs). The three cities now offer pre-approved building plans for several ADU designs. (Actions T1.2, T1.9)
- **System Improvements.** Partners completed several projects to improve overall transportation efficiency, and connections for cyclists and pedestrians, including upgrades to Mullen Road (Lacey and Thurston County), a first phase of the Deschutes Valley Trail (Tumwater), and reconstruction of Franklin Street (Olympia). (Actions T2.2, T5.1)
- **Teleworking/Flex Work.** The Capitol Campus Travel Demand Management project, implemented by TRPC and administered by Olympia, gathered data on telework on the Capitol Campus and sought ways to continue supporting high rates of telework post-pandemic. (Action T2.17)
- **EV Charging.** Lacey is in the final planning stage to install 12 new Electric Vehicle chargers in public spaces, and is reviewing city parking regulations to support electric vehicles. Puget Sound Energy installed two multifamily and two workplace charging sites in Thurston County as part of the “Up & Go Electric” Program. (Actions T3.1, T3.5, T3.7)
- **Zero Fare Transit.** Intercity Transit extended their Zero-Fare Demonstration Project through 2028, or to three years from when they return to pre-pandemic ridership levels. (Action T4.4)
- **Barrier Assessment.** TRPC identified sidewalk gaps through State of the System report and found about a third of the major roads in our urban areas lack sidewalks. Olympia adopted its first Transportation Master Plan that identifies improvements to help people walk, bike, and use transit. (Action T5.2)
- **Mode Shift.** Olympia began implementing a Transportation Concurrency program based on “person trips” rather than vehicle trips, allowing transportation impact fees to be used on improvements for bicyclists, pedestrians, and transit riders. (Action T5.11)

Improvements to Mullen Road completed in October 2021 included a new roundabout along with bike lanes, sidewalks, crosswalks, and lighting. Credit: Thurston County Public Works

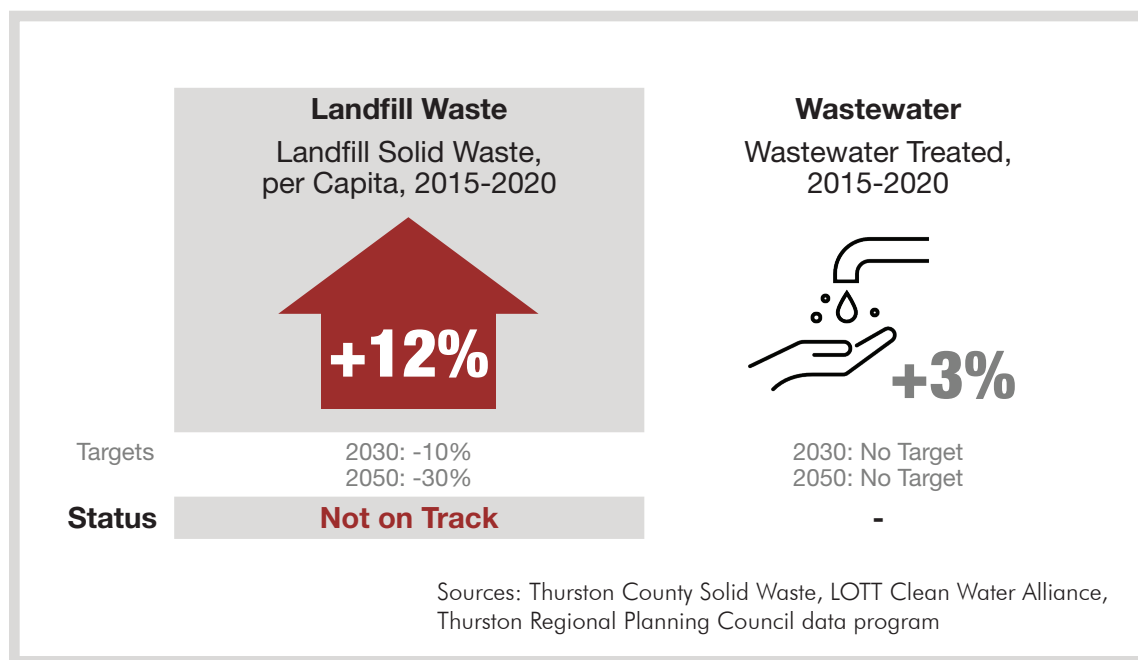


Water and Waste

Waste-related emissions contribute just three percent of Thurston County's total greenhouse gas emissions, though this measurement does not include emissions from products that are consumed in Thurston County, but manufactured elsewhere. Climate mitigation strategies include reducing the amount of solid waste we create and increasing the efficiency of water and wastewater infrastructure.

How Are We Doing?

The amount of waste Thurston County residents send to landfills is increasing even faster than the population is growing. The amount of wastewater we produce also is increasing, though this process has become more efficient, growing slower than population of urban areas.



2021 Water & Waste Highlights

- **Improved Wastewater Efficiency.** LOTT is progressing on a project to optimize the treatment process that removes nutrients in wastewater and decreases overall energy use at the Budd Inlet Treatment Plant by 20 percent. The Biological Process Improvements Project began in late 2020 and is scheduled for completion in 2023. (Action W1.1)
- **Waste Diversion.** Thurston County Solid Waste taught a hybrid in-person/online version of their [Master Recycler Composter](#) program, graduating 11 new volunteers. Master Recycler Composter volunteers are trained on how to reduce waste and increase public awareness of opportunities to prevent waste, recycle, and compost in Thurston County. The division also revamped the [Where do I Take My](#) online database, which enables multi-lingual searches on where to take items for recycling, reuse or disposal; and launched a new weekly [Talkin' Trash](#) educational video series.
- **Consumption-based Emissions.** TRPC reviewed options for calculating consumption-based emissions for the region, including emissions from products that are consumed in Thurston County, but manufactured elsewhere. Using the preferred method, TRPC estimates the region's consumption footprint at 5.6 million tons of carbon dioxide equivalent (MTCO₂e). (Action G4.3)

Secondary Clarifiers and digesters
at the Budd Inlet Treatment Plant.
Credit: LOTT Clean Water Alliance

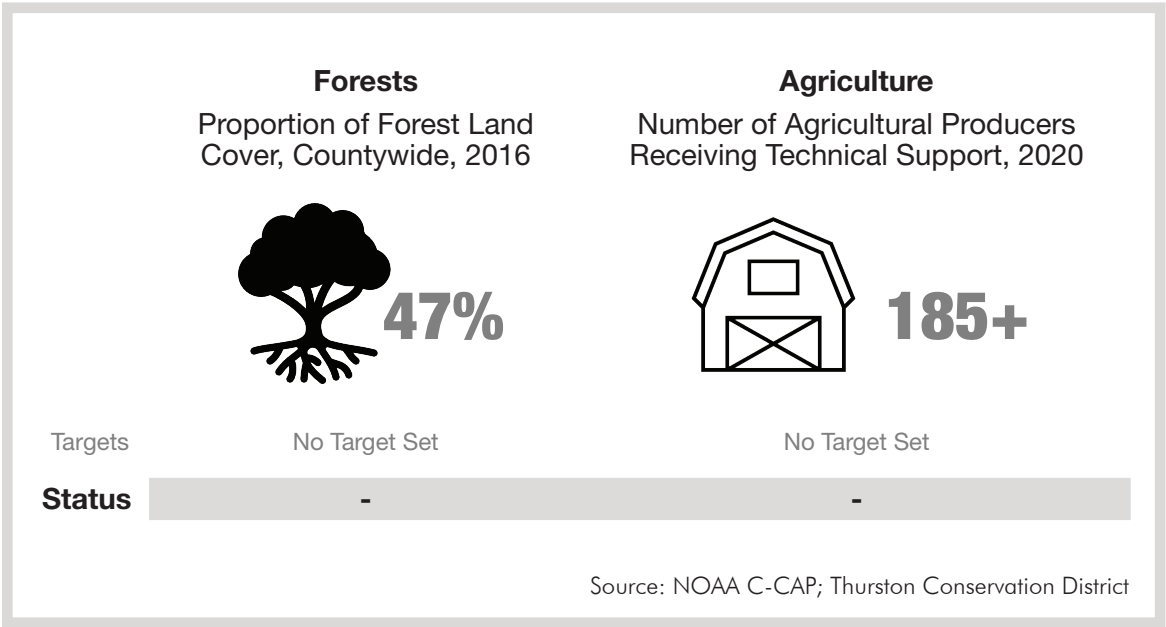


Agriculture, Forests, and Prairies

Agricultural practices like fertilizer use and manure management accounts for just a small percent of emissions, but farmland, forests, and prairies can play a big role in offsetting the community’s emissions by storing carbon in soil and vegetation.

How Are We Doing?

Forested lands, agricultural lands, and prairie lands have all declined from historic levels due to development pressure. The region is in the process of developing methods to better track how these landscapes contribute to climate mitigation.



2021 Agriculture, Forests, & Prairies Highlights

- **Urban Forests.** Lacey and Tumwater both adopted updated Urban Forest Management Plans. Tumwater's plan includes tree canopy coverage goals for the city. (Actions A6.5, A6.9)
- **Tree Planting.** Olympia Public Works and Parks department planted roughly 1,750 trees in 2021 across various projects and programs. Streamside restoration and riparian planting got underway at four projects across the county through the Thurston Waterways program, a partnership between Thurston County and Thurston Conservation District with funding through the National Estuary Program. (A5.1, A6.5)
- **Agricultural Practices.** Thurston Conservation District provided resources and technical assistance across the county to improve farm operations and conserve natural resources, including developing conservation plans, completing soil analysis reports, and implementing best management practices. In 2021, the Conservation District provided over 127 soil sample analysis reports and over 200 technical recommendations for Best Management Practices. (Action A2.1)

A volunteer crew helped plant 2,500 trees and shrubs at a site along the Deschutes River in December 2021. Credit: Thurston Conservation District



Thurston County, Lacey, Olympia, and Tumwater, and neighboring tribes recognize the urgent threat and opportunity that climate change poses to our community's economy, public health, public safety, and environment. We will work together to identify and boldly implement the most effective, efficient, and equitable actions to reduce locally generated greenhouse gas emissions to protect current and future generations from the most severe impacts of climate change.

- Shared Vision

2021 Climate Action Steering Committee

The Climate Action Steering Committee guides regional coordination of climate mitigation activities. Members include a designated elected official and alternate from each of the four partner jurisdictions.

Cynthia Pratt	Lacey City Council
Carolyn Cox	Lacey City Council, Alternate
Lisa Parshley	Olympia City Council, CASC Chair
Yên Huỳnh	Olympia City Council, Alternate
Tye Menser	Thurston County Board of Commissioners, CASC Vice Chair
Carolina Mejia	Thurston County Board of Commissioners, Alternate
Eileen Swarthout	Tumwater City Council
Pete Kmet	Tumwater City Council, Alternate

For more information on regional climate mitigation activities and to sign up for email updates, please visit our website: www.ThurstonClimatePlan.com

Questions and requests for information can be directed to:

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2411 Chandler Court SW
Olympia, WA 98502
Ph: 360-956-7575 | climate@trpc.org



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Materials can be provided in alternate formats by contacting the Thurston Regional Planning Council at 360.956.7575 or email info@trpc.org.