CLIMATE ELEMENT

City of Ferndale

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City of Ferndale
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Information about the CCA is available at www.climate.wa.gov.

EXECUTIVE SUMMARY

The City of Ferndale Comprehensive Plan Climate Element establishes a framework for addressing the growing impacts of climate change in Ferndale through coordinated planning, policy, and community engagement. It includes goals and policies that aim to reduce the city's contributions to climate change by lowering greenhouse gas (GHG) emissions and vehicle miles traveled in alignment with Washington's statewide climate targets, while also strengthening the Ferndale community's ability to prepare for and withstand the climate-exacerbated hazards of flooding, extreme heat, drought, and wildfire smoke.

As part of the 2025 Comprehensive Plan update, the Climate Element incorporates new requirements under Washington's Growth Management Act (Revised Code of Washington Chapter 36.70A.070), which mandates the inclusion of climate-related goals and policies.

The City of Ferndale (City) has prioritized Climate Element goals and policies that are consistent with the Washington Department of Commerce Climate Planning Intermediate Guidance (2023) and informed by the best available science as well as meaningful input from the Ferndale community. Beyond climate benefits, these goals and policies advance co-benefits, such as enhancing ecosystem health, protecting public health and well-being, strengthening infrastructure, supporting long-term avoided costs and fiscal responsibility, and promoting a resilient and thriving future for Ferndale.

CLIMATE ELEMENT AT A GLANCE:

Summary of Conclusions

- Ferndale's total greenhouse gas emissions in 2023 were 130,723 metric tons of CO2e, primarily driven by electricity and natural gas use in residential and commercial buildings, industrial operations, and transportation activities.
- Ferndale faces climate-exacerbated hazards including flooding, extreme heat, drought, and wildfire smoke. These threats are already impacting the community and are projected to grow more frequent, severe, and disruptive, with cascading effects on public health, infrastructure, and the local economy.
- Vulnerable populations and overburdened communities face disproportionate impacts from climate-exacerbated hazards due to reduced access to safe housing, transportation, and emergency services.
- The goals and policies within the Climate Element aim to address Growth Management Act requirements by reducing greenhouse gas emissions and enhancing community resilience to climate impacts.

INTRODUCTION

As climate change increasingly affects communities across Washington, the City of Ferndale (the City) recognizes the importance of proactive planning to both reduce its contributions to climate change and build resilience against the climate-exacerbated hazards of flooding, extreme heat, drought, and wildfire smoke. The Climate Element establishes a coordinated framework for integrating climate action into the City's long-term planning, aligning with Ferndale's broader priorities such as responsible growth management, infrastructure improvement, economic vitality, and enhanced quality of life.

The Climate Element is structured to meet the requirements of Washington's Growth Management Act (GMA), as amended in 2023 through House Bill 1181 and codified in the Revised Code of Washington (RCW) Chapter 36.70A.070, which mandates the inclusion of climate planning in comprehensive plans. The City of Ferndale is subject to the Washington Department of Commerce Climate Planning Intermediate Guidance (2023), which directs the City to outlines goals and policies that address two key areas:

- **Greenhouse gas (GHG) emissions reduction:** Involves actions to lower or eliminate carbon dioxide and other heat-trapping gases. These efforts help limit the potential extent and impact of climate change over time.
- **Climate resilience:** The ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities (RCW 70a.65.010).

The Climate Element was developed through a collaborative and data-driven planning process. The goals and policies included in the Climate Element are informed by the City's 2023 GHG emissions inventory, a climate impacts analysis, ongoing natural hazard mitigation planning, and participation in regional climate planning. Input from City staff, community members, regional partners, and other key stakeholders helped shape the Climate Element to reflect both local priorities and broader climate goals.

Public engagement included two community surveys and a series of focused interviews with local leaders. A Climate Policy Advisory Team, composed of community members, elected officials, and representatives of partner agencies and organizations, provided guidance throughout the process. The planning approach followed the Washington Department of Commerce Climate Planning Intermediate Guidance (2023), including use of Commerce's Climate Policy Explorer tool to identify and evaluate goals and policies aligned with state requirements and climate planning best practices.

PURPOSE AND SCOPE

In 2023, amendments to Washington's GMA established new requirements for fully planning jurisdictions to include a Climate Element in their comprehensive plans. This Climate Element fulfills the statutory obligations outlined in RCW 36.70A.070(9) and RCW 36.70A.095, which direct jurisdictions to plan for the reduction of GHG emissions and increase resilience to climate change impacts. The Climate Element also aligns with the Washington Department of Commerce Climate Planning Intermediate Guidance (2023), which provides a framework for integrating climate considerations into local planning in a way that is consistent with state goals and best practices.

The Climate Element is structured to meet the requirements of two required sub-elements:

- Greenhouse Gas (GHG) Emissions Reduction Sub-Element
- Climate Resilience Sub-Element

To support implementation, the Climate Element presents a list of goals and policies, each clearly labeled to indicate whether the policies fulfill the requirements of the GHG Reduction Sub- Element, the Climate Resilience Sub-Element, or both. These goals and policies are designed to address actions within the City's scope of influence, identify where the City can support community-led efforts, and highlight opportunities for partnerships and regional collaboration.

GHG Reduction Sub-Element

The GHG Reduction Sub-Element includes practical, locally relevant goals and policies to reduce GHG emissions and per capita vehicle miles traveled (VMT) in Ferndale, consistent with Washington State's target of a 95 percent reduction in emissions by 2050 set by the state legislature in RCW 70A.45.020. The sub-element fulfills the requirements set forth by RCW 36.70A.070:

- Requirement A: Result in reductions in overall GHG emissions generated by transportation and land use within the jurisdiction but without increasing emissions elsewhere in Washington.
- Requirement B: Result in reductions in per capita VMT within the jurisdiction but without increasing GHG emissions elsewhere in Washington.
- Requirement C Prioritize reductions that benefit overburdened communities in order to maximize the co-benefits of reduced air pollution and environmental justice.

Climate Resilience Sub-Element

The Climate Resilience Sub-Element is required for all fully planning jurisdictions under the GMA.[1] The sub-element establishes goals and policies that equitably strengthen resilience to climate change across both communities and ecological systems, with a focus on measures that prioritize and benefit overburdened communities. The sub-element addresses the prioritized climate-exacerbated hazards of flooding, extreme heat, drought, and wildfire smoke and fulfills the requirements outlined in RCW 36.70A.070:

- **Requirement A:** Identify, protect, and enhance natural areas to foster resiliency to climate impacts, as well as areas of vital habitat for safe passage and species migration.
- **Requirement B:** Identify, protect, and enhance community resiliency to climate change impacts, including social, economic, and built environment factors, that support adaptation to climate impacts consistent with environmental justice.
- **Requirement C:** Address natural hazards created or aggravated by climate change, including sea level rise, landslides, flooding, drought, heat, smoke, wildfire, and other effects of changes to temperature and precipitation patterns.

1 The City of Ferndale is a fully planning jurisdiction under the GMA.

RELATIONSHIP TO PLAN ELEMENTS

The Climate Element is designed to complement and reinforce the goals and policies embedded throughout Ferndale's Comprehensive Plan that support GHG reduction and resilience to climate- exacerbated hazards. It builds upon and integrates with existing elements to provide a focused and cohesive framework for climate planning.

Examples of existing goal and policy themes in other elements that advance GHG reduction and climate resilience include the following, grouped by comprehensive plan elements:

Housing and Land Use Elements

- Policies promoting infill development and increased density within city boundaries.
- Policies encouraging mixed-use development in appropriate areas. Land Use Element
- Policies restricting development in special flood hazard areas and clustering growth in locations with existing utilities and services.

Transportation Element

- Policies aimed at reducing per capita VMT while enhancing the safety, connectivity, accessibility, and efficiency of the multimodal transportation system.
- Policies supporting land use planning and transit-oriented development. Utilities Element
- Policies related to energy conservation and efficiency. Capital Facilities Element
- Policies to minimize and mitigate the environmental impacts of capital facilities projects.
- Emergency preparedness policies.
- Policies to improve park and trail access and connectivity are found in the Parks Master Plan, adopted by reference.

Economic Development Element

- Policies to create and preserve employment opportunities that enable Ferndale residents to live and work within the local market area.
- Policies promoting the development of a diversified and resilient local economy.

GHG EMISSIONS IN FERNDALE

Ferndale's commitment to reducing GHG emissions within the city is a part of a broader statewide and global response to climate change. While the City's individual contribution may be modest, its actions, in combination with those of other communities, play an important role in helping Washington achieve its state legislative target of a 95 percent reduction in GHG emissions by 2050.

As part of the Climate Element planning process, the City conducted an inventory of GHG emissions for the year 2023. The inventory identifies the community-wide sectors and activities in Ferndale with the greatest potential for reducing GHG emissions. This inventory establishes a baseline for measuring Ferndale's community-wide GHG emissions over time, allowing the City to compare future inventories and monitor trends. It also establishes a replicable methodology to support tracking across planning cycles. The results of the inventory informed the development of goals and policies that fulfill the requirements of the GHG Emissions Reduction Sub-Element.

The inventory was developed in accordance with the U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions, established by the International Council for Local Environmental Initiatives (ICLEI 2019). It includes emissions from residential, commercial, and industrial sources. For a detailed breakdown of emission sources, refer to Table 1.

Table 1. Emissions Sources for the 2023 GHG Emissions Inventory

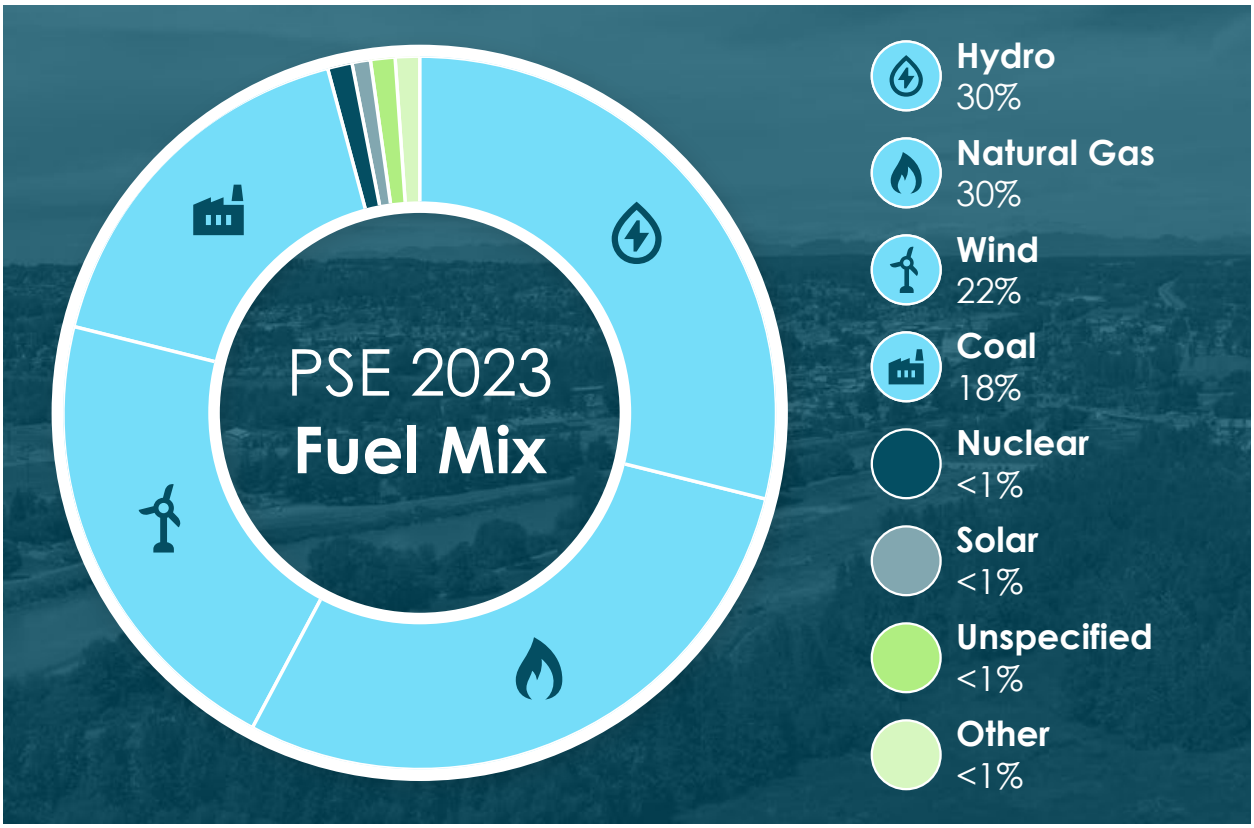
CATEGORY	SOURCES
Built Environment	Electricity (Residential, commercial, industrial)
	Natural gas (Residential, commercial, industrial)
	Propane (Residential, commercial, industrial)
	Fuel oil (Commercial, industrial)
Refrigerants	Refrigerants
Land Use	Tree cover loss
	Carbon sequestration*
Transportation	Passenger and freight vehicles
	Transit
Wastewater	Treatment processes
Solid Waste	Landfilled waste
	Compost*
	Recycling*

Note
Asterisk (*) indicates avoided emissions or emissions removals that are reported as separate line items and not included in total emissions inventory.

The inventory results showed that Ferndale's total community-wide emissions in 2023 were approximately 130,723 metric tons of carbon dioxide equivalent (MT CO_2e). Emissions were primarily driven by electricity use (39 percent), natural gas use (35 percent), and transportation (13 percent). Other contributors include refrigerants (6 percent), fuel oil (3 percent), solid waste (2 percent), tree cover loss (1 percent), propane (<1 percent), and wastewater treatment (<1 percent) (see Figure 1).

The inventory results showed that Ferndale's total community-wide emissions in 2023 were approximately 130,723 metric tons of carbon dioxide equivalent (MT CO_2e). Emissions were primarily driven by electricity use (39 percent), natural gas use (35 percent), and transportation (13 percent). Other contributors include refrigerants (6 percent), fuel oil (3 percent), solid waste (2 percent), tree cover loss (1 percent), propane (<1 percent), and wastewater treatment (<1 percent) (see Figure 1).

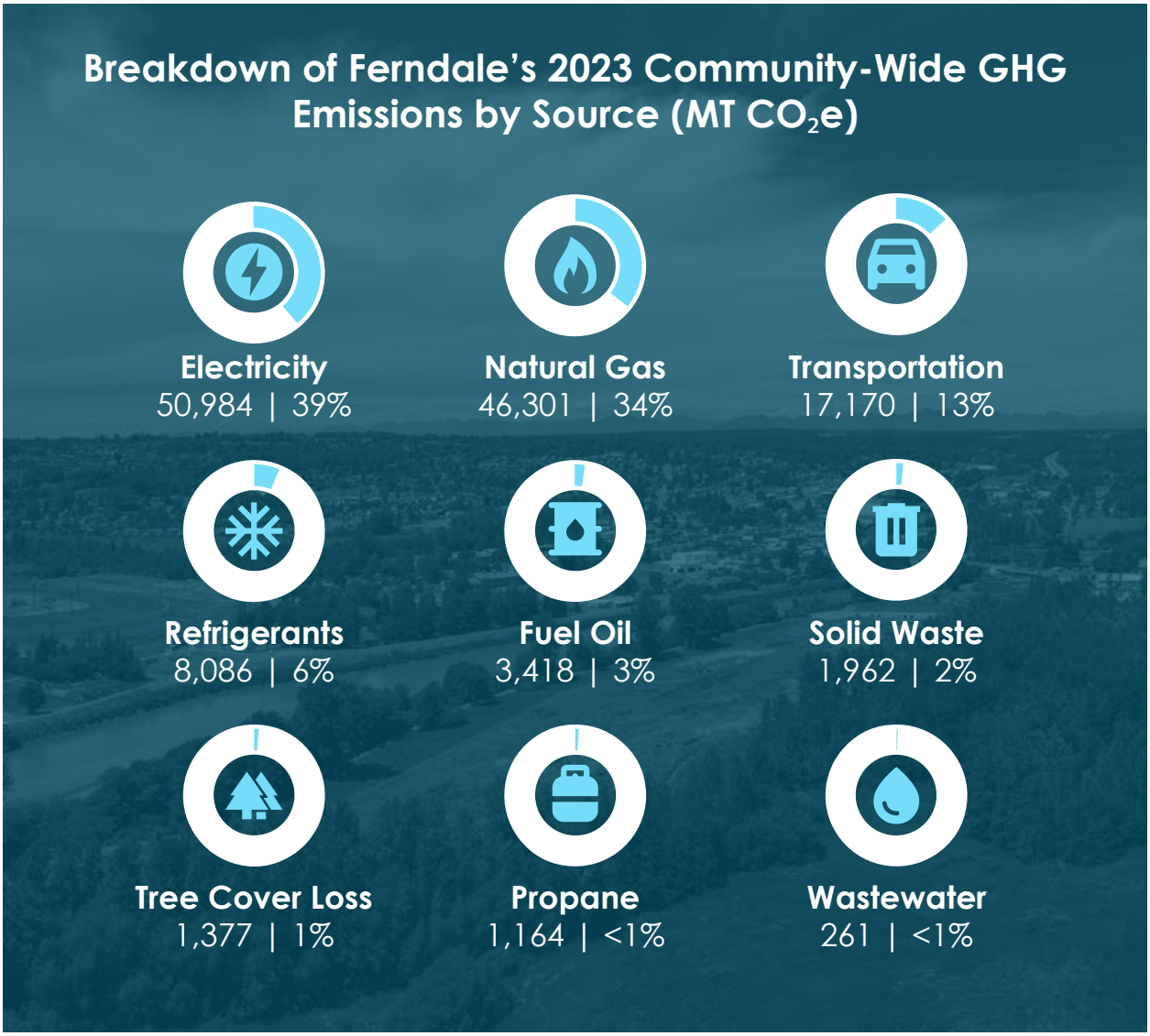
Figure 1. Breakdown of Ferndale's 2023 Community-Wide GHG Emissions by Source



One factor that influences emissions from electricity use in Ferndale is the mix of resources that Puget Sound Energy (PSE) uses to generate the electricity delivered to customers. Different generation resources (e.g., hydroelectric, natural gas, coal, wind, solar, etc.) are associated with different amounts of GHG emissions. In 2023, PSE's electricity fuel mix consisted of approximately 30 percent natural gas, 30 percent hydroelectric, 22 percent wind, and 18 percent coal, with the remaining <1 percent from nuclear, solar, and unspecified sources (see Figure 2).[1]

1 PSE. 2024. "Electricity Supply." Puget Sound Energy. Accessed October 14, 2025. https://www.pse.com/en/pages/energy-supply/electric-supply.

Figure 2. PSE 2023 Electricity Generation Fuel Mix



Washington State's Clean Energy Transformation Act, enacted in 2019, aims to transition the state to 100 percent clean electricity by 2045 and requires utilities to develop plans for achieving clean energy targets. [2] PSE and other utilities are required to reduce the carbon intensity of electricity supplied to customers; therefore, it is anticipated that electricity in Washington State will become less emissions-intensive over time.

2 Washington State Department of Commerce. 2025a. "Clean Energy Transformation Act (CETA)." Last modified March 17, 2025. https://www.commerce.wa.gov/energy-policy/electricity-policy/ceta/.

Figure 3 summarizes Ferndale's 2023 emissions from electricity, natural gas, propane, and fuel oil use by sector (i.e., residential, commercial, and industrial). Residential energy use (electricity, natural gas, and propane) accounted for 30 percent of total emissions. Commercial and industrial energy use (i.e., electricity, natural gas, propane, and fuel oil) accounted for 27 percent and 21 percent, respectively, of total emissions.

Commercial electricity use was the largest source of energy-related emissions, accounting for 18 percent of total emissions. Residential electricity use and industrial natural gas use were the second and third-largest sources of energy-related emissions, accounting for 16 percent and 14 percent, respectively, of total emissions.

Figure 3. Ferndale's 2023 Built Environment GHG Emissions by Category and Source

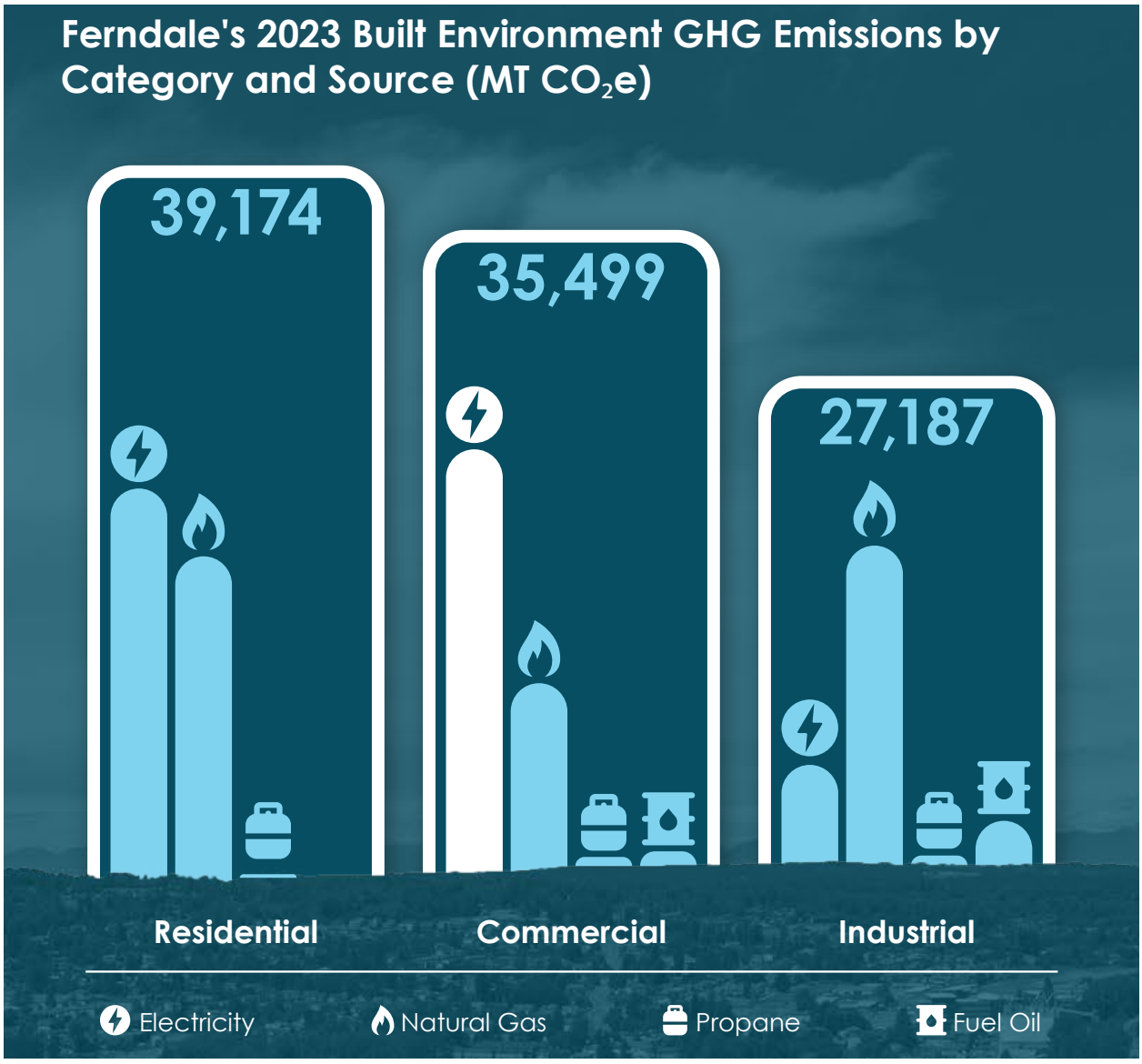
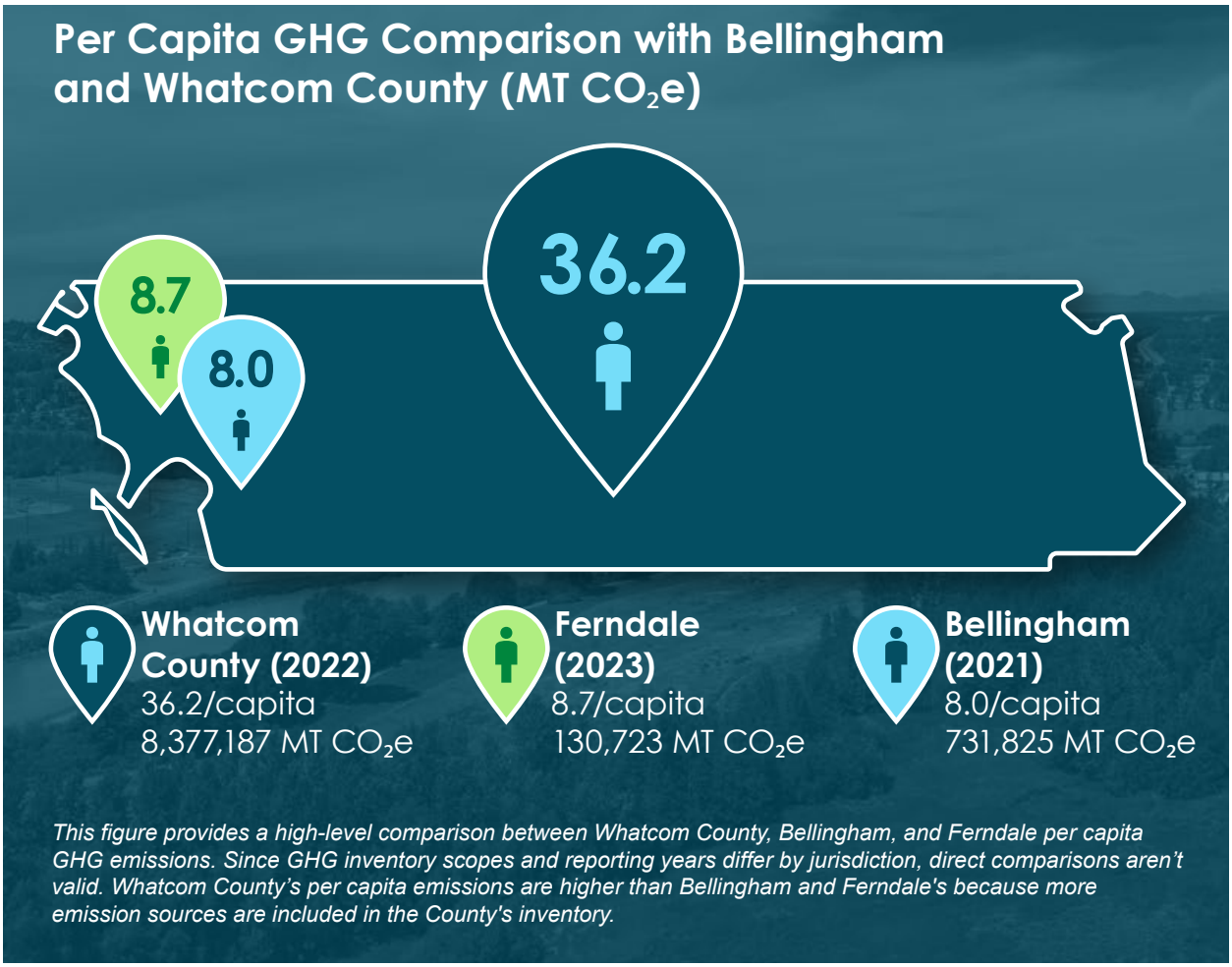


Figure 4 shows per capita GHG emissions for Ferndale, Bellingham, and Whatcom County to provide regional context for Ferndale's GHG inventory results. Since GHG inventory scopes and reporting years vary by jurisdiction, it is not appropriate to make direct comparisons. Whatcom County's higher per capita emissions likely result from its inclusion of sources not accounted for or relevant to Ferndale's inventory.

Figure 4. Per Capita GHG Comparison with Bellingham and Whatcom County



CLIMATE IMPACTS IN FERNDALE

Drawing on regional climate data and projections as well as local vulnerability assessments, this section outlines the anticipated impacts of climate change on Ferndale. It draws on a 2025 Climate Impacts Analysis that used data from the University of Washington's Climate Mapping for a Resilient Washington tool (Raymond and Rogers 2022), Federal Emergency Management Agency effective flood maps (FEMA 2019), U.S. Environmental Protection Agency's AirNow database (EPA 2025), Centers for Diseases Control's PLACES database (CDC 2025), and National Oceanic and Atmospheric Administration land cover data (NOAA 2025) as well as regional climate vulnerability studies such as the Whatcom County Compound Flood Vulnerability Assessment (Whatcom County 2023) and the Future Shorelines Project (Whatcom County 2025a), which offer hazard forecasting, parcel-level data and interactive mapping tools.

Primary Expected Climate-Exacerbated Hazards

Ferndale faces a growing array of climate-related challenges that are expected to intensify in the coming decades. As global GHG emissions continue to influence regional weather patterns and environmental conditions, communities like Ferndale must prepare for more frequent and severe climate-related events. The primary forecasted climate-exacerbated hazards in Ferndale include flooding, extreme heat, drought, and wildfire smoke.

- **Flooding:** Flooding risk in Ferndale is projected to increase due to higher river flows and more extreme rainfall events. The Nooksack River, which has historically caused several major floods in the city, is projected to have peak flows increase by 20 to 32 percent by 2040 and 52 to 72 percent by 2080 (USGS 2023). Additionally, projections indicate that maximum daily rainfall during a 25-year storm may increase by 14 percent between 2020 and 2049 compared to the 1980–2009 baseline under a high GHG emissions scenario (Raymond and Rogers 2022). These changes could overwhelm existing flood protections, including the levee system, and raise the likelihood of flooding in areas with inadequate drainage located behind the levee.
- **Extreme Heat:** The average temperature in Whatcom County has increased by 1.9°F over the last century and is expected to warm at a faster rate into the future (Whatcom County 2025b). As the climate continues to warm, areas of Whatcom County, like Ferndale, with pronounced heat island effects will experience greater exposure to extreme heat. Ferndale is projected to experience increasingly hot summers, with summer maximum temperatures rising by 3.1 to 3.7°F between 2020 and 2049 compared to the 1980–2009 baseline (Raymond and Rogers 2022). This warming trend is also reflected in the

projected increase in cooling degree days, a metric that estimates how often buildings may need air conditioning to maintain comfortable indoor temperatures. Ferndale is forecasted to see 3.7 to 5.0 additional cooling degree days per year, indicating greater energy demand for cooling. Rising temperatures will intensify the urban heat island effect in built-up areas that retain more heat due to surfaces like pavement and rooftops. Ferndale's heat disparity index, which measures temperature differences between neighborhoods based on tree cover and land use, is +4.2°F across its 11 census block groups, meaning that areas with less shade are experiencing greater high temperatures than areas with more shade (American Forests 2025). Supporting this, land cover data from NOAA (2025) show that tree canopy, which helps cool neighborhoods by providing shade and reducing surface temperatures, covers 27.3 percent of Ferndale's existing urban growth area (UGA), while impervious surfaces, such as roads, sidewalks, and rooftops that absorb and radiate heat, cover 24.7 percent.

- **Drought:** Drought conditions in the region are expected to become more frequent, posing increasing challenges for agriculture and local water resource management. Between 2020 and 2049, the annual likelihood of precipitation drought, defined as total summer rainfall (June– August) falling below 75 percent of historical levels, is projected to increase in Whatcom County (Raymond and Rogers 2022).
- **Wildfire Smoke:** In Ferndale, wildfire danger is projected to remain extremely low through mid- century (Raymond and Rogers 2022). However, regional trends show that warmer temperatures and drier summers across northern Washington and Canada are expected to increase wildfire frequency and severity in the greater region, contributing to more widespread smoke. Whatcom County has already experienced its first instances of unhealthy air quality during the fire season (June–October) with increasing frequency. While Ferndale itself may not see a significant rise in wildfire incidence within city limits, the community will likely be affected by degraded air quality due to regional and international wildfire activity.

Climate Impacts on Overburdened Communities and Vulnerable Populations

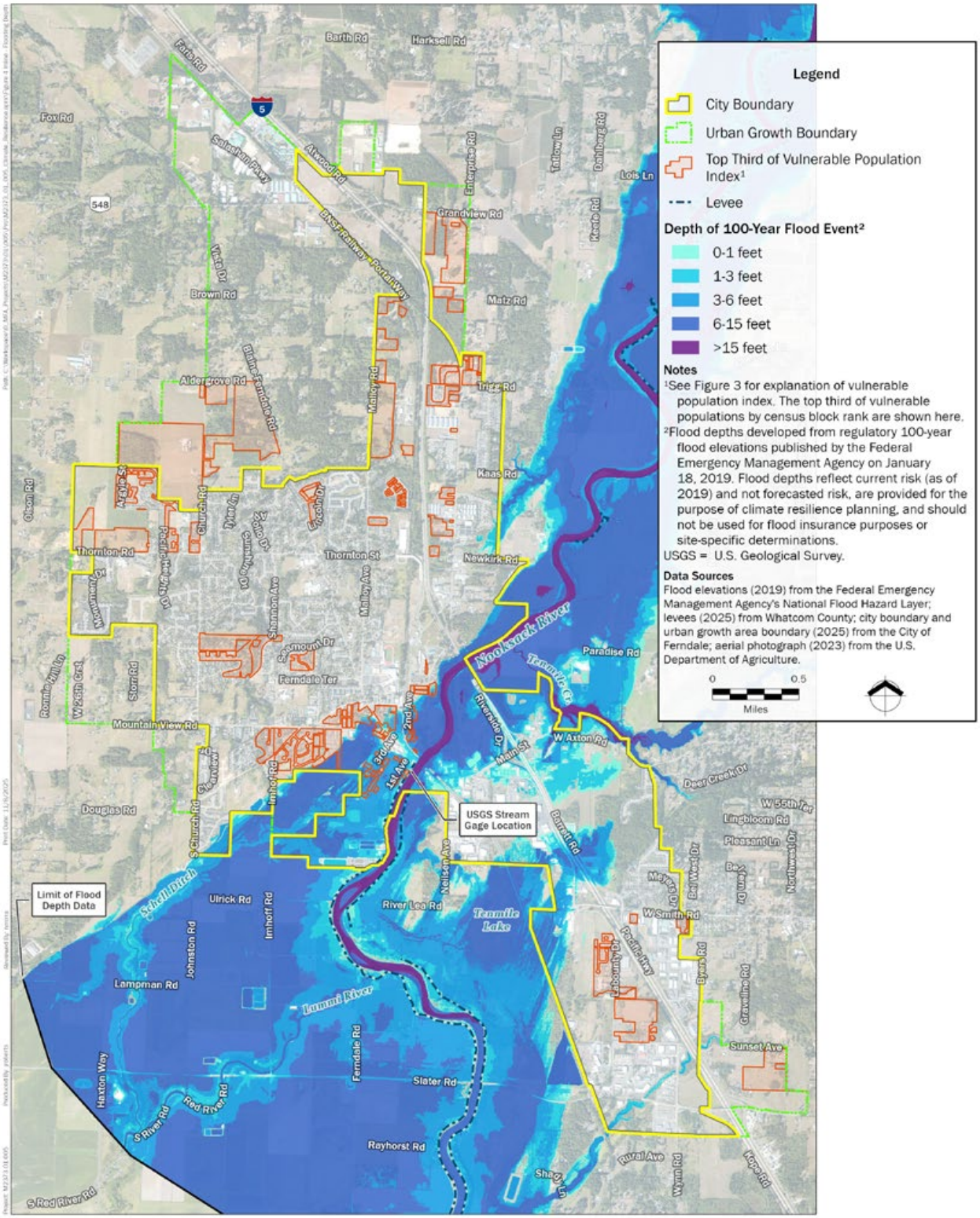
Climate change does not impact all community members equally. Vulnerable populations, defined in RCW 70A.02.010 as groups more likely to experience poor health outcomes in response to environmental hazards, are at heightened risk due to socioeconomic factors, such as low income, limited access to healthcare, and linguistic isolation, as well as sensitivity factors like low birth weight or higher hospitalization rates. Vulnerable populations often live in areas more exposed to climate hazards and may have fewer resources to adapt or respond. Overburdened communities are defined in RCW 70A.02.010 as geographic areas where vulnerable populations face combined, multiple environmental harms and health impacts, which may result in adverse health outcomes or effects.

In Ferndale, some of the city's most vulnerable populations and residents live in flood-prone areas, including neighborhoods near 2nd Avenue and Washington Street and along the downtown riverfront (Figure 3). During major flood events, these residents face increased risks of injury or death due to mobility limitations, which may place additional pressure on emergency services.

Vulnerable populations and residents are also disproportionately affected by excessive heat. Many live in neighborhoods with limited tree cover and high concentrations of impervious surfaces, which intensify the urban heat island effect. Areas near Correll Commons Retirement Community and developments in the northwest of the city (e.g., Pacific Highlands) are particularly at risk. Rising temperatures can lead to acute health impacts such as heat exhaustion and heat stroke, as well as long-term chronic health issues, especially for those with preexisting conditions.

Although wildfire danger in Ferndale remains low, regional wildfire activity is increasing, leading to more frequent smoke events. This poses a serious health risk for the approximately 12 percent of Ferndale residents who suffer from asthma (CDC, 2025). Exposure to wildfire smoke can trigger respiratory distress and other health complications, placing additional pressure on emergency management resources and contributing to long-term health burdens.

Figure 3. 100-Year Event Flood Exposure on Vulnerable Populations in Ferndale



Climate Impacts on Community Assets

In Ferndale, certain natural and built systems are more exposed to the impacts of climate change due to their location, design, or condition. These vulnerabilities can amplify risks to public health, infrastructure reliability, and ecosystems and natural areas. While the list of potential impacts is extensive, some of the most pressing risks to key assets include the following:

- **Rising temperatures** are expected to increase the need for air conditioning, which will drive up energy demand in residential and commercial buildings. This will place additional load on Ferndale's electric infrastructure, potentially increasing utility costs and the risk of outages during peak heat events.
- **Flooding and extreme precipitation** pose significant risks to transportation and utilities. Low- elevation roads and stormwater infrastructure in the city center, particularly those in areas unprotected by the levee system (upstream of the Main Street and railroad bridges) are prone to the effects of flooding in minor events. More extreme precipitation events will increase the occurrence of nuisance flooding.
- The City's wastewater and water treatment plants are located adjacent to the lowest points in the levee system. With **100-year flood elevations** slightly exceeding the levee tops, a breach or overtopping during a peak flow event on the Nooksack River could severely impact a hub of the City's most significant infrastructure.
- In Ferndale, the public water supply is sourced from groundwater via City-owned wells, which may be vulnerable during **drought** periods due to reduced aquifer recharge. The City is currently drilling a third well and has plans for additional wells to meet production demand, as well as providing redundancy for the City water system.

CLIMATE HAZARDS AND IMPACTS

INCREASING SUMMER TEMPERATURES lead to health risks like heat stroke and dehydration, drive up energy demand for cooling, and place stress on vulnerable populations and ecosystems.

INCREASED WILDFIRE SMOKE, driven by more intense and frequent wildfire activity in the Pacific Northwest and Canada, leads to degraded air quality, respiratory issues, and cancellations of school and outdoor activities.

EXTENDED DROUGHTS are becoming more likely, resulting in water shortages, agricultural stress, increased fire risk, and loss of trees and habitat.

INCREASED PRECIPITATION leads to flooding, which can cause property and infrastructure damage, road closures, mold and water contamination, a higher risk of displacement for affected residents, and habitat and ecosystem disruptions.

GOALS AND POLICIES

GOAL	Related Sub-Elements
01 | Promote energy-efficient technologies and practices in buildings throughout Ferndale to reduce GHG emissions.	
02 | Support the advancement of reliable energy technology and systems that reduce GHG emissions and maintain functionality during climate- related disruptions.	
03 | Support multimodal infrastructure and transit-oriented development to reduce GHG emissions and per capita VMT.	
04 | Foster higher-intensity land uses and housing diversity and supply within City limits.	
05 | Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality.	
06 | Protect community health and well-being from th	
07 | Encourage owners of existing and new capital facilities to consider safety and operational resilience from the impacts of climate- exacerbated hazards.	
08 | Improve the resilience of Ferndale's built environment and transportation system to flooding.	
09 | Strengthen emergency preparedness, response, and recovery efforts to mitigate climate impacts.	
10 | Strengthen climate action and resilience through local coordination and collaboration.	
11 | Provide all residents an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance climate resilience and reduce GHG emissions.	
12 | Strengthen Ferndale's economy by supporting local industries, businesses, and workforce initiatives that reduce GHG emissions and strengthen Ferndale's ability to withstand and recover from extreme weather disruptions.	

GHG Sub-Element Resilience Sub-Element

01 | Promote energy-efficient technologies and practices in buildings throughout Ferndale to reduce GHG emissions.

Rationale: Ferndale's GHG emissions primarily originate from the built environment, especially energy use in commercial and residential buildings. Improving building energy efficiency reduces overall energy demand and associated emissions, while also providing additional benefits such as long-term cost savings and, through weatherization, improved occupant health via regulating indoor temperature and air quality.

POLICIES:

A. Prioritize energy retrofits of City-owned buildings when updating capital project lists.

B. Evaluate LEED certification for City-owned buildings and pursue LEED standards when building or retrofitting City-owned buildings.

C. Prioritize the preservation and weatherization of housing in overburdened communities, particularly at higher densities, to reduce emissions and increase resilience.

D. Encourage building owners to pursue energy efficiency retrofits and technologies by promoting rebates, grants and other financing opportunities.

02 | Support the advancement of reliable energy technology and systems that reduce GHG emissions and maintain functionality during climate- related disruptions.

Rationale: As climate change drives increased demand for energy used for cooling and accelerates the shift toward electrification, Ferndale's energy systems will face growing strain. At the same time, more frequent and severe weather events increase the risk of power outages. Advancing reliable and resilient energy technologies, including distributed generation, storage, and microgrids, will help maintain functionality during disruptions. These technologies can also support GHG emissions reductions by increasing renewable energy generation and use.

POLICIES:

A. Encourage solar installations on new residential and commercial buildings, where practicable.

B. Review Ferndale Municipal Code to assess barriers to the installation of residential and commercial on-site energy storage and backup systems.

C. Explore opportunities to install distributed renewable energy generation and battery infrastructure at public facilities to store renewable electricity generated on site and provide emergency power to support continuity of operations.

D. Explore developing local microgrid solar and/or battery storage facilities where allowed.

03 | Support multimodal infrastructure and transit-oriented development to reduce GHG emissions and per capita VMT.

Rationale: In 2023, transportation accounted for 13 percent of Ferndale's GHG emissions, making it a key area for reducing transportation emissions. Promoting lower-emission vehicles and alternatives to single-occupant vehicle trips, such as walking, biking, and transit, can reduce emissions and VMT while improving mobility and easing congestion as the population grows.

POLICIES:

A. Align Ferndale's development code with current Washington State energy code requirements for electric vehicle charging infrastructure.

B. Coordinate with Whatcom Transportation Authority to promote public transit expansion and use by aligning land use and transportation planning and locating transit stops near commercial, residential, and employment areas.

C. Establish a green belt of parks with shared use paths to support connectivity and nonmotorized travel between housing, schools, and businesses.

D. Create a safe, well-connected, and attractive bicycle and pedestrian transportation network to encourage active transportation.

E. Plan for multimodal capacity in coordination with the location of higher-density housing and commercial centers.

F. Integrate Complete Streets principles[1] into roadway designs, where appropriate.

G. Develop and implement strategies, such as commute trip reduction, to reduce reliance on single-occupancy vehicles.

H. Improve multimodal connectivity by considering a grid street requirement that reduces cul- de-sacs.

1 In 2022, the Washington State Legislature added a Complete Streets requirement in RCW 47.04.035 that directs the Washington State Department of Transportation to use certain best practices and principles in design and delivery for projects above $1 million (WSDOT 2025).

04 | Foster higher-intensity land uses and housing diversity and supply within City limits.

Rationale: Development without urban services can lead to sprawl and result in inefficient development patterns that are difficult and costly to urbanize. Concentrating growth within Ferndale city limits supports compact development patterns that reduce GHG emissions by shortening travel distances and making walking, biking, and transit more attractive and viable. This approach also builds resilience by limiting expansion into hazard-prone areas and leveraging existing infrastructure, while increasing housing supply and affordability through more diverse and efficient land use.

POLICIES:

A. Allow middle housing types, such as duplexes, triplexes, and ADUs, in residential areas to meet requirements in RCW 36.70A.680, 681 and 696.

B. Expand inclusionary zoning as a tactic for supporting greater income diversity in housing types.

C. Establish minimum residential densities within UGAs.

D. Prioritize infill development through streamlined permitting and development incentives.

E. Implement complimentary mixed land uses, such as locating business districts, commercial centers, parks, and schools within neighborhoods, to promote multimodal transportation.

05 | Increase tree canopy cover to boost carbon sequestration, reduce heat islands, and improve air quality.

Rationale: Extreme heat is one of the most pressing climate-related hazards in Ferndale due to low canopy cover. Areas with low tree cover and high impervious surfaces are especially vulnerable to the urban heat island effect. Expanding the tree canopy in these areas helps cool neighborhoods, absorb GHG emissions, and reduce energy demand for cooling, while also providing additional benefits like improved air quality, public health, and community livability.

POLICIES:

A. Increase tree canopy coverage requirements for surface parking lots.

B. Improve City urban forest management practices to enhance tree health and canopy coverage.

C. Evaluate and update street tree requirements in public rights-of-way.

D. Designate general location and uses of land for green spaces, open space, and urban and community forests within the UGA.

E. Ensure that tree species selection and planting guidance are updated to be resilient to drought and other climate-exacerbated hazards.

06 | Protect community health and well-being from the impacts of climate- exacerbated hazards in Ferndale.

Rationale: Climate-exacerbated hazards, including extreme heat, flooding, drought, and wildfire smoke, pose growing risks to the health and well-being of Ferndale's population. The impacts are especially challenging for overburdened communities, who may face greater exposure and have limited access to cooling, safe housing, transportation, or emergency alerts.

POLICIES:

A. Work with partner agencies to evaluate and address the effects of climate change on overburdened communities in Ferndale.

B. Partner with Whatcom County and community organizations to expand the capacity of severe weather shelter services, including facilities that offer public access to cooling, warming, and clean air during extreme temperature and smoke events.

C. Develop a wildfire smoke response strategy that increases community awareness of resources and strategies for reducing smoke exposure.

07 | Encourage owners of existing and new capital facilities to consider safety and operational resilience from the impacts of climate- exacerbated hazards.

Rationale: Increased flooding poses risks to some of Ferndale's capital facilities, including the city's wastewater and water treatment plants which are located adjacent to the lowest points in the levee system along the Nooksack River. It also jeopardizes facilities owned by Whatcom Public Utility District and Whatcom County that serve Ferndale residents. Planning, designing, and maintaining these facilities with current and future flood risks in mind is essential to protecting long-term functionality and avoiding costly disruptions. Proactive strategies like the planned Ferndale levee improvements can help minimize service interruptions and reduce future expenses by addressing vulnerabilities before they become emergencies.

POLICIES:

A. Conduct vulnerability assessments of public facilities to identify public assets and infrastructure that may be at short-, mid-, or long-term risk from flooding.

B. Develop or support adaptation plans to relocate, retrofit, or replace public assets at risk of flooding in order to maintain essential services and reduce future impacts.

C. When designing, siting, and constructing City-funded capital infrastructure, plan for future flood risk to help keep assets safe and functional throughout their intended lifespans.

08 | Improve the resilience of Ferndale's built environment and transportation system to flooding.

Rationale: Flooding and extreme precipitation have already impacted Ferndale's built environment and transportation system. Disruptions like mobility limitations, damaged infrastructure, and strained emergency response capabilities are especially consequential for overburdened communities that may face heightened exposure and greater adverse impacts. Increasingly frequent and intense weather events pose a growing threat to the built environment, roads, and bridges.

POLICIES:

A. Use up-to-date flood maps during land use planning to reduce new development in the floodplain.

B. Coordinate across local, regional and state agencies and planning efforts to reduce vulnerability of Ferndale's local roads, buildings, and bridges to flooding. Update Ferndale Municipal Code when new regulatory data is available to incorporate best available science regarding flood risk.

09 | Strengthen emergency preparedness, response, and recovery efforts to mitigate climate impacts.

Rationale: Recent events, such as the 2021 floods, revealed opportunities for Ferndale and its partners to strengthen emergency preparedness, response, and recovery systems. As climate- exacerbated hazards become more frequent and severe, proactive planning will be critical to respond quickly and recover effectively. With many engaged partners already in place, the City is well-positioned to build on existing efforts.

POLICIES:

A. Update Ferndale's chapter of the Whatcom County 2021 Natural Hazards Mitigation Plan (Whatcom County 2021) to include an assessment of future climate-exacerbated hazards, including flooding, extreme temperatures, wildfire, and compound flooding due to sea level rise.

B. Coordinate with Whatcom Transportation Authority to establish and maintain procedures that respond to climate-exacerbated hazards, including route planning, service continuity, and communication protocols.

C. Coordinate with Whatcom County to plan for debris removal and waste disposal in post- emergency scenarios, consistent with the Whatcom County Disaster Debris Management Plan.

D. Work with Whatcom County to increase the number of Ferndale residents enrolled in emergency alerts and evacuation notices.

E. Formalize interagency communication networks to support coordinated planning, response, and recovery efforts across local agencies, schools, nonprofits, and emergency service providers.

F. Regularly update City emergency communication strategies with outreach materials that are accessible, multilingual, and culturally relevant.

G. Consider future projections for climate-exacerbated hazards such as flooding in emergency route planning, consistent with the Whatcom County Emergency Management Plan.

10 | Strengthen climate action and resilience through local coordination and collaboration.

Rationale: Ferndale's proximity to other communities taking climate action and planning for climate- exacerbated hazards creates opportunities for shared learning and action. By coordinating and collaborating with local and regional partners jurisdictions, Tribes, and other partners, Ferndale can align strategies to better address shared climate goals, share lessons learned, and pursue joint resources to address climate risks.

POLICIES:

A. Collaborate with local jurisdictions and organizations on climate and natural hazard planning to share knowledge, advocate for Ferndale's priorities, and contribute to coordinated climate solutions.

B. Coordinate regularly with regional partners to align GHG reduction and resilience strategies and leverage resources across jurisdictions, consistent with shared regional climate goals in the Countywide Planning Policies.

C. Foster government-to-government relations with the Lummi Nation and the Nooksack Indian Tribe to support the preservation of archaeological sites and traditional cultural resources vulnerable to climate impacts and to collaborate on shared climate resilience and GHG reduction goals.

D. Coordinate with agencies responsible for real-time air quality monitoring to improve communication and guidance during smoke events.

11 | Provide all residents an equitable opportunity to learn about climate impacts, influence policy decisions, and take actions to enhance climate resilience and reduce GHG emissions.

Rationale: Ferndale benefits from a connected community and active organizations offering resources and support that can advance many of the City's climate-related goals and policies. By building on these strengths, the City can help residents gain the knowledge and resources they need to better prepare for climate impacts, reduce emissions, and contribute to future priorities and actions. Expanding outreach, especially to overburdened communities, will bring more voices into planning and lead to more effective, inclusive climate solutions.

POLICIES:

A. Work with local, state, and federal partners and organizations to support community conversations and programs that build awareness of climate impacts, available resources, and how to be prepared for smoke, heat, and flooding.

B. Work with local organizations to provide community-wide opportunities for residents to participate in educational workshops, activities, and engagement efforts focused on energy efficiency and other GHG reduction strategies, with targeted outreach to overburdened communities.

12 | Strengthen Ferndale's economy by supporting local industries, businesses, and workforce initiatives that reduce GHG emissions and strengthen Ferndale's ability to withstand and recover from extreme weather disruptions.

Rationale: Meeting Ferndale's climate goals will require many contributors, and local businesses are well-positioned to contribute and lead by example. By adopting low-emission practices and preparing for disruptions due to extreme weather, businesses can protect their operations, contribute to wider GHG reduction goals, and help strengthen the community's overall resilience. These actions also support job creation and long-term economic stability by helping to build a local economy that is better equipped to thrive in a changing climate.

POLICIES:

A. Prioritize City of Ferndale purchasing from local businesses to reduce GHG emissions associated with the transportation, production, and distribution of goods.

B. Retain the EAGLE Program to encourage retail development to build to higher standards of energy conservation.

C. Develop targeted campaigns for recycling material with the highest GHG-reduction impact (e.g., paper, metal, food waste).

D. Coordinate with the Port of Bellingham to update the Whatcom County Comprehensive Economic Development Strategy 2022–2026 (Port of Bellingham 2022) to plan for climate impacts.