



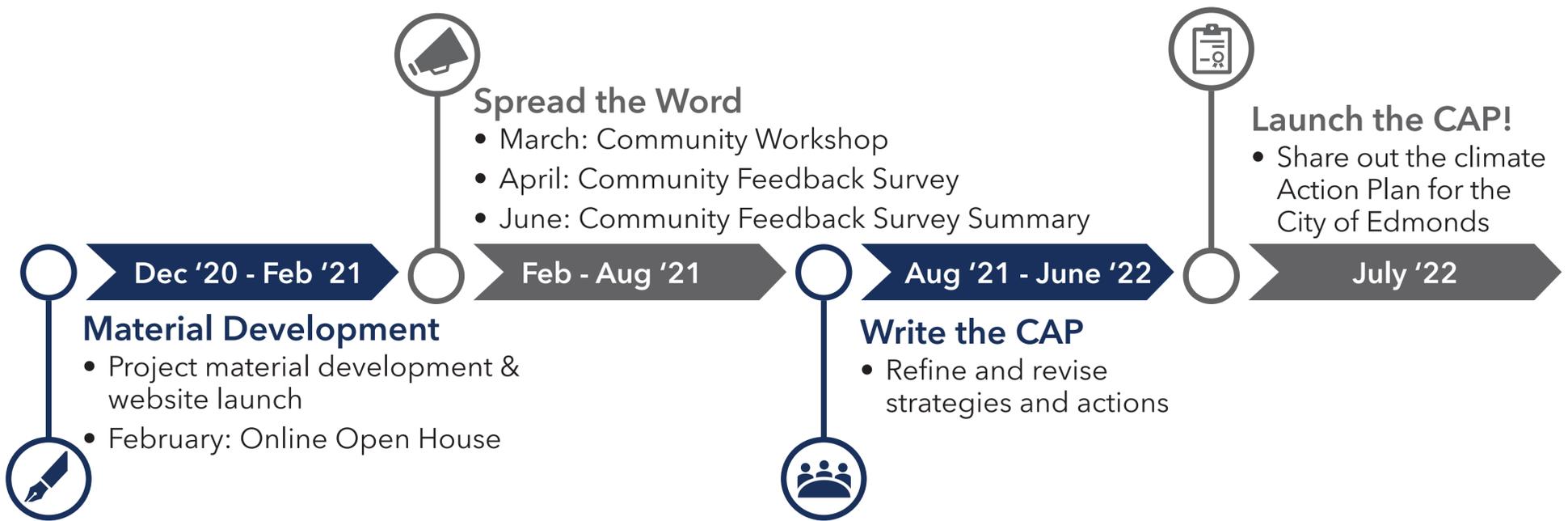
2022 CLIMATE ACTION PLAN

BACKGROUND

For over a decade, The City of Edmonds has committed to preventing the harms from climate change. From sea level rise that causes erosion and flooding, to drought and higher land temperatures that will destroy crops and forests, and rising ocean temperatures and acidity that will affect marine species, Edmonds recognizes that it bears responsibility to take action as citizens of the world and stewards of our environment.

In 2010, the City adopted a Climate Action Plan (CAP) to substantially reduce greenhouse gas (GHG) emissions. Starting in 2018, local consultants were hired to prepare a new GHG inventory and to advise the City on updating its CAP. This plan focuses on the most important steps Edmonds can take to address climate change.

CAP DEVELOPMENT PROCESS



GHG INVENTORY

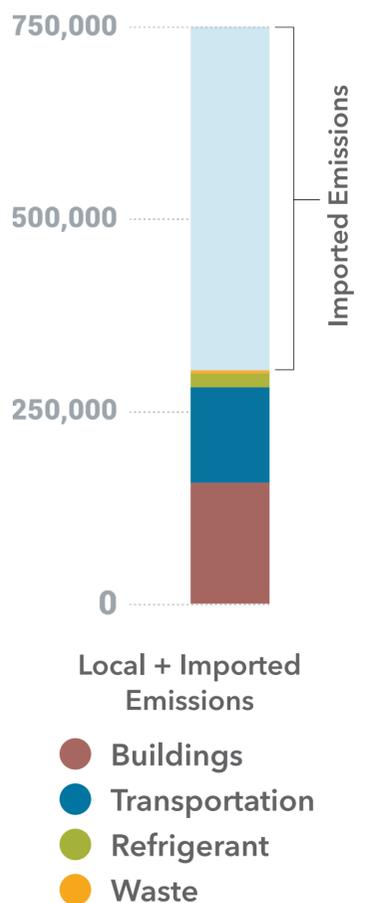
The community-wide GHG inventory was completed in early 2019 based on data for 2017, and emissions were estimated to be about 750,000 MT CO₂e, including both “local” (emissions that occur within the city limits) and “imported” (emissions are generated outside of Edmonds to produce the goods, food, and services consumed in Edmonds, or by the people of Edmonds while traveling outside of the city).

Total local and imported emissions in 2017 were approximately 17.2 MT CO₂e per capita. For comparison, in 2017 the global per capita average was 6.4 MT CO₂e and the US average was 17.3 MT CO₂e.

Emissions from operating buildings and transportation continue to be the two sectors with the largest local emissions sectors. Other key observations from the new inventory include:

- Residential buildings in Edmonds have more than double the impact of commercial buildings.
- In 2017, 75% of natural gas was consumed by the residential sector, nearly 25% by the commercial sector, and less than 1% was consumed by the industrial sector.
- Passenger transport, primarily in cars, is the leading source of transportation-related local GHG emissions.

2017 Community GHG Emissions (MTCO₂e)



TRACKING PROGRESS



As part of this CAP Update, our consultants prepared a tracking tool that focuses on a key metric for each of 10 strategies. This will allow the City to estimate progress in reducing local emissions on an annual basis, without having to do a complete new inventory.

The tracking tool includes assumptions built off existing information about GHG emissions, population and employment growth, commuting

patterns, and other factors, as well as uses 2017 a baseline. The baseline is projected based on population and employment growth, as a “business-as-usual” baseline through 2050, assuming behavior and technology remained the same.

Based on the tracking tool, replacing fossil-fuel based gas, carbon-neutral refrigerants, carbon sequestration, and other measures are needed to meet our GHG emissions targets for 2050.

Key metrics tracking progress of the CAP

Strategy	2035 Annual GHG Savings (MTCO ₂ e)	2050 Annual GHG Savings (MTCO ₂ e)	Monitoring Metric(s)
BE-1: Replace Fossil Fuels used in Buildings with Renewable Energy Resources*	-	-	Number of new residential and commercial solar photovoltaic systems installed
BE-2: Improve Energy Efficiency of Existing Buildings and Infrastructure	3,157	6,253	Percent of existing residential and commercial area retrofitted
BE-3: Require the Design and Construction of New and Remodeled Buildings to Meet Green Building Standards	417	417	Savings from 2017 improvements to wastewater treatment plant
TR-1: Reduce Vehicle Miles Traveled (VMT) through Sustainable Land Use	3,272	7,870	Percent of new residential and commercial development LEED-Certified or meeting net-zero carbon emissions
TR-2: Reduce VMT by Improving Transit Systems	4,781	5,737	Residential units developed in centers
TR-3: Reduce VMT by Committing to a Complete Street Approach	3,792	4,807	Percent of workforce commuting by transit
TR-4: Reduce VMT through Vehicle Sharing and Flexible Work Requirements	880	2,177	Percent of workforce commuting on foot or by bicycle
TR-5: Promote Low-Carbon Vehicles and Other Methods of Reducing Emissions from Vehicles	8,700	9,229	Percent of workers carpooling; Percent of workers with alternate work week or work at home
EN-1: Maintain or Increase Carbon Sequestration in Trees and Natural Areas	50,734	81,046	Number of electric vehicles registered in Edmonds; Number of public charging stations or kilowatt hours of charging by stations
LC-1: Reduce Material Consumption, Waste Generation, and Resource Depletion	131	262	Number of trees planted
	3,257	4,343	Tonnage of solid waste generated
	79,121	122,141	Total Reduction (MT CO ₂ e)
	64,745	188,918	1.5°C Scenario Target Reduction (MT CO ₂ e)
	-14,376	66,778	Reduction still Needed to Reach Target (MT CO ₂ e)
	122%	65%	Percent of Target Achieved

*Although this metric will not help reduce GHG after the electric grid is carbon neutral in 2030, prior to that date, cumulatively it will produce enough electricity to reduce GHGs by approximately 12,000 MTCO₂e.

BUILDINGS AND ENERGY



Strategies and Actions

Each action is accompanied by two icons: one indicates how important it is in reducing or preventing GHG emissions, and the other indicates how much influence the City has over the outcome.

GHG
Reduction
Potential

Degree
of City
Control

Level of Support

BE-1: Replace Fossil Fuels used in Buildings with Renewable Energy Resources - Metric: Number of new residential and commercial solar photovoltaic systems installed

BE-1.1: Adopt appropriate zoning allowances to facilitate installation of renewable energy projects and energy efficient equipment, such as height and side setback exceptions for heat pumps.



BE-1.2: Provide financial assistance programs such as low interest loans or grants for installation of solar energy projects and energy efficient equipment for affordable housing projects, including residences and community facilities.



BE-1.3: Promote electrification of heating and hot water for all small business spaces by 2035.



BE-1.4: Promote electrification of all businesses, including heating, hot water, and cooking, by 2050.



BE-1.4: Educate the homeowners, renters, apartment managers, and businesses on the energy efficiency and cost effectiveness of electric heat pump heating and hot water systems.



BE-1.6: Restrict or prohibit the use of fossil fuels for outdoor heating.



BE-2: Improve Energy Efficiency of Existing Buildings and Infrastructure - Metrics: Percent of existing residential and commercial area retrofitted; Savings from 2017 improvements to wastewater treatment plant

BE-2.1: Support legislation to require gas supply systems statewide to be carbon-neutral by 2045.



BE-2.2: Create and implement a green building incentive program.



BE-2.3: Continue to improve energy efficiency of the City's wastewater treatment plant.



BE-3: Require the Design and Construction of New and Remodeled Buildings to Meet Green Building Standards - Metric: Percent of new residential and commercial development LEED-Certified or meeting net-zero carbon emissions

BE-3.1: Adopt regulations to require new multi-family and commercial buildings to be 100% electric by 2023.



BE-3.2: Require that all new multi-family residential and commercial buildings and any major commercial remodeling projects meet LEED or similar built green standards: LEED Gold for Commercial and LEED Silver for multifamily, to implement Resolution 1168.



BE-3.3: Support changes to state building code to achieve net-zero energy consumption in new buildings by 2030.



BE-3.4: Convert all City facilities to electric heat and hot water by 2035.



BE-3.5: Prohibit the use of fossil fuels for outdoor heating at commercial facilities.



TRANSPORTATION



Strategies and Actions

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GHG Reduction Potential

Degree of City Control

Level of Support

TR-1: Reduce Vehicle Miles Traveled (VMT) through Sustainable Land Use - Metric: Residential units developed in centers

TR-1.1: Adopt a multimodal level of service to enable complete streets outcomes.



TR-1.2: Develop code and guidelines and zoning that support mixed-use and transit oriented (Highway 99 and downtown) development in neighborhood commercial centers to encourage close-to-home local shopping and employment opportunities.



TR-1.3: Provide tax or other incentives for low income or affordable housing projects in the City's activity centers.



TR-1.4: Encourage more businesses to locate in Edmonds, such as by increasing commercial capacity by allowing commercial uses in more locations, by permitting more intensive uses, or reducing parking requirements in areas well served by transit.



TR-2: Reduce VMT by Improving Transit Systems - Metric: Percent of workforce commuting by transit

TR-2.1: Coordinate transit agencies to increase service and improve convenience to access new light rail connections.



TR-2.2: Promote Sounder commuter rail stop in Edmonds.



TR-2.3: Invest in transit stop amenities to improve transit ridership experience (e.g. shelter, bench, lighting).



TR-3: Reduce VMT by Committing to a Complete Street Approach - Metric: Percent of workforce commuting on foot or by bicycle

TR-3.1: Commit to installing one bike rack per block within neighborhood districts.



TR-3.2: Establish a complete streets process for capital projects and a complete streets steering committee to sign off on complete streets recommendation or exemptions.



TR-3.3: Develop a pedestrian priority investment network and triple funding in the Capital Improvements Plan.



TR-3.4: Continue and expand "Walkable Weekends" to promote walking as a community activity that also supports local businesses.



TR-3.5: Require bike parking and e-bike charging in new commercial and multifamily.



TRANSPORTATION (CONT.)



Strategies and Actions

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GHG
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Level of Support

TR-4: Reduce VMT through Vehicle Sharing and Flexible Work Requirements - Metrics: Percent of workers carpooling; percent of workers with alternate work week or work at home

TR-4.1: Explore bike and scooter share programs within the City of Edmonds.



TR-4.2: Formalize hybrid work options for City employees.



TR-4.3: Explore opportunities to develop car share facilities with ferry system.



TR-4.4: Increase utilization of the city commute trip reduction program for employees.



TR-5: Promote Low-Carbon Vehicles and Other Methods of Reducing Emissions from Vehicles - Metrics: Number of electric vehicles registered in Edmonds; number of public charging stations or kilowatt hours of charging by stations

TR-5.1: Adopt standards for the placement of charging stations in public rights-of-way.



TR-5.2: Convert City fleet to electric vehicles.



TR-5.3: Add charging stations at all City-owned facilities including parks.



TR-5.4: Adopt a policy to limit vehicle idling, including the posting of appropriate signs at businesses and holding areas, such as school and ferry areas. This action would include evaluating how to equip City trucks with auxiliary electrical systems for illumination and warning signs.



TR-5.5: Support the long-term plan for electrifying the Washington State ferry fleet.



ENVIRONMENT



Strategies and Actions

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GHG
Reduction
Potential

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Control

Level of Support

EN-1: Maintain or Increase Carbon Sequestration in Trees and Natural Areas - Metric: Number of trees planted

EN-1.1: Adopt a canopy coverage target for the city.



EN-1.2: Identify pockets of woodlands and marsh land that the City could purchase to add to our parks system.



EN-1.3: Identify City parks and open spaces where carbon sequestration could be increased.



EN-1.4: For fee-in-lieu mitigation sites, prioritize sites that sequester carbon.



EN-1.5: Update the City Street Tree Plan to prioritize increasing tree cover in appropriate places along the city's street rights-of-way, especially in areas of low canopy coverage.



EN-1.6: Explore application of biochar from the wastewater treatment plant to sequester carbon and improve soils in parks and residential developments.



EN-1.7: Assess the health of and changing stress on Edmonds' urban forest and develop strategies to prevent loss of trees to heat, drought, and insects.



EN-2: Explore Other Methods for Offsetting Edmonds' GHG Emissions

EN-2.1: Develop a periodic calculation of the gap between Edmonds' targeted and actual GHG emissions reductions, for the metrics in this plan.



EN 2.2: Engage in a regional conversation about offsetting GHGs.



EN-2.3: Include a calculation of the social and mortality costs of carbon that would result from each Comprehensive Plan update.



EN-2.4: For any emissions that are not offset per metrics the tracking tool, prepare a calculation of the social and mortality cost on an annual basis.



EN-2.5: Explore purchase of GHG offsets.



EN-3: Prepare for the impacts of climate change

EN-3.1: When planning for any climate change adaptations, include an assessment of which parts of the community would be most affected and who would benefit most from the measures proposed.



EN-3.2: Develop a plan for adapting to sea level rise in Edmonds.



EN-3.3: Evaluate the risks to stormwater infrastructure from higher intensity storms, and develop plans for upgrades to the system and development codes, if necessary.



ENVIRONMENT (CONT.)

Strategies and Actions

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GHG
Reduction
Potential

Degree
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Control

Level of Support

EN-3: Prepare for the impacts of climate change (cont.)

EN-3.4: Develop a program to achieve water conservation in existing buildings and landscaping, with a goal of reducing per capita water use 7% by the year 2035.



EN-3.5: Include measures in the City's Emergency Management Plan to ensure local energy supply at City operated mass care facilities, such as solar power and battery storage, in the event of electrical outages due to extreme weather or fires.



EN-3.6: Create a network of emergency cooling centers to be available during extreme heat events.



LIFESTYLE AND CONSUMPTION

Strategies and Actions

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GHG
Reduction
Potential

Degree
of City
Control

Level of Support

LC-1: Reduce Material Consumption, Waste Generation, and Resource Depletion - Metric: Tonnage of Solid Waste Generated

LC-1.1: Reduce barriers to achieving Edmonds' zero-waste goal.



LC-1.2: Increase recycling bins in partnership with local businesses.



LC-1.3: Require recycled products for City-produced printed materials.



LC-1.4: Educate homeowners in composting.



LC-2: LC-2 Increase local food production

LC-2.1: Educate people in smaller households on ways to reduce food waste.



LC-2.2: Educate consumers on the GHG as well as health benefits of consuming less pre-packaged food.



LC-2.3: Involve community in identifying City parks and other property, both City-owned and private, as potential sites for neighborhood public "P-Patches."



LC-2.4: Continue to promote local farmers' markets.

