

Multicriteria Analysis

May 2020

Overview

The Thurston Climate Mitigation Plan used a multicriteria analysis to prioritize a list of communitywide actions. This analysis applied input from the consultant team, key stakeholders, and technical experts to qualitatively assess how each action could address the goals of this project, including the potential for each action to reduce greenhouse gas emissions.

Background Timeline

- *July – October 2019:* The Climate Advisory Workgroup (CAW) and Steering Committee reviewed various options for criteria, suggested by the consultant team and results of the public survey. The Steering Committee approved four criteria to use for the multicriteria analysis at their October 24 meeting.
- *November – December 2019:* TRPC hosted five focus group meetings, during which participants assigned qualitative scores to all communitywide actions using criteria selected by the Steering Committee.
- *January 2020:* The consultant team used the criteria rankings to develop a Total Priority Score (TPS) for each action. The CAW reviewed the scores (January 16) and the Steering Committee (January 23) approved an approach to weighting different criteria including a boost for actions identified as a high priority by youth.
- *January 23:* The Steering Committee directed staff to develop a list of approximately 50 priority actions, using their Total Priority Score. The Committee asked to see a list that included actions that appear repeatedly when evaluated with different approaches, and that incorporated youth and stakeholder priorities.

Criteria Selection

On October 24, 2019, the Steering Committee approved¹ the following criteria for the multicriteria analysis:

¹ For a detailed description of the Criteria Selection process, see Attachment A.

CRITERIA	DESCRIPTION
GHG reduction potential	The annual quantity of greenhouse gas emissions (GHG) an action will avoid or sequester as of 2030.
Speed of deployment	Minimum time possible between decision to recommend an action, and achievement of the annual GHG reduction potential.
Control	One or more of the four project partners can likely influence the implementing party(ies), or can create the necessary regulatory structure.
Co-benefits <input type="checkbox"/> ecosystem health <input type="checkbox"/> social equity <input type="checkbox"/> economic benefit <input type="checkbox"/> other	Supports one or more of the regional goals (aside from #9 – carbon neutrality)

Qualitative Assessment

Ranking Methodology

TRPC and the consultant team further defined each criteria to create a scoring method using a ranking scale. An action was assigned a rank between 1 and 5 for each of the four criteria, depending on the effectiveness of the action to meet the definition of that criteria. The following tables show the qualitative scoring applied for each criterion:

GHG REDUCTION POTENTIAL: The annual quantity of greenhouse gas emissions (GHG) an action will avoid or sequester as of 2030.

	Low/High Emissions Sector	Low/High Emissions Subsector	Confidence/Probability of Impact
Ranking	1	Low (e.g., water/waste and land carbon sequestration)	Low (voluntary education/outreach; limited ability to scale)
	2	Low (e.g., water/waste and land carbon sequestration)	Low/High (e.g., industrial, municipal, residential, commercial)
	3	High (e.g., transportation/land use and buildings)	Low (e.g., industrial, municipal)
	4	High (e.g., transportation/land use and buildings)	High (e.g., residential, commercial)
	5	High (e.g., transportation/land use and buildings)	High (e.g., residential, commercial)
			Low/Medium/High (voluntary with monetary incentives or education/outreach with ability to scale)
			High (large-scale capital project or regulation/policy)

CONTROL: One or more of the four project partners can likely influence the implementing party(ies), or can create the necessary regulatory structure.

Anticipated Jurisdiction Role	
1	Advocate at a non-TCMP entity
2	Voluntary partner with a non-TCMP entity
3	Official partner (e.g., MOU) with non-TCMP entity
4	Funder of non-TCMP entity
5	TCMP entity is implementor or regulator

** If more than one project partner is collaborating on the effort, then move ranking up by 1 level.*

SPEED OF DEPLOYMENT: Minimum time possible between decision to recommend an action, and achievement of the annual GHG reduction potential.

		Requires legislative action	Technology exists	Funding mechanism exists
Ranking	1	Yes	No	No
	2	Yes	No	Yes
	2	Yes	Yes	No
	3	Yes	Yes	Yes
	4	No	No	Yes
	4	No	Yes	No
	5	No	Yes	Yes

CO-BENEFITS: Supports one or more of the following regional goals:

- Ecosystem Health
- Social Equity
- Economic Benefit
- Climate Adaptation
- Other Regional Goals

CO-BENEFIT	DEFINITION – APPLICABLE REGIONAL GOAL OR CONCEPT
Ecosystem health	2. Preserves environmentally sensitive lands, farmlands, forest lands, prairies, and rural lands, and develops compact urban areas; 4. Protects and improves water quality, including groundwater, rivers, streams, lakes and Puget Sound; 8. Ensures that the region’s water supply sustains people in perpetuity while

	protecting the environment; 10. Maintains air quality standards;
Social equity	6. Ensures that residents have the resources to meet their daily needs; SE: Increases equal distribution of or access to housing, financial incentives, open space, economic opportunity, or other resources, among disadvantaged or marginalized communities.
Economic benefit	3. Creates a robust economy; 7. Supports a local food system to increase community resilience, health and economic prosperity; 12. Make strategic investments to advance sustainability regionally.
Adaptation value	ADAPT: Supports an action in the 2018 Thurston Climate Adaptation Plan.
Other	1. Creates vibrant centers, corridors and neighborhoods while accommodating growth; 5. Plans and acts toward zero waste in the region; 11. Provide opportunities for everyone in the Thurston Region to learn about and practice sustainability;

Number of supported co-benefits	
1	Supports 0-1 co-benefits
2	Supports 2 co-benefits
3	Supports 3 co-benefits
4	Supports 4 co-benefits
5	Supports 5 co-benefits

Sector Focus Groups

Between November and December of 2019, TRPC organized a series of five focus group meetings to score communitywide climate mitigation actions based on the criteria determined by the Steering Committee and utilizing the qualitative scoring methods described above. A detailed summary of the sector focus groups is included in Attachment B.

The first meeting was a youth and educator focus group hosted by the Olympia School District on November 18, 2019. Student representatives reviewed the full action list and selected a subset of 122 actions they thought would be most relevant to youth and educators. The meeting participants ranked these actions for the “GHG Reduction potential” and “Co-benefits” criteria by asking:

1. How effective do you think this action will be at reducing greenhouse gas emissions?

- Scale of 1-5, where 1=not at all effective and 5=very effective
2. How effective do you think this action will be at providing other community benefits, other than greenhouse gas reductions? (Such as, benefits for the environment, social equity, economics, or adaptation)
- Scale of 1-5, where 1=no co-benefits and 5=many co-benefits

Each action was provided a numerical rank by four different people based on the two criteria. Each participant then identified their three highest and three lowest priority actions, irrespective of score, using red and three green stickers. TRPC staff used the scores and stickers to identify a top 20 list of youth and educator priority actions (see Attachment C).

Four meetings with the same general format were held between December 2-4 for subject matter experts in the Buildings and Energy, Transportation and Land Use, Water and Solid Waste, and Agriculture and Forests sectors. Prior to these meetings, the consultant team assigned all actions an initial rank for “GHG Reduction Potential.” Participants were asked to review the assigned ranks for “GHG Reduction Potential” and the rationale provided by the consulting team. They then ranked these same actions for “Control” and “Speed of Deployment,” using the defined criteria, and provided their rationale. Participants received a handout that specified how to apply qualitative scores. Sector focus group participants were also asked to identify what they believed were the three highest and three lowest priority actions using red and green stickers.

Following these meetings, TRPC staff assigned qualitative scores for the “Co-benefits” criteria. TRPC staff also recorded all participants’ low priority/red sticker and high priority/ green sticker selections.

The CAW reviewed the initial criteria rankings at their meeting on January 16, 2020, and provided comments and suggested improvements. Staff presented a revised version of the multicriteria analysis results to the Steering Committee at their meeting on January 23, 2020.

Total Priority Score

The consultant team combined the criteria rankings to develop a “Total Priority Score” for each action. Input from the CAW and public survey suggested that rather than treat each criteria as equally important, individual criteria should be weighted, so that some criteria would be more influential in determining an action’s total score.

The Steering Committee reviewed different options for weighting the results of the multicriteria analysis and settled on the following calculation: **GHG Reduction Potential 40%, Control 25%, Speed of Deployment 15%, and Co-benefits 20%**. The Steering Committee requested that a “boost” be given to youth priorities, so an additional 0.1 was added to any action on the top 20 priority actions for youth and educators (listed in Attachment C). The following example provides a breakdown of how weights are applied to calculate the “Total Priority Score:”

Example Total Priority Score Calculation

CRITERIA	EXAMPLE RANK	WEIGHT	WEIGHTED SCORE
GHG reduction potential	5	0.4 (40 percent of total action score)	2.0
Control	3	0.25 (25 percent of total action score)	0.75
speed of deployment	4	0.15 (15 percent of total action score)	0.6
Co-benefits	2	0.20 (20 percent of total action score)	0.4
TOTAL	*	= 1.0 (100 percent of total action score)	3.6 out of possible 5.0
YOUTH BOOST	Y	+ 0.1	3.7

The consultant team presented three approaches to use the Total Priority Score to develop a list of priority actions. The following descriptions outline the proposed “Sorted Actions” lists with reference tables provided at the end of this document:

Top TPS scores among all actions:

The “Top 50 overall actions” list includes actions that received the highest Total Priority Scores during the multicriteria analysis. This list prioritizes actions in high emission sectors that received high scores in the weighted “GHG Reduction Potential” criteria (Transportation & Land Use and Buildings & Energy). The “Top 50 overall actions” list is provided at the end of this document for reference (Attachment C).

Top TPS scores for each sector:

The “Top actions by focus area” list includes the top-10 ranked actions across all sectors (Buildings & Energy, Transportation & Land Use, Agriculture & Forestry, Water & Waste, Cross-Cutting). This list prioritizes parity among actions across all sectors whether they were identified as high emission sectors (Transportation & Land Use and Buildings & Energy), or low emission sectors (Agriculture & Forestry and Water & Waste). The “Top actions by focus area” list is provided at the end of this document for reference (Attachment D).

Top TPS scores for each strategy:

The “Top actions by strategy” list includes the top-ranked action for all strategies within each sector. Each sector was assigned strategies based on how the sector specifically addressed climate change mitigation. Similar to “Top actions by focus area” this list prioritizes parity but considers each sector strategy equally as opposed to top sector actions alone. The “Top actions by strategy” list is provided at the end of this document for reference (Attachment E).

Top actions across all three lists:

The “Top actions across all three lists” list ranks all communitywide actions according to their occurrence in each of the three sorting methods identified above. Actions identified in all three sorted lists were ranked highest, followed by actions identified in two of the three sorted lists, actions identified in one of the three sorted lists, and lastly actions that were not identified in any of the three sorted lists. All actions are sub-ordered based on their associated TPS score. The “Top actions across all three lists” list is provided at the end of this document for reference (Attachment F).

All ranked actions list:

The all ranked actions list contains all actions ordered by their final TPS score only. No sorting options mentioned above are applied to this list. The “All ranked actions list” is provided at the end of this document for reference (Attachment H).

- Attachment A: Criteria for Analysis
- Attachment B: Sector Focus Groups Summary
- Attachment C: Youth & Educator Priority Actions
- Attachment D: Top 50 overall actions
- Attachment E: Top actions by focus area
- Attachment F: Top actions by strategy
- Attachment G: Top actions across all three lists
- Attachment H: All ranked actions

Criteria for Analysis

Approved by Steering Committee, October 24, 2019

Approved Criteria

The Thurston Climate Mitigation Plan will include a list of communitywide actions to reduce greenhouse gas emissions in order to meet the adopted emissions reduction target. The full list will be evaluated to help identify the most promising actions by estimating how actions meet certain criteria that represent community values for the plan.

On October 24, 2019, the Steering Committee approved the following criteria to use in the initial analysis of actions:

CRITERIA	DESCRIPTION
GHG REDUCTION POTENTIAL	The annual quantity of greenhouse gas emissions (GHG) an action will avoid or sequester as of 2030.
SPEED OF DEPLOYMENT	Minimum time possible between decision to recommend an action, and achievement of the annual GHG reduction potential.
CONTROL	One or more of the four project partners can likely influence the implementing party(ies), or can create the necessary regulatory structure.
CO-BENEFITS <ul style="list-style-type: none"> <input type="checkbox"/> ECOSYSTEM HEALTH <input type="checkbox"/> SOCIAL EQUITY <input type="checkbox"/> ECONOMIC BENEFIT <input type="checkbox"/> OTHER 	Supports one or more of the regional goals (aside from #9 – carbon neutrality)

The Workgroup and Steering Committee will use the analysis as one tool in developing a Climate Mitigation Plan, but can also consider other factors to make the strongest plan. The Steering Committee will consider cost at a later stage of the analysis.

Background

Over the summer and fall of 2019, the Workgroup and Steering Committee reviewed various options for criteria, with the goal of narrowing a list of more than 20 potential criteria to no more than five to fit within the project budget and schedule.

- *July 18:* Climate Advisory Workgroup members reviewed an initial list of criteria, and suggested modifications and additional criteria through August 5th.
- *August 29:* The Steering Committee reviewed the draft list of potential criteria and Workgroup input, and provided initial feedback to develop a list of 21 potential criteria.
- *September:* TRPC sent out a survey to Workgroup members to indicate their top preferences for criteria that should be considered in the evaluation. The top five results are indicated with an (X) in the attached table.
- *October 4:* The Workgroup discussed criteria and developed a recommendation on preferred criteria to bring to the Steering Committee, indicated with a plus (+) in the attached table.
- *October 24:* The Steering Committee reviewed the Workgroup's recommendation on criteria, as well as feedback from the public survey, and decided which criteria to develop for the initial analysis of actions, indicated with an asterisk (*) in the attached table.
- *Late fall/winter:* The Workgroup will meet as smaller sector-specific Focus Groups to assign initial, qualitative values of criteria to the action list. The consultant team will develop quantitative values for the highest priority actions.
- *January 2020:* Initial analysis results will be presented to the Steering Committee and Workgroup. Criteria may be adjusted, based on the group's feedback.
- Criteria choices can be reevaluated in the future as the plan is implemented, reviewed, and updated.

candidate criterion	definition	units of measurement	CAW survey	CAW 10/4 Recommendation	Steering Committee 10/24 Decision
GHG reduction potential	The annual quantity of GHG emissions an action will avoid or sequester as of 2030.	metric tons of CO ₂ -equivalent	X	+	*
speed of deployment	Minimum time possible between decision to recommend an action, and achievement of the annual GHG reduction potential.	years	X	+	*
control	One or more of the four project partners can likely influence the implementing party(ies), or can create the necessary regulatory structure. Absence of legal barriers.	<i>ordinal criterion</i>			*
economic benefits	Strengthens local economy, reduces external dependencies, improves community resilience, maximizes benefits without externalizing costs.	<i>ordinal criterion</i>	X		* - as part of co-benefits
ecosystem health	Habitat preservation or creation; water quality benefits; water flow benefits.	<i>nominal criterion</i>	X		* - as part of co-benefits

Abbreviations & Definitions

Action: a proposed activity that will be evaluated for its ability to contribute to the vision and goals of the TCMP

CAW – Climate Advisory Workgroup

CO₂ – carbon dioxide

FTE – full-time equivalent (*e.g.* a job that employs someone 40 hours/week)

GHG – greenhouse gas

nominal – represented by a set of values or categories with no particular order or rank (*e.g.* Yes, No)

ordinal – represented by a set of values that express order or rank (*e.g.* low, medium, high)

TCMP – Thurston Climate Mitigation Plan

candidate criterion	definition	units of measurement	CAW survey	CAW 10/4 Recommendation	Steering Committee 10/24 Decision
social equity	Increases equal distribution of or access to housing, financial incentives, open space, economic opportunity, or other resources, among disadvantaged or marginalized communities.	<i>ordinal criterion</i>		+	* - as part of co-benefits
adaptation value	Degree to which the mitigation action provides adaptation values identified in the Thurston Climate Adaptation Plan.	<i>ordinal criterion</i>			* - as part of co-benefits
builds capacity	Does the action help create or strengthen the infrastructure and resources needed to sustain the action into the future?	<i>nominal criterion</i>		+	
clean air	Reductions in conventional air pollutants.	<i>nominal criterion</i>			
direct cost	Spending required of the implementing entity, in order to achieve the gross GHG reduction potential.	net present value of all spending through Dec. 31 2030			

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TCMP – Thurston Climate Mitigation Plan

candidate criterion	definition	units of measurement	CAW survey	CAW 10/4 Recommendation	Steering Committee 10/24 Decision
educational value for behavior change	Degree to which the action educates residents in ways that inspire them to adopt behaviors that help achieve emissions reduction targets.	<i>ordinal criterion</i>		+	
employment	Increases to jobs available in Thurston County.	FTE jobs			
funding resource	Appropriate funds, funders or lenders available for the action as described. May be partial (<i>e.g.</i> for only one project stage).	<i>nominal criterion</i>			
measurability	A precise GHG reduction can be computed from a quantifiable activity metric.	<i>ordinal criterion</i>		+	
nontoxicity	Reductions in toxic emissions.	<i>nominal criterion</i>			
political feasibility	Champion agency or organization exists. Community is likely to accept or perform the work needed to complete the action. Absence of opposition.	<i>ordinal criterion</i>			

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ordinal – represented by a set of values that express order or rank (*e.g.* low, medium, high)

TCMP – Thurston Climate Mitigation Plan

candidate criterion	definition	units of measurement	CAW survey	CAW 10/4 Recommendation	Steering Committee 10/24 Decision
quality of life impacts	Benefits to the health, comfort, and happiness experienced by residents of Thurston County, that are not incorporated in other co-benefits criteria.	<i>nominal criterion</i>	X		
readiness	Ease of implementation. Overlaps with speed of deployment . Inversely proportional to the number of coordinating parties required for implementation.	<i>ordinal criterion</i>		+	
total cost	Direct cost plus any additional spending required by other entities to respond to the action that reduces GHGs. May include financial benefits as well as costs.	net present value of all spending through Dec. 31 2030			
track record	Has the proposed action been proven effective in environments comparable to Thurston County? Is there credible documentation of success for similar actions?	<i>ordinal criterion</i>			

Abbreviations & Definitions

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TCMP – Thurston Climate Mitigation Plan



Sector Focus Groups

November/December 2019

Thurston Regional Planning Council organized a series of five Sector Focus Group Meetings between November 18 and December 9 to score communitywide climate mitigation actions based on criteria determined by the Steering Committee.

November 18 – Youth & Educator Focus Group Summary

This meeting was hosted by the Olympia School District. Prior to the meeting, a subset of student representatives reviewed the full action list, and selected a subset of 122 actions that they thought would be most relevant to youth and educators, that were stronger and more useful to discuss. The meeting participants then ranked each action for two criteria:

1. How effective do you think this action will be at reducing greenhouse gas emissions?
 - Scale of 1-5, where 1=not at all effective and 5=very effective
2. How effective do you think this action will be at providing other community benefits, other than greenhouse gas reductions? (Such as, benefits for the environment, social equity, economics, or adaptation)
 - Scale of 1-5, where 1=no co-benefits and 5=many co-benefits

Each action, and each criteria for each action, was ranked by four different people. The numeric ranks were totaled, and actions were posted on a wall in numeric order. Participants then had an opportunity to place up to three green dot stickers on actions they thought were a high priority, and three red dots on stickers they would be comfortable leaving out of the plan (see photo below). Finally, participants shared their observations about the activity, and their rationale for why they selected and prioritized certain actions, which included:

- There may be a disconnect between what we think will work and what will make a difference. Need to have information about what will be effective.
- Want to do all the actions. There will be political pushback, but it is past time to be taking action.
- There will need to be incentives for behavior change, but these actions are important.
- Liked actions related to bike and electric vehicle (EV) infrastructure – these also support safety, and that can be a disincentive to biking more
- Liked the “lights out” action – it’s something simple we can do. Also liked the no-vehicle area – again, it’s an action that could be taken without a lot of construction, relatively easily, and there are many examples other places.

- It's hard to pick a top 3, because they are all important.

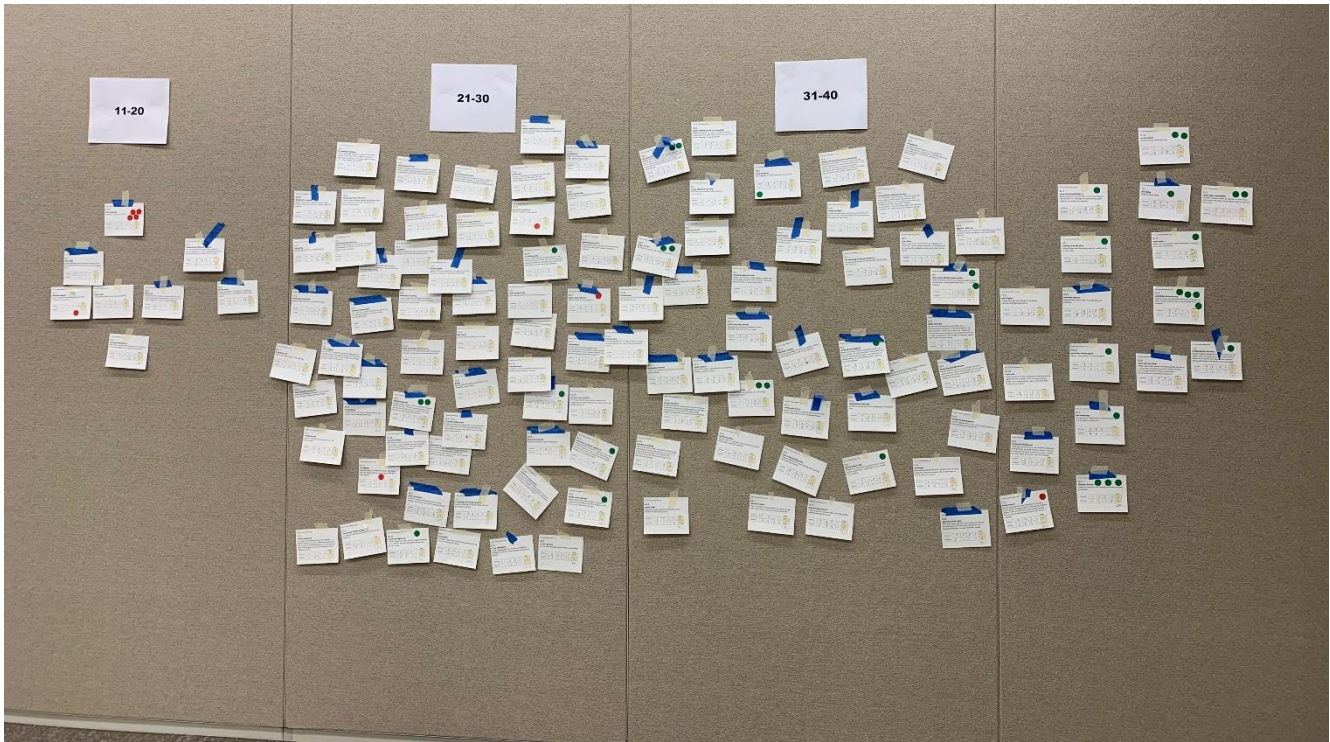


Figure 1. Image of Ranked Actions at Nov 18, 2019, Youth/Educator Focus Group Meeting hosted by Olympia School District.

- Likes actions that focused on incentives, and having EV charging stations at gas stations.
- Likes actions about bikes – it's nice to have areas where no cars are allowed
- Likes the action about developing rail options to Seattle, and incentivizing the switch to solar power.
- Liked the rail to Seattle action, as well as the actions related to no-idling and promoting roundabouts. Also actions that support bikes and EV.
- We need to do it all. Hope we can really go for it and show bold leadership, and education for the community to unleash innovations.
- Liked that youth, who are our future, are here and informing the process. We are listening to you, and hope you feel heard.
- Appreciated that education is very important, but education actions need to be more specific.
- Actions to address changes to passenger vehicles, which make up a large proportion of inventory, are important/difficult to change behavior.

December 2-4 – Sector Focus Groups Summary

Four meetings with the same general format were held for subject matter experts in the following categories: Buildings and Energy, Transportation and Land Use, Water and Solid Waste, Agriculture and Forests. Prior to these meetings, all actions had been given a rank for greenhouse gas reduction potential. Each group reviewed the actions relevant to their sector for the following:

1. Review the “Greenhouse Gas Reduction potential” ranks and rationale provided by the consulting team.

- Rank each action on a scale of 1-5 for “Control” and “Speed of Deployment.” A handout for the meeting specified how to apply this criteria.

Sector focus groups broke out into sub-groups of 4-7 attendees and were provided actions to review. Participants first individually reviewed and ranked 5-10 actions. After all participants had finished individual work, groups reconvened to review individual grades and agree on group scores. After small groups reached a consensus on their assigned actions, small groups calculated the numerical scores of the actions they assessed.

The Water, Agriculture, Forests, and Buildings and Energy groups completed this activity with enough time to then identify their individual preferences for actions – each participant had an opportunity to place up to three green dot stickers on actions they thought were a high priority, and three red dots on actions they would be comfortable leaving out of the plan.

Comments on the actions are recorded in the Communitywide Actions List, dated 12/10/2019 Other general comments noted from individual meetings, include:

Buildings & Energy
<ul style="list-style-type: none"> • Hard to determine GHG reduction without methodology for emissions breakdown • Zoning requirement for energy efficiency and RE upgrades in new buildings • PSE investment in projects to meet SB(5293?) requirement • Boulder, CO has an energy efficiency requirement that would be useful to review • Concern that appliance requirements in new construction could limit multifamily housing development due to cost • Concerns about IgCC measure reliability
Transportation & Land Use
<ul style="list-style-type: none"> • Many noted discrepancies with actions in strategy T1: Set land use policies that support efficient transportation networks, ie overlap, actions not properly defined. • T1.1 Urban infill, T1.5 clustered development, T1.8 neighborhood centers, etc too similar, need to be combined or reconceptualized • Concern about anti-idling focus, considered more productive and better application of resources to support electric vehicle conversion/ infrastructure
Water & Waste
<ul style="list-style-type: none"> • Definitions of control were hard to understand • Actions not descriptive enough, more info on program and role desired • Degrees of separation between control ranks hard to understand <ul style="list-style-type: none"> ○ W4.1, 4.2, 4.5 • Raised concern about “mechanism” for funding/ not funding an action • Challenging to understand how a voluntary partner differs from an advocate in control ranking • Concern over Low/ High emission sector methodology
Agriculture & Forests
<ul style="list-style-type: none"> • System already in place for collecting food waste Infrastructure • Concern over Low/ High emission sector methodology

Sector Focus Group Participants

Youth & Educators – November 18, 2019

- Ella Jimenez, Tumwater High School student
- Alexis Nevy, Avanti High School student
- Kurt Cross, Olympia School District – Capital Planning
- Elyanna Calle, Timberline High School student
- Lacy Nadeau, Black Hills High School student
- Ruby Gruber, Olympia High School student
- Kaylee Shen, Olympia High School student
- Rebecca MH, Capital High School student
- Richard Coate, Tumwater High School
- Randy Weeks, Olympia High School
- Tom St Clair, educator
- Kristin Maring, educator
- Abby Ruskey, TCAT/YECO and Athena Group
- Susan McCleary, City of Olympia
- Susan Clark, City of Olympia
- Hilary Seidel, Olympia School District
- Tom Crawford, Thurston Climate Action Team (TCAT)
- Chris van Daalen, Northwest EcoBuilding Guild
- That Curtz, citizen/TCAT
- Allison Osterberg, TRPC
- Sara Porter, TRPC

Water & Waste – December 2, 2019

- Amanda Romero, Thurston County
- Gerald Tousley, Thurston County
- Frank Turner, citizen
- Joe Hiss, citizen
- Ron Jones, City of Olympia
- Helen Wheatley, citizen
- Wendy Steffensen, LOTT
- Gary Franks, City of Olympia
- Eric Christensen, City of Olympia
- Tom Crawford, TCAT
- Art Starry, Thurston County Environmental Health
- Les Tobias, TRPC
- Allison Osterberg, TRPC

Agriculture & Forests – December 2, 2019

- Frank Turner, citizen
- Marilyn Sitaker, The Evergreen State College
- Stephanie Bishop, Thurston Conservation District
- John Roush, City of Olympia
- Loretta Seppanen, CFLT
- Patrick Shults, WSU Extension
- Joe Hiss, citizen
- Jessica Brandt, City of Lacey
- Phyllis Farrell, TCAT
- Lisa Ceazan, citizen
- Les Tobias, TRPC
- Allison Osterberg, TRPC

Buildings & Energy – December 3, 2019

- Jonathan Kaplan, TCAT
- Kelsey Hulse, Puget Sound Energy
- Chris van Daalen, Northwest Ecobuilding Guild
- Owen Martin, The Artisans Group
- Mason Rolph, Olympia Community Solar
- Scott Morgan, The Evergreen State College
- Wayne Olsen, TCAT
- Tom Crawford, TCAT
- Eli Cole, City of Olympia
- Joel Baxter, WA legislature
- Larry Merrell, City of Olympia
- Leonard Bauer, City of Olympia
- Aaron Sauerhoff, Olympia Planning Commission
- Jon Bay, citizen
- Joe Hiss, citizen
- Allison Osterberg, TRPC
- Les Tobias, TRPC

Transportation & Land Use – December 4, 2019

- Karen Messmer, citizen
- David Ginther, City of Tumwater
- Jessica Gould, Intercity Transit
- Chris Hawkins, Thurston County
- Joe Hiss, citizen
- Gary Idleburg, WA Depart of Commerce
- Tom Crawford, TCAT
- Juan Valdez, citizen
- Michael Ambrogi, TRPC
- Allison Osterberg, TRPC
- Les Tobias, TRPC

Youth & Educator Priority Actions

January 28, 2020

The Thurston Climate Mitigation Plan will include a list of communitywide actions to reduce greenhouse gas emissions in order to meet the adopted emissions reduction target. The full list will be evaluated to identify the most promising actions by estimating how actions meet certain criteria that represent community values for the plan. On January 23, 2019, the Steering Committee for the Thurston Climate Mitigation Plan directed staff to include Youth Priorities in the formula for identifying top priority actions – in addition to other approved criteria. This memo outlines the top twenty priority actions¹ ranked by youth and educators.

	ACTION#	SHORT NAME	DESCRIPTION	YOUTH/EDUCATOR TOTAL SCORE	GREEN STICKER
1	B5.6	utility-scale renewables	Promote Thurston County as a location to build more utility-scale renewable energy projects such as solar and wind farms. Support locally owned/operated renewable energy companies.	40	2
2	B5.8	solar-ready	Amend local development code to require solar-ready construction.	39	1
3	T2.3	reduce idling	Work with the State and/or region to enacted legislation to minimize vehicle idling for GHG reductions, improved air quality and increased fuel efficiency. Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	39	1
4	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.	39	4
5	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.	39	2

¹ Top priority actions = actions with Total Scores > 36 or with two or more green dot stickers. This list represents approximately 17 percent of all actions ranked by the Youth/Educator Focus Group.

6	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.	38	1
7	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. 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 that can no longer afford to live in these areas.	38	1
8	T6.1	Olympia-Seattle rail	Update plans to prioritize commuter rail connection between Olympia and Seattle. Work with State partners to develop a plan and find other partners that have similar vision to coordinate with.	38	3
9	W6.8	reusable takeout	Amend health code to allow reusable take out containers.	38	0
10	W4.10	waste less food program	Expand the TC Public Works "Waste Less Food" program.	38	1
11	G2.6	training diversification	Work with the Workforce Training and Education Coordinating Board (WTB) to ensure a wide variety of green jobs is part of the workforce training.	38	1
12	G2.7	jobs leadership	Provide technical assistance to local businesses to generate green jobs and practices.	38	1
13	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.	38	0
14	G5.3	net-zero building code	Add as a high priority to municipality's legislative agenda - State Building Council and State Legislature to require net-zero energy use in all new buildings by the 2031 residential code cycle and amendments to State building code each 3-year cycle to meet that goal. Work with other cities to add this to the AWC priorities.	37	4
15	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.	37	0
16	T5.6	park & pool	Require covered and safe bike storage at carpooling and pick up locations.	37	0

17	W6.6	supply chain	Provide free technical assistance to local businesses in reducing the carbon intensity of their supply chains.	37	0
18	W6.9	single-use ban	Ban single use plastics (e.g. straws, water bottles)	35	2
19	T5.4	school drop-off alternative modes	Maintain and expand a walking/biking incentive program with safety education for families.	34	2
20	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.	28	2

Background

On November 18, 2019, the Olympia School District hosted a focus group for youth and educators to identify priority actions for the Thurston Climate Mitigation Plan. Prior to the meeting, a small group of student representatives reviewed the full action list, and selected a subset of 122 actions that they thought would be most relevant to youth and educators, that were stronger and more useful to discuss. The meeting participants then ranked each action for two criteria:

1. How effective do you think this action will be at reducing greenhouse gas emissions?
 - Scale of 1-5, where 1=not at all effective and 5=very effective
2. How effective do you think this action will be at providing other community benefits, other than greenhouse gas reductions? (Such as, benefits for the environment, social equity, economics, or adaptation)
 - Scale of 1-5, where 1=no co-benefits and 5=many co-benefits

Each action, and each criteria for each action, was ranked by four different people. The numeric ranks were totaled, and actions were posted on a wall in numeric order. Participants then had an opportunity to place up to three green dot stickers on actions they thought were a high priority, and three red dots on stickers they would be comfortable leaving out of the plan (see photo below). Finally, participants shared their observations about the activity, and their rationale for why they selected and prioritized certain actions, which included:

- There may be a disconnect between what we think will work and what will make a difference. Need to have information about what will be effective.
- Want to do all the actions. There will be political pushback, but it is past time to be taking action.
- There will need to be incentives for behavior change, but these actions are important.
- Liked actions related to bike and electric vehicle (EV) infrastructure – these also support safety, and that can be a disincentive to biking more
- Liked the “lights out” action – it’s something simple we can do. Also liked the no-vehicle area – again, it’s an action that could be taken without a lot of construction, relatively easily, and there are many examples other places.

- It's hard to pick a top 3, because they are all important.

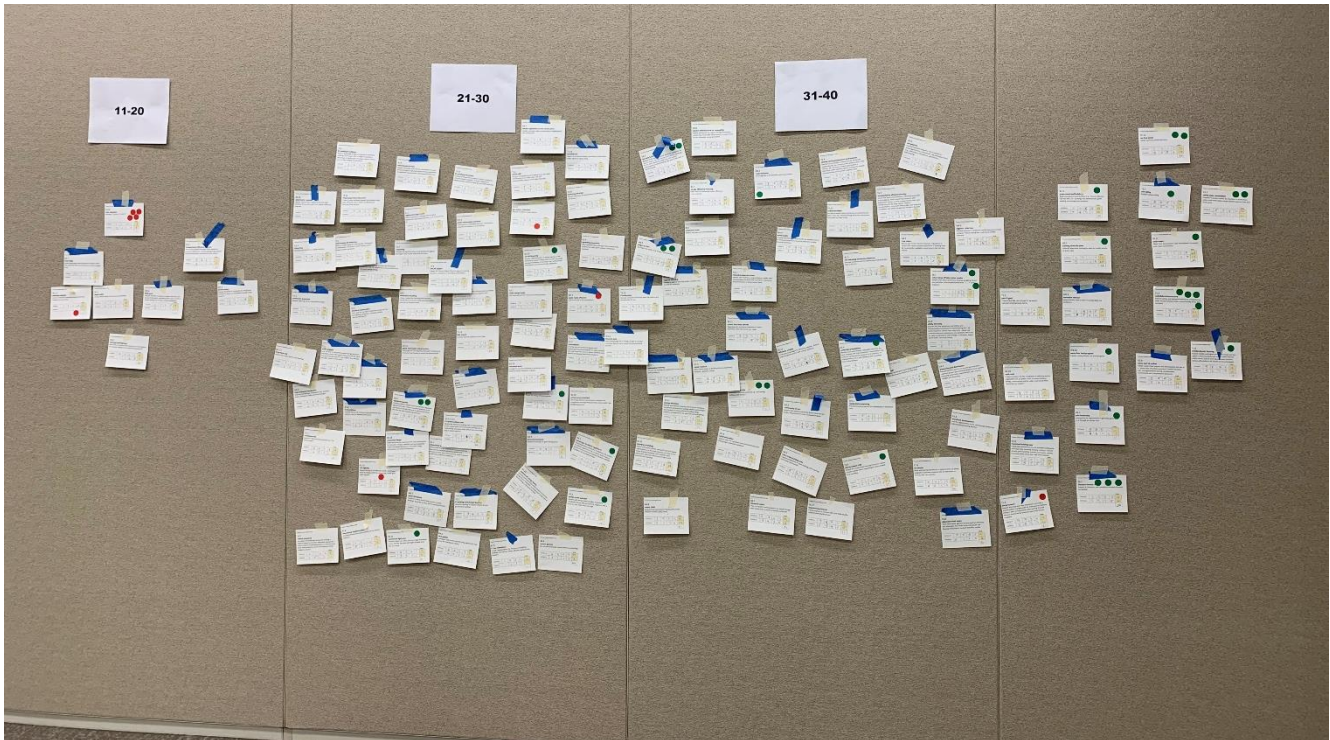


FIGURE 1. IMAGE OF RANKED ACTIONS AT NOV 18, 2019, YOUTH/EDUCATOR FOCUS GROUP MEETING HOSTED BY OLYMPIA SCHOOL DISTRICT.

- Likes actions that focused on incentives, and having EV charging stations at gas stations.
- Likes actions about bikes – it's nice to have areas where no cars are allowed
- Likes the action about developing rail options to Seattle, and incentivizing the switch to solar power.
- Liked the rail to Seattle action, as well as the actions related to no-idling and promoting roundabouts. Also actions that support bikes and EV.
- We need to do it all. Hope we can really go for it and show bold leadership, and education for the community to unleash innovations.
- Liked that youth, who are our future, are here and informing the process. We are listening to you, and hope you feel heard.
- Appreciated that education is very important, but education actions need to be more specific.
- Actions to address changes to passenger vehicles, which make up a large proportion of inventory, are important/difficult to change behavior.

Sector Focus Group Participants

Youth & Educators – November 18, 2019

- Ella Jimenez, Tumwater High School student
- Alexis Nevy, Avanti High School student
- Kurt Cross, Olympia School District – Capital Planning
- Elyanna Calle, Timberline High School student

Attachment C

- Lacy Nadeau, Black Hills High School student
- Ruby Gruber, Olympia High School student
- Kaylee Shen, Olympia High School student
- Rebecca MH, Capital High School student
- Richard Coate, Tumwater High School
- Randy Weeks, Olympia High School
- Tom St Clair, educator
- Kristin Maring, educator
- Abby Ruskey, TCAT/YECO and Athena Group
- Susan McCleary, City of Olympia
- Susan Clark, City of Olympia (*did not participate in action ranking*)
- Hilary Seidel, Olympia School District (*did not participate in action ranking*)
- Tom Crawford, Thurston Climate Action Team (TCAT) (*did not participate in action ranking*)
- Chris van Daalen, Northwest EcoBuilding Guild (*did not participate in action ranking*)
- That Curtz, citizen/TCAT (*did not participate in action ranking*)
- Allison Osterberg, TRPC (*did not participate in action ranking*)
- Sara Porter, TRPC (*did not participate in action ranking*)

Top 50 overall actions

Rank	Action ID	Short name	TPS
1	G5.5	legislative agenda	4.5
2	T1.2	middle-density housing	4.4
3	B1.6	rental housing EE baseline	4.3
4	B2.8	performance standard	4.3
5	T1.1	coordinated long term planning- future infill	4.3
6	T1.4	20-minute neighborhoods	4.3
7	G4.6	social cost of carbon	4.2
8	T3.11	EV education	4.2
9	T5.11	car-free zones	4.2
10	G5.2	solar-ready building code	4.1
11	T3.5	EV ready building code	4.1
12	T4.4	fareless system/youth ride free	4.1
13	B4.5	permitting incentives	4
14	T2.2	congestion mitigation	4
15	T3.2	free EV parking	4
16	T3.14	EV mass purchase discounts	3.95
17	T5.1	walk/bike infrastructure	3.9
18	T5.4	school drop-off alternative modes	3.9
19	T1.11	land use efficiency	3.9
20	T1.9	ADUs	3.9
21	T5.13	telecommuting infrastructure	3.85
22	B2.3	LED lighting	3.8
23	B3.4	exemplary buildings	3.8
24	B3.5	green building tracking	3.8
25	T2.17	teleworking/flex work	3.8
26	T3.10	convert to EV fleets	3.8
27	T4.10	rider education/benefits	3.8

Rank	Action ID	Short name	TPS
28	T4.3	rural transit	3.8
29	T5.2	barriers to transportation alternatives	3.8
30	B5.10	group purchasing	3.75
31	B4.4	green municipal buildings	3.7
32	B5.3	municipal building solar	3.7
33	T4.1	increase transit	3.7
34	B1.5	property tax credit	3.7
35	B4.11	grid-connected appliances	3.7
36	B4.7	land use incentives	3.7
37	B5.5	solSmart	3.7
38	T3.1	EV parking new construction	3.7
39	T3.7	EV integration	3.7
40	A5.1	reforestation & afforestation program	3.6
41	B2.10	energy project grants	3.6
42	B4.9	permit counter technical assistance	3.6
43	B5.8	solar-ready	3.6
44	G4.1	emissions inventory	3.6
45	T2.4	vehicle efficiency outreach	3.6
46	T4.15	promote transit benefits	3.6
47	B4.6	EE tax exemptions	3.55
48	B1.4	rental housing EE incentives	3.5
49	B2.6	cool roofs	3.5
50	B4.12	multifamily submetering	3.5
51	T1.3	Eco districts	3.5

Top actions by focus area (top 10 per focus area)

Rank	Focus Area	Action ID	Short name	TPS
1	A	A5.1	reforestation & afforestation program	3.6
2	A	A6.5	municipally-controlled canopy	3.4
3	A	A4.4	clearing limits	3.3
4	A	A4.6	code enforcement	3.2
5	A	A6.6	tree-aware zoning	3.2
6	A	A4.7	clustered development	3.1
7	A	A5.10	laminated timber	3.1
8	A	A3.5	institutional markets	3
9	A	A3.6	SNAP access	3
10	A	A3.7	hemp production	3
1	T	T1.2	middle-density housing	4.4
2	T	T1.1	coordinated long term planning-future infill	4.3
3	T	T1.4	20-minute neighborhoods	4.3
4	T	T3.11	EV education	4.2
5	T	T5.11	car-free zones	4.2
6	T	T3.5	EV ready building code	4.1
7	T	T4.4	fareless system/youth ride free	4.1
8	T	T2.2	congestion mitigation	4
9	T	T3.2	free EV parking	4
10	T	T3.14	EV mass purchase discounts	3.95
1	G	G5.5	legislative agenda	4.5
2	G	G4.6	social cost of carbon	4.2
3	G	G5.2	solar-ready building code	4.1
4	G	G4.1	emissions inventory	3.6
5	G	G4.2	performance measures	3.5

Rank	Focus Area	Action ID	Short name	TPS
6	G	G4.4	vulnerable populations	3.4
7	G	G1.7	social research (COMBINE WITH G1.2)	3.35
8	G	G2.5	cleantech park	3.35
9	G	G5.3	net-zero building code	3.2
10	G	G5.4	utility advocacy	3.1
1	W	W1.1	municipal energy efficiency	3.4
2	W	W2.10	water reuse	3.2
3	W	W2.4	permitting	3
4	W	W2.9	tiered rates	3
5	W	W2.12	high users	3
6	W	W2.16	metering	3
7	W	W2.2	water audits	3
8	W	W2.3	water conservation outreach	3
9	W	W2.5	rural conservation	3
10	W	W2.8	integrated incentives	3
1	B	B1.6	rental housing EE baseline	4.3
2	B	B2.8	performance standard	4.3
3	B	B4.5	permitting incentives	4
4	B	B2.3	LED lighting	3.8
5	B	B3.4	exemplary buildings	3.8
6	B	B3.5	green building tracking	3.8
7	B	B5.10	group purchasing	3.75
8	B	B4.4	green municipal buildings	3.7
9	B	B5.3	municipal building solar	3.7
10	B	B1.5	property tax credit	3.7

Top actions by strategy (top per strategy)

Strategy	w/ Rank	Action ID	Short name	TPS
A1	A11	A1.2	nutrient management	2.65
A2	A21	A2.1	regenerative agriculture	2.65
A3	A31	A3.5	institutional markets	3
A4	A41	A4.4	clearing limits	3.3
A5	A51	A5.1	reforestation & afforestation program	3.6
A6	A61	A6.5	municipally-controlled canopy	3.4
A7	A71	A7.1	marine vegetation	2.1
T1	T11	T1.2	middle-density housing	4.4
T2	T21	T2.2	congestion mitigation	4
T3	T31	T3.11	EV education	4.2
T4	T41	T4.4	fareless system/youth ride free	4.1
T5	T51	T5.11	car-free zones	4.2
T6	T61	T6.1	Olympia-Seattle rail	2.45
G1	G11	G1.7	social research (COMBINE WITH G1.2)	3.35
G2	G21	G2.5	cleantech park	3.35
G3	G31	G3.3	green energy bond	3.05
G4	G41	G4.6	social cost of carbon	4.2
G5	G51	G5.5	legislative agenda	4.5
W1	W11	W1.1	municipal energy efficiency	3.4
W2	W21	W2.10	water reuse	3.2
W3	W31	W3.1	nitrous oxide capture	2.6
W4	W41	W4.10	waste less food program	2.9
W5	W51	W5.4	FOG waste	2.6

Strategy	w/ Rank	Action ID	Short name	TPS
W6	W61	W6.4	environmentally preferable purchasing policy	2.8
W7	W71	W7.1	waste route efficiency	1.6
B1	B11	B1.6	rental housing EE baseline	4.3
B2	B21	B2.8	performance standard	4.3
B3	B31	B3.4	exemplary buildings	3.8
B4	B41	B4.5	permitting incentives	4
B5	B51	B5.10	group purchasing	3.75
B6	B61	B6.2	electric appliances in new construction	3.5
B7	B71	B7.1	workforce development	3.35

Top Actions Across All Three Lists

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
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.	3	4.5
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. 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 that can no longer afford to live in these areas.	3	4.4
B2.8	performance standard	Set energy efficiency performance standards for commercial buildings with gross floor areas smaller than 50,000 square feet.	3	4.3
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.	3	4.3
T3.11	EV education	Partner with environmental and other agencies to increase consumer awareness about EV options and incentives for use and purchase.	3	4.2
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.	3	4.2
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.	3	4.2
T4.4	fareless system/youth ride free	Develop a fareless system for public transit.	3	4.1
B4.5	permitting incentives	Offer streamlined permitting, lower fees, or other incentives for projects that meet green building certification standards.	3	4
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).	3	4
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.	3	3.8
B5.10	group purchasing	Develop/support a city-sponsored group solar purchasing program.	3	3.75
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.	3	3.6

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
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.	2	4.3
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.	2	4.3
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.	2	4.1
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.	2	4.1
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.	2	4
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.	2	3.95
B2.3	LED lighting	Install LED lighting in public-sector buildings and infrastructure (e.g., street lights, traffic signals).	2	3.8
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.	2	3.8
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.	2	3.7
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.	2	3.7
B1.5	property tax credit	Create a property tax credit for property owners who participate in energy efficiency.	2	3.7
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.	2	3.6
A6.5	municipally-controlled canopy	Maximize tree canopy on City-owned or City-controlled land.	2	3.4
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.	2	3.4

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
G1.7	social research (COMBINE WITH G1.2)	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.	2	3.35
G2.5	cleantech park	Develop a "cleantech" business park and provide incentives (tax, utility) for green business that co-locate.	2	3.35
A4.4	clearing limits	Add clearing limits (usually expressed as percentage) for large lot development in county and city zoning codes.	2	3.3
W2.10	water reuse	Develop a water reuse program for water conservation on site. Provide technical assistance and incentives, such as free rain barrels, to gather water and use on site (e.g., rain barrels for irrigation).	2	3.2
A3.5	institutional markets	Explore local policy and financial incentives to increase the percentage of regionally produced foods purchased by cafeterias in government and municipal institutions.	2	3
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.	1	3.9
T5.4	school drop-off alternative modes	Maintain and expand a walking/biking incentive program with safety education for families.	1	3.9
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.	1	3.9
T1.9	ADUs	Amend development codes to allow for attached and detached ADU's in urban residential areas.	1	3.9
T5.13	telecommuting infrastructure	Develop grants and provide financial resources for installation of infrastructure necessary to support telecommuting.	1	3.85
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.	1	3.8
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.	1	3.8
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.	1	3.8
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.	1	3.8
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.	1	3.8
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.	1	3.7
B4.11	grid-connected appliances	Require smart appliances in new construction, especially water heaters that control timing of demand.	1	3.7

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
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.	1	3.7
B5.5	solSmart	Pursue SolSmart designations and adopt solar friendly practices.	1	3.7
T3.1	EV parking new construction	Require large commercial and residential buildings to dedicate a percentage of parking spots for electric vehicle charging.	1	3.7
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.	1	3.7
B2.10	energy project grants	Secure grant funding for high-profile, innovative energy efficiency and/or technology projects on commercial buildings in the county.	1	3.6
B4.9	permit counter technical assistance	Hire or contract with dedicated green building specialists to provide technical assistance through the permitting and development process.	1	3.6
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.	1	3.6
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).	1	3.6
B5.8	solar-ready	Amend local development code to require solar-ready construction for all building types.	1	3.6
B4.6	EE tax exemptions	Create a local property tax reduction or credit for new buildings that meet an energy efficiency performance standard.	1	3.55
B1.4	rental housing EE incentives	Provide property tax breaks for landlords who install energy conservation measures in rental housing.	1	3.5
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.	1	3.5
B4.12	multifamily submetering	Require submetering for new multifamily buildings so residents can track energy use.	1	3.5
B6.2	electric appliances in new construction	Update municipal code to require electric appliances in new construction.	1	3.5
G4.2	performance measures	Develop community GHG reduction goals and performance measures. Regularly update and publicize for community to track their progress.	1	3.5
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.	1	3.4
B7.1	workforce development	Create and support opportunities to link clean energy companies with vocational training facilities.	1	3.35
G5.3	net-zero building code	Add as a high priority to municipality's legislative agenda - State Building Council and State Legislature to require net-zero energy use in all new buildings by the 2031 residential code cycle and amendments to State building code each 3-year cycle to meet that goal. Work with other cities to add this to the AWC priorities.	1	3.2

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
A4.6	code enforcement	Increase monitoring and enforcement of City and County zoning and other regulations that preserve sensitive areas.	1	3.2
A6.6	tree-aware zoning	Modify zoning setbacks and similar provisions designed to provide room for and encourage large trees.	1	3.2
G5.4	utility advocacy	Add as a high priority to municipality's legislative agenda - State and Utilities and Transportation Commission in implementing SB 5116, which requires a shift to clean electricity.	1	3.1
A4.7	clustered development	Incentivize cluster development, such as giving a 10-25% density bonus, to preserve more open space.	1	3.1
A5.10	laminated timber	Increase allowances for laminated timber in building code.	1	3.1
G3.3	green energy bond	Develop a green energy bond providing a monetary incentive to tackle prominent social issues such as climate change and a movement to renewable sources of energy. Start by researching the feasibility and impact.	1	3.05
W2.4	permitting	Review and update building code to ensure most efficient water practices and technologies are applied to new development.	1	3
W2.9	tiered rates	Study effectiveness and strategies for conservation with tiered rating structures for water and sewer, and if proven, apply new rate structures.	1	3
A3.6	SNAP access	Publicize federal nutrition incentive programs that aim to support small and mid-sized farms, such as SNAP, FMPP, LFPP, and FINI grant.	1	3
A3.7	hemp production	Develop an economic development plan for attracting industrial hemp production as a way to create local jobs and sequester carbon.	1	3
W2.12	high users	Identify greatest water users and provide targeted technical outreach and support to reduce water consumption.	1	3
W2.16	metering	Use metering to inform water consumers about their use compared to others on their utility bill. Provide technical assistance and education to higher users on ways to conserve water and improve household/business efficiencies.	1	3
W2.2	water audits	Conduct water audits of city and county facilities to determine prioritization of capital improvements.	1	3
W2.3	water conservation outreach	Expand water conservation outreach and incentive programs for residents and businesses through new funding sources (ex. grants) and partnerships.	1	3
W2.5	rural conservation	Provide technical assistance for rural "exempt" wells to conserve water.	1	3
W2.8	integrated incentives	Integrate City incentives for water and wastewater reductions with other aligned incentive programs (ex. PSE rebates for washing machines and dishwasher energy savings) to encourage broader usage and conservation.	1	3
W4.10	waste less food program	Expand the TC Public Works "Waste Less Food" program.	1	2.9
W6.4	environmentally preferable purchasing policy	Local governments require departments, agencies, consultants and contractors to use recycled products whenever possible and not cost prohibitive.	1	2.8
A1.2	nutrient management	Provide education and incentives (e.g., grants, loans, technical assistance) reduce nitrous oxide emissions when managing fertilizer.	1	2.65
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.	1	2.65

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
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.	1	2.6
W5.4	FOG waste	Research feasibility of program to digest Food, Oils, and Grease (FOG) and/or commercial food waste at LOTT to recover energy and increase methane production and present to policy makers for consideration.	1	2.6
T6.1	Olympia-Seattle rail	Update plans to prioritize commuter rail connection between Olympia and Seattle. Work with State partners to develop a plan and find other partners that have similar vision to coordinate with.	1	2.45
A7.1	marine vegetation	Understand current efforts and develop a plan to enhance the protection of marine vegetation such as eelgrass to improve water quality, sequester, and improve fish habitat and survival.	1	2.1
W7.1	waste route efficiency	Partner with sanitation companies to evaluate the GHG reduction potential of utilizing one side for street pickup and present to policy makers for consideration.	1	1.6
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.	0	3.5
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.	0	3.5
B6.4	natural gas ban	Ban all new natural gas connections in new buildings.	0	3.5
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.	0	3.45
B1.8	landlord education	Educate landlords on options and benefits for improved energy efficiency.	0	3.4
B4.3	commercial EE recognition	Create program that recognizes energy efficiency leadership in new construction.	0	3.4
B3.2	efficiency rebate	Adopt "energy efficiency as a service" utility rebate model to direct energy savings to building owners who bear the costs of energy efficiency retrofits.	0	3.4
T2.3	reduce idling	Work with the State and/or region to enacted legislation to minimize vehicle idling for GHG reductions, improved air quality and increased fuel efficiency. Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	0	3.35
T2.3	reduce idling	Work with the State and/or region to enacted legislation to minimize vehicle idling for GHG reductions, improved air quality and increased fuel efficiency. Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	0	3.35
T4.8	alternative fuel buses	Transition area transit services to 100% renewable energy.	0	3.35
T5.7	urban bikeshare	Pilot and, if successful, implement a bike/scooter share program.	0	3.35

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
B5.1	clean energy bonds/levy	Sell municipal bonds or create a local tax levy for local clean energy projects.	0	3.35
T3.3	solar parking lots	Work with utilities to develop installation of solar panels over surface parking spaces and structured parking garages to produce green energy for electric vehicles.	0	3.3
T5.12	bike/transit	Coordinate a meeting with bicycle advocacy groups and transit agencies to explore barriers (ex. limited bike storage on bus). Prioritize solutions and develop plan to reduce barriers.	0	3.3
B2.4	commercial lights-out	Introduce a "lights-out" policy that encourages businesses to turn off their signs and other lights at night when they are closed.	0	3.3
B4.2	building energy goals	Establish energy goals/benchmarks (e.g., LEED) for new commercial buildings.	0	3.3
B5.11	solar zoning	Review and amend zoning and development regulations where necessary to allow utility or community solar generation facilities less than 20 megawatts.	0	3.3
T2.15	TMA's	Mitigate traffic congestion and reduce GHGs by providing government grant dollars to Transportation Management Associations (TMAs) to provide membership-controlled transportation services in a range of areas including regional or city-wide service, along a specific corridor, or central business districts.	0	3.3
T3.12	gas station colocation	Require all new gas stations install EV stations and that current gas stations have low barriers (permitting, expense) to installing EV stations.	0	3.3
T5.3	biking to work	Require municipal and large employers to provide a shower and/or changing area for employees to facilitate biking to work, and secure/dry bike parking. Provide financial incentives for employer-sponsored bicycle programs.	0	3.3
B2.5	commercial utility outreach	Expand utility outreach to commercial power customers about the benefits of clean and efficient energy technologies and practices.	0	3.25
B5.7	electric infrastructure for renewables	Expand and retrofit the region's energy distribution, monitoring, and storage infrastructure to support more on-site renewable energy generation.	0	3.2
T2.7	carpooling	Work regionally to increase the HOV and HOT lanes available during peak times for car shares and carpools to reduce single occupancy trips.	0	3.2
B2.9	municipal building retrofits	Continue to identify and implement priority energy efficiency improvements in municipal buildings.	0	3.2
T1.12	corridor-centered development	Increase residential and mixed use development along designated transit corridors with monetary incentives such as tax incentives and improved fee structures. Determine impact fees and connection charges that, if reduced or waived, would generate denser development where transit and other services already exist.	0	3.15
T2.8	reduced parking requirements	Reduce the cost of development by reducing parking requirements for new residential and mixed use development along transit corridors and in urban centers. Could allow substitution of care share programs.	0	3.15
T1.6	climate-aware UGB	Amend county wide planning policies to require analysis of climate impacts, the costs to mitigate those impacts, and the costs to ensure efficient transit (e.g., public transit services) to inform future Urban Growth Area expansions and Annexations of current UGA. Then weigh those costs and impacts with opportunities and investment needed to accommodate people and business within annexed areas and approved UGAs.	0	3.1

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
G5.6	Clean energy	Local government adopt and communicate policy statements and positions with the State Electeds that call for rapid conversion to clean energy in the power supply that serves Thurston County.	0	3.1
T4.13	park & ride	Work with transit providers to explore expansion of park & rides and park & pools.	0	3.1
T4.2	bus rapid transit	Expand rapid transit (ex. add transit only lanes in UGA or add express bus connections between South Sound cities), then develop funding mechanisms.	0	3.1
B7.3	climate impact fee	Evaluate and, if feasible, implement a regional climate impact fee on new development to fund regional climate mitigation projects and programs.	0	3.1
B1.3	residential energy retrofit program	Partner with energy audit providers and loan providers to establish and market residential energy efficiency and weatherization retrofit programs, with a focus on low-income residents, low-interest loans, and post audit follow-through.	0	3.05
B1.7	residential utility outreach	Expand utility outreach to residential electricity customers about the benefits of clean and efficient energy technologies/practices and available rebates and bill credits for efficient appliances and equipment. Focus on neighborhoods with older buildings and create group packages for efficiency upgrades, if possible.	0	3.05
B2.7	commercial utility rebates	Offer additional utility rebates or bill credits to encourage businesses to buy and install energy-efficient appliances and equipment.	0	3.05
T3.4	EV charging retrofit	Partner with business and utilities to develop incentives and streamlined process to install EV charging infrastructure at large government and commercial facilities with low public transit and high personal vehicle utilization to access (e.g., the Great Wolf Lodge, St. Martins Pavilion, IT transit stations, rural gov buildings/services).	0	3.05
T5.6	park & pool	Require covered and safe bike storage at carpooling and pick up locations.	0	3
T3.8	public building EV infrastructure	Require new public facilities (buildings, park-and-rides, trailheads) have EV infrastructure. Ensure that the infrastructure is adequate to meet the growing number of electric vehicles.	0	3
B5.9	on-bill financing	Provide additional utility incentives such as on-bill financing to support energy efficiency and renewable energy investments on buildings.	0	3
B6.5	natural gas fee	Create a utility fee for natural gas use.	0	3
A6.1	low-maintenance landscaping	Provide marketing and education campaign promoting the planting of low-maintenance landscaping to encourage more vegetation and tree canopy.	0	3
A6.2	street tree plan	Create a comprehensive street tree plan and/or planting guide that prioritizes goals for carbon sequestration, climate change resiliency, and other equitably distributed co-benefits. Plan should include minimum stocking standards for street trees.	0	3
B5.6	utility-scale renewables	Promote Thurston County as a location to build more utility-scale renewable energy projects such as solar and wind farms. Support locally owned/operated renewable energy companies.	0	2.95
B5.12	neighborhood grants	Fund the creation of low barrier grant opportunities for neighborhood clean energy and energy efficiency projects.	0	2.95
B5.4	net metering production incentive	Increase incentive ratio for connecting residential solar from 1:1 to 2:1.	0	2.95

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
B4.14	state building code	Advocate for stricter energy efficiency requirements in state building code.	0	2.9
B6.7	utility advocacy	Add as a high priority to municipality's legislative agenda - State and Utilities and Transportation Commission in implementing SB 5116, which requires a shift to clean electricity.	0	2.9
B6.8	Clean energy	Local government adopt and communicate policy statements and positions with the State Electeds that call for rapid conversion to clean energy in the power supply that serves Thurston County.	0	2.9
G2.1	clean energy economy	Set policy that requires recruitment and retention practices for clean energy economy companies.	0	2.9
T4.14	transit & schools	Work with school and transit providers to understand if there is a likely partnership to coordinate routes with transit start and top times.	0	2.9
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.	0	2.9
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.	0	2.9
B2.2	commercial energy audits	Develop and adopt policies that require commercial properties to undertake an energy audit at the time of sale or during a substantial remodel.	0	2.9
A4.3	tree codes	Review and revise local development regulations to require the carbon sequestration value of existing trees be considered in regulatory requirements like site plan review.	0	2.9
A6.9	Tree canopy ordinance	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.	0	2.9
T2.1	traffic analysis	Incorporate greenhouse gas emissions calculations into traffic impact analyses to identify land use proposals that have the potential to generate a substantial positive impact on the region.	0	2.9
G1.3	ClimeTime	Coordinate OSPI ClimeTime program with local government to bring youth into the feedback and planning process of developing climate mitigation programs and policy.	0	2.85
T2.16	Internal policy - decrease idle time	Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	0	2.85
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.	0	2.85
W4.9	organics collection	Require food waste pickup at residential and commercial buildings to reduce landfill methane. Compliment with an ordinance that restricts compostables from going into the garbage and has a fining structure to enforce.	0	2.8
A6.7	adaptation	Educate City and County staff about low cost ways to adapt infrastructure to conform to the needs of growing trees, rather than removing the trees.	0	2.8

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
G2.2	sustainable businesses	Develop a green guide for area businesses and build award programs to reward implementation.	0	2.8
W1.2	public water systems	Prioritize efficiency improvements to public water systems (Group A and Group B). Prioritize components that consume the most energy and have high GHG emissions.	0	2.8
W1.4	gravity sewer	Study the energy efficiency and cost impacts of gravity sewers versus STEP systems. As needed, introduce programs, regulations, and/or incentive programs.	0	2.8
W1.5	lifecycle costs	Assess the energy use or energy savings of wastewater-related projects, and other lifecycle costs. Make analysis available to decision-makers.	0	2.8
W2.13	combined sewer	Separate combined sewer and stormwater system. Start with feasibility study and follow through on findings.	0	2.8
W4.4	waste audits	Provide waste audits for business owners and education on practices that decrease waste (ex. compost, recycling, reuse).	0	2.8
T1.13	downtown development	Work with developers and investors to identify barriers to new investment and reinvestment projects of residential and commercial in urban centers. Then develop and implement policy changes and incentive programs in response.	0	2.75
G2.6	training diversification	Work with the Workforce Training and Education Coordinating Board (WTB) to ensure a wide variety of green jobs is part of the workforce training.	0	2.75
T2.9	congestion pricing	Explore congestion pricing between Thurston and Pierce counties along I-5 during peak hours to improve mobility by reducing traffic congestion, reduce greenhouse gas emissions, and create a more equitable transportation system. Target revenues to projects that enhance system efficiency.	0	2.75
A3.1	farmland preservation	Support farmland preservation through land use policies and financial incentives (e.g., conservation easements) to maintain production capacity and increase self-sufficiency.	0	2.75
B4.13	multifamily energy measures	Develop and advertise a business case financial model for multi-family developers to take energy efficiency and renewable energy measures.	0	2.7
B5.13	shore power	Develop shore power to improve air quality, reduce GHG emissions, improve local economy by serving the growing needs of local boat and ship customers.	0	2.7
W6.9	single-use ban	Ban single use plastics (e.g. straws, water bottles)	0	2.7
A5.11	carbon in the CAO	Authorize carbon as a justification for critical areas ordinance protection.	0	2.7
A6.8	landscape regulation	Modify landscape development code requirements to direct the use of landscaping appropriate to the site that provides shade in summer/ sun in winter.	0	2.7
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.	0	2.7
B4.1	green construction code	Adopt the International Green Construction Code (IgCC).	0	2.7
B5.2	feed-in tariffs	Offer feed-in tariffs to incentivize solar projects.	0	2.7
W6.6	supply chain	Provide free technical assistance to local businesses in reducing the carbon intensity of their supply chains.	0	2.7

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
A4.5	stream buffers	Update permitting requirements to increase the required stream buffer size to increase carbon sequestration.	0	2.7
A6.4	tree protection	Reevaluate municipal tree protection ordinances based on a review of national best practices.	0	2.7
B6.1	natural gas to electric appliances	Educate business owners and residents on the options for electric appliances and the benefit of pairing electrification with the installation of renewable energy.	0	2.65
T4.7	public transit ease	Create a partnership of transit providers and agree to a common goal of having an integrated navigation and payment system. Then work together to make an action plan.	0	2.65
A2.5	silvopasture	Develop education programs and incentives to encourage farmers to incorporate tree planting on farms (e.g., silvoculture, silvopasture, agroforestry, tree cropping).	0	2.65
G1.1	educational website	Develop user-friendly website and outreach materials to educate residents of the health and cost benefits of reducing GHG emissions in their lives and homes and resources on how to do it.	0	2.65
G1.9	staff training	Develop climate mitigation practices for government employees at work and require they be implemented. Set outcomes to measure effectiveness.	0	2.65
B7.2	public power	Transition to a publicly owned power utility district.	0	2.6
T1.15	land use emissions	Reevaluate emissions tracking data for land use to ensure accuracy and tracking changes and to inform future regulatory policy in land use.	0	2.6
W2.11	watering schedule	Institute mandatory watering schedule that limits irrigation to certain days.	0	2.6
G5.1	UTC presence	Track, monitor and share information about Washington Utilities and Transportation Commission (UTC) meeting and actively recruit residents to give feedback and attend meetings to support bold GHG emission policy.	0	2.6
A5.7	legislative efforts	Lobby Washington State legislature in support of bills that positively affect carbon balance on state-managed lands.	0	2.6
G2.4	technical clearinghouse	Have TRPC or another entity function as a clearinghouse for government regulations roadblocks to clean technology development.	0	2.6
W2.1	municipal water ordinance	Develop a mandatory municipal water conservation ordinance.	0	2.6
W2.10b	reclaimed water	Expand the use of reclaimed water, especially where needed for irrigation.	0	2.6
W2.15	renter incentives	Develop and offer incentives for water conservation targeted to renters and multifamily residential units.	0	2.6
W2.6	agricultural water use	Evaluate agricultural water use and develop a program to buy back or reclaim excess capacity.	0	2.6
W2.7	low-water landscaping	Require water landscaping conservation practices for new development.	0	2.6
W4.7	deconstruction ordinance	Develop a building deconstruction ordinance, with requirements for deconstruction, reporting, inspections, and compliance tools.	0	2.6
T4.5	Sound Transit in Thurston County	Work with State Legislators and Governor's Office to identify opportunities and funding to expand Sound Transit to Thurston County.	0	2.55
A1.4	water use	Develop an incentive program (e.g., technical assistance) to improve the efficiency of agriculture irrigation systems. Identify grant funding.	0	2.55
A3.8	woody crops	Provide technical assistance to help residents, businesses, and the agricultural community grow woody perennial crops that help conserve water, store carbon, and provide other ecosystem services.	0	2.5

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
W6.8	reusable takeout	Amend health code to allow reusable take out containers.	0	2.5
A1.6	feed additives	Provide education to promote methane-reducing livestock feed additives (ex. seaweed derivatives). Make cost effective by partnering with local vendors and consumers to develop a bulk purchase program.	0	2.45
A6.3	urban tree canopy incentive program	Develop partnership with organizations that offer financial incentives for expanding tree canopy in exchange for carbon credits purchased by businesses and other institutions.	0	2.45
T2.12	Eco driving education	Include awareness of fuel economy through driving techniques in curriculum for new drivers to reduce GHG emissions and develop long term habits.	0	2.45
W2.18	HOA watering outreach	Provide education and technical assistance to HOAs related to revising covenants that may be causing increase water consumption and/or prohibiting energy savings (ex. lawns must be irrigated and green, no water barrels).	0	2.4
W2.19	well conversion to public systems	Provide technical assistance to rural "exempt" well owners to convert to public water systems when service connections are available.	0	2.4
A3.3	processing and distribution hub	Develop a hub to process and distribute regionally-grown agricultural products to local markets (including restaurants, supermarkets, jails, schools, colleges, and hospitals).	0	2.4
W4.1	residential composting	Expand residential programs for composting and recycling food waste.	0	2.4
W6.1	consumption emissions education	Develop an education program about consumption-based emissions and simple ways to track and reduce consumption-based emissions for residents of Thurston County.	0	2.4
T6.2	Olympia ferry service	Provide ferry service between Olympia and Seattle. Work with State partners to develop a plan and work with other partners that have similar vision.	0	2.35
G2.7	jobs leadership	Provide technical assistance to local businesses to generate green jobs and practices.	0	2.35
A5.2	community forests	Expand extent of community forests that consider carbon sequestration in their management goals.	0	2.35
G3.1	tax benefits	Develop tax incentives for businesses that demonstrate GHG reductions in their production.	0	2.35
B3.3	PACE	Assess whether PACE is still desirable and, if so, how local and state policymakers could pursue a legislative solution or state constitutional amendment to develop a PACE program.	0	2.3
T1.14	development VMT caps	Require caps on VMT or vehicle trips for development on Olympia's Capitol Campus and other public development near clustered government offices.	0	2.3
T4.9	fed-compliant alternatives analysis	Work with the State partners and elected officials to understand future plans for mass transit. Secure funding in the State budget to conduct an alternatives analysis to determine what types of high capacity transit the region may be able to support in the future what funding mechanisms are available.	0	2.3
A1.1	manure management	Provide education and incentives (grants, loans, technical assistance) to support manure management that reduces methane and nitrous oxide emissions (ex. covered manure storage facilities, manure application practices).	0	2.25

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
A1.3	waste-to-energy	Conduct a feasibility study on small-scale energy production (ex. capture and combustion of methane, anaerobic digestion, biofuel and biogas production), then identify partners, programs and incentives to develop across TC.	0	2.25
A2.4	soil carbon research	Fund/support regional soil carbon sequestration research to encourage adoption of region-specific conservation farming practices that store carbon.	0	2.25
A3.2	food system assessments	Encourage growth of local markets through market research and assessment of our ability to feed ourselves from regionally-produced foods.	0	2.25
A4.1	natural area preservation	Identify and establish a range of diverse, stable, long-term funding sources for the acquisition, restoration, and preservation of prime natural areas.	0	2.25
A4.2	working land preservation	Identify or develop local funding sources for agricultural and forestry conservation easements. This could include creating a system for bundling small monetary contributions to invest in collective conservation easement or land purchases.	0	2.25
A5.6	small forester education	Deploy an educational program for smaller foresters to increase understanding of carbon sequestration, emphasizing the better performance of mature rather than young trees.	0	2.25
B6.3	heat pumps	Investigate options and costs for using geothermal heat pumps for heating and cooling.	0	2.25
G1.2	consumption (COMBINE WITH G1.5)	Develop and run community based social marketing program to reduce consumption and inform consumers about options for reducing their carbon footprint.	0	2.25
A5.3	long-rotation timber	Mandate that timber companies lengthen the rotation of timber harvesting in Thurston County as part of their permits.	0	2.2
W2.17	gray water use	Require use of gray water in new residential and commercial buildings. Start with feasibility study and change building codes based on results.	0	2.2
W3.2	methane capture	Capture methane from wastewater operations and use to generate power to run systems. Begin by researching cost-effective methods and identifying funding sources to implement.	0	2.2
W3.3	hydrogen power	Investigate and determine if hydrogen power is a cost effective alternative energy source for operations, including technical vehicles, or for distribution and if so, identify funding source to implement.	0	2.2
W4.2	commercial composting	Expand commercial programs for composting food waste. Start by identifying funding and partners.	0	2.2
W4.5	gleaning	Expand gleaning programs and recovery and use of edible yet unwanted foods from restaurants, grocery stores, and schools.	0	2.2
W4.8	fruit teams	Partner with food banks and neighborhoods to harvest fruit from urban fruit trees.	0	2.2
W5.5	dry anaerobic digesters	Evaluate feasibility of a dry anaerobic digester with associated combined heat and power facility to process organics and agricultural waste locally. Present findings to appropriate policy makers for their consideration.	0	2.2
W6.7	water fill stations	Require all government-owned water fountains be replaced with water bottle filling stations at end of life and all new construction requires water bottle filling stations.	0	2.2
A7.2	blue carbon	Research actions to implement blue carbon programs in Thurston County aimed at sequestering carbon through the conservation and restoration of coastal and marine ecosystems.	0	2.1

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
B6.6	demand pricing	Adjust fee scale to charge higher rates during high use times of day.	0	2.1
T1.10	Multifamily Tax Exemption (MFTE)	Expand Multifamily Tax Exemption Programs to increase residential development where services exist, and consider extending exemption timeframes.	0	2.1
G2.3	clean economy roundtables	Organize and facilitate roundtables with business leaders focused on clean economy strategies.	0	2.05
A5.5	species mix	As part of an educational/technical assistance program, promote species mixes for reforestation or afforestation that result in high-density carbon sequestration.	0	2
A5.8	slash-to-biochar	Seek grant funding to process slash to biochar and apply in forestry or agricultural settings.	0	2
A5.9	slash-to-fuel	Seek grant funding to explore the feasibility of utilizing slash as fuel in forestry equipment at scale commercially.	0	2
W4.11	regional recycling	Conduct an analysis of how a regional recycling facility could build local markets for recyclable materials. Develop a cost vs benefits analysis and present to policy makers.	0	2
W5.2	heat exchange	Research the feasibility of heat exchange potential of embedded energy in wastewater and/or reclaimed water and present to policy makers for consideration.	0	2
W5.3	kinetic energy	Research the feasibility of utilizing kinetic energy from transport of water and wastewater through piping networks and present to policy makers for consideration.	0	2
G1.4	Career Connects	Set a target to increase the percentage of green jobs in the Career Connects WA program each year.	0	1.95
A1.5	BMP audits	Develop and incorporate mandatory sustainability audits into conservation/farm plans. Develop program and identify funding reduce energy use and promote best management practices (BMPs).	0	1.95
A5.4	ecosystem services monetization	Expand market-based approaches for ecosystem services such as carbon credit trading.	0	1.9
B7.4	embodied carbon	Create incentives to increase the use of less carbon intensive building materials (mass timber, reduced concrete).	0	1.8
W6.2	meat reduction	Develop awards/recognition programs for restaurants that encourage plant-rich diet that reduce meat consumption.	0	1.8
W6.3	collaborative consumption	Develop a awards/recognition programs for "collaborative consumption" community projects like tool libraries and repair cafes, through mini-grant programs to encourage their use and new projects.	0	1.8
W6.5	product stewardship	Support state-level product stewardship legislation that requires producers to be involved in end-of- product-life management, either through product design changes (e.g. compostable snack bags), investing in take back programs , or placing a fee on the sale of products to support diversion.	0	1.8
G3.4	crowdsourcing	Develop and launch a crowdsourcing platform (like "The Gamechanger") that allows entrepreneurs to submit green proposals for policies and projects for local government and businesses and ideas to influence the future of energy and help to overcome a specific challenge.	0	1.7
G3.2	cost-sharing	Develop an Office of Green Building to work with the business sector to partner in sharing costs and expertise.	0	1.65
W1.3	rural wells	Provide a low interest loan program to encourage the use of efficient technology when permitting wells to serve new rural development.	0	1.6

Action ID	Short name	Action Description	# Lists	TOTAL PRIORITY SCORE
W5.1	waste-to-energy	Research the opportunities to generate additional energy from waste products (e.g., woody biomass and sewage) in Thurston County to reduce fossil fuel consumption and present to policy makers for consideration.	0	1.6
W7.2	waste service areas	Mandate that areas served redundantly by municipalities and private waste collection are eliminated, such as the Tumwater/Olympia border south of the high school, by trading service areas	0	1.4
A2.3	biochar	Thurston EDC, Port Authority and TCD partner to explore feasibility of biochar enterprise in Thurston County to promote amending soils with biochar.	0	1.4
W7.3	garbage fleet electrification	Electrify garbage truck fleet. Start by developing plan for municipal and private waste collectors that includes financing options.	0	1.2

All Ranked Actions

Overall Rank	#	Action short name	Action description	GHG reduction ranking (1=low, 5=high)	Control ranking (1=low, 5=high)	Speed of deployment ranking (1=low, 5=high)	Benefit ranking	Youth Boost?	TOTAL PRIORITY SCORE	Sticker	Sticker rationale
1	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.	5	5	5	2	Y	4.5		JG: Based on GHG reduction ranking of 5 and control of 5.
2	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. 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 that can no longer afford to live in these areas.	4	5	3	5	Y	4.4	1 green: CH	CH: I'd combine this with 'urban infill' and '20-minute neighborhoods' strategies, as they are about creating more local districts where it's easy and incentives are aligned to develop or redevelop at a slightly higher density and with some mix of uses; we need to bring along land use and infrastructure to reduce demand for energy use and putting more destinations within easy, non-auto distance of where people live is a sure-fire way to do that.
3	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.	5	5	3	3		4.3		
4	B2.8	performance standard	Set energy efficiency performance standards for commercial buildings with gross floor areas smaller than 50,000 square feet.	5	5	3	3		4.3	1 red: ZK	ZK- This is completely impractical. We manage about 1,000,000 square feet of commercial space and if we had to bring every building up to some arbitrary standard, it would drive up rents and drive landlords out of the business. i just don't understand why it seems to be a challenge to understand that the more regulation we have, the higher costs will be.
5	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.	4	5	3	5		4.3		
6	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.	4	5	3	5		4.3		
7	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.	5	5	3	2	Y	4.2		
8	T3.11	EV education	Partner with environmental and other agencies to increase consumer awareness about EV options and incentives for use and purchase.	4	5	5	3		4.2		
9	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.	4	5	3	4	Y	4.2	2 green: YOUTH	
10	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.	5	5	3	2		4.1	2 green: EC, MR	
11	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.	5	5	3	2		4.1		
12	T4.4	fareless system/youth ride free	Develop a fareless system for public transit.	5	3	5	3		4.1		

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13	B4.5	permitting incentives	Offer streamlined permitting, lower fees, or other incentives for projects that meet green building certification standards.	4	5	5	2		4.0	4 green: ZK, KH, CVD, JDB	JDB- Same as above. Don't mandate increases in housing cost. Provide value to incentivize and make it easier for individuals to go green. ZK- Carrot vs. stick. incentivizing people to do something is more effective in building public trust and generating excitement than forcing them to. People are excited about getting solar panels because of a tax credit. most would be angry if it was required. ***
14	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).	4	5	5	2		4.0		
15	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.	4	5	5	2		4.0		
16	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.	4	4	5	3		4.0		
17	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.	3	5	5	3	Y	3.9	5 green: CH, YOUTH (4)	CH: alongside electrification, we need to bring along land use and infrastructure to reduce demand for energy use; plus, on this one, lots of youth support!
18	T5.4	school drop-off alternative modes	Maintain and expand a walking/biking incentive program with safety education for families.	3	5	5	3	Y	3.9	2 green: YOUTH	
19	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.	4	5	3	3		3.9		
20	T1.9	ADUs	Amend development codes to allow for attached and detached ADU's in urban residential areas.	4	5	3	3		3.9		
21	T5.13	telecommuting infrastructure	Develop grants and provide financial resources for installation of infrastructure necessary to support telecommuting.	4	5	4	2		3.9		
22	B2.3	LED lighting	Install LED lighting in public-sector buildings and infrastructure (e.g., street lights, traffic signals).	3	5	5	3		3.8	1 green: EC 1 red: YOUTH	EC- I'm actively working on several project in the City of Olympia Fire Departments to install LED lighting. After we invest and install the LED lighting it doesn't require training, awareness, or any license to continue to save energy. It's an ongoing savings we just need to continue to pursue changing everything to LED and that is low hanging fruit most of the time.
23	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.	3	5	5	3		3.8	1 green: CVD	
24	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.	3	5	5	3		3.8	1 green: JDB	JDB- We should know if these incentives actually work, and better learn how to make them work, so we don't have to mandate increased cost for housing.
25	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.	3	5	5	3		3.8		
26	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.	3	5	5	3		3.8		

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27	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.	3	5	5	3		3.8		
28	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.	3	5	5	3		3.8		
29	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.	3	5	5	3		3.8		
30	B5.10	group purchasing	Develop/support a city-sponsored group solar purchasing program.	4	4	5	2		3.8		
31	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.	3	5	5	2	Y	3.7	1 green: YOUTH	
32	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.	3	5	5	2	Y	3.7		
33	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.	4	3	5	3		3.7		
34	B1.5	property tax credit	Create a property tax credit for property owners who participate in energy efficiency.	4	5	3	2		3.7	1 green: LB	LB- This is the same rationale as B1.4 but for all property owners rather than just rentals.
35	B4.11	grid-connected appliances	Require smart appliances in new construction, especially water heaters that control timing of demand.	4	5	3	2		3.7		
36	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.	4	5	3	2		3.7	4 green: LM, LB, AS, JDB	LB- Certain land use incentives could be offered that would provide savings to a development, which would then be invested in measures to increase energy efficiency. The specific incentives offered should only be those that also directly provide GHG emission reductions. For example, reduced parking requirements would likely decrease automobile use while at the same time providing cost savings that would be invested in energy efficiency in a building. *** JDB- Increase housing capacity without increasing housing costs and cost of developers building more units to meet demand. *** LM- Impact of land use items are a give and take, parking reduction or floor area ratio may not create such a large hit to the structure but require a value engineering approach to the purposed project. "Less is more concept". ***
37	B5.5	solSmart	Pursue SolSmart designations and adopt solar friendly practices.	4	5	3	2		3.7	2 green: MR, OM	MR- Solsmart is not a single action, it is a US Department of Energy program tailored to create a healthy policy environment for the solar industry. Pursuit of SolSmart designations could result in improvements in planning, zoning, community outreach, and utility relations. This suite of actions could cumulatively make a huge difference. ***
38	T3.1	EV parking new construction	Require large commercial and residential buildings to dedicate a percentage of parking spots for electric vehicle charging.	4	5	3	2		3.7		
39	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.	4	5	3	2		3.7		
40	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.	3	5	5	2		3.6		

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41	B2.10	energy project grants	Secure grant funding for high-profile, innovative energy efficiency and/or technology projects on commercial buildings in the county.	3	5	5	2		3.6	2 green: MR, YOUTH	MR- Upfront costs are one of the largest barriers to renewable energy and energy efficiency projects. I encourage the removal of commercial building restrictions so that residential and industrial buildings qualify.
42	B4.9	permit counter technical assistance	Hire or contract with dedicated green building specialists to provide technical assistance through the permitting and development process.	3	5	5	2		3.6	2 green: SM, KH 1 red: LB	LB- Green building expertise would be most effective much earlier than the permitting and development process. Building developers are typically developing their financing packages and preliminary design work well in advance of submitting for a permit. It is during those phases that green building technical assistance should be offered. Perhaps it could be offered through a partnership with the local chapter of American Institute of Architects, or with Olympia Master Builders? *** SM-Most people have an end goal – house, barn, ADU, commercial building – then look for the least expensive path to get there and/or follow the well-worn paths that are obvious. If we want people to seriously consider and pursue other options then we need guides. ***
43	B5.8	solar-ready	Amend local development code to require solar-ready construction for all building types.	3	5	3	3	Y	3.6	4 green: LM, EC, MR, YOUTH	EC- If we have homes that are solar ready meaning some of the cost of infrastructure is included in new construction, we would be more likely to turn the curve. This would be a slight increase in construction but, a huge benefit in the long term. *** LM- Solar ready requirement is a much less burden (labor and funds) to comply with while under or during construction verses after the building is completed. ***
44	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.	3	5	5	2		3.6		
45	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.	3	5	5	2		3.6		
46	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).	3	5	5	2		3.6		
47	B4.6	EE tax exemptions	Create a local property tax reduction or credit for new buildings that meet an energy efficiency performance standard.	4	5	2	2		3.6	1 green: KH	
48	B1.4	rental housing EE incentives	Provide property tax breaks for landlords who install energy conservation measures in rental housing.	3	5	3	3		3.5	2 green: CVD, LB	LB- One of the largest opportunities for improvement in reducing energy use is in existing housing, and particularly multi-family housing. This would be a strong incentive for multi-family property owners to invest in upgrades that conserve energy. Because it's for rental housing, it would also help address housing affordability issues for those with low incomes as it would reduce energy bills for tenants. ***
49	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.	3	5	3	3		3.5		

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50	B4.12	multifamily submetering	Require submetering for new multifamily buildings so residents can track energy use.	3	5	3	3		3.5		
51	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.	3	5	3	3		3.5		
52	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.	4	3	5	2		3.5	1 green: ZK	ZK- This is low cost and treats the public as though they are intelligent enough to make a good decision. I don't believe we should be forcing people to make decisions they don't want to or simply cannot afford to make. Additionally, when education is done effectively, adoption follows. I prefer the carrot over the stick.
53	B6.2	electric appliances in new construction	Update municipal code to require electric appliances in new construction.	4	5	3	1		3.5	1 green: LM	LM- Electrical is typically more efficient than but gas should not be eliminated. Gas has high efficiency when paired well to systems that utilized both energy sources.
54	B6.4	natural gas ban	Ban all new natural gas connections in new buildings.	4	5	3	1		3.5	4 red: AS, JM, EC, ZK, JDB, LM, KH	JDB- Cleaner fossil fuel, abundant. Adds cost to housing on Thurston County residents and won't improve global climate problem in measurable way. *** EC- B6.4: I'm not ready to stand behind banning natural gas yet. This resource is widely used, and I'd need more evidence to pros and cons to this proposed changed to understand the benefit in this drastic proposal. *** ZK- Maybe the worst idea of them all. Natural gas is less costly to use in many cases than electricity. again, i believe the public is smart enough to make good decisions and that it's not right to force something on them that they don't want. choice and competition keep costs lower. We keep talking about an affordable housing crisis and yet most of these contemplated regulations will make housing more expensive. so, we might put a tiny dent in the global climate problem at the extent of exacerbating the most pressing problem in our community, affordable housing. Should we tackle efficiency? absolutely. but there housing affordability is at least as important and you can't do both at the same time, at least not this way. *** LM- New buildings may need to have the gas utility for back up measures should the power go down. Full dependence of electrical systems limits the user. *** SM- Short-sighted, particularly for large buildings. Most of the Puget Sound region heats
55	G4.2	performance measures	Develop community GHG reduction goals and performance measures. Regularly update and publicize for community to track their progress.	4	5	3	1		3.5		
56	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.	4	2	5	3		3.5		

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57	B1.8	landlord education	Educate landlords on options and benefits for improved energy efficiency.	3	5	5	1		3.4	1 green: EC	EC- I'm a firm believer that many landlords want to save money on energy and or lower our carbon footprint. I've found from my experience being an ELO1 licensed electrician and working as the Facility Supervisor many times it's awareness and education. I think this is key and could really make a difference on our long-term energy goals promoting a clear ROI or purpose to improved energy efficiency.
58	B4.3	commercial EE recognition	Create program that recognizes energy efficiency leadership in new construction.	3	5	5	1		3.4	1 red: MR	MR- Recognition and greenwashing is not likely to get us anywhere closer to our goal. See: Thurston Green Business designations. Consider energy efficiency building code improvements or funding for local EE projects.
59	A6.5	municipally-controlled canopy	Maximize tree canopy on City-owned or City-controlled land.	2	5	5	3		3.4	1 green: JR	JR- Easy to implement, Inexpensive (don't need to purchase any additional land). Property and the authority to plant trees on it is under the direct control (and future protection) of the City/County. Creates tangible activity that citizens and volunteers can directly participate in. Numerous co-benefits. One of the few sequestration opportunities.
60	B3.2	efficiency rebate	Adopt "energy efficiency as a service" utility rebate model to direct energy savings to building owners who bear the costs of energy efficiency retrofits.	5	2	2	3		3.4		
61	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.	2	5	5	3	Y	3.4	1 green: YOUTH	
62	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.	2	5	5	3		3.4		
63	B5.1	clean energy bonds/levy	Sell municipal bonds or create a local tax levy for local clean energy projects.	4	5	2	1		3.4		
64	B7.1	workforce development	Create and support opportunities to link clean energy companies with vocational training facilities.	3	4	5	2		3.4	1 green: ZK	
65	G1.7	social research (COMBINE WITH G1.2)	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.	3	4	5	2		3.4		
66	G2.5	cleantech park	Develop a "cleantech" business park and provide incentives (tax, utility) for green business that co-locate.	3	5	2	3		3.4		
67	T2.3	reduce idling	Work with the State and/or region to enacted legislation to minimize vehicle idling for GHG reductions, improved air quality and increased fuel efficiency. Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	4	2	5	2	Y	3.4		
68	T4.8	alternative fuel buses	Transition area transit services to 100% renewable energy.	4	3	4	2		3.4		
69	T5.7	urban bikeshare	Pilot and, if successful, implement a bike/scooter share program.	3	4	5	2		3.4		
70	A4.4	clearing limits	Add clearing limits (usually expressed as percentage) for large lot development in county and city zoning codes.	3	5	3	2		3.3	1 green: PS	PS- Conversion is probably the greatest threat to forests and climate change mitigation in the long-term, as it results in a loss of carbon sequestration capability while also producing emissions. Urban expansion puts significant pressure on small forest landowners and industry to sell valuable land. Reducing the ability to clear forests would directly address this issue.

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71	B2.4	commercial lights-out	Introduce a "lights-out" policy that encourages businesses to turn off their signs and other lights at night when they are closed.	3	5	3	2		3.3	1 red: YOUTH 4 red: CVD, SM, LM, LB	LB- While this appears to be voluntary, it is unlikely to be very successful as most lights left on in businesses are for security reasons. Businesses are not likely leaving lights on that do not serve a purpose already, as that is a cost to them. Additionally, business lighting frankly provides additional street lighting – without it, cities may face demands for additional street lighting to offset the loss of light for pedestrian and vehicle safety on streets. *** LM- Grab for "lights-out" regarding "other lights" goes too deep. If "other lights" means exterior building, security, parking, walking paths etc? The concept is idealistic but security of and around structures and emergency response/access would have to be compromised. With that said, illuminated "signage" could be turned off while businesses are closed. *** SM- Night lights are on for security as much as for business visibility. This policy needs to seriously address that concern, it's currently too broad and too narrow-minded, focused only on energy. I think there are more productive approaches. ***
72	B4.2	building energy goals	Establish energy goals/benchmarks (e.g., LEED) for new commercial buildings.	3	5	3	2		3.3		
73	B5.11	solar zoning	Review and amend zoning and development regulations where necessary to allow utility or community solar generation facilities less than 20 megawatts.	3	5	3	2		3.3		
74	T2.15	TMA's	Mitigate traffic congestion and reduce GHGs by providing government grant dollars to Transportation Management Associations (TMA's) to provide membership-controlled transportation services in a range of areas including regional or city-wide service, along a specific corridor, or central business districts.	3	5	3	2		3.3		
75	T3.12	gas station colocation	Require all new gas stations install EV stations and that current gas stations have low barriers (permitting, expense) to installing EV stations.	3	5	3	2		3.3	1 red: CH	CH: just think this is an outmoded way of thinking... everywhere with electricity is potentially a fill-up and gas stations are not where EV owners want to hang-out while charging; would be more in favor of capping quantity of gas stations!
76	T3.3	solar parking lots	Work with utilities to develop installation of solar panels over surface parking spaces and structured parking garages to produce green energy for electric vehicles.	3	3	5	3		3.3		
77	T5.12	bike/transit	Coordinate a meeting with bicycle advocacy groups and transit agencies to explore barriers (ex. limited bike storage on bus). Prioritize solutions and develop plan to reduce barriers.	3	3	5	3		3.3		
78	T5.3	biking to work	Require municipal and large employers to provide a shower and/or changing area for employees to facilitate biking to work, and secure/dry bike parking. Provide financial incentives for employer-sponsored bicycle programs.	3	5	3	2		3.3	1 red: YOUTH	
79	B2.5	commercial utility outreach	Expand utility outreach to commercial power customers about the benefits of clean and efficient energy technologies and practices.	4	2	5	2		3.3		
80	B5.7	electric infrastructure for renewables	Expand and retrofit the region's energy distribution, monitoring, and storage infrastructure to support more on-site renewable energy generation.	4	1	5	3		3.2		
81	T2.7	carpooling	Work regionally to increase the HOV and HOT lanes available during peak times for car shares and carpools to reduce single occupancy trips.	4	1	5	3		3.2	1 green: JG	JG: This benefits SOV's but more importantly incentivizes transit trips.
82	W2.10	water reuse	Develop a water reuse program for water conservation on site. Provide technical assistance and incentives, such as free rain barrels, to gather water and use on site (e.g., rain barrels for irrigation).	2	5	4	3		3.2	1 green: TC	

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83	A4.6	code enforcement	Increase monitoring and enforcement of City and County zoning and other regulations that preserve sensitive areas.	2	5	5	2		3.2	1 green: BG; 1 red: PS	PS- As someone who works regularly with small forest landowners and, to a lesser extent, industrial timber growers, I have seen very little evidence to believe there is significant code violation occurring to make increasing monitoring efforts a worthy investment. It may be successful in preventing some violations but I think there are better ways to allocate resources. ***
84	A6.6	tree-aware zoning	Modify zoning setbacks and similar provisions designed to provide room for and encourage large trees.	2	5	5	2		3.2		
85	B2.9	municipal building retrofits	Continue to identify and implement priority energy efficiency improvements in municipal buildings.	2	5	5	2		3.2	1 red: MR	MR- I understand that the Cities (or at least Olympia) have made large strides in this area. The focus could shift to non-municipal buildings. Non-consequential.
86	G5.3	net-zero building code	Add as a high priority to municipality's legislative agenda - State Building Council and State Legislature to require net-zero energy use in all new buildings by the 2031 residential code cycle and amendments to State building code each 3-year cycle to meet that goal. Work with other cities to add this to the AWC priorities.	5	1	3	2	Y	3.2	2 green: YOUTH	
87	T1.12	corridor-centered development	Increase residential and mixed use development along designated transit corridors with monetary incentives such as tax incentives and improved fee structures. Determine impact fees and connection charges that, if reduced or waived, would generate denser development where transit and other services already exist.	3	2	3	5		3.2		
88	T2.8	reduced parking requirements	Reduce the cost of development by reducing parking requirements for new residential and mixed use development along transit corridors and in urban centers. Could allow substitution of care share programs.	4	2	3	3		3.2		
89	T1.6	climate-aware UGB	Amend county wide planning policies to require analysis of climate impacts, the costs to mitigate those impacts, and the costs to ensure efficient transit (e.g., public transit services) to inform future Urban Growth Area expansions and Annexations of current UGA. Then weigh those costs and impacts with opportunities and investment needed to accommodate people and business within annexed areas and approved UGAs.	3	5	3	1		3.1		
90	A4.7	clustered development	Incentivize cluster development, such as giving a 10-25% density bonus, to preserve more open space.	2	5	3	3		3.1		
91	A5.10	laminated timber	Increase allowances for laminated timber in building code.	2	5	3	3		3.1		
92	B7.3	climate impact fee	Evaluate and, if feasible, implement a regional climate impact fee on new development to fund regional climate mitigation projects and programs.	4	4	2	1		3.1	2 green: OM, LR 5 red: LM, JDB, CVD, KH, SM	JDB- Illegal?, Affordable Housing Crisis, Older houses are more harmful to environment than newer more efficient housing, Adds cost to housing on Thurston County residents and won't improve global climate problem in measurable way. *** LM- Cost to develop and build has already hit the building community enough without adding new fees and cost to comply with regulation. The cost ends up getting past down to the consumer and outcry for affordable housing and building goes without saying. *** SM- Impact fees should pay for the additional use/expansion of existing public services – roads, emergency response, schools, police. I don't agree that taking money from new development to renovate old development is a reasonable or even ethical use of an impact fee. Push them to build Net Zero or to Passive House standards. Put their money where they can see some value for it. ***

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93	G5.4	utility advocacy	Add as a high priority to municipality's legislative agenda - State and Utilities and Transportation Commission in implementing SB 5116, which requires a shift to clean electricity.	5	1	3	2		3.1		
94	G5.6	Clean energy	Local government adopt and communicate policy statements and positions with the State Electeds that call for rapid conversion to clean energy in the power supply that serves Thurston County.	5	1	3	2		3.1	1 green: CH	CH: I think this has been a known important underpinning and multiplier to all the efforts listed about electrification in buildings and transportation energy use... it's an early and often, continuous advocacy need
95	T4.13	park & ride	Work with transit providers to explore expansion of park & rides and park & pools.	3	3	5	2		3.1		
96	T4.2	bus rapid transit	Expand rapid transit (ex. add transit only lanes in UGA or add express bus connections between South Sound cities), then develop funding mechanisms.	3	3	5	2		3.1		
97	B1.3	residential energy retrofit program	Partner with energy audit providers and loan providers to establish and market residential energy efficiency and weatherization retrofit programs, with a focus on low-income residents, low-interest loans, and post audit follow-through.	3	2	5	3		3.1	1 green: YOUTH	
98	B1.7	residential utility outreach	Expand utility outreach to residential electricity customers about the benefits of clean and efficient energy technologies/practices and available rebates and bill credits for efficient appliances and equipment. Focus on neighborhoods with older buildings and create group packages for efficiency upgrades, if possible.	3	2	5	3		3.1		
99	B2.7	commercial utility rebates	Offer additional utility rebates or bill credits to encourage businesses to buy and install energy-efficient appliances and equipment.	3	2	5	3		3.1		This should receive a very low equity rank
100	T2.3	transportation efficiency service	Create and fund a transportation efficiency service for local residents that gives an assessment of a households current transportation costs, shows cost saving potential by using cleaner forms of transportation, connection with vendors and financing as needed, and follows to see if changes were adopted by household.	3	4	3	2		3.1		
101	T3.4	EV charging retrofit	Partner with business and utilities to develop incentives and streamlined process to install EV charging infrastructure at large government and commercial facilities with low public transit and high personal vehicle utilization to access (e.g., the Great Wolf Lodge, St. Martins Pavilion, IT transit stations, rural gov buildings/services).	3	2	5	3		3.1		
102	G3.3	green energy bond	Develop a green energy bond providing a monetary incentive to tackle prominent social issues such as climate change and a movement to renewable sources of energy. Start by researching the feasibility and impact.	2	5	4	2		3.1		
103	T3.8	public building EV infrastructure	Require new public facilities (buildings, park-and-rides, trailheads) have EV infrastructure. Ensure that the infrastructure is adequate to meet the growing number of electric vehicles.	3	3	3	3		3.0		
104	T5.6	park & pool	Require covered and safe bike storage at carpooling and pick up locations.	3	3	5	1	Y	3.0		
105	W2.4	permitting	Review and update building code to ensure most efficient water practices and technologies are applied to new development.	2	5	3	3		3.0		
106	W2.9	tiered rates	Study effectiveness and strategies for conservation with tiered rating structures for water and sewer, and if proven, apply new rate structures.	2	5	3	3		3.0	1 green: AS	
107	A3.5	institutional markets	Explore local policy and financial incentives to increase the percentage of regionally produced foods purchased by cafeterias in government and municipal institutions.	1	5	5	3		3.0		
108	A3.6	SNAP access	Publicize federal nutrition incentive programs that aim to support small and mid-sized farms, such as SNAP, FMPP, LFPP, and FINI grant.	1	5	5	3		3.0		
109	A3.7	hemp production	Develop an economic development plan for attracting industrial hemp production as a way to create local jobs and sequester carbon.	1	5	5	3		3.0	1 red: MS	
110	A6.1	low-maintenance landscaping	Provide marketing and education campaign promoting the planting of low-maintenance landscaping to encourage more vegetation and tree canopy.	1	5	5	3		3.0		
111	A6.2	street tree plan	Create a comprehensive street tree plan and/or planting guide that prioritizes goals for carbon sequestration, climate change resiliency, and other equitably distributed co-benefits. Plan should include minimum stocking standards for street trees.	1	5	5	3		3.0		
112	B5.9	on-bill financing	Provide additional utility incentives such as on-bill financing to support energy efficiency and renewable energy investments on buildings.	4	1	5	2		3.0	1 green: YOUTH	
113	B6.5	natural gas fee	Create a utility fee for natural gas use.	4	3	3	1		3.0		
114	W2.12	high users	Identify greatest water users and provide targeted technical outreach and support to reduce water consumption.	1	5	5	3		3.0		
115	W2.16	metering	Use metering to inform water consumers about their use compared to others on their utility bill. Provide technical assistance and education to higher users on ways to conserve water and improve household/business efficiencies.	1	5	5	3		3.0		

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116	W2.2	water audits	Conduct water audits of city and county facilities to determine prioritization of capital improvements.	1	5	5	3		3.0	5 green: JMH, AS, WS, TC, (JD)	WS- There may be some low hanging fruit in cities and counties to explore. For example, not all cities have retrofitted their toilets to water- conserving models. ***
117	W2.3	water conservation outreach	Expand water conservation outreach and incentive programs for residents and businesses through new funding sources (ex. grants) and partnerships.	1	5	5	3		3.0		
118	W2.5	rural conservation	Provide technical assistance for rural "exempt" wells to conserve water.	1	5	5	3		3.0	1 red: AS	
119	W2.8	integrated incentives	Integrate City incentives for water and wastewater reductions with other aligned incentive programs (ex. PSE rebates for washing machines and dishwasher energy savings) to encourage broader usage and conservation.	1	5	5	3		3.0	1 green: TC	
120	B5.12	neighborhood grants	Fund the creation of low barrier grant opportunities for neighborhood clean energy and energy efficiency projects.	3	5	2	1		3.0		
121	B5.6	utility-scale renewables	Promote Thurston County as a location to build more utility-scale renewable energy projects such as solar and wind farms. Support locally owned/operated renewable energy companies.	3	2	5	2	Y	3.0	2 green: YOUTH	
122	B5.4	net metering production incentive	Increase incentive ratio for connecting residential solar from 1:1 to 2:1.	4	2	3	2		3.0		
123	B4.14	state building code	Advocate for stricter energy efficiency requirements in state building code.	5	1	3	1		2.9	2 green: YOUTH 1 red: CH	CH: just seems like we're already wringing as much efficiency as possible out of the building code – very good as it is so gains would be quite marginal?
124	B6.7	utility advocacy	Add as a high priority to municipality's legislative agenda - State and Utilities and Transportation Commission in implementing SB 5116, which requires a shift to clean electricity.	5	1	3	1		2.9		
125	B6.8	Clean energy	Local government adopt and communicate policy statements and positions with the State Electeds that call for rapid conversion to clean energy in the power supply that serves Thurston County.	5	1	3	1		2.9	2 green: CH, LR	CH: I think this has been a known important underpinning and multiplier to all the efforts listed about electrification in buildings and transportation energy use... it's an early and often, continuous advocacy need
126	G2.1	clean energy economy	Set policy that requires recruitment and retention practices for clean energy economy companies.	3	3	5	1		2.9		
127	T4.14	transit & schools	Work with school and transit providers to understand if there is a likely partnership to coordinate routes with transit start and top times.	3	3	5	1		2.9		
128	A4.3	tree codes	Review and revise local development regulations to require the carbon sequestration value of existing trees be considered in regulatory requirements like site plan review.	2	5	3	2		2.9	1 green: BG	
129	A6.9	Tree canopy ordinance	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.	2	5	3	2		2.9		
130	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.	4	1	3	3		2.9	1 red: ZK	ZK- As someone who's company manages almost 2,000 residential units and is involved in selling lots of units, I can tell you that this is just another way to increase cost and make housing less affordable. people already struggle to finance a home and adding a requirement for energy upgrades/audits/etc. will just make housing less attainable and affordable for even more people.
131	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.	4	1	3	3		2.9		
132	B2.2	commercial energy audits	Develop and adopt policies that require commercial properties to undertake an energy audit at the time of sale or during a substantial remodel.	4	1	3	3		2.9		
133	T2.1	traffic analysis	Incorporate greenhouse gas emissions calculations into traffic impact analyses to identify land use proposals that have the potential to generate a substantial positive impact on the region.	2	5	3	2		2.9		
134	W4.10	waste less food program	Expand the TC Public Works "Waste Less Food" program.	1	5	5	2	Y	2.9	1 red: LR	

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135	G1.3	ClimeTime	Coordinate OSPI ClimeTime program with local government to bring youth into the feedback and planning process of developing climate mitigation programs and policy.	3	2	5	2		2.9		
136	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.	2	5	4	1		2.9		
137	T2.16	Internal policy - decrease idle time	Coordinate with public agencies and private companies that transport people and materials to develop and enact internal policies that reduce idle time.	3	2	5	2		2.9		
138	W4.9	organics collection	Require food waste pickup at residential and commercial buildings to reduce landfill methane. Compliment with an ordinance that restricts compostables from going into the garbage and has a fining structure to enforce.	2	5	3	2		2.8		
139	W6.4	environmentally preferable purchasing policy	Local governments require departments, agencies, consultants and contractors to use recycled products whenever possible and not cost prohibitive.	2	5	3	2		2.8		
140	A6.7	adaptation	Educate City and County staff about low cost ways to adapt infrastructure to conform to the needs of growing trees, rather than removing the trees.	1	5	5	2		2.8		
141	G2.2	sustainable businesses	Develop a green guide for area businesses and build award programs to reward implementation.	1	5	5	2		2.8	1 red: LR	
142	W1.2	public water systems	Prioritize efficiency improvements to public water systems (Group A and Group B). Prioritize components that consume the most energy and have high GHG emissions.	1	5	5	2		2.8		
143	W1.4	gravity sewer	Study the energy efficiency and cost impacts of gravity sewers versus STEP systems. As needed, introduce programs, regulations, and/or incentive programs.	1	5	5	2		2.8	1 green: ETC	
144	W1.5	lifecycle costs	Assess the energy use or energy savings of wastewater-related projects, and other lifecycle costs. Make analysis available to decision-makers.	1	5	5	2		2.8	1 green: JMH	
145	W2.13	combined sewer	Separate combined sewer and stormwater system. Start with feasibility study and follow through on findings.	1	5	5	2		2.8	5 red: JMH, TC, AS, WS, PF	WS- Separation of the storm system has been looked at a number of times and found to not be feasible. These studies can be made available
146	W4.4	waste audits	Provide waste audits for business owners and education on practices that decrease waste (ex. compost, recycling, reuse).	1	5	5	2		2.8		
147	T1.13	downtown development	Work with developers and investors to identify barriers to new investment and reinvestment projects of residential and commercial in urban centers. Then develop and implement policy changes and incentive programs in response.	3	2	3	3		2.8		
148	G2.6	training diversification	Work with the Workforce Training and Education Coordinating Board (WTB) to ensure a wide variety of green jobs is part of the workforce training.	2	2	5	3	Y	2.8	1 green: YOUTH	
149	T2.9	congestion pricing	Explore congestion pricing between Thurston and Pierce counties along I-5 during peak hours to improve mobility by reducing traffic congestion, reduce greenhouse gas emissions, and create a more equitable transportation system. Target revenues to projects that enhance system efficiency.	4	1	2	3		2.8		Equity concern
150	A3.1	farmland preservation	Support farmland preservation through land use policies and financial incentives (e.g., conservation easements) to maintain production capacity and increase self-sufficiency.	2	5	2	2		2.8	2 green: LS, SB	LS- Keeping land in active farms means less impermeable surfaces than housing, thus more soil to store carbon. ***
151	A5.11	carbon in the CAO	Authorize carbon as a justification for critical areas ordinance protection.	2	5	3	1		2.7		
152	A6.8	landscape regulation	Modify landscape development code requirements to direct the use of landscaping appropriate to the site that provides shade in summer/ sun in winter.	2	5	3	1		2.7		
153	B4.13	multifamily energy measures	Develop and advertise a business case financial model for multi-family developers to take energy efficiency and renewable energy measures.	3	2	4	2		2.7		
154	B5.13	shore power	Develop shore power to improve air quality, reduce GHG emissions, improve local economy by serving the growing needs of local boat and ship customers.	3	2	4	2		2.7		
155	W6.9	single-use ban	Ban single use plastics (e.g. straws, water bottles)	2	3	3	3	Y	2.7	2 green: YOUTH	

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156	A4.5	stream buffers	Update permitting requirements to increase the required stream buffer size to increase carbon sequestration.	1	5	3	3		2.7	1 red: PS	PS- Washington Forest Practice Rules (as well as Thurston County codes) are among the strictest in the nation and do a sufficient job of protecting streams and fish habitat. Mandated buffers have disproportionate negative effects on small forest landowners, who lose access to valuable timber in the restricted harvest. The financial burden caused by this impact often makes them more likely to sell their forest for development purposes, which ultimately means less forestland (and less carbon sequestered). Furthermore, restricting harvest does not necessarily mean more carbon will be sequestered in the long-term. Wood products act as a carbon sink and, over a long enough period, net primary productivity (related to net carbon sequestered) in forests declines.
157	A6.4	tree protection	Reevaluate municipal tree protection ordinances based on a review of national best practices.	1	5	3	3		2.7		
158	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.	4	1	3	2		2.7		
159	B4.1	green construction code	Adopt the International Green Construction Code (IgCC).	4	1	3	2		2.7	1 red: CVD	
160	B5.2	feed-in tariffs	Offer feed-in tariffs to incentivize solar projects.	4	1	3	2		2.7		
161	W6.6	supply chain	Provide free technical assistance to local businesses in reducing the carbon intensity of their supply chains.	1	5	4	2	Y	2.7		
162	B6.1	natural gas to electric appliances	Educate business owners and residents on the options for electric appliances and the benefit of pairing electrification with the installation of renewable energy.	3	2	5	1		2.7	1 green: YOUTH	
163	T4.7	public transit ease	Create a partnership of transit providers and agree to a common goal of having an integrated navigation and payment system. Then work together to make an action plan.	3	2	5	1		2.7		
164	A1.2	nutrient management	Provide education and incentives (e.g., grants, loans, technical assistance) reduce nitrous oxide emissions when managing fertilizer.	2	2	5	3		2.7	3 green: PF, SB, TC	
165	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.	2	2	5	3		2.7	4 green: LS, TC, PF, MS	LS- This is a focus on soil health. The more life in the soil, the more carbon is stored. Reg Ag is a term for approaches that make more life in the soil. ***
166	A2.5	silvopasture	Develop education programs and incentives to encourage farmers to incorporate tree planting on farms (e.g., silvoculture, silvopasture, agroforestry, tree cropping).	2	2	5	3		2.7		
167	G1.1	educational website	Develop user-friendly website and outreach materials to educate residents of the health and cost benefits of reducing GHG emissions in their lives and homes and resources on how to do it.	2	2	5	3		2.7		
168	G1.9	staff training	Develop climate mitigation practices for government employees at work and require they be implemented. Set outcomes to measure effectiveness.	2	2	5	3		2.7		
169	B7.2	public power	Transition to a publicly owned power utility district.	3	3	3	1		2.6	1 red: KH	
170	T1.15	land use emissions	Reevaluate emissions tracking data for land use to ensure accuracy and tracking changes and to inform future regulatory policy in land use.	3	3	3	1		2.6		
171	W2.11	watering schedule	Institute mandatory watering schedule that limits irrigation to certain days.	2	5	3	1		2.6	3 red: ETC, JMH, AS	
172	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.	2	3	5	1		2.6	2 Green: ETC, WS	
173	A5.7	legislative efforts	Lobby Washington State legislature in support of bills that positively affect carbon balance on state-managed lands.	1	5	5	1		2.6		
174	G2.4	technical clearinghouse	Have TRPC or another entity function as a clearinghouse for government regulations roadblocks to clean technology development.	1	5	5	1		2.6		

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175	G5.1	UTC presence	Track, monitor and share information about Washington Utilities and Transportation Commission (UTC) meeting and actively recruit residents to give feedback and attend meetings to support bold GHG emission policy.	3	1	5	2		2.6		
176	W2.1	municipal water ordinance	Develop a mandatory municipal water conservation ordinance.	1	5	3	3		2.6	2 red: WS, JG	WS- The cities are already working together with LOTT on a water conservation plan. It seems like this might be redundant (although maybe it gets at the same thing as W2.2?)* ** Check sticker - no longer on card? Did it fall off? JG: Already done.
177	W2.10b	reclaimed water	Expand the use of reclaimed water, especially where needed for irrigation.	1	3	5	3		2.6	1 green: AS	
178	W2.15	renter incentives	Develop and offer incentives for water conservation targeted to renters and multifamily residential units.	1	5	3	3		2.6		
179	W2.6	agricultural water use	Evaluate agricultural water use and develop a program to buy back or reclaim excess capacity.	1	5	3	3		2.6		
180	W2.7	low-water landscaping	Require water landscaping conservation practices for new development.	1	5	3	3		2.6	1 red: TC	
181	W4.7	deconstruction ordinance	Develop a building deconstruction ordinance, with requirements for deconstruction, reporting, inspections, and compliance tools.	2	5	2	2		2.6	1 red: AR	AR- My understanding of building deconstruction is that it is a slow and costly process; furthermore, it is difficult to find markets for salvaged construction materials.
182	W5.4	FOG waste	Research feasibility of program to digest Food, Oils, and Grease (FOG) and/or commercial food waste at LOTT to recover energy and increase methane production and present to policy makers for consideration.	1	3	5	3		2.6		
183	T4.5	Sound Transit in Thurston County	Work with State Legislators and Governor's Office to identify opportunities and funding to expand Sound Transit to Thurston County.	3	2	3	2		2.6	1 red: CH	CH: this is way too long term to be very helpful in meeting targets as it seems like we're more than 30 years out to when we would see any service to TC
184	A1.4	water use	Develop an incentive program (e.g., technical assistance) to improve the efficiency of agriculture irrigation systems. Identify grant funding.	1	5	2	3		2.6	4 red: MS, SB, LS, TC	LS- In our area inefficient irrigation is a couple months out of the year issue on only some farms as many farms have no water rights and can't irrigate. ***
185	A3.8	woody crops	Provide technical assistance to help residents, businesses, and the agricultural community grow woody perennial crops that help conserve water, store carbon, and provide other ecosystem services.	2	2	4	3		2.5		
186	W6.8	reusable takeout	Amend health code to allow reusable take out containers.	2	3	3	2	Y	2.5		
187	T6.1	Olympia-Seattle rail	Update plans to prioritize commuter rail connection between Olympia and Seattle. Work with State partners to develop a plan and find other partners that have similar vision to coordinate with.	3	1	2	3	Y	2.5	4 green: LR, YOUTH (3)	
188	A1.6	feed additives	Provide education to promote methane-reducing livestock feed additives (ex. seaweed derivatives). Make cost effective by partnering with local vendors and consumers to develop a bulk purchase program.	2	2	5	2		2.5		
189	A6.3	urban tree canopy incentive program	Develop partnership with organizations that offer financial incentives for expanding tree canopy in exchange for carbon credits purchased by businesses and other institutions.	2	2	5	2		2.5		
190	T2.12	Eco driving education	Include awareness of fuel economy through driving techniques in curriculum for new drivers to reduce GHG emissions and develop long term habits.	2	2	5	2		2.5		
191	W2.18	HOA watering outreach	Provide education and technical assistance to HOAs related to revising covenants that may be causing increase water consumption and/or prohibiting energy savings (ex. lawns must be irrigated and green, no water barrels).	1	2	5	3		2.4		
192	W2.19	well conversion to public systems	Provide technical assistance to rural "exempt" well owners to convert to public water systems when service connections are available.	1	2	5	3		2.4	3 red: ETC, AS, TC	
193	A3.3	processing and distribution hub	Develop a hub to process and distribute regionally-grown agricultural products to local markets (including restaurants, supermarkets, jails, schools, colleges, and hospitals).	1	4	4	2		2.4	1 green: MS	
194	W4.1	residential composting	Expand residential programs for composting and recycling food waste.	1	3	5	2		2.4	1 red: LR	
195	W6.1	consumption emissions education	Develop an education program about consumption-based emissions and simple ways to track and reduce consumption-based emissions for residents of Thurston County.	1	3	5	2		2.4		

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196	T6.2	Olympia ferry service	Provide ferry service between Olympia and Seattle. Work with State partners to develop a plan and work with other partners that have similar vision.	3	1	2	3		2.4		
197	A5.2	community forests	Expand extent of community forests that consider carbon sequestration in their management goals.	1	3	4	3		2.4		
198	G2.7	jobs leadership	Provide technical assistance to local businesses to generate green jobs and practices.	1	2	5	3	Y	2.4		
199	G3.1	tax benefits	Develop tax incentives for businesses that demonstrate GHG reductions in their production.	1	5	2	2		2.4		
200	B3.3	PACE	Assess whether PACE is still desirable and, if so, how local and state policymakers could pursue a legislative solution or state constitutional amendment to develop a PACE program.	3	1	3	2		2.3	1 green: SM	SM- Given a few assumptions, which I believe are safe – that the financed systems stay on the property – PACE provides a means for property owners to set up long-term financing for desirable energy projects, and the liability remains attached to the project. That reduces the need for a higher sales cost (and subsequent risks) to recoup the owner's liabilities if the property changes hands in the near future.
201	T1.14	development VMT caps	Require caps on VMT or vehicle trips for development on Olympia's Capitol Campus and other public development near clustered government offices.	3	1	3	2		2.3	1 green: JG	JG: I've seen the effectiveness of this on increasing walking/ biking in my own area and it actually helps people get used to the idea of walking and biking places instead of driving. This is based on a positive outcome instead of a sanction and I just had to include it.
202	T4.9	fed-compliant alternatives analysis	Work with the State partners and elected officials to understand future plans for mass transit. Secure funding in the State budget to conduct an alternatives analysis to determine what types of high capacity transit the region may be able to support in the future what funding mechanisms are available.	3	1	3	2		2.3		
203	A1.1	manure management	Provide education and incentives (grants, loans, technical assistance) to support manure management that reduces methane and nitrous oxide emissions (ex. covered manure storage facilities, manure application practices).	1	2	5	3		2.3		
204	A1.3	waste-to-energy	Conduct a feasibility study on small-scale energy production (ex. capture and combustion of methane, anaerobic digestion, biofuel and biogas production), then identify partners, programs and incentives to develop across TC.	2	2	5	1		2.3	1 green: TC	
205	A2.4	soil carbon research	Fund/support regional soil carbon sequestration research to encourage adoption of region-specific conservation farming practices that store carbon.	2	2	5	1		2.3	1 red: SB	
206	A3.2	food system assessments	Encourage growth of local markets through market research and assessment of our ability to feed ourselves from regionally-produced foods.	1	2	5	3		2.3	3 red: SB, TC, LS	LS- Food System AssessmI am inclined to more on the ground approaches than studies ***
207	A4.1	natural area preservation	Identify and establish a range of diverse, stable, long-term funding sources for the acquisition, restoration, and preservation of prime natural areas.	1	2	5	3		2.3		
208	A4.2	working land preservation	Identify or develop local funding sources for agricultural and forestry conservation easements. This could include creating a system for bundling small monetary contributions to invest in collective conservation easement or land purchases.	1	2	5	3		2.3		
209	A5.6	small forester education	Deploy an educational program for smaller foresters to increase understanding of carbon sequestration, emphasizing the better performance of mature rather than young trees.	1	2	5	3		2.3		
210	B6.3	heat pumps	Investigate options and costs for using geothermal heat pumps for heating and cooling.	2	2	5	1		2.3		
211	G1.2	consumption (COMBINE WITH G1.5)	Develop and run community based social marketing program to reduce consumption and inform consumers about options for reducing their carbon footprint.	2	2	5	1		2.3		

All Ranked Actions

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212	A5.3	long-rotation timber	Mandate that timber companies lengthen the rotation of timber harvesting in Thurston County as part of their permits.	2	1	5	2		2.2	3 red: BG, PS, LFH	LFH- The biggest trees hold the most carbon. This would encourage cutting down larger trees *** LS- This would place an even more extreme financial burden on small forest landowners than increased stream buffers. While many smaller forest landowners would not have a problem with longer rotations because they don't intend to harvest, larger landowners who depend on harvest revenue would be seriously affected. I also believe this would impact forest industry in Thurston County. Both of which would be more likely to sell land in the county in order to remain financially viable. The only way this impact could be alleviated is with a generous carbon payment program, which would be difficult to implement. Instead, using carbon payments as an incentive for longer rotations would reduce negative impacts. ***
213	W2.17	gray water use	Require use of gray water in new residential and commercial buildings. Start with feasibility study and change building codes based on results.	2	1	3	3		2.2		
214	W3.2	methane capture	Capture methane from wastewater operations and use to generate power to run systems. Begin by researching cost-effective methods and identifying funding sources to implement.	1	3	5	1		2.2	1 red: WS	
215	W3.3	hydrogen power	Investigate and determine if hydrogen power is a cost effective alternative energy source for operations, including technical vehicles, or for distribution and if so, identify funding source to implement.	1	3	5	1		2.2		
216	W4.2	commercial composting	Expand commercial programs for composting food waste. Start by identifying funding and partners.	1	2	5	2		2.2	1 green: AR	
217	W4.5	gleaning	Expand gleaning programs and recovery and use of edible yet unwanted foods from restaurants, grocery stores, and schools.	1	2	5	2		2.2		
218	W4.8	fruit teams	Partner with food banks and neighborhoods to harvest fruit from urban fruit trees.	1	2	5	2		2.2		
219	W5.5	dry anaerobic digesters	Evaluate feasibility of a dry anaerobic digester with associated combined heat and power facility to process organics and agricultural waste locally. Present findings to appropriate policy makers for their consideration.	1	2	4	3		2.2		
220	W6.7	water fill stations	Require all government-owned water fountains be replaced with water bottle filling stations at end of life and all new construction requires water bottle filling stations.	1	5	2	2		2.2		
221	A7.1	marine vegetation	Understand current efforts and develop a plan to enhance the protection of marine vegetation such as eelgrass to improve water quality, sequester, and improve fish habitat and survival.	1	2	4	3		2.1		
222	A7.2	blue carbon	Research actions to implement blue carbon programs in Thurston County aimed at sequestering carbon through the conservation and restoration of coastal and marine ecosystems.	1	2	4	3		2.1		
223	B6.6	demand pricing	Adjust fee scale to charge higher rates during high use times of day.	3	1	3	1		2.1	2 red: JDB, AS	JDB- Increasing cost on heat when people need it most. Adds cost to housing on Thurston County residents and won't improve global climate problem in measurable way. ***
224	T1.10	Multifamily Tax Exemption (MFTE)	Expand Multifamily Tax Exemption Programs to increase residential development where services exist, and consider extending exemption timeframes.	2	1	3	3		2.1		
225	G2.3	clean economy roundtables	Organize and facilitate roundtables with business leaders focused on clean economy strategies.	1	2	5	2		2.1		
226	A5.5	species mix	As part of an educational/technical assistance program, promote species mixes for reforestation or afforestation that result in high-density carbon sequestration.	1	1	5	3		2.0	2 red: PF, BG	

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227	A5.8	slash-to-biochar	Seek grant funding to process slash to biochar and apply in forestry or agricultural settings.	1	1	5	3		2.0	1 red: JR	JR- There was discussion among several of the other forestry experts early in this process, that mentioned conflicting research about the actual GHG reductions that could be realized with either of these proposals. In fact some of them even indicated there were potentially increases in the GHG emissions that would or could be realized from these activities. These are also activities that are very much removed from the day to day operations of local government and /or beyond the influence of local government.
228	A5.9	slash-to-fuel	Seek grant funding to explore the feasibility of utilizing slash as fuel in forestry equipment at scale commercially.	1	1	5	3		2.0	2 red: JR, JR	JR- Not sure I remember correctly but I believe it might have been Dylan Fischer that mentioned the conflicting research on these issues. Given his background as a forest climate scientist, I suggest asking him this question.
229	W4.11	regional recycling	Conduct an analysis of how a regional recycling facility could build local markets for recyclable materials. Develop a cost vs benefits analysis and present to policy makers.	1	1	4	3		2.0		
230	W5.2	heat exchange	Research the feasibility of heat exchange potential of embedded energy in wastewater and/or reclaimed water and present to policy makers for consideration.	1	1	4	3		2.0		
231	W5.3	kinetic energy	Research the feasibility of utilizing kinetic energy from transport of water and wastewater through piping networks and present to policy makers for consideration.	1	1	4	3		2.0		
232	G1.4	Career Connects	Set a target to increase the percentage of green jobs in the Career Connects WA program each year.	1	2	3	3		2.0		
233	A1.5	BMP audits	Develop and incorporate mandatory sustainability audits into conservation/farm plans. Develop program and identify funding reduce energy use and promote best management practices (BMPs).	2	2	3	1		2.0		
234	A5.4	ecosystem services monetization	Expand market-based approaches for ecosystem services such as carbon credit trading.	1	2	4	2		1.9		
235	B7.4	embodied carbon	Create incentives to increase the use of less carbon intensive building materials (mass timber, reduced concrete).	2	2	2	1		1.8	1 green: AS	
236	W6.2	meat reduction	Develop awards/recognition programs for restaurants that encourage plant-rich diet that reduce meat consumption.	1	2	4	1		1.8	1 green: YOUTH 1 red: AR	
237	W6.3	collaborative consumption	Develop a awards/recognition programs for "collaborative consumption" community projects like tool libraries and repair cafes, through mini-grant programs to encourage their use and new projects.	1	2	4	1		1.8	1 green: AR	
238	W6.5	product stewardship	Support state-level product stewardship legislation that requires producers to be involved in end-of- product-life management, either through product design changes (e.g. compostable snack bags), investing in take back programs , or placing a fee on the sale of products to support diversion.	2	1	2	2		1.8	1 green: AR	
239	G3.4	crowdsourcing	Develop and launch a crowdsourcing platform (like "The Gamechanger") that allows entrepreneurs to submit green proposals for policies and projects for local government and businesses and ideas to influence the future of energy and help to overcome a specific challenge.	1	2	4	1		1.7	1 red: JG	JG: Too vague and could produce zero results.
240	G3.2	cost-sharing	Develop an Office of Green Building to work with the business sector to partner in sharing costs and expertise.	1	3	2	1		1.7	1 red: JG	JG: Too vague and could produce zero results.
241	W1.3	rural wells	Provide a low interest loan program to encourage the use of efficient technology when permitting wells to serve new rural development.	1	2	2	2		1.6		
242	W5.1	waste-to-energy	Research the opportunities to generate additional energy from waste products (e.g., woody biomass and sewage) in Thurston County to reduce fossil fuel consumption and present to policy makers for consideration.	1	1	2	3		1.6		
243	W7.1	waste route efficiency	Partner with sanitation companies to evaluate the GHG reduction potential of utilizing one side for street pickup and present to policy makers for consideration.	1	2	3	1		1.6	1 red: YOUTH	

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244	W7.2	waste service areas	Mandate that areas served redundantly by municipalities and private waste collection are eliminated, such as the Tumwater/Olympia border south of the high school, by trading service areas	1	1	3	1		1.4		
245	A2.3	biochar	Thurston EDC, Port Authority and TCD partner to explore feasibility of biochar enterprise in Thurston County to promote amending soils with biochar.	1	2	2	1		1.4	3 red: MS, TC, JH	
246	W7.3	garbage fleet electrification	Electrify garbage truck fleet. Start by developing plan for municipal and private waste collectors that includes financing options.	1	1	1	2		1.2	1 red: AR	