



**LACEY CITY COUNCIL  
WORKSESSION  
THURSDAY, SEPTEMBER 3, 2020  
4:00 – 5:00 P.M.  
REMOTE ATTENDANCE AVAILABLE**

To comply with Governor Inslee's Proclamation 20-28, the City Council Worksession will be conducted remotely, not in-person. However, you may view the Council meeting by watching live through Zoom:

<https://us02web.zoom.us/j/82749345932>

The public may also listen to the meeting via telephone by dialing toll-free:

**(888) 788-0099** or **(877) 853-5247** - when prompted enter Webinar ID **827 4934 5932**  
**press #** (*participant ID not required*)

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**AGENDA**

- 4:00**    **[THURSTON REGIONAL CLIMATE MITIGATION PLAN UPDATE](#)**  
          *JESSICA BRANDT, ASSOCIATE PLANNER*  
          *(STAFF REPORT)*
- 5:00**    **ADJOURN**



**CITY COUNCIL  
WORKSESSION  
September 3, 2020**

**SUBJECT:** Thurston Regional Climate Mitigation Plan Update

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**RECOMMENDATION:** Receive staff briefing on the progress of the Thurston Climate Mitigation Plan, and gather input from City Council.

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**STAFF CONTACT:** Scott Spence, City Manager *SS*  
Rick Walk, Community and Economic Development Director *RW*  
Ryan Andrews, Planning Manager *RA*  
Jessica Brandt, Associate Planner *JB*

**ORIGINATED BY:** Community and Economic Development Department

**ATTACHMENTS:**

1. [Scenario Modeling Tool– Wedge Analysis](#)
2. [Policy Wedge Analysis](#)
3. [Draft Implementation Strategy](#)

**FISCAL NOTE:** Phase 1 cost totaled \$5,000.  
Phase 2 cost totaled \$43,750.

**PRIOR REVIEW:** June 23, 2020, General Government Committee  
December 12, 2019, City Council Worksession  
October 1, 2019, Planning Commission  
October 11, 2018, City Council Meeting  
September 20, 2018, City Council Worksession  
June 21, 2018, City Council Worksession  
April 12, 2018, City Council Meeting  
March 15, 2018, City Council Worksession

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**BACKGROUND:**

The City Council signed an interlocal agreement with Thurston County, Olympia, and Tumwater in April 2018 to complete Phase 1 of a Regional Climate Mitigation Plan. Phase 1 focused on assessing existing policies and targets of each jurisdiction for gaps and consistencies, recommending a regional emissions target, identifying each jurisdictions implemented mitigations actions to date, and recommend regional emissions reduction targets.

The recommended targets were adopted July 12, 2019. The targets are as follows:

- Achieve a 45% reduction of 2015 greenhouse gas levels by 2030.
- Achieve an 85% reduction of 2015 greenhouse gas levels by 2050.

Phase 1 produced a recommended scope of work for Phase 2, which included a public-engagement strategy, assessment of actions sufficient to reach shared emissions targets, and implementation strategies. On October 11, 2018, the Council approved the ILA for Phase 2. In February 2019, TRPC hired a consultant team, Cascadia Consulting, to assist with Phase 2.

The Phase 2 planning process, which has been underway since early 2019 and is nearing conclusion, has included the following steps:

1. Develop steering committee and charter (January 2019)
2. Develop stakeholder advisory committee (February – March 2019)
3. Engage the general public and develop potential actions list (July – Sept 2019)
4. Assess potential actions and develop scenarios (September – June 2019)
5. Develop plan and strategies (March – July 2020)
6. Engage the general public (September 2020)
7. Adopt plan and strategies (October – November 2020)

Early project steps including public input were successful. The goal was to ask the community what actions they think the cities and County should take to reduce carbon emissions. Through dozens of geographically diverse community events such as fairs and festivals early in the planning process, we reached a large number of Thurston County residents. The online survey received over 1,200 responses over five weeks during August and September. The early community engagement efforts focused on the typically hard to reach audiences, which the steering committee has identified as youth, lower income families and rural residents.

The Climate Advisory Workgroup used the community list and added to it. They developed the list of actions and prioritized them based on agreed upon criteria. The Steering Committee approved the list of the approximately 70 recommended actions for further analysis using a scenario modeling tool.

The scenario modeling tool is meant to answer “Will these actions get us to our targets?” The actions are categorized by sector for the analysis. The sectors are: buildings and energy, transportation, agriculture and forestry, waste, and cross cutting. Based on the technical consultant’s initial analysis, hired by TRPC, 2030 targets are achievable but 2050 targets will be more difficult. This highlights the needs to update and review the plan periodically to incorporate new science, technology, and information (Attachment 1).

Existing statewide policies and laws will significantly reduce future emissions, primarily through the Clean Energy Transition Act (CETA). CAFÉ standards, EV adoption and building code adoptions also play a meaningful role in reducing emissions (Attachment 2).

The actions list contains 72 specific actions that can be sorted in a number of ways (Attachment 3). They can be sorted by category (buildings and energy, transportation, forestry and agriculture, waste, and cross-cutting) and by implementation approach (legislative agenda, regional actions, individual jurisdiction actions supporting partner actions).

The scenario tool also shows the focus areas for local governments will need to be in buildings and energy, transportation, and carbon sequestration. In Lacey that could mean retrofitting existing buildings, encouraging and incentivizing zero emission vehicles, reducing vehicle miles traveled, creating walkable, bikeable neighborhoods that are connected to transit services and tree protection and replanting.

The project team will be bringing the actions list to the community for input in September. The results of the community outreach will help guide priority areas for the Council to consider. Staff is reviewing actions that could be added to a work program in 2021 and utilizing public input to help prioritize areas of action.

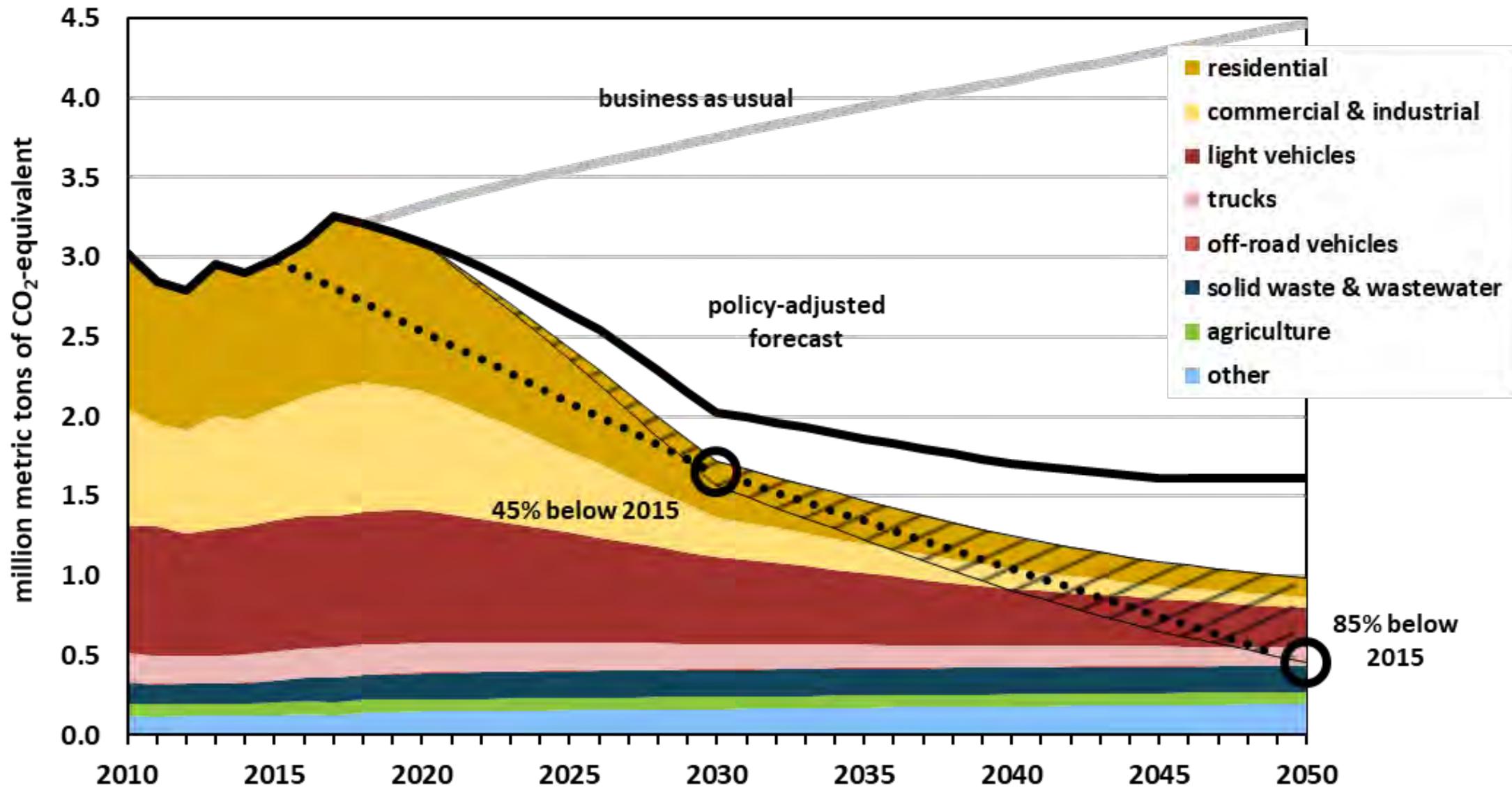
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#### **ADVANTAGES:**

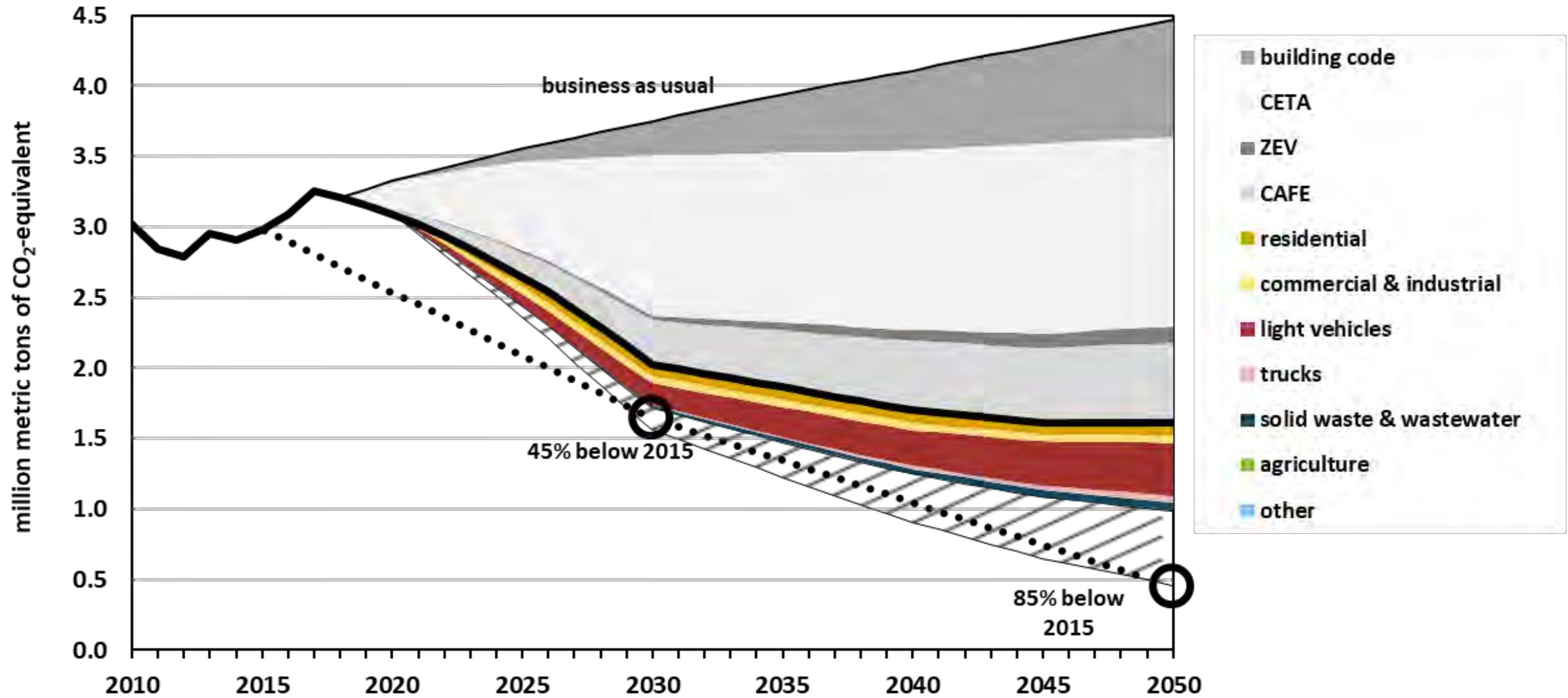
1. Long-range targets based on the most current science and methodology for emissions reductions keep the City on a path to mitigating climate change for future generations.
2. Regional and local approaches are key to achieving a coordinated and collaborative response to climate mitigation.

#### **DISADVANTAGES:**

1. None identified.



Updated 7/06



Updated 7/06

# Implementation Strategy

July 23, 2020 – Steering Committee Review

## Overview

The Thurston Climate Mitigation Plan will include an implementation strategy for each of the four partner jurisdictions (Thurston County, Lacey, Olympia, and Tumwater) that identifies actions and next steps needed to achieve the 2030 and 2050 greenhouse gas emission reduction targets. This implementation strategy draws from the list of communitywide actions assessed as part of the scenario analysis completed in May 2020.

## Implementation Approaches

Staff from the four partner jurisdictions grouped actions into four general approaches: legislative agenda, regionally coordinated, individual jurisdictions, and supporting partner.

## Legislative Agenda

Over the course of the planning effort, it became clear that one of the most powerful actions available to local governments will be to use their shared influence to advocate for changes at the state level.

- **G5.5 - legislative agenda.** Prioritize combating climate change in the municipality’s legislative agenda each year. Instruct municipal lobbyist to track and report on climate bills, and to advocate for those bills that will help reduce local emissions. Work with other cities to add this to the AWC priorities.

The following priority actions require action by the state legislature to create additional authority or make other changes to state law before action can occur at the local level. The partner jurisdictions will work together to advocate for such changes as part of their climate legislative agenda:

Establish authority for new tax incentives. Local jurisdictions can track properties receiving such incentives, once they are authorized.

- **B1.4 - rental housing EE incentives.** Provide property tax breaks for landlords who install energy conservation measures in rental housing.
- **B1.5 - property tax credit.** Create a property tax credit for property owners who participate in energy efficiency.
- **B4.6 - energy efficiency tax exemptions.** Create a local property tax reduction or credit for new buildings that meet an energy efficiency performance standard.

Enable authority in instances of property sales, lease, rent.

- **B1.1 - residential energy performance ratings.** Require energy performance ratings and disclosures for homes at time of sale, lease, or rent so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions.

- **B1.2 - residential energy audits.** Develop and adopt policies that require residential properties to undertake an energy audit at the time of sale or during a substantial remodel. Work with financial institutions to develop mortgage products that incorporate audited energy efficiency recommendations.
- **B1.6 - rental housing EE baseline.** Pass an ordinance to require rental units to meet baseline levels of energy efficiency and make more stringent over time.
- **B2.1 - commercial energy benchmarking & disclosure.** Require energy performance ratings for commercial structures be disclosed so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions.

#### Changes to state building/energy code.

- **B2.8 - performance standard.** Set energy efficiency performance standards for commercial buildings with gross floor areas smaller than 50,000 square feet.
- **B4.11 - grid-connected appliances.** Require smart appliances in new construction, especially water heaters that control timing of demand.
- **B4.12 - multifamily submetering.** Require submetering for new multifamily buildings so residents can track energy use.
- **B6.2 - electric appliances in new construction.** Require electric appliances in new construction.
- **G5.2 – solar-ready building code.** State-level amendments to the state building code requiring solar-ready construction.
- **B6.4 - natural gas ban.** Ban all new natural gas connections in new buildings.

### Regionally Coordinated

The following actions would build on existing or new partnerships to develop a shared approach.

- What would regional coordination mean for these actions?

#### Expand an Existing Regional Program

- **T4.10 - rider education/benefits.** Maintain and expand a regional online page that lists all the mode shift education efforts and employer benefits opportunities (Thurston Here-To-There). Include a comments section for suggestions to further transit education and ridership.
  - *Thurston Here to There:* <https://www.trpc.org/922/Thurston-Here-to-There>
- **T4.15 - promote transit benefits.** Work with employers and transit agencies to develop ways to incentivize employee ridership (ex. rebates for employees who give up use of employer parking facilities).
  - *Commute Trip Reduction Program:* <https://www.trpc.org/602/Supporting-Strategies>
- **T5.1 - walk/bike infrastructure.** Coordinate cities of Thurston Counties Master Bicycle and Pedestrian plans into a large regional plan to expand walking and biking infrastructure, including separated and protected opportunities. Coordinate efforts to maximize funding mechanisms and opportunities.
  - Build off *Individual City Plans, and the Regional Trails Plan:* <https://www.trpc.org/309/Thurston-Regional-Trails-Plan>
- **T5.2 - barriers to transportation alternatives.** Develop a regional inventory to identify gaps in connectivity for safe cycling and walking. Then develop a strategy to prioritize projects and a plan for funding.
  - Build off of *State of the Transportation System:* <https://www.trpc.org/820/State-of-Our-Transportation-System>
- **G4.1 - emissions inventory.** Prepare and publish an annual emissions inventory that tracks greenhouse gas emissions by jurisdiction and source category. Review and update emissions inventory methodology as necessary to address improvements to data or methodologies, improve consistency, incorporate changes to state or federal policies, or report on issues of local interest.

- Currently produced annually by *Thurston Climate Action Team*:  
<https://thurstonclimateaction.org/2020/07/13/tracking-our-carbon-footprint/>
- **G4.2 - performance measures.** Develop community GHG reduction goals and performance measures. Regularly update and publicize for community to track their progress.
  - *Sustainable Thurston Carbon Neutrality Targets*: <https://www.trpc.org/689/Becoming-Carbon-Neutral>
- **W4.10 - waste less food program.** Expand Thurston County's "Waste Less Food" program.
  - *Thurston County Solid Waste, Waste Less Food*:  
<https://www.co.thurston.wa.us/solidwaste/Wastedfood/food-home.html>

#### Develop a New Regional Program

- **B3.5 - green building tracking.** Develop data methodology to monitor use and impacts of green building incentives, to inform future incentives and develop recommendations for policy or programs.
- **B4.5 - permitting incentives.** Offer streamlined permitting, lower fees, or other incentives for projects that meet green building certification standards.
- **T1.11 - land use efficiency.** Set integrated goals to consider network efficiency in land use decisions, including how density in certain areas supports transit, increases efficiency of utility service, and other support facilities. Consider VMT in identifying locations for large employment facilities.
- **T4.3 - rural transit.** Identify and implement first/last mile solutions for rural ridership (engage rural home owners associations for representation and feedback). Present this plan to TRPC with direction to explore pilot programs and secure funding sources.
- **T5.13 - telecommuting infrastructure.** Develop grants and provide financial resources for installation of infrastructure necessary to support telecommuting.
- **A5.1 - reforestation & afforestation program.** Develop a coordinated reforestation/afforestation program. Begin by identifying priority areas where reforestation and afforestation may have carbon reduction benefits.
- **G1.7 - social research and behavior change campaigns.** Work with higher education institutions to research effective behavior change through marketing and educate. Use this information in developing campaigns to reduce high emissions GHGs.
- **G4.3 - other emission sources and sinks.** Expand sources and sectors in future emissions inventories to inform future regulatory policy to reduce GHG emissions.
- **G4.4 - vulnerable populations.** Develop a data and monitoring mechanism that is specific to marginalized groups and their needs related to climate change and climate reality (e.g., access to transportation, access to A/C, proximity to cooling centers) and develop a plan to address these vulnerabilities with solutions that help reduce GHG emissions.
- **G4.6 - social cost of carbon.** Develop and adopt policies that require the use of a "social cost of carbon measure" in zoning, development, construction, and transportation decisions.

#### Develop Model Regional Standard or Code to be Adopted by Individual Jurisdictions

- **B4.4 - green public buildings.** Require that new local government facilities (e.g., the new Olympia City Hall and LOTT building) demonstrate green building technologies and practices.
- **B4.7 - land use incentives.** Provide land use incentives (floor area ratio, density bonus, height bonus, parking reductions) for zero-net carbon buildings or other applications that dramatically increase energy efficiency.
- **T3.5 - EV ready building code.** Require all new residential construction be built EV ready. Create a simple and consistent residential charging station permitting process to reduce costs and time to development.

- **T3.1 - EV parking new construction.** Require large commercial and residential buildings to dedicate a percentage of parking spots for electric vehicle charging.

## Individual Jurisdictions

These actions can be taken on by each jurisdiction through their various departments and work programs.

### Invest in Capital Improvements

- **B5.3 - public building solar.** Install solar photovoltaics on all available and feasible municipal sites, including building rooftops, city hall, schools, police and fire stations, community centers, municipal water pump sites, and transit depots.

### Expand an Existing Program

- **A6.5 - municipal canopy.** Maximize tree canopy on City-owned or City-controlled land, where appropriate in balance with other City goals.
- **B2.3 - LED lighting.** Install LED lighting in public-sector buildings and infrastructure.
- **T2.17 - teleworking/flex work.** Government agencies increase opportunities for employee teleworking options and staggering work days to reduce employees driving during peak traffic times.
- **T2.2 - congestion mitigation.** Develop congestion mitigation programs to increase transportation efficiency, reduce delay, and reduce emissions such as signalization coordination improvements along with application of speed harmonization techniques (ex. reevaluate speed limits, roundabouts vs signalized intersection, street connectivity). Added benefits are decrease idling time (pollution) and improve fuel efficiency (cost savings to driver).
- **T3.2 - free EV parking.** Allow free parking for all electric vehicles at local government buildings and in city centers to encourage the adoption of all electric vehicles. Increase cost of parking for Non-EV vehicles.
- **T3.10 - convert to EV fleets.** Set policies and timetable for electrification of municipal and other governmental fleets. Require replacement of public fleets with cleaner, energy-efficient vehicles to reduce long term fuel costs, improve air quality and reduce greenhouse gas emissions.
- **W1.1 - municipal energy efficiency.** Conduct efficiency improvements to municipal water and sewage treatment systems. Prioritize components that consume the most energy and have high GHG emissions.
- **W2.2 - water audits.** Conduct water audits of city and county facilities to determine prioritization of capital improvements.

### Develop a New Program

- **B2.6 - cool roofs.** Create an incentive program for the installation of reflective roofs on commercial buildings to reduce building energy consumption and the urban heat island effect.
- **B4.9 - permit counter technical assistance.** Hire or contract with dedicated green building specialists to provide technical assistance through the permitting and development process.

### Make a Regulatory/Code change

- **A6.9 - tree canopy preservation.** Develop a tree canopy ordinance that establishes a baseline for current urban canopy and sets goals for future canopy to increase cities' resilience. Combine direct cooling value (urban heat island mitigation) with carbon sequestration value when evaluating urban tree management.
- **B5.5 - solSmart.** Pursue SolSmart designations and adopt solar friendly practices.
- **B5.8 - solar-ready.** Amend local development code to require solar-ready construction for all building types.
- **T1.1 - coordinated long term planning- future infill.** Coordinate long-term plans with transit agencies to project where increased density would support more transit corridors. Then change zoning/density that would support new transit corridors and variety of household incomes. Promote long-term equity and

healthy communities by developing incentives such as density bonuses for development where a percentage of the units will be permanently affordable for household incomes.

- **T1.2 - middle-density housing.** Reevaluate and change zoning as needed to allow for a range of housing types to promote social economic integration of housing near the region's urban centers or moderate-density zones.
- **T1.3 - Eco districts.** Identify potential Eco districts to advance innovative district-scale urban development, sustainability, and neighborhood equity. Then make necessary code/zoning changes to support their development and set ambitious performance outcomes to ensure their long-term success.
- **T1.4 - 20-minute neighborhoods.** Increase the number of 20-minute neighborhoods (walkable environment, destinations that support a range of basic living needs and a residential density). Identify key infrastructure components needed to grow the number of 20-minute neighborhoods, then change zoning and codes if needed and coordinate with other jurisdictions to make public investments where necessary.
- **T1.9 - ADUs.** Amend codes to allow for attached and detached ADUs in urban residential areas.
- **T3.7 - EV integration.** Reevaluate regulations and make necessary changes to ensure charging stations are able to be permitted in locations where they are needed.
- **T5.11 - car-free zones.** Reevaluate long term plans and update to prioritize pedestrians and people riding bikes. Set goals for mode shift and plans on how to achieve those goals like developing car-free corridors in commercial and mixed-use areas to encourage mode shift.

## Supporting Partner

These actions would be best led by a community partner organization, but with the support of the four local governments.

### Intercity Transit

- **T4.1 - increase transit.** Increase local public transit routes/frequency with a focus on expanding transit service before and after traditional business hours and on weekends.
- **T4.4 - fareless system.** Maintain a fareless system for public transit.
- **T5.4 - school drop-off alternative modes.** Maintain and expand a walking/biking incentive program with safety education for families.

### Thurston Conservation District

- **A1.2 - nutrient management.** Provide education and incentives (e.g., grants, loans, technical assistance) reduce nitrous oxide emissions when managing fertilizer.
- **A2.1 - regenerative agriculture.** Expand regenerative agricultural practices (ex. low-till, no-till education programs) among farmers that aim for a "whole farm" approach. Provide education on how to increase organic matter content and water retention in soils within urban and agricultural settings.

### LOTT Clean Water Alliance

- **W3.1 - nitrous oxide capture.** Research and implement nitrous oxide mitigation strategies and strategies to avoid or reduce nitrous oxide emissions. Present findings and cost vs benefits analysis to policy makers to determine what changes should be made.

### Other

– Who is the appropriate leading partner, and how would jurisdictions support them?

- **B3.1 - energy education.** Provide educational resources and technical assistance to industry professionals, building owners and managers on all aspects of energy efficient building design, retrofits, and operations for new and existing buildings.

- **B3.4 - exemplary buildings.** Create a Zero-Energy Building Challenge by partnering with public, private, non-profit and faith-based organizations. Facilitate rapid deployment and public awareness of high-profile demonstration buildings that use innovative energy efficiency and/or technology.
- **B5.10 - group purchasing.** Develop/support a city-sponsored group solar purchasing program.
- **B6.1 - natural gas to electric conversions.** Educate business owners and residents on the options for electric appliances and the benefit of pairing electrification with the installation of renewable energy. Create incentives to support fuel switching.
- **T2.4 - vehicle efficiency outreach.** Develop educational campaigns about benefits (reduced GHG emission, increase fuel efficiency, safety) of properly inflated tires, including signage at gas stations and local businesses and partnering with schools.
- **T3.11 - EV education.** Partner with environmental and other agencies to increase consumer awareness about EV options and incentives for use and purchase.
- **T3.14 - EV mass purchase discounts.** Create a group purchase program for residents to get deep discounts on EVs, other fuel efficient and alternative fuel vehicles.
- **T3.15 - EV purchase incentives.** Partner with car sale and lease dealerships to provide incentives for purchase of electric vehicles by Thurston County residents. Pilot with those neighborhoods, individuals with greatest VMT potential.
- **W4.4 - waste audits.** Provide waste audits for business owners and education on practices that decrease waste (ex. Compost, recycling, reuse).
- **W6.6 - supply chain.** Provide free technical assistance to local businesses in reducing the carbon intensity of their supply chains.

## Timeframe

The timeframe identifies the estimated frame of time it will take for the action to be completed or substantially underway. It may also identify sequential actions that can't be started until other foundational work is complete.

### Timeframe Options

- Ongoing
- Short term: 0-5 years
- Mid-term: 5-10 years
- Long term: 10+ years

## Cost Estimates

The consultant team developed rough estimates of potential direct costs to the four partner jurisdictions to complete an action or get it substantially underway (ex. staff or other resources). These cost estimates are offered to show scale and relative magnitude of the costs involved with different actions, and are not exact. The estimates do not include broader costs to other potential partners or ongoing costs.

### Cost Estimate Options

- Low (L): \$0-\$100,000
- Medium (M): \$100,000-\$1,000,000
- High (H): \$1,000,000

Sector	Action #	Action Short Name	Action Description	Approach	Primary Mechanism	Timeframe	Combined Total Cost Estimate	Total Cost Rationale
Buildings & Energy	B1.1	residential energy performance ratings	Require energy performance ratings and disclosures for homes at time of sale, lease, or rent so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions.	Legislative Agenda	Regulatory/code change	Short term ( 0- 5 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.
Buildings & Energy	B1.2	residential energy audits	Develop and adopt policies that require residential properties to undertake an energy audit at the time of sale or during a substantial remodel. Work with financial institutions to develop mortgage products that incorporate audited energy efficiency recommendations.	Legislative Agenda	Regulatory/code change	Short term ( 0- 5 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.
Buildings & Energy	B1.4	rental housing EE incentives	Provide property tax breaks for landlords who install energy conservation measures in rental housing.	Legislative Agenda	New program	Short term ( 0- 5 years)	L	Initial cost is low, but may result in less local tax revenue in the long-term.
Buildings & Energy	B1.5	property tax credit	Create a property tax credit for property owners who participate in energy efficiency.	Legislative Agenda	New program	Short term ( 0- 5 years)	L	Cost is low, but may result in less local tax revenue in the long-term.
Buildings & Energy	B1.6	rental housing EE baseline	Pass an ordinance to require rental units to meet baseline levels of energy efficiency and make more stringent over time.	Legislative Agenda	Regulatory/code change	Mid term (5-10 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.
Buildings & Energy	B2.1	commercial energy benchmarking & disclosure	Require energy performance ratings for commercial structures be disclosed so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions.	Legislative Agenda	Regulatory/code change	Mid term (5-10 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.

Buildings & Energy	B2.3	LED lighting	Install LED lighting in public-sector buildings and infrastructure (e.g., street lights, traffic signals).	Individual jurisdictions	Existing program	Ongoing	L	LEDs are increasingly inexpensive. Limited to only public sector buildings.
Buildings & Energy	B2.6	cool roofs	Create an incentive program for the installation of reflective roofs on commercial buildings to reduce building energy consumption and the urban heat island effect.	Individual jurisdictions	New program	Short term ( 0- 5 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.
Buildings & Energy	B2.8	performance standard	Set energy efficiency performance standards for commercial buildings with gross floor areas smaller than 50,000 square feet.	Legislative Agenda	Regulatory/code change	Mid term (5-10 years)	M	Policy will be low-cost, but developing programs and structures and conducting ongoing monitoring and evaluation will add costs.
Buildings & Energy	B3.1	energy education	Provide educational resources and technical assistance to industry professionals, building owners and managers on all aspects of energy efficient building design, retrofits, and operations for new and existing buildings.	Supporting partner	Support of third party partner	Mid term (5-10 years)	M	Development of educational materials will be upfront costs. Technical assistance will be ongoing and will require staff/consultant time.
Buildings & Energy	B3.4	exemplary buildings	Create a Zero-Energy Building Challenge by partnering with public, private, non-profit and faith-based organizations. Facilitate rapid deployment and public awareness of high-profile demonstration buildings that use innovative energy efficiency and/or technology.	Supporting partner	Support of third party partner	Mid term (5-10 years)	L	Partnering with organizations should help lower jurisdiction costs. One-time cost for the challenge.
Buildings & Energy	B3.5	green building tracking	Develop data methodology to monitor use and impacts of green building incentives, to inform future incentives and develop recommendations for policy or programs.	Regionally coordinated	New program	Mid term (5-10 years)	L	Costs scale depending on how in depth the assessment would be. Assume this would start rudimentary.
Buildings & Energy	B4.4	green municipal buildings	Require that new local government facilities (e.g., the new Olympia City Hall and LOTT building) demonstrate green building technologies and practices.	Regionally coordinated	Capital improvement	Short term ( 0- 5 years)	M	Requirement will be low cost, but implementing improvements will cost more.

Buildings & Energy	B4.5	permitting incentives	Offer streamlined permitting, lower fees, or other incentives for projects that meet green building certification standards.	Regionally coordinated	Existing program	Short term ( 0- 5 years)	L	Will need resources to develop the program structure, but certification standards are already in existence so that should lower program development costs.
Buildings & Energy	B4.6	EE tax exemptions	Create a local property tax reduction or credit for new buildings that meet an energy efficiency performance standard.	Legislative Agenda	Regulatory/code change	Short term ( 0- 5 years)	M	Will take resources to determine standard and how to measure/enforce. May result in less local tax revenue in the long-term.
Buildings & Energy	B4.7	land use incentives	Provide land use incentives (floor area ratio, density bonus, height bonus, parking reductions) for zero-net carbon buildings or other applications that dramatically increase energy efficiency.	Regionally coordinated	Regulatory/code change	Short term ( 0- 5 years)	L	Program development will require initial costs. Ongoing costs should be incorporated into standard permitting/review processes. Likely low participation in the short-term due to stringent criteria.
Buildings & Energy	B4.9	permit counter technical assistance	Hire or contract with dedicated green building specialists to provide technical assistance through the permitting and development process.	Individual jurisdictions	New program	Mid term (5-10 years)	L	Cost will depend on whether jurisdiction subsidizes cost of technical assistance. Assume jurisdiction serves as liaison but not funder.
Buildings & Energy	B4.11	grid-connected appliances	Require smart appliances in new construction, especially water heaters that control timing of demand.	Legislative Agenda	Regulatory/code change	Short term ( 0- 5 years)	L	Upfront costs for policy development. Ongoing costs for monitoring, enforcement, and support. Cost of appliances would fall on property owner.
Buildings & Energy	B4.12	multifamily submetering	Require submetering for new multifamily buildings so residents can track energy use.	Legislative Agenda	Regulatory/code change	Short term ( 0- 5 years)	L	Upfront costs for policy development. Ongoing costs for monitoring, enforcement, and support. Cost of submetering would fall on property owner.
Buildings & Energy	B5.3	municipal building solar	Install solar photovoltaics on all available and feasible municipal sites, including building rooftops, city hall, schools, police and fire stations, community centers, municipal water pump sites, and transit depots.	Individual jurisdictions	Capital improvement	Mid term (5-10 years)	M	PVs are increasingly inexpensive, but the cost would fall entirely on the jurisdictions.

Buildings & Energy	B5.5	solSmart	Pursue SolSmart designations and adopt solar friendly practices.	Individual jurisdictions	Regulatory/code change	Mid term (5-10 years)	M	Depending on where jurisdictions are starting, could require introduction of new policies and programs.
Buildings & Energy	B5.8	solar-ready	Amend local development code to require solar-ready construction for all building types.	Individual jurisdictions	Regulatory/code change	Mid term (5-10 years)	L	Straightforward policy adjustment.
Buildings & Energy	B5.10	group purchasing	Develop/support a city-sponsored group solar purchasing program.	Supporting partner	New program	Long term (10+ years)	L	Already being developed and implemented by PSE (e.g., Green Direct) - could work with them to expand.
Buildings & Energy	B6.1	natural gas to electric conversions	Educate business owners and residents on the options for electric appliances and the benefit of pairing electrification with the installation of renewable energy. Create incentives to support fuel switching.	Supporting partner	New program	Mid term (5-10 years)	L	Depends on extent of education - low cost would include development of initial informational materials and collateral for events, City websites, etc.
Buildings & Energy	B6.2	electric appliances in new construction	Update municipal code to require electric appliances in new construction.	Legislative Agenda	Regulatory/code change	Mid term (5-10 years)	L	Straightforward policy adjustment.
Buildings & Energy	B6.4	natural gas ban	Ban all new natural gas connections in new buildings.	Legislative Agenda	Regulatory/code change	Mid term (5-10 years)	M	Will take time to do stakeholder outreach (contraversial issue) and develop policy that everyone can agree on (e.g., identifying exemptions).
Transportation & Land Use	T1.1	coordinated long term planning- future infill	Coordinate long-term plans with transit agencies to project where increased density would support more transit corridors. Then change zoning/density that would support new transit corridors and variety of household incomes. Promote long-term equity and healthy communities by developing incentives such as density bonuses for development where a percentage of the units will be permanently affordable for household incomes.	Individual jurisdictions	Regulatory/code change	Short term ( 0- 5 years)	M	Partnerships with transit agencies would require staff time. Incentive development and implementation will also require initial and ongoing resources.
Transportation & Land Use	T1.2	middle-density housing	Reevaluate and change zoning as needed to allow for a range of housing types to promote social economic integration of housing near the region's urban centers or moderate-density zones.	Individual jurisdictions	Regulatory/code change	Short term ( 0- 5 years)	M	Evaluation will take time and zoning adjustments will likely require some level of public and stakeholder engagement.

Transportation & Land Use	T1.3	Eco districts	Identify potential Eco districts to advance innovative district-scale urban development, sustainability, and neighborhood equity. Then make necessary code/zoning changes to support their development and set ambitious performance outcomes to ensure their long-term success.	Individual jurisdictions	Regulatory/code change	Mid term (5-10 years)	M	
Transportation & Land Use	T1.4	20-minute neighborhoods	Increase the number of 20-minute neighborhoods (walkable environment, destinations that support a range of basic living needs and a residential density). Identify key infrastructure components needed to grow the number of 20-minute neighborhoods, then change zoning and codes if needed and coordinate with other jurisdictions to make public investments where necessary.	Individual jurisdictions	Regulatory/code change	Mid term (5-10 years)	H	This is a large-scale action that requires both zoning/code adjustments and infrastructure investments.
Transportation & Land Use	T1.9	ADUs	Amend development codes to allow for attached and detached ADU's in urban residential areas.	Individual jurisdictions	Regulatory/code change	Short term ( 0- 5 years)	L	Straightforward policy adjustment, but will require some level of public engagement.
Transportation & Land Use	T1.11	land use efficiency	Set integrated goals to consider network efficiency in land use decisions, including how density in certain areas supports transit, increases efficiency of utility service, and other support facilities. Consider VMT in identifying locations for large employment facilities.	Regionally coordinated	New program	Short term ( 0- 5 years)	M	Will require some time for research and coordination with large employers.
Transportation & Land Use	T2.2	congestion mitigation	Develop congestion mitigation programs to increase transportation efficiency, reduce delay, and reduce emissions such as signalization coordination improvements along with application of speed harmonization techniques (ex. reevaluate speed limits, roundabouts vs signalized intersection, street connectivity). Added benefits are decrease idling time (pollution) and improve fuel efficiency (cost savings to driver).	Individual jurisdictions	Existing program	Ongoing	M	Large-scale study covering large land areas. Assume includes implementation of recommended congestion mitigation program.
Transportation & Land Use	T2.4	vehicle efficiency outreach	Develop educational campaigns about benefits (reduced GHG emission, increase fuel efficiency, safety) of properly inflated tires, including signage at gas stations and local businesses and partnering with schools.	Supporting partner	Support of third party partner	Short term ( 0- 5 years)	L	
Transportation & Land Use	T2.17	teleworking/flex work	Government agencies increase opportunities for employee teleworking options and staggering work days to reduce employees driving during peak traffic times.	Individual jurisdictions	Existing program	Ongoing	L	Time for working with large employers, partnering with co-working companies, etc.
Transportation & Land Use	T3.1	EV parking new construction	Require large commercial and residential buildings to dedicate a percentage of parking spots for electric vehicle charging.	Regionally coordinated	Regulatory/code change	Short term ( 0- 5 years)	L	Straightforward policy adjustment. May require some time to determine appropriate percentage.
Transportation & Land Use	T3.2	free EV parking	Allow free parking for all electric vehicles at local government buildings and in city centers to encourage the adoption of all electric vehicles. Increase cost of parking for Non-EV vehicles.	Individual jurisdictions	Existing program	Mid term (5-10 years)	L	Straightforward action - Jurisdictions have direct control.

Transportation & Land Use	T3.5	EV ready building code	Require all new residential construction be built EV ready. Create a simple and consistent residential charging station permitting process to reduce costs and time to development.	Regionally coordinated	Regulatory/code change	Short term ( 0- 5 years)	L	Straightforward - have other jurisdiction templates available for this.
Transportation & Land Use	T3.7	EV integration	Reevaluate regulations and make necessary changes to ensure charging stations are able to be permitted in locations where they are needed.	Individual jurisdictions	Regulatory/code change	Short term ( 0- 5 years)	L	May take some time for a study on this, but otherwise straightforward. May cost more if extensive public engagement is needed.
Transportation & Land Use	T3.10	convert to EV fleets	Set policies and timetable for electrification of municipal and other governmental fleets. Require replacement of public fleets with cleaner, energy-efficient vehicles to reduce long term fuel costs, improve air quality and reduce greenhouse gas emissions.	Individual jurisdictions	Existing program	Ongoing	M	Marginal cost of electric alternatives could require additional resources in the near-term as technologies develop.
Transportation & Land Use	T3.11	EV education	Partner with environmental and other agencies to increase consumer awareness about EV options and incentives for use and purchase.	Supporting partner	Support of third party partner	Short term ( 0- 5 years)	L	Partnership presents opportunity for cost sharing. Straightforward awareness building program.
Transportation & Land Use	T3.14	EV mass purchase discounts	Create a group purchase program for residents to get deep discounts on EVs, other fuel efficient and alternative fuel vehicles.	Supporting partner	New program	Mid term (5-10 years)	L	May take time and resources to identify partners and develop program. Once established, cost will be minimal to maintain.
Transportation & Land Use	T3.15	EV purchase discounts	Partner with car sale and lease dealerships to provide incentives for purchase of electric vehicles by Thurston County residents. Pilot with those neighborhoods, individuals with greatest VMT potential.	Supporting partner	New program	Mid term (5-10 years)	L	May take time and resources to identify partners and develop program. Once established, cost will be minimal to maintain.
Transportation & Land Use	T4.1	increase transit	Increase local public transit routes/frequency with a focus on expanding transit service before and after traditional business hours and on weekends.	Supporting partner	Support of third party partner	Mid term (5-10 years)	H	This is a large-scale action that can scale up depending on needs. Unclear to what extent transit agencies vs. jurisdictions would assume cost.
Transportation & Land Use	T4.3	rural transit	Identify and implement first/last mile solutions for rural ridership (engage rural home owners associations for representation and feedback). Present this plan to TRPC with direction to explore pilot programs and secure funding sources.	Regionally coordinated	New program	Long term (10+ years)	L	Cost will depend on identified solution.
Transportation & Land Use	T4.4	fareless system/youth ride free	Maintain a fareless system for public transit.	Supporting partner	Support of third party partner	Short term ( 0- 5 years)	H	Will result in reduced transit revenues. Will require substantial subsidies. Unclear to what extent jurisdiction vs. transit agency would incur cost.

Transportation & Land Use	T4.10	rider education/benefits	Maintain and expand a regional online page that lists all the mode shift education efforts and employer benefits opportunities (Thurston Here-To-There). Include a comments section for suggestions to further transit education and ridership.	Regionally coordinated	Existing program	Ongoing	L	
Transportation & Land Use	T4.15	promote transit benefits	Work with employers and transit agencies to develop ways to incentivize employee ridership (e.g., rebates for employees who give up use of employer parking facilities).	Regionally coordinated	Existing program	Ongoing	L	Assume incentive funding covered by employer, state, etc.
Transportation & Land Use	T5.1	walk/bike infrastructure	Coordinate cities of Thurston Counties Master Bicycle and Pedestrian plans into a large regional plan to expand walking and biking infrastructure, including separated and protected opportunities. Coordinate efforts to maximize funding mechanisms and opportunities.	Regionally coordinated	Existing program	Short term ( 0- 5 years)	M	Broader planning effort would require extensive public/stakeholder engagement and coordination.
Transportation & Land Use	T5.2	barriers to transportation alternatives	Develop a regional inventory to identify gaps in connectivity for safe cycling and walking. Then develop a strategy to prioritize projects and a plan for funding.	Regionally coordinated	Existing program	Ongoing	M	
Transportation & Land Use	T5.4	school drop-off alternative modes	Maintain and expand a walking/biking incentive program with safety education for families.	Supporting partner	Support of third party partner	Ongoing	L	Likely able to build on existing programs.
Transportation & Land Use	T5.11	car-free zones	Reevaluate long term plans and update to prioritize pedestrians and people riding bikes. Set goals for mode shift and plans on how to achieve those goals like developing car-free corridors in commercial and mixed use areas to encourage mode shift.	Individual jurisdictions	New program	Mid term (5-10 years)	M	Broader planning effort would require extensive public/stakeholder engagement and coordination.
Transportation & Land Use	T5.13	telecommuting infrastructure	Develop grants and provide financial resources for installation of infrastructure necessary to support telecommuting.	Regionally coordinated	New program	Long term (10+ years)	M	Depends on extent of financial resources and ability to identify other funders.
Water & Waste	W1.1	municipal energy efficiency	Conduct efficiency improvements to municipal water and sewage treatment systems. Prioritize components that consume the most energy and have high GHG emissions.	Individual jurisdictions	Existing program	Short term ( 0- 5 years)	M	Depends on what upgrades are needed.

Water & Waste	W2.2	water audits	Conduct water audits of city and county facilities to determine prioritization of capital improvements.	Individual jurisdictions	Existing program	Short term ( 0- 5 years)	L	Audits are straightforward. Does not include costs of implementing audit recommendations.
Water & Waste	W3.1	nitrous oxide capture	Research and implement nitrous oxide mitigation strategies and strategies to avoid or reduce nitrous oxide emissions. Present findings and cost vs benefits analysis to policy makers to determine what changes should be made.	Supporting partner	New program	Short term ( 0- 5 years)	L	
Water & Waste	W4.4	waste audits	Provide waste audits for business owners and education on practices that decrease waste (e.g., compost, recycling, reuse).	Supporting partner	Existing program	Short term ( 0- 5 years)	M	Cost will depend on scale of participation.
Water & Waste	W4.10	waste less food program	Expand Thurston County's "Waste Less Food" program.	Regionally coordinated	Existing program	Short term ( 0- 5 years)	L	Depends on extent of expansion.
Water & Waste	W6.6	supply chain	Provide free technical assistance to local businesses in reducing the carbon intensity of their supply chains.	Supporting partner	Support of third party partner	Mid term (5-10 years)	M	Will likely required contractors for expertise. Cost will depend on extent of participation.
Agriculture & Forests	A1.2	nutrient management	Provide education and incentives (e.g., grants, loans, technical assistance) reduce nitrous oxide emissions when managing fertilizer.	Supporting partner	Existing program	Ongoing	L	Could partner with extension offices for this.
Agriculture & Forests	A2.1	regenerative agriculture	Expand regenerative agricultural practices (ex. low-till, no-till education programs) among farmers that aim for a "whole farm" approach. Provide education on how to increase organic matter content and water retention in soils within urban and agricultural settings.	Supporting partner	Existing program	Mid term (5-10 years)	L	Could partner with extension offices for this.
Agriculture & Forests	A5.1	reforestation & afforestation program	Develop a coordinated reforestation/afforestation program. Begin by identifying priority areas where reforestation and afforestation may have carbon reduction benefits.	Regionally coordinated	New program	Mid term (5-10 years)	H	Not many other local government models to build from here - will likely take time to develop program and conduct study.

Agriculture & Forests	A6.5	municipal canopy	Maximize tree canopy on City-owned or City-controlled land, where appropriate in balance with other City goals.	Individual jurisdictions	Existing program	Mid term (5-10 years)	L	Straightforward - cost will depend on extent of existing tree canopy.
Agriculture & Forests	A6.9	tree canopy preservation	Develop a tree canopy ordinance that establishes a baseline for current urban canopy and sets goals for future canopy to increase cities' resilience. Combine direct cooling value (urban heat island mitigation) with carbon sequestration value when evaluating urban tree management.	Individual jurisdictions	Regulatory/code change	Short term ( 0- 5 years)	L	Can build on A5.1.
Cross-cutting	G1.7	social research and behavior change campaigns	Work with higher education institutions to research effective behavior change through marketing and educate. Use this information in developing campaigns to reduce high emissions GHGs.	Regionally coordinated	Support of third party partner	Short term ( 0- 5 years)	L	
Cross-cutting	G4.1	emissions inventory	Prepare and publish an annual emissions inventory that tracks greenhouse gas emissions by jurisdiction and source category. Review and update emissions inventory methodology as necessary to address improvements to data or methodologies, improve consistency, incorporate changes to state or federal policies, or report on issues of local interest.	Regionally coordinated	Existing program	Ongoing	M	While individual inventories are less expensive (\$20-\$50k), conducting them annually will add up over time.
Cross-cutting	G4.2	performance measures	Develop community GHG reduction goals and performance measures. Regularly update and publicize for community to track their progress.	Regionally coordinated	Existing program	Ongoing	L	Can build on G4.2.
Cross-cutting	G4.3	other emission sources and sinks	Expand sources and sectors in future emissions inventories to inform future regulatory policy to reduce GHG emissions. Connected to actions T1.5 and W6.1, and sequestration actions.	Regionally coordinated	New program	Short term ( 0- 5 years)	L	Can build on G4.2.
Cross-cutting	G4.4	vulnerable populations	Develop a data and monitoring mechanism that is specific to marginalized groups and their needs related to climate change and climate reality (e.g., access to transportation, access to A/C, proximity to cooling centers) and develop a plan to address these vulnerabilities with solutions that help reduce GHG emissions.	Regionally coordinated	New program	Mid term (5-10 years)	M	Study + plan - done well will also require stakeholder/public engagement with hard-to-reach communities.

Cross-cutting	G4.6	social cost of carbon	Develop and adopt policies that require the use of a "social cost of carbon measure" in zoning, development, construction, and transportation decisions.	Regionally coordinated	New program	Mid term (5-10 years)	L	City of Seattle has a model for this to build from.
Cross-cutting	G5.2	solar-ready building code	Add as a high priority to municipality's legislative agenda - State-level amendments to State building code requiring solar-ready construction. Work with other cities to add this to the Association of Washington Cities (AWC) priorities.	Legislative Agenda	Existing program	Short term ( 0- 5 years)	L	Build on B5.8
Cross-cutting	G5.5	legislative agenda	Prioritize combating climate change in the municipality's legislative agenda each year. Instruct municipal lobbyist to track and report on climate bills, and to advocate for those bills that will help reduce local emissions. Work with other cities to add this to the AWC priorities.	Legislative Agenda	Existing program	Short term ( 0- 5 years)	L	Can leverage ongoing partnerships.