



Thurston County Greenhouse Gas Emissions (2015 – 2019)

October 2021



www.ThurstonClimateAction.org



History and Purpose

- After Thurston Energy, what's next?
- First inventory 2012, for 2010
- Sustainable Thurston targets, based on TCAT input (2013)
- TCMP partnership formed 2015 - 2018
 - TT Climate and Clean Energy
- TCMP targets based on TCAT annual inventory
- **Purpose: Keep our efforts focused on what works, actions needed to meet targets.**



Summary of Key Findings

- Thurston County's carbon footprint in 2019 was about 3,262,000 MTCO₂e (16% above 2015 emissions)
 - Buildings and transportation were the biggest source of local emissions (94% of total emissions).
 - Electricity was the largest energy source (about 50% of total emissions).
- Per capita emissions in 2019 were about 11.4 MTCO₂e/person (7% above 2015 per capita emissions).
 - Local per capita emissions are higher than other PNW cities.
- Preliminary estimates for 2020 were 18% below 2019 emissions (6% below 2015 emissions).

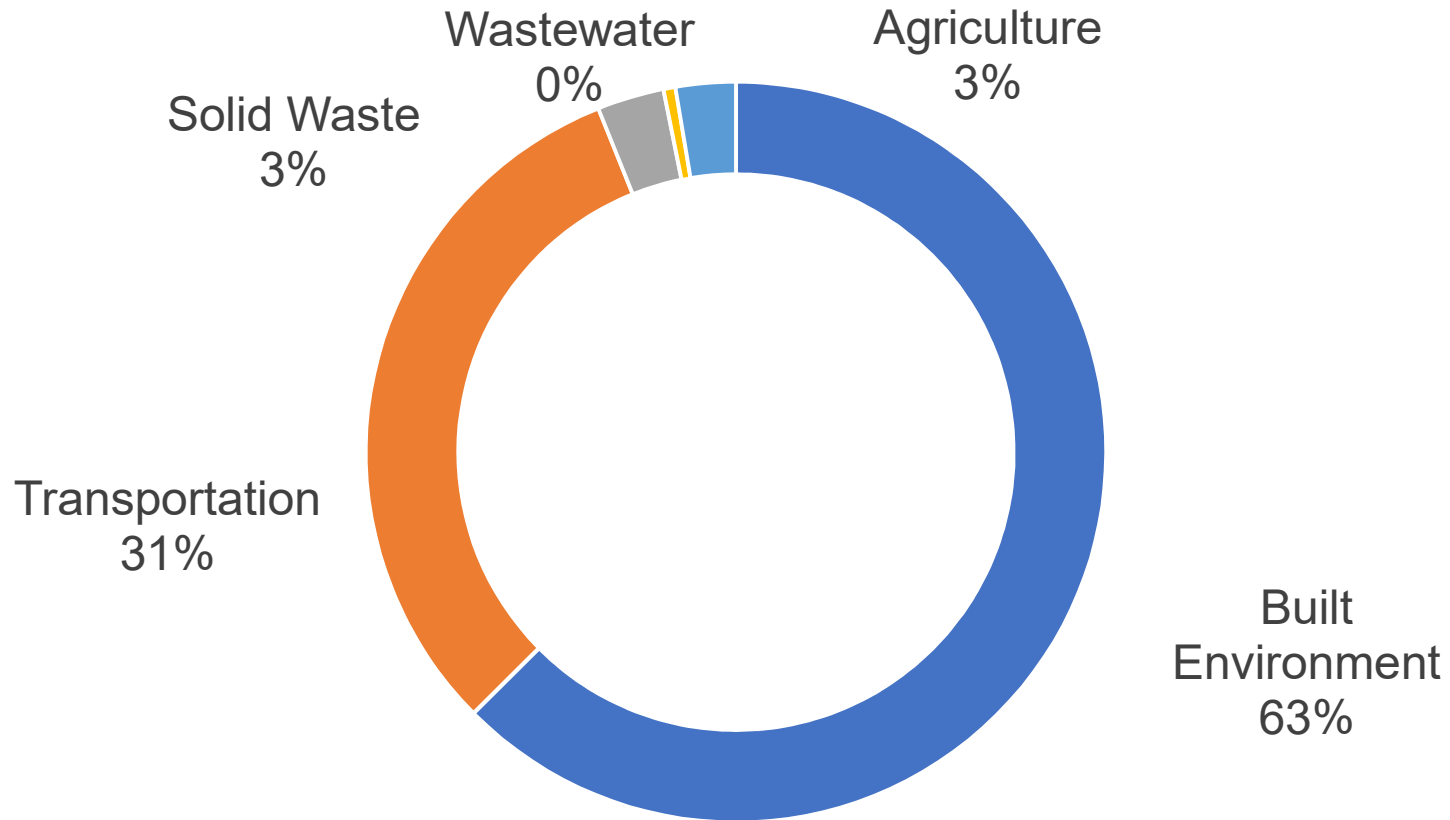


Internationally Accepted Methods

- Emission estimates developed using *U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions*.
 - Identify relevant source categories;
 - Obtain activity data (e.g. electricity and natural gas consumption, vehicle miles traveled, solid waste volumes, etc.);
 - Identify appropriate emission factors for converting activity data to GHG emission estimates; and
 - Calculate GHG emissions using standardized equations and methods.
- TCAT is continuing to review the methods, data and assumptions used to prepare previous inventories.



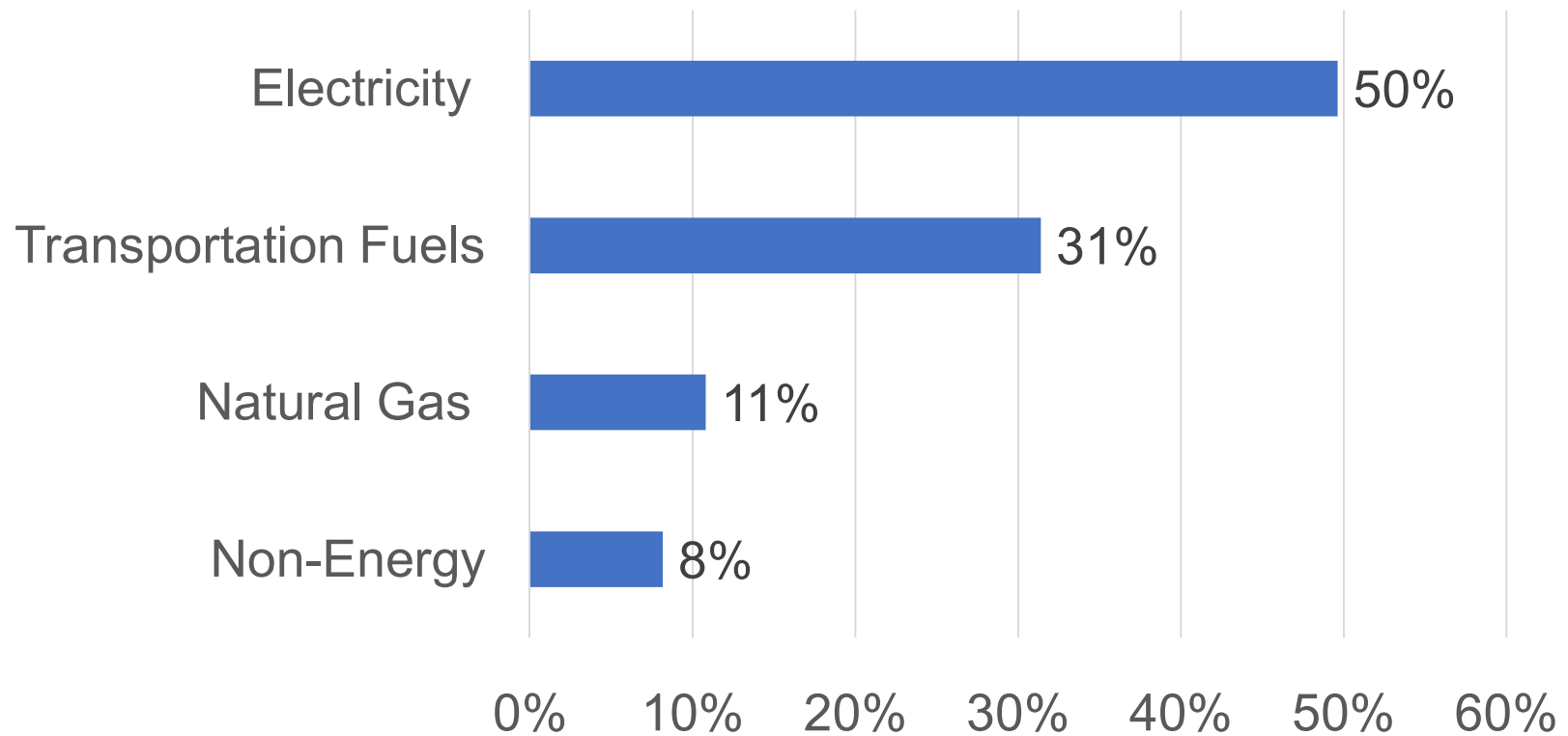
Built Environment & Transportation Contributed 94% of 2019 Footprint





Electricity was the Largest Contributor to Overall Emissions in 2019

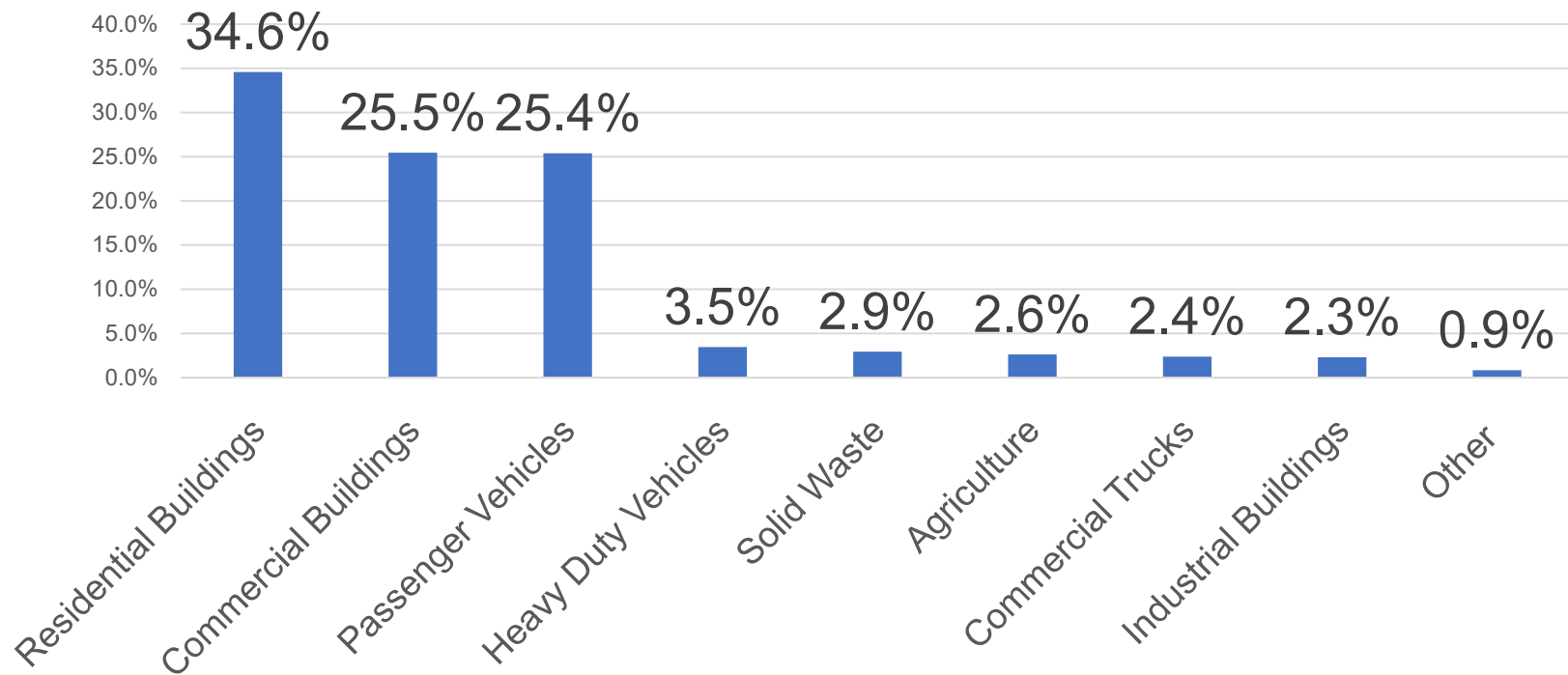
Percentage of 2019 Emissions





Residential Buildings were the Largest Emission Source in 2019

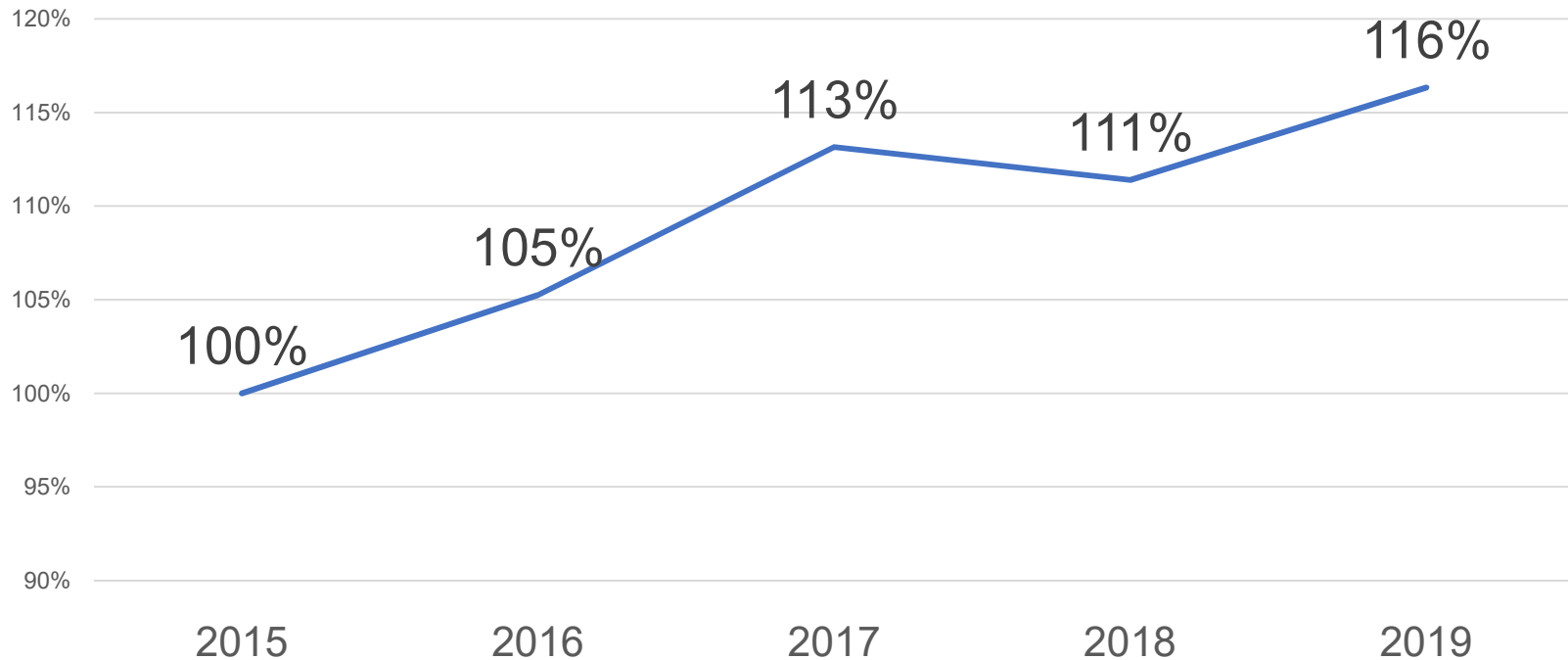
Percent of 2019 Thurston Emissions By Source





2019 Emissions Were 16% Above 2015 Emissions

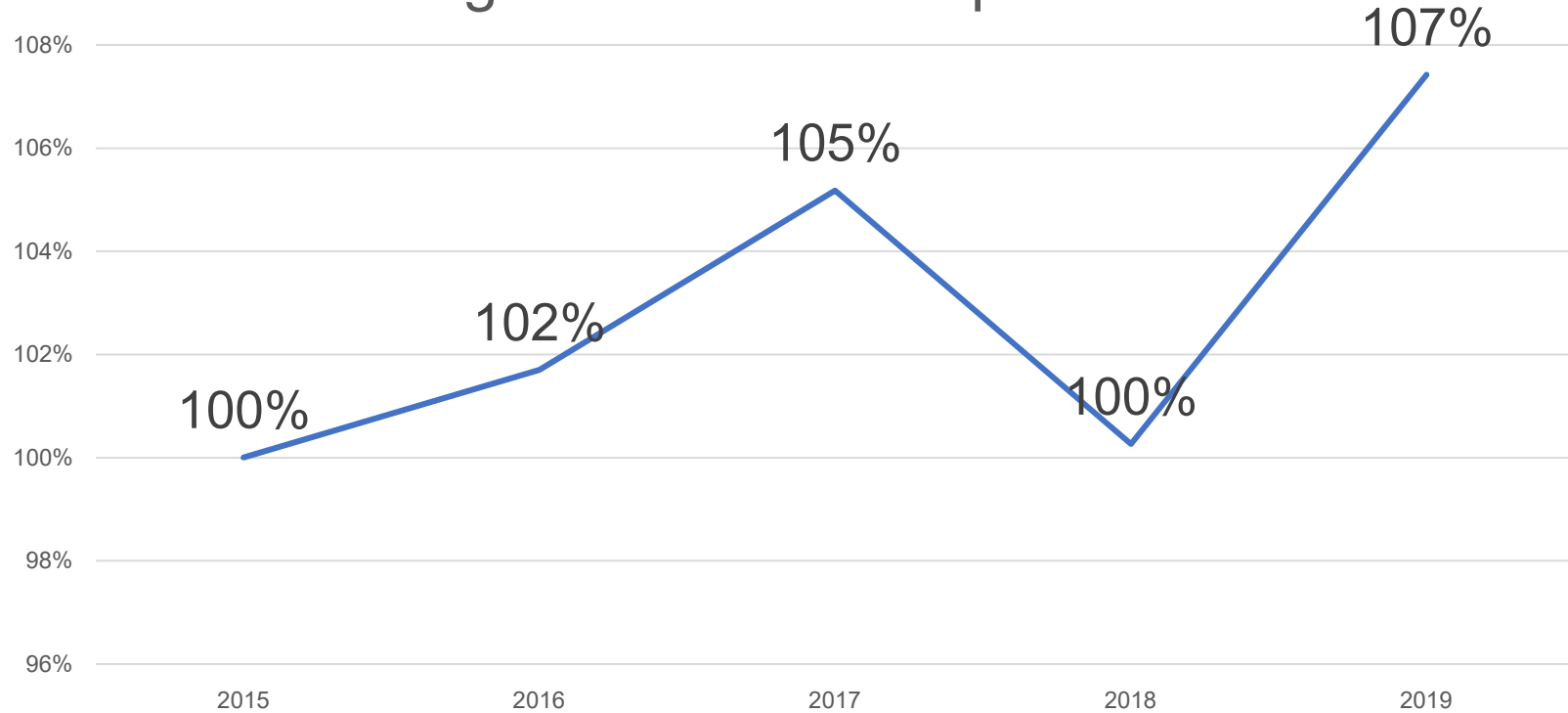
Thurston County Emissions as a Percentage of 2015 Emissions





2019 Per Capita Emissions Were 7% Above 2015 Per Capita Emissions

Thurston County Per Capita Emissions as a Percentage of 2015 Per Capita Emissions



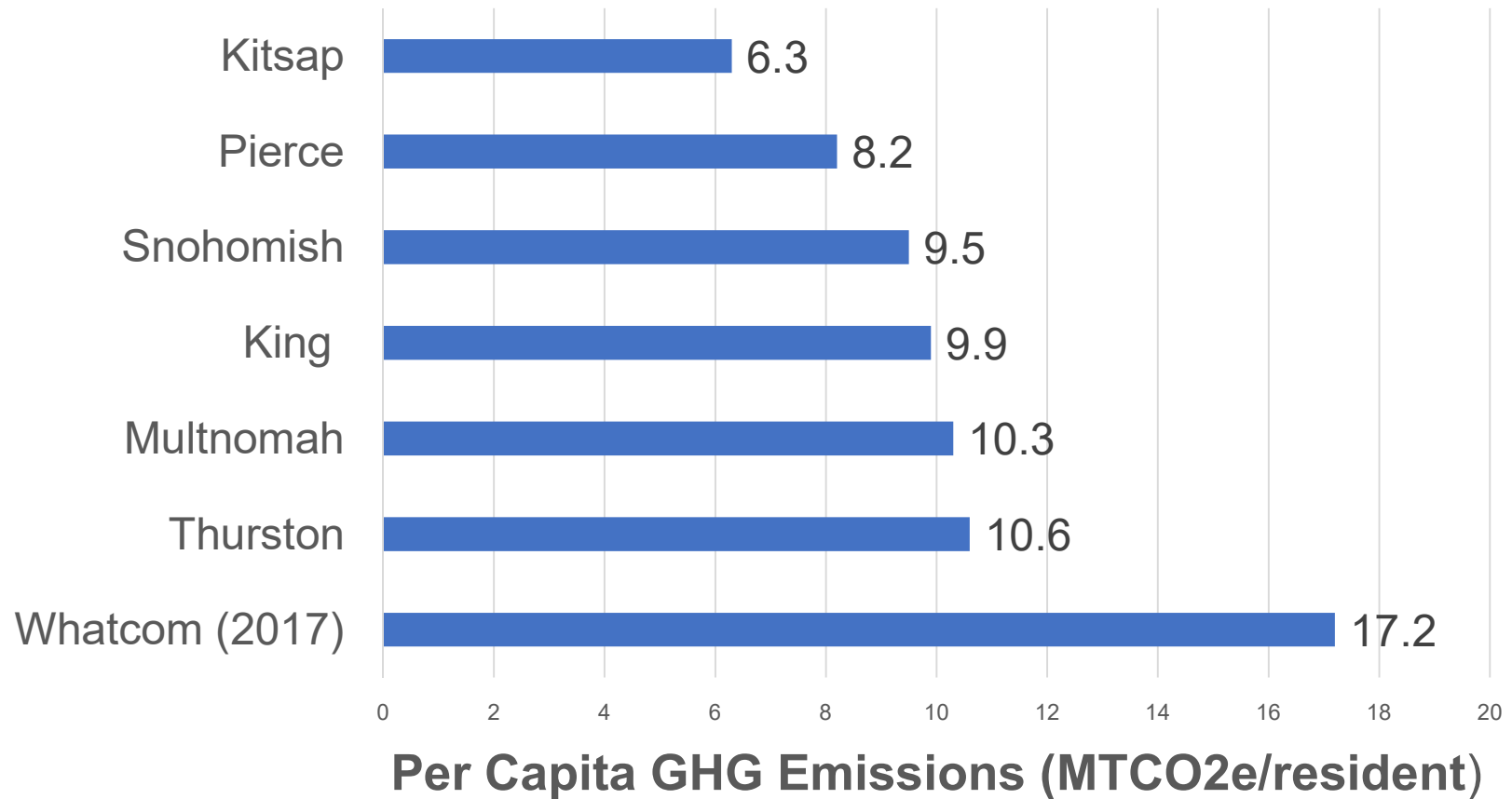


Mixed Picture on Local Activity Trends

Activity Measure	Units	2015	2019	% Change
Residential - Electricity	Kwh/cust	11,261	11,364	1%
Residential - Fossil gas	Therm/cust	602	668	11%
Heating Degree Days	HDD	4,565	5,698	25%
Vehicle Miles Traveled	VMT/resident	9,094	8,867	-2%
Solid Waste	Tons/resident	0.63	0.70	11%
County Population	People	267,400	285,800	7%



Thurston Per Capita Emissions are Generally Higher than Other NW Counties





Action Urgently Needed

- The global crisis:
 - IPCC Report 2021: Nine years left to avoid climate catastrophe
 - Local government services will be overwhelmed
 - Big benefits from making changes: cost savings, jobs, health, etc.
- Key TCMP Results Needed by 2030:
 - Residential & commercial, electricity & fossil gas ↓ 20%
 - Passenger VMT ↓ 5%
 - Passenger vehicle fuel efficiency ↑ 20%



Business As Usual is Not Enough





Conclusions

- Thurston County's GHG emissions in 2019 were higher than previous years.
- Preliminary estimates suggest that 2020 was the first year annual emissions fell below 2015 levels.
- Much larger reductions will be needed to achieve the local emission reduction targets for 2030 and 2050.
- Local actions are needed to enable Thurston County to fully benefit from:
 - Puget Sound Energy's decarbonization efforts;
 - Reduction measures in recent state climate legislation;
 - Potential federal legislation; and
 - Accelerating electric vehicle trends.



Next Steps

- Publish final 2019 update report with short-term refinements.
- Continue to refine emission estimates and analyses
- Work on methods for additional emission sources and sinks (sequestration, consumption-based emissions, etc)
- Incorporate further refinements and additional sources into 2020 update report.



Questions

- Questions for TCAT
- Questions for the Steering Committee:
 - Are there particular results that are surprising given your understanding of Thurston County?
 - Are there areas where additional information/analyses would be useful to inform future actions and/or discussions?