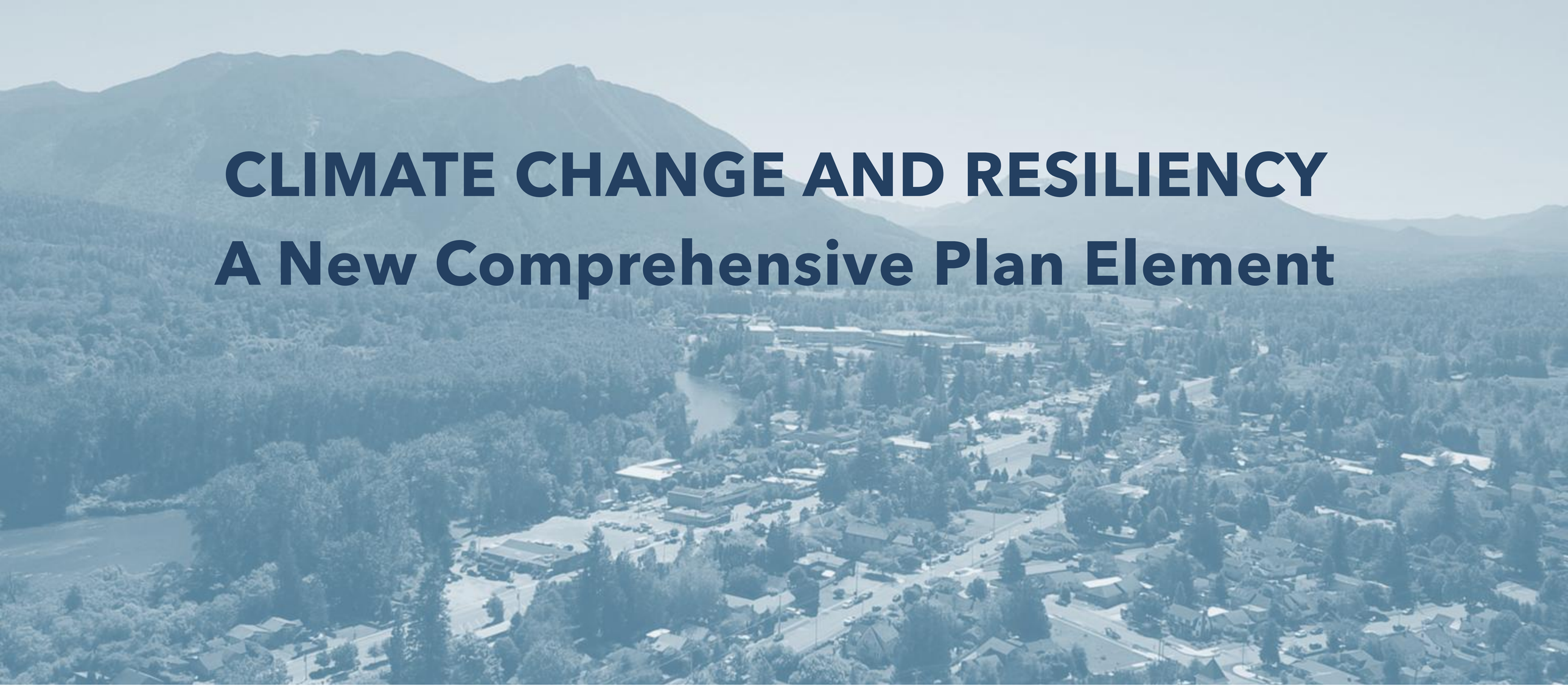


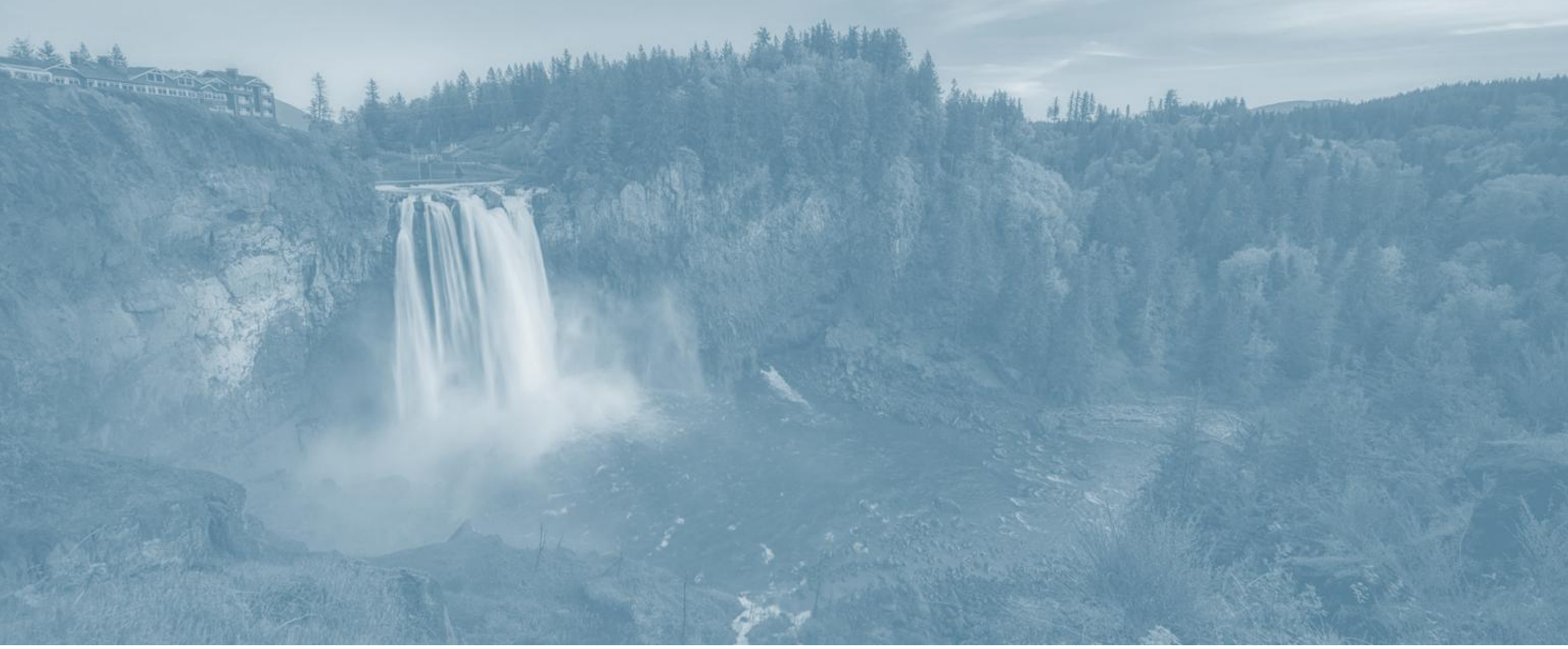
CLIMATE CHANGE AND RESILIENCY
A New Comprehensive Plan Element

City of Snoqualmie Planning Commission

March 17, 2025

Tonight's Presentation

1. Quick Review of the Project and Update
2. CPAT Progress Report
3. Engagement Progress Report
4. Questions/Discussion

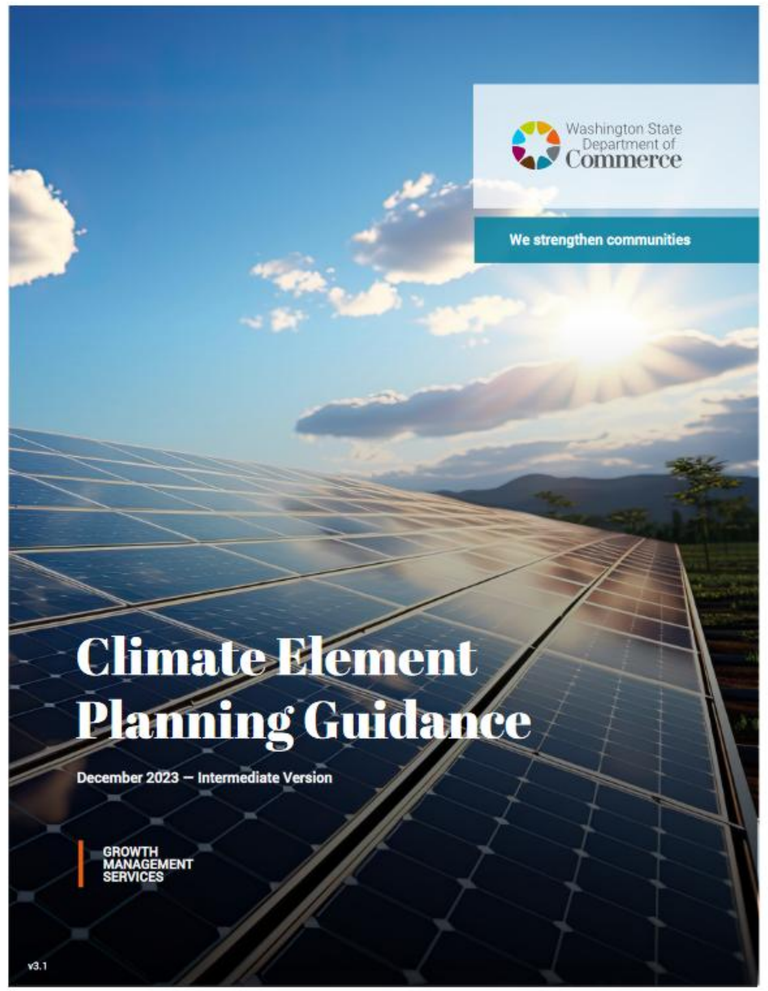


1. Project Overview

Climate Planning Requirements

For Snoqualmie, the Growth Management Act requires a new element with two sub-elements:

- **Climate Resilience:** Coordinated adaptation to climate impacts and natural hazards
- **Greenhouse Gas Emissions Reduction:** Mitigating GHG emissions and per capita vehicle miles traveled (VMT)



Resilience Sub-Element

Process Summary

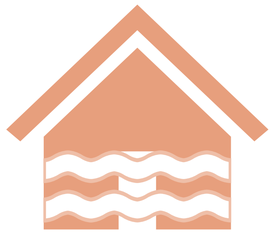
Resilience Sub-Element

Climate Hazard Priorities

Drought

Reduced Snowpack

Extreme Heat



Flooding

Extreme Precipitation

Wildfire

Sea Level Rise

Resilience Sub-Element

Asset Sectors to Consider…

- Agriculture & Food Systems
- Buildings & Energy
- Cultural Resources & Practices
- Economic Development
- Emergency Management
- Human Health
- Ecosystems
- Transportation
- Waste Management
- Water Resources
- Zoning & Development

Resilience Sub-Element

Existing Planning Documents

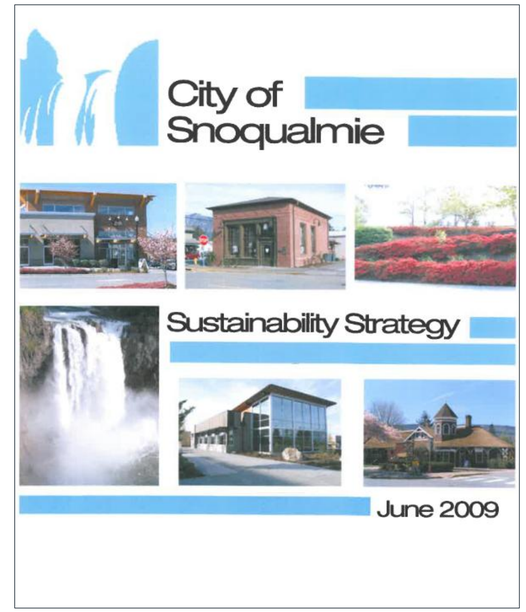
2009 Snoqualmie Sustainability Strategy

- Identified flooding and other climate change hazards, including heat impacts, forest fires, and less water/less energy

2024 Snoqualmie Comprehensive Plan

- Land Use, Housing, Community Character, Environment elements

2020 Hazard Mitigation Plan



Resilience Sub-Element

Gaps and Opportunities

- Update goals, policies, and implementation actions based on current data
- Add greater specificity and incorporate measurable standards
- Address residential and commercial displacement
- Consider risks and co-benefits for publicly owned property and facilities
- Consider cost of policy changes and address funding

GHG Emissions Reduction Sub-Element

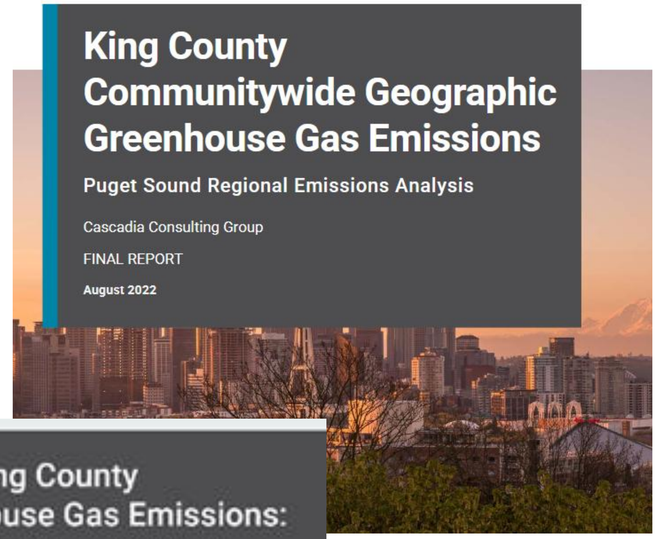
Process Summary

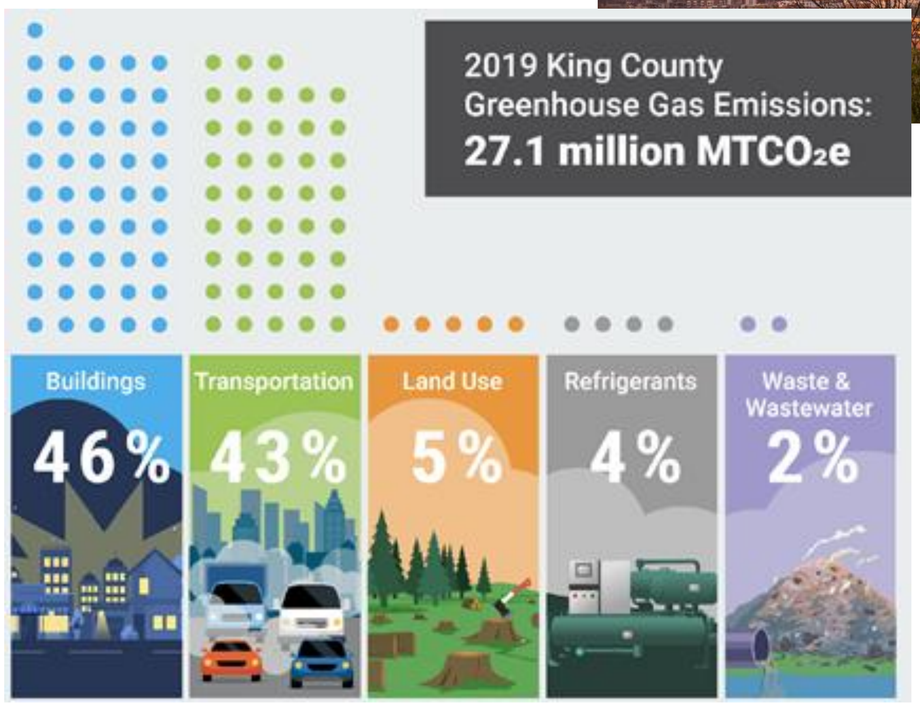
Estimate GHG Emissions	Set Emissions Reduction Targets	Select Goals and Policies to Achieve Targets	Integrate Goals and Policies
K4C data pending Consider other public data sources Evaluate data **WE ARE HERE**	For each source sector	Adapt existing goals and policies Develop new goals and policies	Prepare a final GHG reduction sub-element

GHG Inventory – Available Data

King County Communitywide Inventory <u>IN PROCESS</u>:

- Performed by Cascadia Consulting Group
- Last full version in 2022 used 2019 data
- 2025 data will use 2022 data – which is the baseline year required by Department of Commerce





Snoqualmie GHG Inventory – Wedge Tool (2019 Data Shown)

Total GHG Emissions by Sector ($MTCO_2e$)	2007	2008	2015	2017	2019	2020	2021	2022
Built Environment	**52,782**	**56,484**	**71,273**	**76,406**	**81,538**	**82,581**	**64,060**	**59,686**
Electricity	**35,730**	**38,236**	**48,248**	**51,722**	**55,196**	**56,056**	**37,380**	**32,879**
Residential	15,256	16,326	20,600	22,084	23,567	23,939	15,962	14,035
Commercial	19,964	21,365	26,959	28,900	30,841	31,310	20,877	18,366
Industrial	510	546	689	739	788	806	541	478
Natural gas	**16,072**	**17,199**	**21,702**	**23,265**	**24,828**	**24,987**	**25,119**	**25,223**
Residential	12,279	13,140	16,580	17,774	18,968	19,092	19,193	19,270
Commercial	3,793	4,059	5,122	5,491	5,859	5,895	5,926	5,953
Industrial	-	-	-	-	-	-	-	-
Other sources	**980**	**1,049**	**1,323**	**1,418**	**1,514**	**1,539**	**1,562**	**1,584**
Fuel oil	518	554	699	749	800	813	826	839
Propane	462	495	624	669	714	725	736	746
Industrial processes	-	-	-	-	-	-	-	-
Transportation and Other Mobile Sources	**33,628**	**35,986**	**45,408**	**48,678**	**51,948**	**51,530**	**51,059**	**50,551**
On-road vehicles	**9,971**	**10,670**	**13,464**	**14,433**	**15,403**	**15,001**	**14,568**	**14,119**
Passenger vehicles	8,686	9,295	11,729	12,574	13,418	13,090	12,734	12,358
Freight and service vehicles	1,285	1,375	1,735	1,860	1,985	1,912	1,834	1,760
Transit vehicles	-	-	-	-	-	-	-	-
Aviation	19,617	20,993	26,489	28,397	30,304	30,306	30,293	30,263
Off-road equipment	4,040	4,323	5,455	5,848	6,241	6,222	6,198	6,169
Marine & rail	-	-	-	-	-	-	-	-

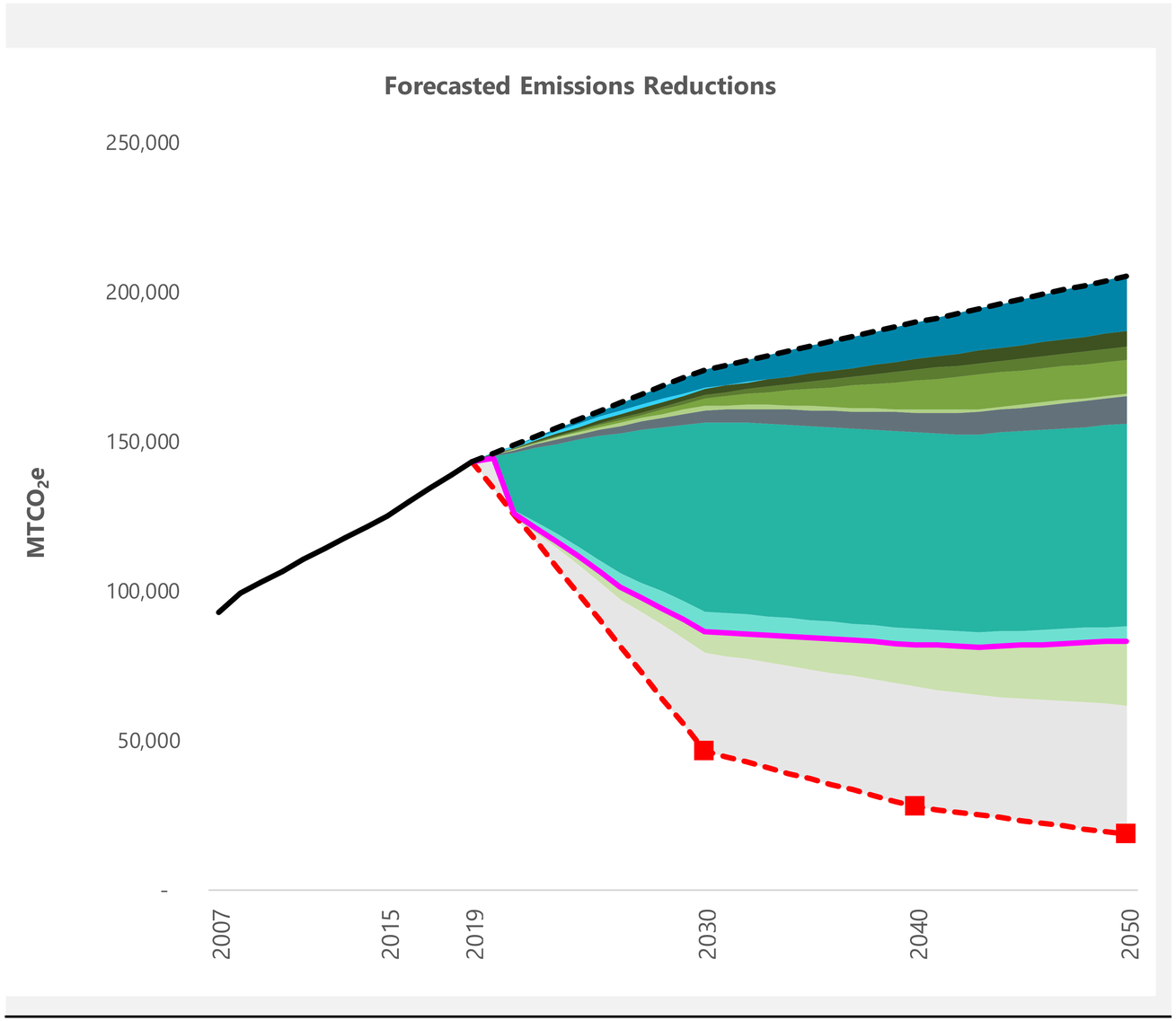
2019 Largest Sources: Commercial Electricity, Aviation, Residential Electricity

SNOQUALMIE GHG INVENTORY (2019 DATA SHOWN) CONT'D

Total GHG Emissions by Sector ($MTCO_2e$)	2007	2008	2015	2017	2019	2020	2021	2022
Solid Waste & Wastewater	**1,659**	**1,775**	**2,240**	**2,401**	**2,563**	**2,611**	**2,659**	**2,707**
Solid waste generation & disposal	**1,659**	**1,775**	**2,240**	**2,401**	**2,563**	**2,611**	**2,659**	**2,707**
Landfill	1,470	1,573	1,985	2,128	2,271	2,314	2,356	2,399
Compost	189	202	255	273	292	297	303	308
Wastewater process emissions	-	-	-	-	-	-	-	-
Refrigerants	**4,707**	**5,037**	**6,356**	**6,814**	**7,271**	**7,047**	**6,822**	**6,597**
Refrigerants	4,707	5,037	6,356	6,814	7,271	7,047	6,822	6,597
Land Use	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-
Tree loss	-	-	-	-	-	-	-	-
Total Emissions	**92,775**	**99,282**	**125,278**	**134,299**	**143,320**	**143,768**	**124,600**	**119,541**
Total Sequestration								
Tree sequestration	-	-	-	-	-	-	-	-

2019 Largest Sources: Commercial Electricity, Aviation, Residential Electricity

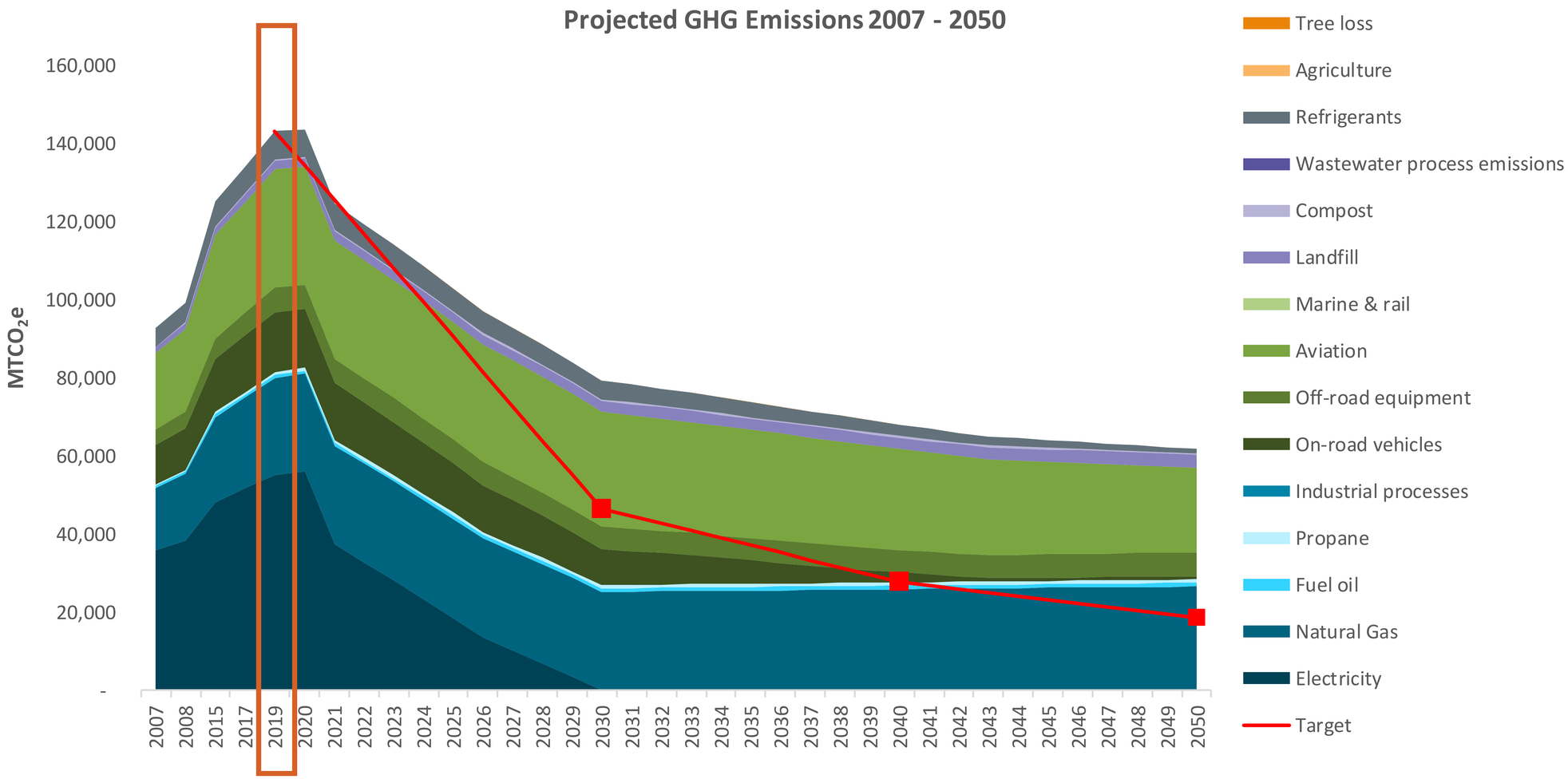
GHG Inventory – Wedge Tool (2019 Data Shown)



"Wedge" created by the difference in no-action scenario versus state and local actions

GHG Inventory – Wedge Tool (2019 Data Shown)

Jurisdiction: Snoqualmie
County: King County



2019 Projected Significant Reductions: On-Road Vehicles, Electricity

GHG Emissions Reduction Sub-Element

Next Steps

- Data trends from 2019 likely to be somewhat consistent in 2022 data
  - Understand K4C data assumptions

- Unclear how emissions patterns may have changed due to COVID
  - Primarily transportation, residential electricity
  - Impacts of RTO
  - Are these changes permanent, or temporary?

- Recent legislative changes will have some impacts on emissions sources
  - Natural gas bill

GHG Emissions Reduction Sub-Element

Next Steps

- Consider policies to address major emissions sources:
  - Commercial electricity
  - Aviation (2019 WEDGE Tool notes no significant change in this source)
  - Residential electricity
- Less impact:
  - Residential natural gas
  - Passenger vehicles

2. CPAT Progress Report

Reminder The Role of the CPAT

Technical Guidance:

- Contribute additional knowledge from related fields
- Provide specialized expertise from state agencies and regional partners

Community Input:

- Represent community interests, including key stakeholders, implementors, and traditionally underrepresented groups
- Help engage the community and promote participation in the process

CPAT Progress Report

COMPLETE

- Project Kickoff
- Explore climate hazards
- Review PPP
- Identify community assets
- Review hazards by sector
- Review preliminary GHG inventory

IN PROGRESS

- Audit plans and policies
- Assess vulnerability and risk by asset-hazard pair
- Prioritize impacts

NOT STARTED

- Review full GHG inventory results
- Set GHG emissions reduction targets
- Develop policies and action items
- Review draft element

Upcoming CPAT Meetings

CPAT Meeting	Topics
#4 March 2025	• Assess vulnerability and risk from impacts – prioritize impacts
#5 April 2025	• Review full GHG inventory results • RECOMMEND emissions reduction targets • Develop policies and action items
#6 May 2025	• Review draft element

3. Public Engagement

Community Engagement

- Technical and Community Advisory Committee (the CPAT)
- Identify Vulnerable Communities and Environmental Health Disparities
- Stakeholder Interviews
- Online and In-Person Open Houses
- Planning Commission and Committees

Community Engagement

February Workshop Summary

4. Questions and Discussion