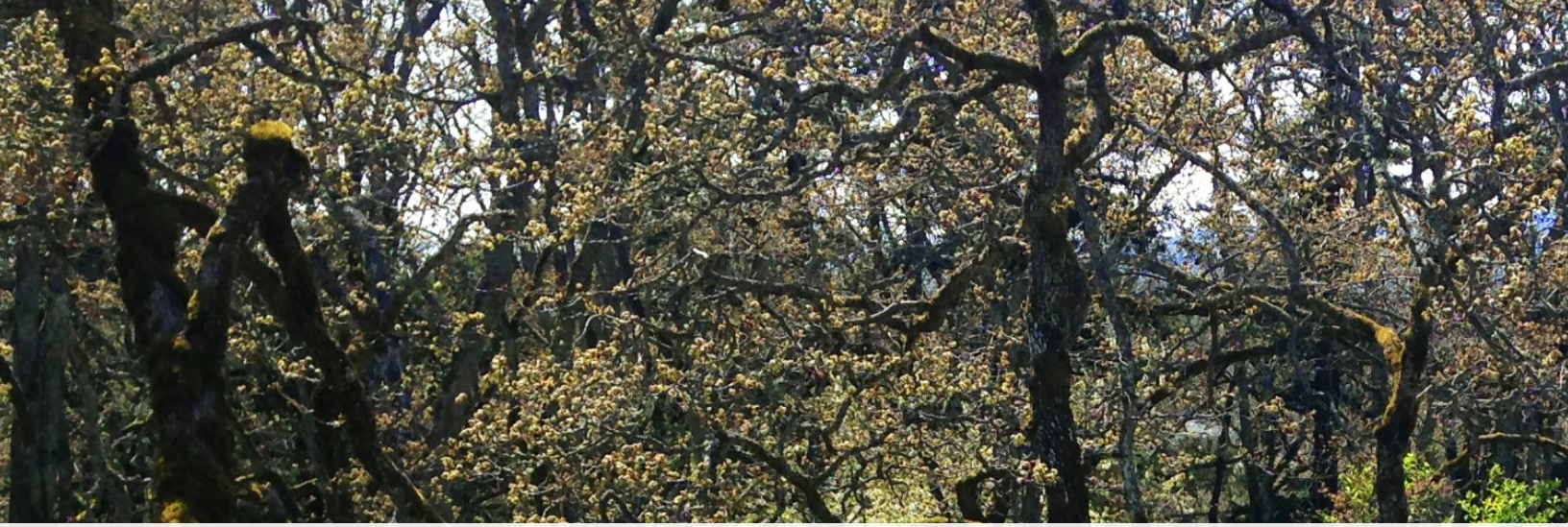
2026

Climate Plan

100% Renewable & Resilient Saanich

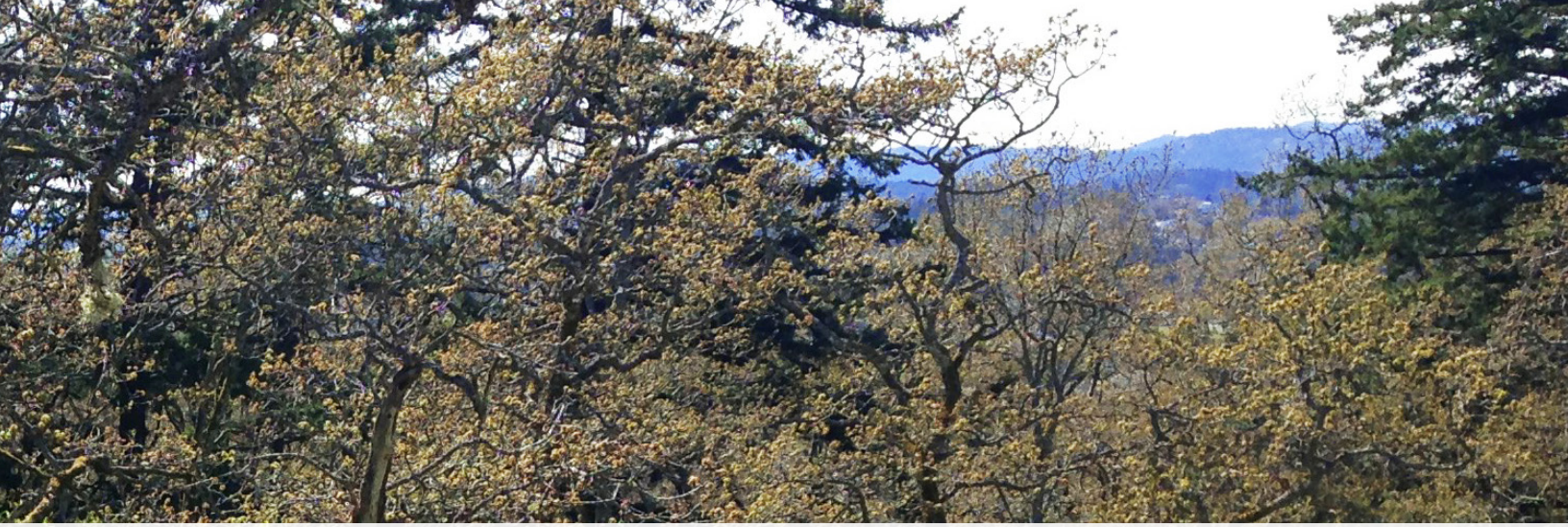


Territory Acknowledgment

The District of Saanich operates within the territories of the **lək̓ʷəŋən** peoples represented by the Songhees and Esquimalt (**Xʷsepsəm/Kosapsum**) Nations and the **W̱SÁNEĆ** peoples represented by the **W̱JOŁEŁP** (Tsartlip), **BOḴEĆEN** (Pauquachin), **SȾÁUTW̱** (Tsawout), **W̱SIḴEM** (Tseycum) and **MÁLEXEŁ** (Malahat) Nations.

The District acknowledges that the **lək̓ʷəŋən** and **W̱SÁNEĆ** peoples have stewarded this land since time in immemorial and that their historical relationships with the land and water continue to this day.

As we build formal government-to-government relationships, the District will look for opportunities to collaborate on actions and issues of mutual interest, including actions related to climate change. The District respectfully acknowledges the First Nations' long history of stewardship and knowledge of the lands and waters, and will look for opportunities to learn from and collaborate with First Nations to help us improve our community's resilience to a changing climate.



Acknowledgments

Thank you to all those who contributed to the making of this plan, including:

First Nations and Knowledge Holders:

- The W̱SÁNEĆ Leadership Council, W̱SÁNEĆ Technical Advisory Committee (W̱TAC), W̱LC Internal Working Group for the District of Saanich MOU, Elders **JSIṈTEN** (John Elliott), **SELILIYE** (Belinda Claxton) and **ȻOSINIYE** (Linda Elliott), Knowledge Holders, Language Speakers and members, including **ŚW̱,XELOSELWET** Tiffany Joseph for sharing knowledge on W̱SÁNEĆ perspectives on Way of Life and Environmental issues and providing input to the Plan.
- We look forward to working with and learning more from other First Nations including **lək̓ʷəŋən** values and perspectives.

Public and Stakeholders:

- Over 2,000 members of the public;
- Internal working groups across all Saanich departments; and
- External stakeholders, including other orders of government, utilities, educational institutions, health institutions, social agencies, businesses, agricultural sector, environmental agencies, climate and energy organizations, and more.

Grant Funders:

- Federation of Canadian Municipalities - The preparation of the Climate Plan: 100% Renewable and Resilient Saanich was carried out with the assistance from the Green Municipal Fund, a Fund financed by the Government of Canada and administered by the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.

Contractors:

- Licker Geospatial Consulting Co. for energy and emissions modelling;
- Stantec for GPC Basic+ community GHG inventory;
- School of Construction and the Built Environment, BC Institute of Technology and CHRM Consulting for the Saanich ecoFootprint Report; and
- CHRM Consulting for the consumption-based emissions inventory (CBEI) and modelling.

Table of Contents

1 Climate Change Impacts & Opportunities

1.1 Rising to the Challenge

We are living in unprecedented times and much has changed since the 2020 Climate Plan was developed. Today, our community faces an increasing number of challenges which are crowding out climate change amongst the public's top priorities.

Despite this changing context, Canadians still report being highly concerned about climate change, are looking to their leaders to take meaningful action, and are optimistic about our potential to address it when we work together.[1] Engagement in Saanich found continued concern about climate change and support for climate action.

With most of the actions from the 2020 Climate Plan complete or underway, this updated Plan maintains momentum towards our climate targets, while ensuring our actions are both effective and relevant in the current global context. While there are many challenges that hinder our progress on this journey, considerable progress is being made and great opportunities exist.

District of Saanich

CHALLENGES

- Saanich residents are facing **high costs** for food and goods, housing and **affordability issues**, difficulty accessing primary health care, and other daily challenges;
- **Inflation** is affecting District operations and project budgets, resulting in increased costs and impacts to services;
- **Extreme weather events**, including the 2021 heat dome, atmospheric rivers and wildfires have damaged infrastructure and disrupted supply chains across the Province;
- Climate-related **misinformation** and disinformation is growing in Canada and globally, including outright denial of climate science and more subtle narratives that delay, divide, and deflect;
- There has been a recent **weakening of federal and provincial climate policies**, programs and funding;
- There has been escalating **lobbying by fossil fuel industries**, ongoing fossil fuel subsidies and incentives, and a disconnect between climate policy and fossil fuel expansion aspirations with the use of renewable energy for fossil fuel extraction and exports;[2]
- The rapid growth of **Artificial Intelligence (AI)** data centres and their substantial **power demands** is competing with other energy needs and slowing the transition to renewable electricity grids, forcing a continued reliance on fossil fuels globally; and
- **Geopolitical conflict is on the rise and** nations are increasingly prioritizing national interests over collective action.

OPPORTUNITIES

- **Major technological developments, new innovations and market advances** in renewable energy, battery storage, electric vehicles and electric heat pumps;
- **Renewable electricity has become less expensive than fossil fuels**, with 91% of new global renewable electricity projects in 2024 being cheaper than fossil fuel alternatives;[3]
- Geopolitical conflicts have highlighted critical risks with fossil fuels and are driving the uptake of **renewables**, which **improve our energy security**;
- **Artificial Intelligence (AI)** while requiring extensive global energy demand, also presents potential opportunities for advancing climate action, e.g. predictive asset management and energy demand planning;
- **BC Hydro electricity generation is currently 98% renewable** and BC Hydro is rapidly building out grid infrastructure to meet future demand, with **new wind and solar energy projects**, many with majority First Nations ownership;[4]
- **Heat pump sales have eclipsed fossil fuel heating systems** for homes in BC;[5]
- Canada is **removing tariffs** to allow more **affordable EV** imports;
- **New Provincial and local legislation,** policies and plans are supporting climate goals; and
- **Benefits** from climate action are already being realized, from life saving cooling in homes from heat pumps, to cost savings from the switch to electric vehicles and active transportation.

These opportunities can help us chart a path towards our climate goals, building on the tremendous momentum to date while also finding ways to address a multitude of today's challenges, such as affordability and resilience.

UNDERSTANDING CLIMATE CHANGE

Between the sun's energy and the earth's atmosphere, our planet naturally maintains the "greenhouse" that supports life. Burning fossil fuels, such as gasoline, diesel, heating oil and natural gas, produces carbon dioxide (CO_2) along with other greenhouse gases (GHGs), such as methane from landfills and other sources, trapping more of the sun's energy and causing an overall heating of the planet (Figure 1). This rise in GHGs from human activity has resulted in an increase in global mean temperature by about 1.48°C since the end of the 19th century. At least another 2°C of warming is expected by the end of this century, unless we act now. Two or three degrees may not sound like much, but scientists warn that this could result in catastrophic impacts, the beginnings of which we are seeing in increased storm intensity, extreme heat events, forest fire frequency, droughts, melting glaciers, and other changes. As a comparison, globally, today's temperatures are only 6–7°C warmer than average temperatures during the ice ages, but the rates of warming over the coming century are predicted to be at least 20 times faster.

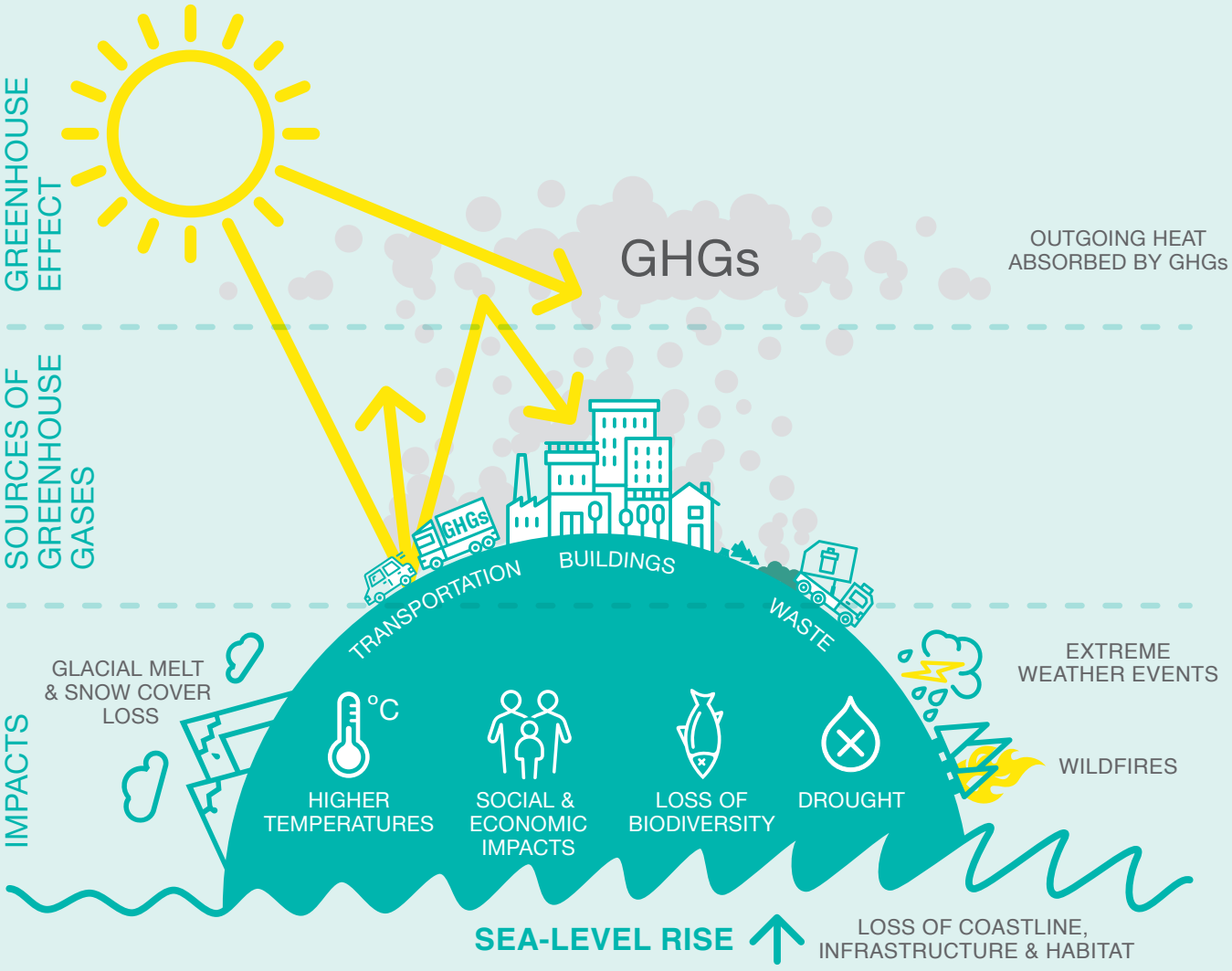


Figure 1. Illustration of climate change impacts (used with permission from the City of Victoria)

ACHIEVEMENTS SINCE THE 2020 CLIMATE PLAN

Many significant actions have been achieved since the 2020 Climate Plan was approved (Figure 2). More details on progress can be found in the annual Climate Plan Report Cards available at Saanich.ca/climateplan.

2019
- Adopted the BC Energy Step Code and accelerated requirements for new buildings

2020
- Adopted the Saanich E-Mobility Strategy
- Implemented Electric Vehicle (EV)-Ready Infrastructure Requirements for new construction
- Launched District 2030, Building Benchmark BC, and Bring it Home4 Climate (now the Home Energy Navigator) building energy upgrade programs

2021
- Completed Regional Flood Inundation and Sea-Level Rise Mapping
- Launched top-up incentives for the CleanBC EV Ready Rebate Program
- Launched the first of its kind in BC E-Bike Incentive Pilot Program
- Joined the Love Food Hate Waste campaign
- Joined the Global Covenant of Mayors for Climate and Energy

2022
- Launched the corporate fleet e-bike program
- Launched the first of its kind in BC Heat Pump Financing Program
- Adopted a Vision Zero policy for transportation
- Initiated a Food Hub feasibility study
- Launched the Neighbour to Neighbour (N2N) Resillience Initiative and Incentive

2023
- Adopted the BC Zero Carbon Step Code, EL 4 (Zero Carbon) for new development
- Adopted the Saanich Building Retrofit Strategy

2024
- Adopted the updated Active Transportation Plan and a new Road Safety Action Plan
- Received two Community Energy Association Climate & Energy Action Awards

2025
- Launched the first of its kind in BC Climate Action Tax Exemption program
- Launched the Strata Energy Advisor and the Rental Apartment Retrofit Accelerator
- Adopted the Updated Urban Forest Strategy and Biodiversity Conservation Strategy
- Completed the Environmental Policy Framework

ONGOING
- Began the Gorge Coastal Flood Adaptation Strategy project with City of Victoria, Esquimalt and View Royal
- Adopted the Saanich Zero Emissions Fleet Strategy
- Began the Tillicum Green Infrastructure project supported by $396,865 of grant funding, planting over 1,200 trees and shrubs
- Saanich owned building electrification upgrades
- Expansion of the Saanich owned public EV charging network
- Build-out of the AAA active transportation network
- Tree planting, natural area restoration and Pulling Together invasive plant program
- BCSEA Coollt! Climate Champions and Safe Routes to School programs
- Work on Integrated Stormwater Management Plans

Figure 2. Selected achievements from the 2020 Climate Plan

1.2 The Risks and Impacts of Inaction

The past three years (2023-2025) have been the warmest on record and have seen an average 1.48°C increase over pre-industrial levels. If warming continues at the current rate, the world is likely to reach an average global temperature of 1.5°C well before 2030.

This matters to Saanich because global warming translates into local impacts: hotter days and heat waves, drier summers, greater risk of wildfires and poor air quality events, heavier rainfall and flooding that can overwhelm infrastructure, and coastal impacts that affect shorelines, ecosystems, and built assets. Recent years have seen a significant increase in extreme weather events across British Columbia (BC); unprecedented heatwaves, wildfires, and floods have caused significant loss of life, widespread evacuations, and millions of dollars in damages.

To limit average global warming to a 1.5°C increase from pre-industrial levels (a limit set by the IPCC and outlined in the Paris Agreement), global net-carbon emissions will need to decline by 50% of 2007 levels by 2030, reaching net zero around 2050 and net negative after 2050. Approximately five years are left for the world to change its current trajectory of carbon emissions and realize the huge benefits from this change.

District of Saanich

IMPACTS OF A 2°C RISE

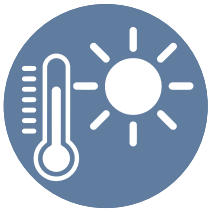
The critical difference between 1.5°C versus 2°C is not "small". A half-degree may sound minor, but the IPCC outlines that it leads to significantly worse impacts for people, the economy, nature and infrastructure. Delaying climate action increases the chance of:

- **More severe and more frequent extremes** – including heat, drought, heavy rain and flooding and higher sea-level rise, e.g. higher risks of heat-related deaths and illness;
- **Higher long-term costs** for infrastructure repair and upgrades, emergency response, and recovery;
- **Greater disruption to essential services** such as water, power, transportation, and public health;
- **Long-lasting or irreversible losses** in ecosystems services and natural assets that protect communities, e.g. through stormwater management, cooling and pollination;
- **Economic impacts and decline,** e.g. double the decline in global fisheries;
- **Biodiversity impacts** escalate sharply, including substantially higher species loss; and
- **Fewer options to adapt**

Photo Credit: Alan Thurston

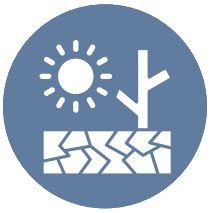
CLIMATE CHANGE PROJECTIONS FOR THE CAPITAL REGION

In our region, climate change is expected to result in hotter and drier summers, sea-level rise, and increased numbers and intensity of rainfall events (winter rainstorms such as atmospheric rivers). More detailed information can be found in the Climate Projections for the Capital Region Report, 2024 and CRD's Coastal Flood Inundation Mapping project available at crd.ca/climate.



Extreme Heat – The chance of daily temperatures in the CRD Core Areas reaching 33°C is expected to be 8 times more likely and over 3 degrees hotter by the 2050s and 16 times more likely and over 7 degrees hotter by the 2080s. We are projected to get at least 3 heatwaves per year by the 2050s and 5 by the 2080s.

Extreme Rainfall – The chances of a single day extreme rainfall event in the CRD Core areas of more than 67mm is expected to be twice as likely and 8mm wetter by the 2050s and 3 times more likely and 15mm wetter by the 2080s.



Drought – Dry spells are expected to increase from 24 to an average of 29 days (ranging up to 47 days) by the 2080s.

Wildfires – Hotter temperatures and less rainfall in warmer months increases the likelihood of wildfire in the region and beyond. Wildfires in BC are increasing in frequency, intensity and total area burned, with 2025 well above the 10-year average.

Sea-Level Rise – Sea-level rise in the CRD is expected to reach 0.5m by 2050, 1.0m by 2100 and 2.0m by 2200.

Not everyone is impacted by climate change in the same way or to the same degree. People facing the greatest economic and social challenges are often the ones most affected, and Indigenous Peoples and their traditional territories bear a disproportionate impact.[6,7,8,9,10]

CLIMATE CHANGE IMPACTS IN SAANICH

Climate hazards are already having short- and long-term impacts on our community and these impacts are likely to become more frequent, intense and costly over time.

Costs, Affordability & Economy: inflation, food & material cost increases; increased insurance costs and availability; destruction and/or loss of private property; increased (fossil) fuel costs; infrastructure rebuild and repairs; project and labour cost increases; global income losses; reduced GDP growth; increased risk to global economic and political stability.

Health & Safety: mortality and prolonged health impacts from extreme heat; poor air quality and flooding; evacuation or injury from extreme events; displacement; new and increased incidence of vector borne diseases;[11,12] reduced food security; mental health impacts; disruption to daily activities.

Ecosystems: loss of biodiversity; increased invasive species; ecological regime shifts; coastal squeeze; degraded water quality; compromised ecosystem services; increased tree mortality; erosion, sedimentation and contamination.

Agriculture: compromised food production and quality; water shortages; increased pests and diseases; reduction in viable land for food production; changes to growing season.

Infrastructure: heat related infrastructure damage and failure; heat and air quality related impacts to workers and efficiency; flood damage; disruption and delay in transportation networks; disruptions to supply chains; wildland-urban interface wildfire risk; material cost increases; coastal inundation and damage to infrastructure; water shortages.

Taking action now to improve our climate resilience is critical to avoid costly repair and recovery efforts in the future.

Costs of Climate Change

Climate change is already costing Canadian households billions of dollars with the costs of climate change to our economy and society described as "potentially catastrophic" by the Canadian Climate Institute. Their 2026 report on "Prepare or Repair" states that for Canada, even when considering a limited scope, *"infrastructure costs without adaptation reach $14 billion per year by the 2050s and $19 billion per year by 2085.[13]"*

For example, the cumulative hit to the BC economy from three extreme weather disasters in 2021 (heat dome, wildfires and atmospheric river) was between $10.6 and $17.1 billion, which is equivalent to 3–5% of provincial GDP.[14]

Research shows that proactive adaptation can cut climate-related damage costs in half, improve affordability and generate multiple financial benefits.

"Every dollar spent on adaptation measures today saves up to $15, including both direct and indirect economy-wide benefits.[15]" (Government of Canada Adaptation Action Plan - Canada.ca)

1.3 The Benefits of Climate Action

Responding to the challenge of climate change brings many benefits for our community.

Economic Development and Security – climate change is slowing our economic growth. Investing in renewable energy boosts GDP and strengthens our economic security and independence. 70% of Canadians polled would feel pride if Canada were to become a renewable energy superpower.[16] Investing in resilience measures will save significant costs for damages and recovery in the long term.

Improved Affordability - saving energy through efficiency makes life more affordable and means more dollars circulate in our local economy. Electric vehicles and heat pumps deliver the same services as their fossil fuel counterparts using much less energy, saving on operating costs and freeing energy for other purposes. Compact, walkable communities support reduced transportation costs and are more cost effective for providing services (e.g. roads, water, sewer), reducing tax and utility costs for residents.[17]

Increased Employment – our region's economy is diverse, and includes a thriving tech sector, tourism, arts and culture, government, post-secondary, and agriculture. All of these are well placed to benefit from investing in the clean energy transition and circular economy.

Biodiversity & Healthy Ecosystems - climate action helps to improve the resilience of our ecosystems, which have intrinsic value and also provide critical services such as shade and stormwater management, that support our community health, well-being, economic development and more.

Improved Health - reducing air pollution through electric vehicle adoption improves our health,[18,19] and reduces the risk of asthma, high blood pressure, lung cancer, diabetes, dementia, and premature death. Providing infrastructure and improving safety for vulnerable road users saves lives and supports health by enabling people to get around by cycling and walking. Building community connectedness improves our mental health, sense of well-being and our resilience in extreme weather events. Investing in climate-friendly technologies such as heat pumps provides life-saving cooling during heat waves.

"British Columbia is exceptionally well-positioned for the clean energy transition. Our province has an abundance of the critical metals and minerals needed to manufacture solar panels, wind turbines, EV batteries, and the transmission lines that are helping electrify the economy ...and we have plentiful clean and renewable resources—including wind, solar, water, and geothermal—that can complement our hydropower-rich electricity system... We can develop climate solutions to use here at home and export to the world—spurring more good jobs and driving sustainable economic growth." (CleanBC Review 2025)

1.4 A Continued Call to Action

Reducing our GHG emissions and increasing our resilience to a changing climate will require continued commitment to the Sustainable Saanich vision; establishing complete, walkable 15-minute communities; transforming our transportation system and buildings; transitioning fully off fossil fuels and embracing renewables; rethinking our consumption habits; reframing waste in a circular economy context; and accelerating our preparation for extreme weather events.

The Benefits of Climate Action: The CleanBC Review

In 2025, the Province commissioned an independent review of its climate strategy, CleanBC, which found that *"its policies and programs are measurably reducing climate pollution while creating jobs, improving community health, and lowering everyday costs for British Columbians".*

A main takeaway was that **we need to stay the course** – continue with the implementation of climate policy and programs, while making adjustments to ensure that we are maximizing the benefits such as creating jobs, reducing energy bills, and building deeper partnerships with First Nations.

THE DISTRICT OF SAANICH'S ROLE

This Plan contains strategies and actions for the District of Saanich to pursue in areas where the District has either direct control, indirect control, direct influence or indirect influence (Table 1). The relevant roles of the District of Saanich and other key players are explained in each Focus Area (Section 4).

Control	**Direct:** e.g. leading by example through our municipal infrastructure and operations, such as how we heat our buildings or our fleet vehicle choices.
	Indirect: e.g. through land use and transportation planning and policy.
Influence	**Direct:** e.g. policies, incentives, and partnerships with stakeholders and other levels of government.
	Indirect: e.g. through advocacy, information sharing, and municipal education programs.

Table 1. Areas of control and influence by Saanich

WE ALL HAVE A ROLE TO PLAY

Municipal actions are necessary but insufficient on their own to meet the climate challenge. Achieving our climate goals requires action from everybody, often in collaboration, including residents, First Nations, businesses, local farmers and food providers, community organizations, industry stakeholders, utility service providers, institutions, neighbouring municipalities and regional provincial and federal levels of government. In particular, there is a considerable reliance upon legislation, funding support (such as the BC Local Government Climate Action Program [LGCAP]) and further actions from the Province and federal governments if we are to achieve our climate goals.

We need to do this together!

2 CLIMATE PLAN PURPOSE & PROCESSES

2.1 Plan for a Renewable and Resilient Saanich

Together with communities around the world, the District of Saanich is taking action to help protect our community, improve our quality of life, and reduce risks associated with a changing climate.

The Saanich Climate Plan addresses both mitigation (reducing our greenhouse gas emissions) and adaptation (preparing for a changing climate) in the District's operations and the wider Saanich community.

Photo Credit: Saanich Parks

PLAN VISION

By 2050, Saanich is 100% powered by renewable energy and is a resilient, thriving community, where climate action has improved the quality of life for all people in Saanich.

PLAN GOALS

The Plan outlines strategies and actions to help Saanich achieve the following goals:

1. CUT EMISSIONS IN HALF BY 2030 AND TO NET ZERO BY 2050:

Saanich has committed to reducing our community's territorial GHG emissions from our 2007 baseline by 50% by 2030 and by 100% by 2050. Saanich also recognizes a global "fair-share" stretch target of 58% reduction by 2030. This Plan outlines actions that the District can take, often in collaboration with other partners, to help achieve these goals and targets together.

2. TRANSITION TO 100% RENEWABLE ENERGY BY 2050:

The majority of GHG emissions in Saanich are caused by burning fossil fuels for transportation, heating our buildings, and supplying our food and consumer goods. To reduce these emissions we must switch from fossil fuels to renewable energy. Saanich is well-positioned to do this with an electrical grid that is nearly 100% renewable and an ever-growing market of highly efficient products such as electric heat pumps to heat and cool our homes, electric vehicles for transportation, solar panels and battery storage. Replacing fossil fuels with renewable energy can help us save energy, save money, protect our natural environment, improve local air quality and community health, and support local economic development.

3. PREPARE FOR A CHANGING CLIMATE:

Many changes to our climate are already locked in, with inevitable impacts on our community. The Plan will build our community's resilience to the challenges posed by climate change, including extreme heat, wildfires and smoke events, extreme precipitation, drought and sea-level rise, and the ensuing impacts on our health, infrastructure, economy and local ecosystems.

WHY DOES IT MATTER WHAT SAANICH DOES?

It may seem that Saanich has a small part to play in the grand scheme of climate change, and that the pollution from other countries is so significant that our efforts will be in vain. However, we in Canada (and Saanich) are high GHG emitters compared to other communities around the globe. Canada has historically emitted more GHG emissions per person than many other countries worldwide. In 2025, only 13 countries had bigger per capita CO_2 emissions than Canada and Canada ranked 62nd out of 67 countries on the Climate Change Performance Index, below countries like the United States (57th), India (10th) and China (55th) (Figure 3).

However, the technology and economics we need already exist, and many other countries are taking advantage of these to make significant progress in renewable energy production and climate action:

- Iceland sources about 85% of its primary energy from local renewables like geothermal, hydropower, and wind;[20]
- Norway exceeded 70% renewable energy use in 2023[21] , while Sweden[22] is at 67% and Brazil is at 50% in 2022;[23]
- China installed as much solar capacity as the rest of the world combined and achieved its goal of doubling the country's renewable energy capacity five years ahead of schedule with their GHG emissions now flat or falling for over a year;[24] and
- GHG emissions in the EU have fallen by 36% and are on track for a 47% reduction in net emissions by 2030.[25]

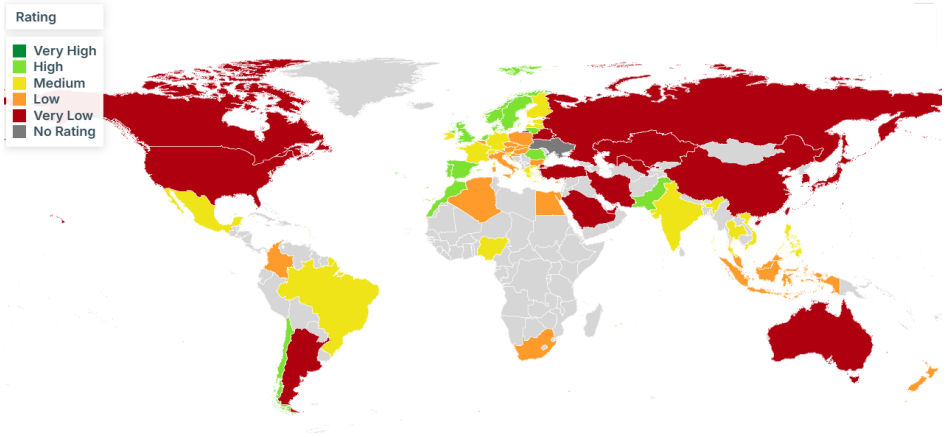


Figure 3. 2025 Climate Change Performance Index (CCPI) by Country[26]

GLOBAL FAIR SHARE TARGET

Global Fair Share targets are equitable science-based climate goals that determine how much each country or community should reduce their GHG emissions to keep global warming to 1.5°C. Rather than every country reducing by the same percentage, a "fair share" approach ensures that countries contribute based upon their historical responsibility for past emissions, their capacity and their development status. For example, it is much easier for countries (and people) with large emissions to rapidly and significantly reduce their GHG emissions than for those with already very small emissions to do the same.

Using the One Planet City Challenge methodology to determine our Global Fair Share, Saanich would aim for a 58% rather than a 50% reduction in our community-wide GHG emissions by 2030 (from 2007 levels) and aim to achieve net zero as soon as possible thereafter. This is classed as a 'stretch-target' as part of our 2026 Climate Plan. (Science-based Climate Targets: A Guide for Cities, 2020).

2.2 Guiding Principles

1. BE BOLD

Be ambitious and courageous, take risks and lead by example.

2. FULFILL OUR RESPONSIBILITY TO FUTURE GENERATIONS

Honour our shared existence across generations and include quality of life considerations for youth and future generations in our actions.

3. VALUE RESPECT (ÁTOL), INTERCONNECTEDNESS (ŁIŁEȻ), AND RECIPROCITY (EN SḴÁU)

Be part of cultural change towards respectful, reciprocal relationships that recognize our relationship to the earth, relationship to ÁLEN̲ENEȻ (homeland or homeplace), the interconnectedness (ŁIŁEȻ) between planetary and human health, and our duty to care.[27]

4. VALUE NATURE AND OUR UNIQUE ISLAND (T̲ETÁĆES) ECOSYSTEM

Value the intrinsic worth of our unique environment and ecosystems, and be mindful of our impact, recognizing the essential services they provide for our survival and climate resiliency.

5. WORK TOWARDS RECONCILIATION

Support Saanich's work towards reconciliation with local First Nations governments and Indigenous organizations through collaboration on climate action. Learn about and seek to live out environmental values of local Nations, such as those shared by the W̱SÁNEĆ Leadership Council of EN ŚW̱IST E TŦEN S,HELI[28], SKÁLS[29], ĆELÁN̲EN[30], W̱SÁNEĆ,EŁ[31], and NEHIMET[32]. And we look forward to learning more from **lək̓ʷəŋən** Nations.

6. BE EVIDENCE-BASED

Use Western and Indigenous knowledge and research to make proactive and informed decisions about effective actions, while being adaptable and responsive to future changes. In the case of uncertainty, the precautionary principle will guide decision-making.

7. TAKE A CONSUMPTION-BASED APPROACH

Reduce the consumption of raw materials and energy, shifting to a circular economy approach using renewable energy and sustainable materials.

8. SHARE THE BENEFITS AND IMPROVE WELL-BEING

Design climate actions to achieve multiple benefits, including human and ecosystem health, emergency preparedness, affordability, and economic and employment opportunities and ensure that the benefits and burdens of climate action are shared equitably, with consideration for procedural, structural, and distributional equity.

9. BE COLLABORATIVE

Engage, collaborate and partner (HIWESTEL[33]) with other departments, residents, businesses, institutions, other municipalities, First Nations and senior levels of government, as it will take coordinated action at all levels to meet our climate targets.

10. ACT GLOBALLY

Consider global impacts when making decisions to ensure our actions are beneficial outside our boundaries.

These principles were developed as part of the 2020 Climate Plan and have been updated with feedback and shared knowledge to remain relevant today and act as a bridge for climate action between cultures, community and the land. They have been used to inform development of the actions and will also guide Plan implementation.

COMMITMENT TO RESPECTFUL INDIGENOUS RELATIONS

Building respectful relationships between the District of Saanich and the First Nations whose territories the District operates on is important for the District and essential for effective climate action. The Intergovernmental Panel on Climate Change (IPCC) acknowledges colonialism as a driver of climate change and also that climate change has distinct impacts for Indigenous people that are often felt earlier and more severely than for others.[34]

Indigenous Peoples hold a deep, reciprocal connection to the land, water, and ecosystems that are central to their cultures, languages, and livelihoods. Their understanding that humans and nature are intrinsically linked and part of the same extended family generates a responsibility to care for ecosystems, regarding ecosystems and nature as our relatives that we should protect and that, in turn, will sustain us, rather than viewing them as mere resources. This enabled them to live sustainably off the land, guided by stewardship passed down through generations and coming from a place of deep love, care and protection. Colonialism has not only driven climate change but also broken the intergenerational transfer of Indigenous knowledge and language essential for understanding and caring for our ecosystems and living in harmony with them.

The IPCC and Canada's Climate Science 2050 report specifically recognize the importance of Indigenous Peoples' involvement in climate research and action. In BC and locally, First Nations have been leaders in climate action through ecosystem monitoring, ecological restoration, developing renewable energy projects, whole-community building electrification projects, and supporting ecosystem health and biodiversity, among many other initiatives. Internationally, Indigenous-managed lands have equal-or-higher biodiversity than protected areas (Schuster et al 2019).

In recognizing this strong connection between reconciliation and our climate work, the 2026 Climate Plan identifies Indigenous knowledge as critical for adapting to climate change. The Plan aims to centre respect for Indigenous rights and knowledge and tangible support for Indigenous priorities and leadership as they relate to climate action.

Earth Drums Artwork

The Earth Drums artwork at Cedar Hill Rec Centre was designed to "engage people in Reconciliation by asking them to change their relationship with the land. Three large "box drums", intended to be played with the hand, not only invite people to make music with, and for, those around them, but in doing so they create reverberations below human hearing that resonate into the ground, making music of, and for, the earth.

Image: Earth Drums by **Hayalthkin'geme** *Carey Newman. Hayalthkin'geme is a multidisciplinary artist and fifth generation master carver of the Kwakwaka'wakw, Coast Salish and settler heritage.*

W̱SÁNEĆ **Teachings**

"Our people lived as part of everything. We were so much a part of nature, we were just like the birds, the animals, the fish. [...]

Our people lived for each other. They believe that everybody had the same right as the other one. Everybody had the right to comfort, to security, the right to food, a home, the use of the land. [...]

They believed whatever was here had a right to live even to the insects that walk on the ground. The trees, birds, animals, rivers, lakes, our people respected everything. They would not waste. If they took something, they used every bit of it. [...]

They would not cut down a living tree unless they had to. When they had to cut a living tree down, they would go to the tree and address it by its sacred name. They would tell the tree how sorry they were to have to take its life, but their need was so great that they had to take it. When you cut a tree down you kill it, you take its life. [...]

We had a good way of life, a beautiful way of life. I guess because it came from an understanding of the very basis of this life we live. [...] They did not over-exploit anything.[...]

They saw to it that unfortunate people had their share as well. [...]. Greed was unknown amongst our people, we have no word for it in our language. [...] Our people were the richest people on earth. [...]

Excerpts from quotes from Dave Elliot Sr from the book Saltwater People (1990).

2.3 2026 Climate Plan Process

The process for updating the 2020 Climate Plan (see Figure 4) included:

- Council approval of a 'Terms of Reference' for updating the Climate Plan;
- Seeking interest from local First Nations in collaboration or providing input to the Climate Plan update and receiving knowledge and feedback by some First Nations;
- Engagement and input from Saanich staff, the public and stakeholders, including an emphasis on equity-deserving groups;
- Updated territorial and consumption-based GHG emissions inventories;
- Assessments of climate change hazards and impacts to municipal assets and the community based on local climate projections;
- Modelling of strategies and actions to reduce Saanich's territorial and consumption-based GHG emissions; and
- Lessons learned from over 15 years of climate action in Saanich and consideration of recent Saanich Plans, Strategies and programs.

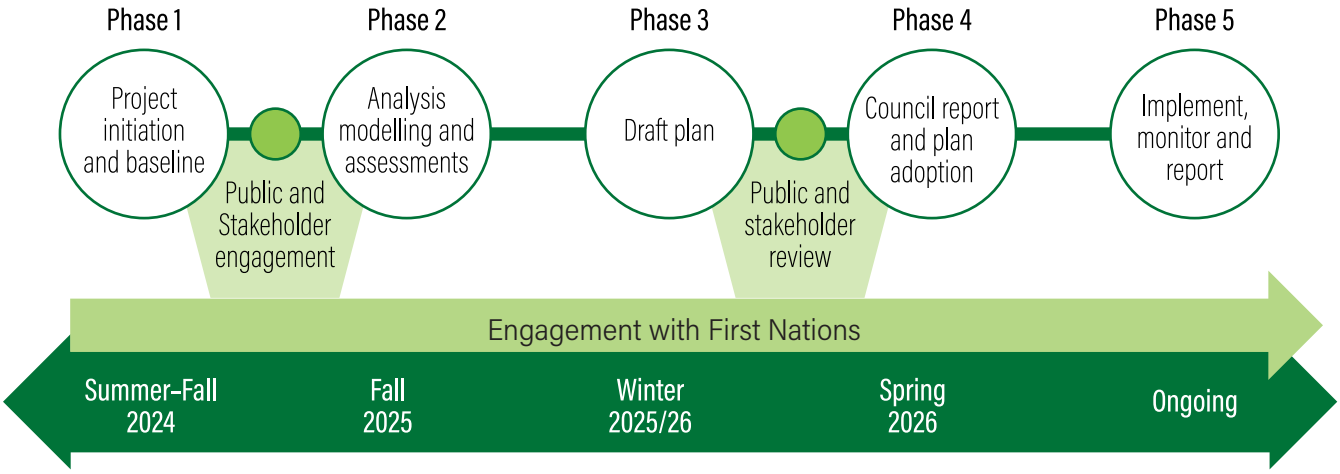


Figure 4. Climate Plan process and timeline

Climate actions were identified throughout this process, and then evaluated and prioritized according to the following criteria:

- GHG emission reduction potential (mitigation) or resilience potential (adaptation);
- Co-benefits (e.g. health, economic development); and
- Capacity (including funding availability, potential barriers, partnership opportunities, and urgency).

ENGAGEMENT SUMMARY

The 2026 Climate Plan builds upon over five years of comprehensive engagement with the public and key stakeholders on multiple climate actions and programs. Two phases of engagement were then undertaken specifically related to the updated Climate Plan:

Phase 1: Summer-Fall 2025 – involved 18 key events such as open houses, community workshops, attendance at festivals, presentations to high school and university classes, recreation centre and facility displays, and a survey, with almost 1,300 people engaged.

Phase 2: Winter 2025 - Spring 2026 – involved meetings with First Nations, workshops with students and equity-deserving groups supported by the Community Social Planning Council, attendance at festivals and events, and release of the draft Climate Plan alongside a public survey.

Throughout the engagement, residents expressed strong support for climate action and concern about climate change and climate hazards. For detailed results, please see the Climate Plan Engagement Report at www.saanich.ca/climateplan.

All of this knowledge has been used alongside focused engagement, input from First Nations, discussions with key stakeholders and subject matter experts, data analysis and modelling to inform the 2026 Climate Plan strategies and actions.

ONE PLANET SAANICH: REDUCING OUR COMMUNITY'S ECO-FOOTPRINT

- Health and happiness
- Equity and local economy
- Culture and community
- Land and nature
- Sustainable water
- Local and sustainable food
- Travel and transport
- Materials and products
- Zero waste
- Zero carbon energy

Since 2020, the District of Saanich and many local organizations including businesses, faith groups, community organizations, schools, and seniors' retirement homes participated in the One Planet Saanich initiative, which is part of an international One Planet Cities Project. To learn more, visit https://oneplanetbc.com/one-planet-saanich.

One Planet Living is the vision of a world in which people enjoy happy, healthy lives within their fair share of the earth's resources, leaving space for wildlife and wilderness.

The One Planet Living Principles were used to inform actions in the Climate Plan. They will be used in Plan implementation to maximize benefits and prevent negative impacts on equity, ecosystems, and our health and well-being.

The Climate Plan Update will contribute towards One Planet Living in Saanich through reducing our GHGs (both territorial and consumption-based).

3 CALCULATING OUR CLIMATE IMPACT & REDUCTIONS

3.1 Current Greenhouse Gas Emissions In Saanich

We measure our climate impact by calculating the greenhouse gases (GHG) we emit as a community. Results of our Territorial and Consumption-Based GHG emissions Inventories are provided below (Figure 5).

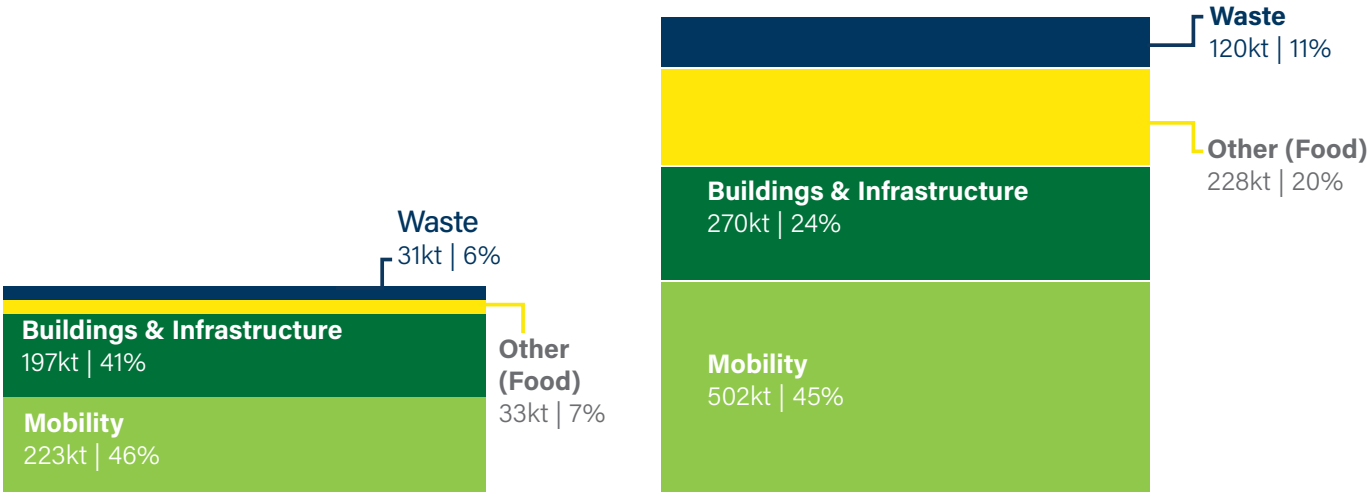


Figure 5. Saanich community GHG emissions inventories (Territorial vs. Consumption-Based)

TERRITORIAL GHG EMISSIONS INVENTORY

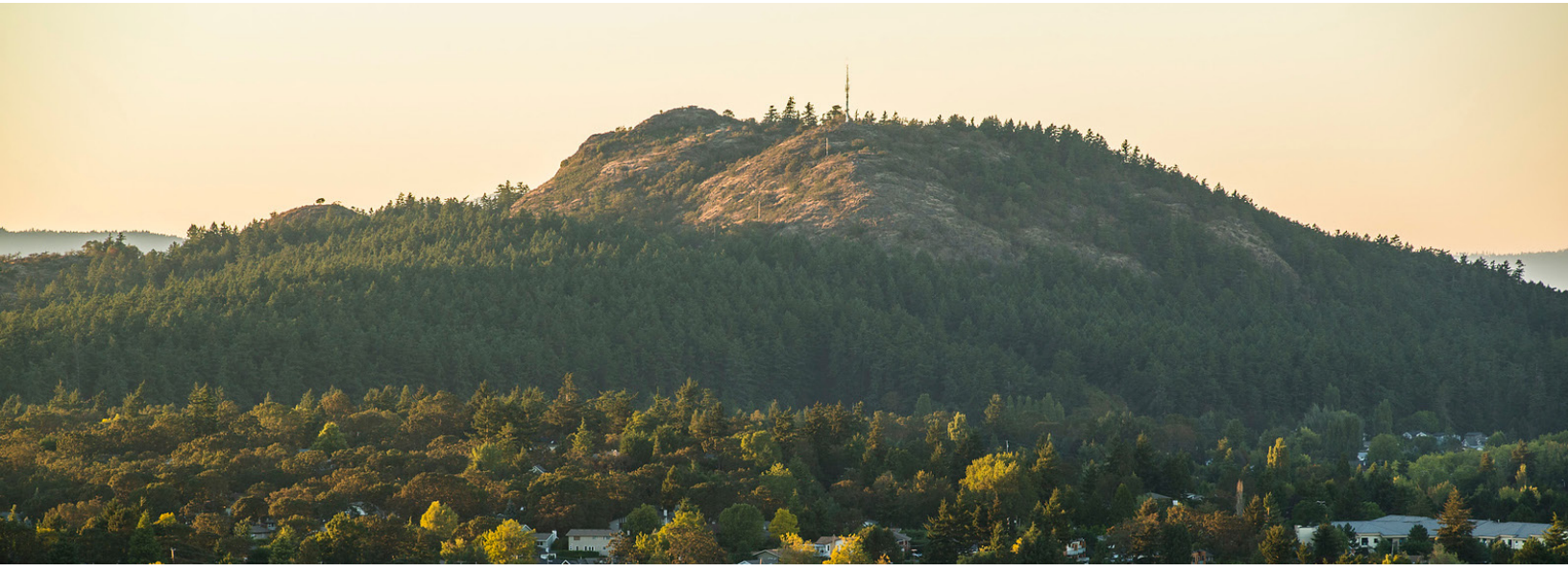
Our Territorial GHG Emissions Inventory addresses GHG emissions produced within our municipality and follows the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories accounting and reporting standard for cities (specifically the Basic+ scope). It includes emissions from stationary energy (e.g. from buildings), mobile energy including air, marine, on-road and off-road transportation, waste, industrial processes and product use (IPPU), as well as agriculture, forestry, and other land use within our borders (AFOLU). For example, emissions produced by cows when they are digesting food are counted in Saanich's territorial emissions only if or when those cows are within Saanich's borders.

The largest single source of territorial GHG emissions come from fossil fuels used for transportation by vehicles registered to Saanich residents (e.g. gasoline, diesel), followed by fossil fuels used in buildings (e.g. natural gas, oil), and lastly methane from waste (methane is a GHG that has a Global Warming Potential 25 times greater than CO_2). Our community GHG reduction targets are based upon this inventory, as it is a robust international methodology and more closely linked to municipal influence and control than consumption-based emissions.

CONSUMPTION-BASED GHG EMISSIONS INVENTORY

The Consumption-Based GHG Emissions Inventory measures the GHG emissions from all the goods and services that the Saanich community consumes, regardless of where those goods and services are produced around the world. Emissions from food and goods produced outside of Saanich are not counted in our Territorial GHG Emissions Inventory but show up prominently in the Consumption-Based GHG Emissions Inventory (CBEI). Our community emissions are, therefore, considerably higher when we use this type of inventory.

For example, emissions from food grown elsewhere and consumer goods manufactured outside of Saanich don't contribute to our territorial emissions but do contribute to our consumption-based emissions. A consumption-based inventory provides an important lens with which to view opportunities to reduce global emissions; therefore, specific actions geared to reduce consumption-based emissions are included in several focus areas of this Plan.



WE ARE REDUCING OUR CLIMATE IMPACT OVER TIME

Even with a growing population, our community-wide territorial GHG emissions are going down both per person and overall. As of 2024, we have seen an 18% decrease in total community-wide GHG emissions and a 29% reduction in per capita emissions compared with our 2007 baseline (Figure 6).[35]

Many factors contribute to this reduction, including switching from fossil fuels to efficient use of electricity (e.g. electric vehicles and heat pumps) and changing behaviours (e.g. Saanich residents are making fewer and shorter trips by fossil fuel vehicles).

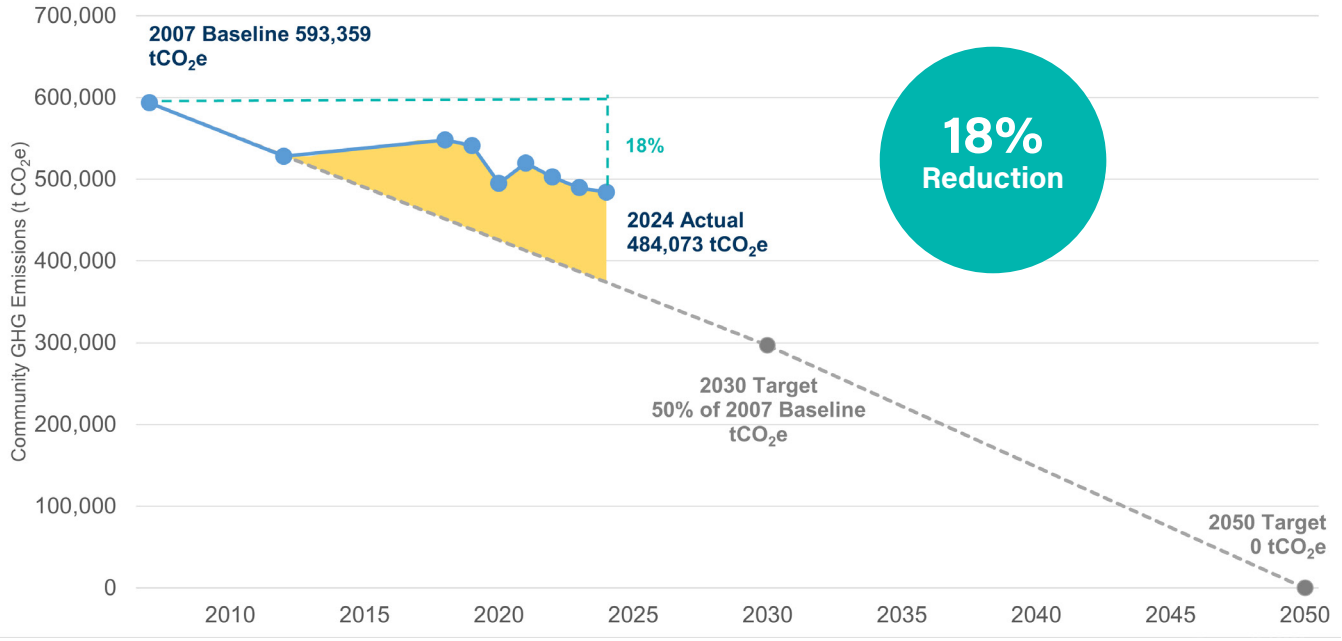


Figure 6. Saanich community-wide territorial GHG emissions reduction over time

PROGRESS IS NOT LINEAR: THE SNOWBALL EFFECT

Seeing the results of climate actions takes time and resources and is often the culmination of years of collaboration and different stacked actions between many stakeholders and orders of government, e.g. transportation emissions reductions rely on multiple actions, including provincial and federal phased fossil fuel vehicle sales bans, EV incentives, market development, investment in EV charging infrastructure, planning for compact, complete communities and active transportation infrastructure, and education. There is no silver bullet; incentives, policy, legislation, infrastructure investments and education, with collaboration between all orders of government, First Nations and other organizations are required to address the climate crisis.

Figures 6 and 7 demonstrate how the timeline for emissions reductions can differ significantly among climate actions. For example, the GHG emissions savings from the Saanich E-Bike Incentive Program were realized relatively quickly compared with those from the Zero Carbon Step Code, which requires time for new buildings to be designed and constructed.

Understanding these time lags is crucial in setting realistic expectations and for planning sufficiently far ahead to meet our targets. But it also demonstrates the critical importance of continuing the course, of not being discouraged, and persisting with action implementation and ambitious policy adoption, even if the results are expected to occur in the longer term.

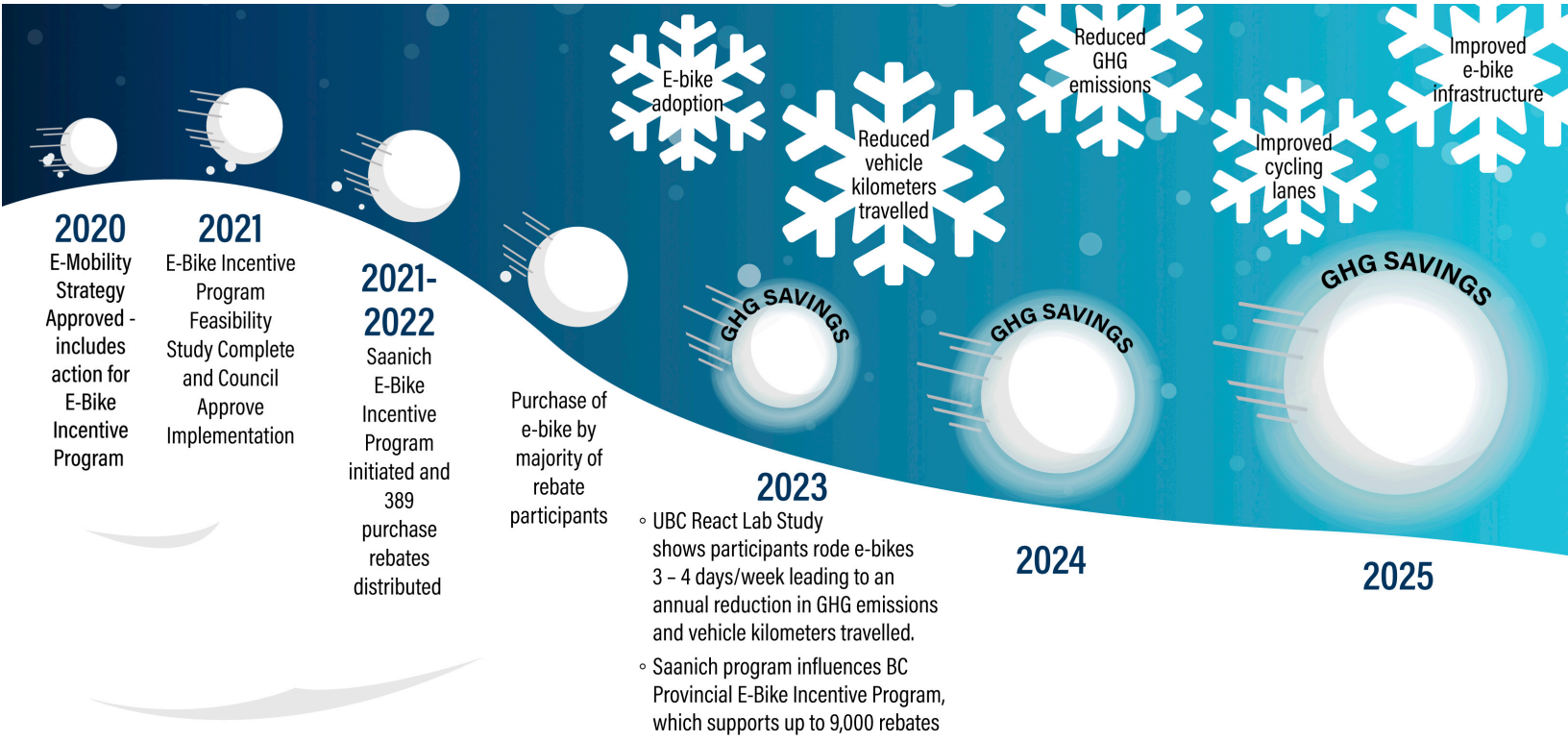


Figure 7. E-Bike Incentive Program GHG emissions reduction timeline

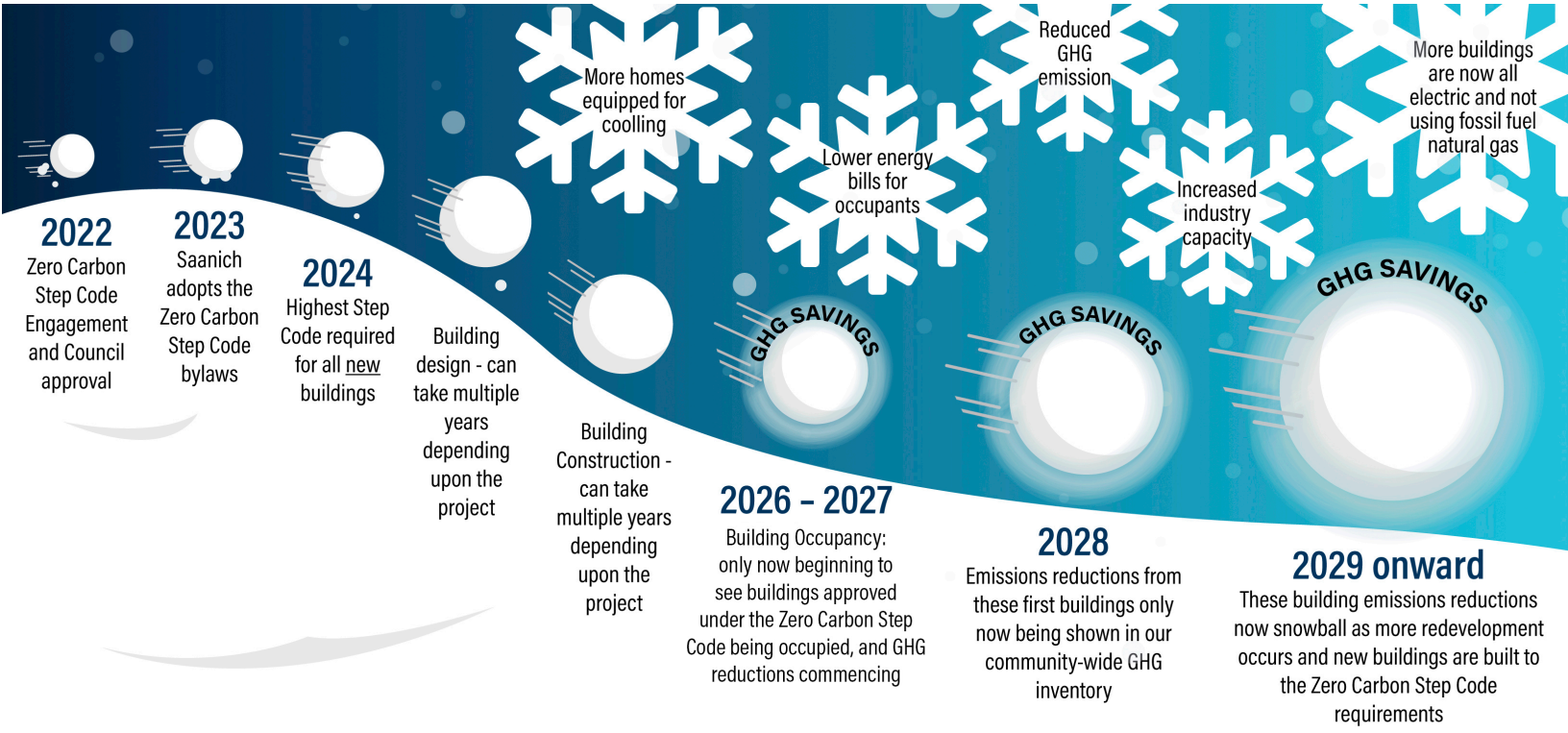


Figure 8. Zero Carbon Step Code GHG emissions reduction timeline

3.2 Modelled Pathway for Territorial GHG Emissions Reductions

A municipal energy and greenhouse gas (GHG) modelling tool was used to understand and evaluate the likely impacts of various policies towards meeting our territorial GHG emission reduction targets. This model uses a spatial approach and assumes our population and building stock grow to meet Provincial housing targets.

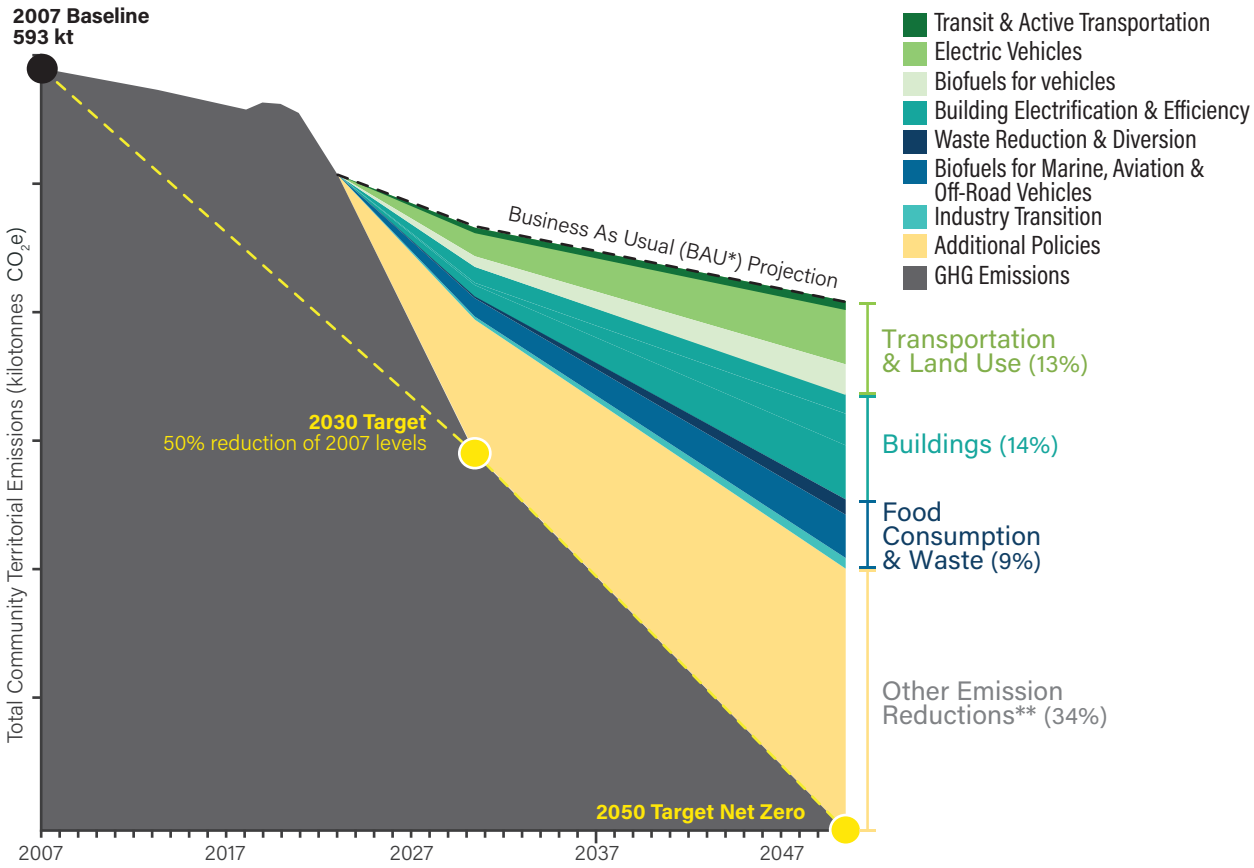
The model (Figure 9) shows that reaching our targets will require multiple strategies and transformative change, primarily in areas of transportation and buildings. Details about the model's business as usual (BAU) and policy pathway reduction scenarios are included in the Focus Areas in sections 4.1, 4.2 and 4.3.

The Business As Usual (BAU) projection indicates that only 26% reduction in GHG emissions from 2007 levels would be achieved by 2050 if we adhere to existing and confirmed policies and regulations. This includes some actions that have commitment but are not fully funded, for example, the full build-out of the Saanich Active Transportation Network.

However, our target for 2050 is net-zero emissions. A considerable portion of these emissions are reliant on key federal and provincial policies, along with technology and market advances. The Plan identifies strategies and actions (Section 4) within the District of Saanich's control and influence to help us meet our 2030 and 2050 climate goals.

When considering only emissions from buildings, passenger vehicles, and waste, over which we have more control, the model shows we can ambitiously but technically achieve emissions reductions of 49% by 2030 and a 91% by 2050, from our 2007 baseline.

However, when including all the emissions in our territorial inventory over which we have less influence (e.g. marine, aviation, process use, energy industries, fossil fuel equipment and wastewater emissions), the model shows that we can only achieve a 37% reduction by 2030 and 71% by 2050, from our 2007 baseline. Additional actions will be needed to reach net zero and will be explored in subsequent climate plan updates.



*BAU Projection includes increases in population and employment, anticipated building type mix, and the effects of confirmed and existing policies and regulations at all levels of government.

**More policies (including primarily federal and provincial policies) and industry changes are required beyond those modelled above in order to meet our targets. Remaining emissions are found in all sectors.

Figure 9. Modelled pathway for community-wide territorial GHG emissions reductions in Saanich

While our population grows over time, the model shows that our overall energy use will actually decrease thanks to the greater efficiency of EVs and heat pumps compared to using fossil fuels for transportation and building energy (Figure 10). However, because we are shifting some energy from fossil fuel sources to electricity, we will require additional electricity supply. BC Hydro is planning for future electrification through new calls for clean, affordable energy.

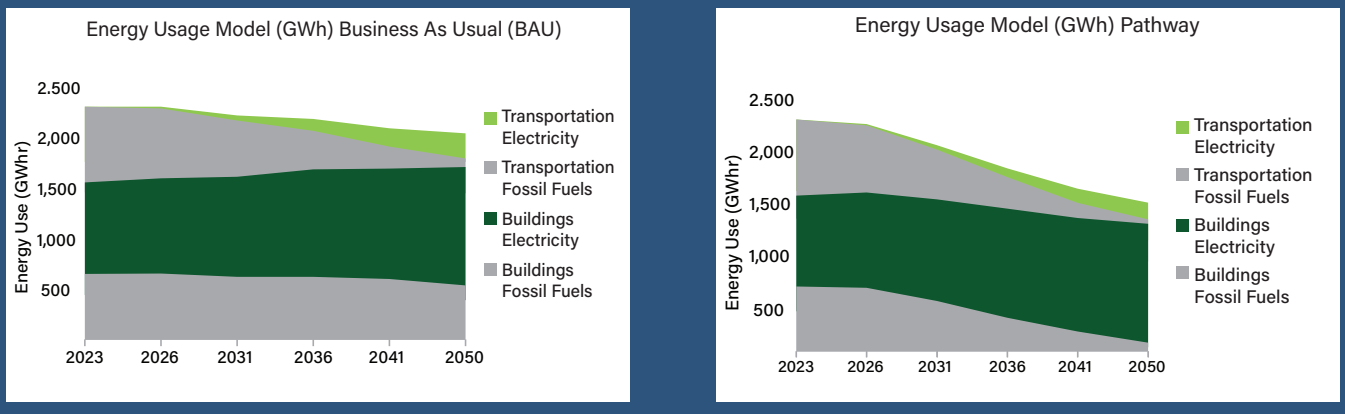


Figure 10. Modelled community-wide energy use in Saanich to 2050

HOW WILL WE REDUCE EMISSIONS?

FORMS OF RENEWABLE ENERGY

Renewable energy is energy derived from natural processes that are replenished at a faster rate than they are consumed. The sun, rain, wind, tides, geothermal energy, growth of plants, and other renewable energy sources are available freely – we need to pay for the infrastructure to collect, store, and dispatch that energy in useful forms for providing the services we need. For biofuels, it is important that we use sustainable sources and that they are not used faster than they are replaced.

New renewable electricity generation projects are already less expensive than new fossil fuel projects and costs for renewable energy storage, such as batteries, are rapidly decreasing.[42,43] Making these changes to our energy system and moving away from fossil fuels such as natural gas, oil, gasoline and diesel provides many new business opportunities and acts as a crucial geopolitical shield during times of global instability by boosting energy independence, reducing reliance on volatile oil markets, and mitigating price shocks.

The limitations of Renewable Natural Gas

Findings through recent BC Utilities Commission (BCUC) proceedings[44] confirm that the supply of Renewable Natural Gas in the province is very constrained, now and into the foreseeable future. As a limited resource, it should be saved for hard to electrify sectors, such as industry.

The limitations of Hydrogen

Hydrogen can be used in engines or fuel cells and there are three main types:

- Grey/ Brown Hydrogen - is generated from fossil fuels;
- Blue Hydrogen - is generated from fossil fuels with carbon capture; and
- Green Hydrogen (only ~ 1%) - is generated from renewably-powered electrolysis.

Almost all hydrogen production is powered by fossil fuels - only ~1% of global production is green hydrogen.[45] Blue hydrogen is not carbon-neutral: methane leakage, imperfect CO_2 capture, NO_x from combustion, expanded fossil-gas infrastructure (including fracked natural gas in B.C.), land/water impacts, and long-term CO_2 storage liabilities can leave significant residual emissions and local impacts.

For buildings and passenger vehicles, hydrogen is generally far less efficient and more costly than direct electrification (heat pumps, electric vehicles). The CleanBC Independent Review Panel (Nov 2025) cautions against hydrogen at scale for building heat and notes BEVs (battery electric vehicles) have surpassed passenger FCEVs (Fuel Cell Electric Vehicles) in market adoption.[46]

CARBON SEQUESTRATION

Carbon sequestration is the process of removing carbon from the atmosphere. It can happen through natural processes (e.g. trees) or technological processes (e.g. capturing and storing gasses from a smokestack).

The Climate Plan aims to improve Saanich's long-term carbon sequestration and prevent emissions release by protecting and restoring natural areas. Since it takes time for plants to grow and soil to build, these approaches require a lengthy time horizon to reach their potential.

OFFSETS

Offsets involve measuring GHG emissions in our community and paying an offset organization to implement carbon-reducing projects that would not be implemented without our payment or funding. Our Climate Plan does not include the purchase of offsets as a strategy as they would come with significant costs and would have limited direct benefits to local residents and businesses or the local environment.

TRANSITIONING TO ABUNDANT, AFFORDABLE, RENEWABLE ENERGY

To meet our emission reduction targets, Saanich will need to transition from fossil fuels to 100% renewable energy by 2050 or before.

Currently, the most abundant source of renewable energy available to us is hydroelectricity from BC Hydro (BC Hydro's electricity generation is currently 98% renewable[36]). Electricity in BC is among the most affordable in the country, with the third lowest rates in North America and lower electricity prices than any other G7 country.[37] BC Hydro electricity is now generally competitive with or cheaper than natural gas for home heating when using high-efficiency electric heat pumps[38],[39] and considerably cheaper than gasoline and diesel when using an EV compared with an ICE (internal combustion engine) vehicle for transportation.[40]

BC Hydro is building the grid transmission, distribution capacity and renewable energy supply to meet our growing needs. There have been two calls for power in the past two years, with the 2024 call securing 5,000 GWh of clean electricity from 10 wind and solar projects. The 2025 call for renewable power was met with strong response, with additional proposals for wind and solar projects enough to power 850,000 homes.[41] The 2025 call for power is expected to unlock as much as $6 billion in private investment and create as many as 1,500 jobs annually during development and construction.

Hydro electricity is very reliable and pairs well with other forms of renewable energy that are intermittent, like solar and wind. Since water is stored in hydro dams, it is stored for when we need it and can be quickly turned up or down depending on demand.

Saanich has a target of 100% renewable energy use by 2050, the majority of which will be from renewable electricity. Considerable progress is already being made towards this target with the switch to electric heat pumps and EVs (Figure 11).

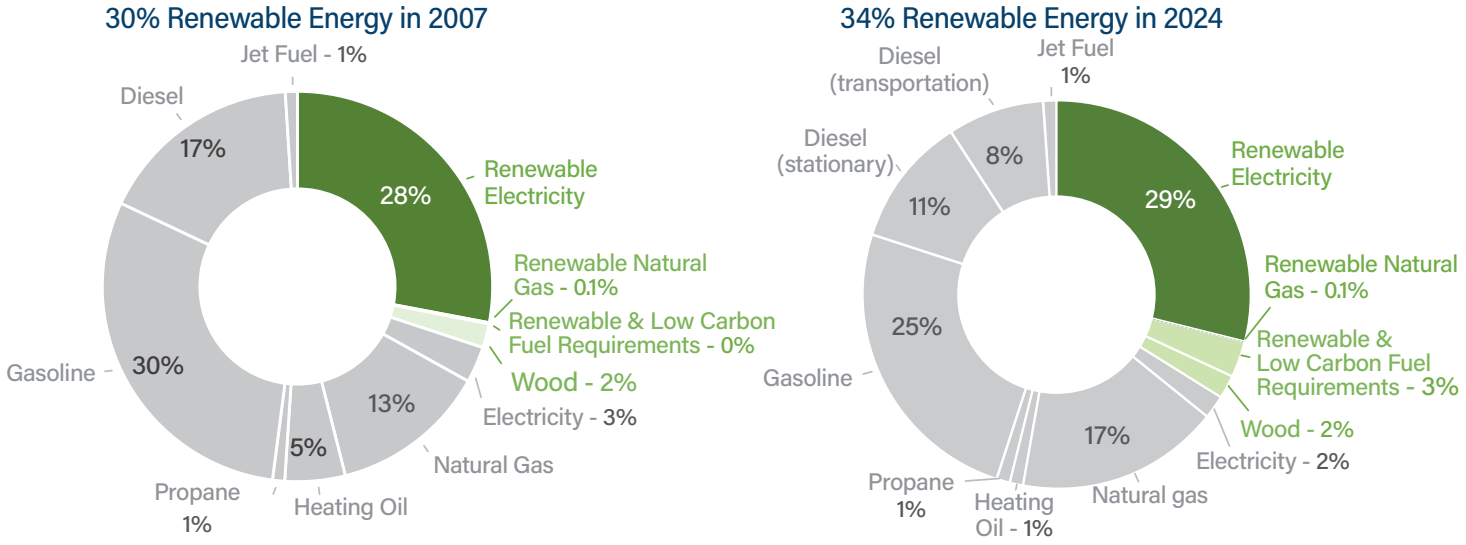


Figure 11. Progress towards our 100% Renewable Energy target

4 Strategies & Actions

The Climate Plan strategies and actions are organized within the following six Focus Areas:

Photo credit: Uptown

TRANSPORTATION & LAND USE

STRATEGIES

T1. Implement sustainable land use patterns

T2. Increase active transportation uptake

T3. Support transit and multi-modal transportation options

T4. Embed climate resilience into the active transportation network

T5. Accelerate Electric Vehicle adoption

BUILDINGS

STRATEGIES

B1. Create a strong foundation for the transition to an efficient, resilient and electrically-powered building stock

B2. Require efficient, net-zero carbon new construction

B3. Accelerate zero-carbon, energy efficiency and resiliency in existing buildings

B4. Increase energy resiliency and renewable energy supply

FOOD, CONSUMPTION & WASTE

STRATEGIES

F1. Reduce the climate impact of food production and consumption

F2. Improve the resiliency and self-sufficiency of the local food system

F3. Move towards "lighter living" and a circular economy in Saanich

EACH FOCUS AREA SECTION INCLUDES:

- Vision
- Summary of Strategies & Metrics
- Where we are today
- Where we need to go
- District of Saanich's role & working with others to succeed
- How we'll get there: Strategies & Actions

ECOSYSTEMS

STRATEGIES

E1. Protect and manage natural assets as critical infrastructure

E2. Enable natural systems to thrive and adapt in a changing climate

COMMUNITY WELL-BEING & RESILIENT INFRASTRUCTURE

STRATEGIES

C1. Transition towards climate-ready infrastructure

C2. Prepare for long-term sea-level rise

C3. Ensure all Saanich community members are resilient to climate change

C4. Empower Saanich residents and businesses to take climate action

LEADERSHIP IN DISTRICT OPERATIONS

STRATEGIES

L1. Integrate climate action into Saanich processes and decision-making

L2. Become a climate-friendly employer

L3. Transition to efficient, renewably-powered and resilient vehicles and equipment

L4. Continue to transition to efficient, renewably-powered and resilient municipal buildings

L5. Reduce waste and implement a circular economy approach throughout District operations

4.1 TRANSPORTATION & LAND USE

VISION

Saanich residents live in complete communities where trips can be easily and safely made by sustainable forms of transportation, including walking, cycling, public transit and zero-emission shared and personal mobility options. Goods and services are delivered in an efficient transportation system with vehicles that produce no emissions.

STRATEGIES

T1: Implement sustainable land use patterns

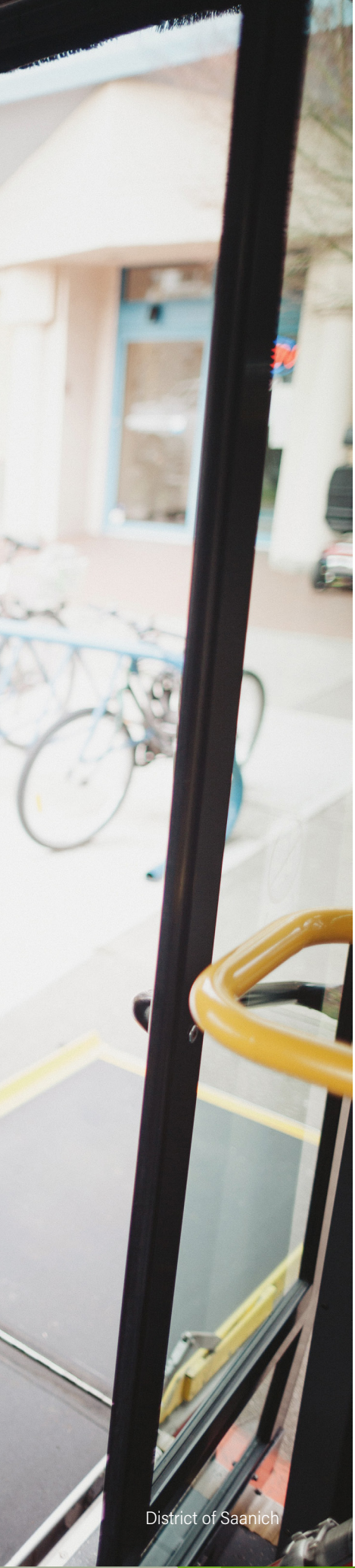
T2: Increase active transportation uptake

T3: Support transit and multi-modal transportation options

T4: Embed climate resilience into the active transportation network

T5: Accelerate Electric Vehicle adoption

District of Saanich



District of Saanich

METRICS

Sustainable Land Use:

- Saanich's Spatial Access Measure (Proximity Score) for Dissemination Blocks within the Primary Growth Areas is 0.75 by 2040 (from 0.32 in 2022) and 1.0 by 2050

Active Transportation:

- 36% of all trips by Saanich residents are taken by transit, walking and cycling by 2030 and at least 50% by 2050
- 20% of Saanich residents own e-bikes by 2030 and 40% by 2050 (for context 71% of residents owned bikes, 8% owned e-bikes and 72% owned vehicles in 2022)

Transit Improvements & Electrification

- All BC Transit buses are electrified by 2030
- 14% of all trips are taken by transit by 2030
- 20% of all trips are taken by transit by 2050

Electric Vehicles

- 16% of personal vehicles are electrified by 2030
- 90% of all personal vehicles are electrified by 2050

Renewable Vehicle Fuels

- 100% of remaining diesel is replaced by renewable diesel by 2050.
- 100% of hydrogen fuel use is from renewable energy resources by 2050

Embodied Emissions

- Number of personal vehicles per capita decreases
- Number of carshare members (absolute) increases

Where We Are Today

Transportation is the largest source of greenhouse gas (GHG) emissions in Saanich, responsible for nearly half of our total GHG emissions (both by territorial and consumption-based emissions inventory). Our land use is half rural/ agricultural, protected by an urban containment boundary. The neighbourhoods of Saanich have a mix of suburban and urban densities, with a majority of residences being single-detached homes.

On-road transportation is the largest source of GHG emissions in our region (Figure 12) and consists of the emissions generated by Saanich residents and businesses. Most of these emissions are from

- Light-duty vehicles and trucks (89%);
- Heavy-duty vehicles (9.3%); and
- Other vehicles such as motorcycles (2.2%).

Off-road transportation (5% of community emissions) includes agricultural tractors, chain saws, forklifts, etc.

Marine and aviation emissions (3%) are estimates of the emissions by Saanich residents departing and arriving by these modes within our region

Consumption-based emissions from transportation are addressed in the Consumption, Food, and Waste Focus Area.

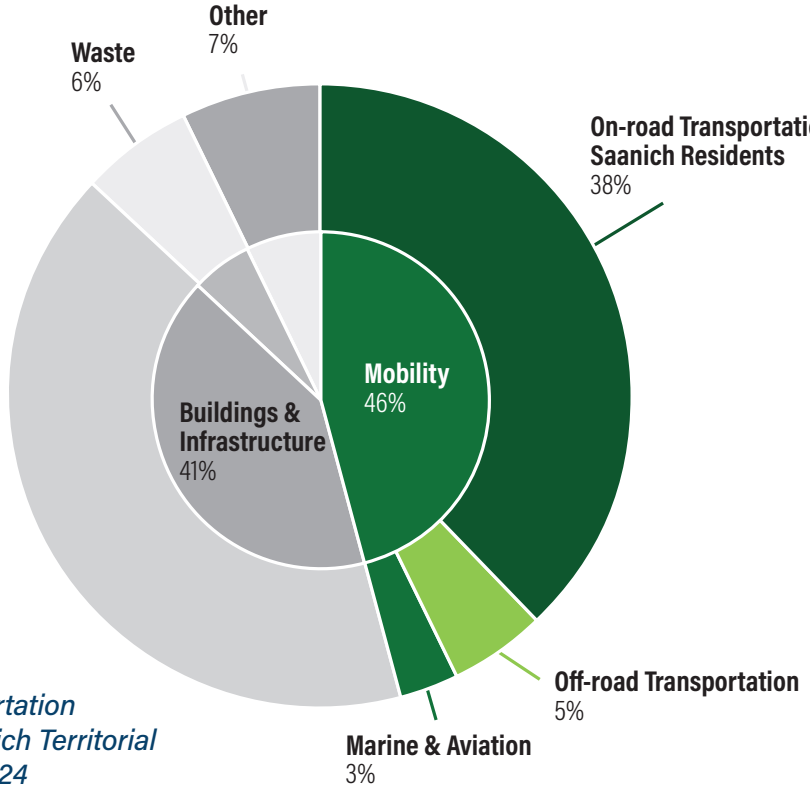


Figure 12. Transportation emissions in Saanich Territorial GHG Inventory, 2024

Progress to date

In our mixed rural and urban community, most personal transportation is by single-occupancy vehicle, and most of those vehicles still use fossil fuels.

However, we are seeing changes. Our transportation emissions are now 28% lower than our baseline in 2007. This progress is due to reduced numbers and distances of vehicle trips (gasoline vehicles), increased cycling and walking, a switch to electric vehicles (EVs), and the use of biofuels.

This growth in walking and cycling is on track to meet our targets and has been supported by the development of more compact, complete, 15-minute communities and quality active transportation infrastructure like AAA (All Ages and Abilities) bike lanes. Electric bicycles (e-bikes) are growing in popularity in our community, with over 9,000 e-bikes already owned by Saanich residents in 2022.[47] E-bikes make it easier to take longer and hillier trips by bicycle, and assist with transporting goods and young children (Figure 13).

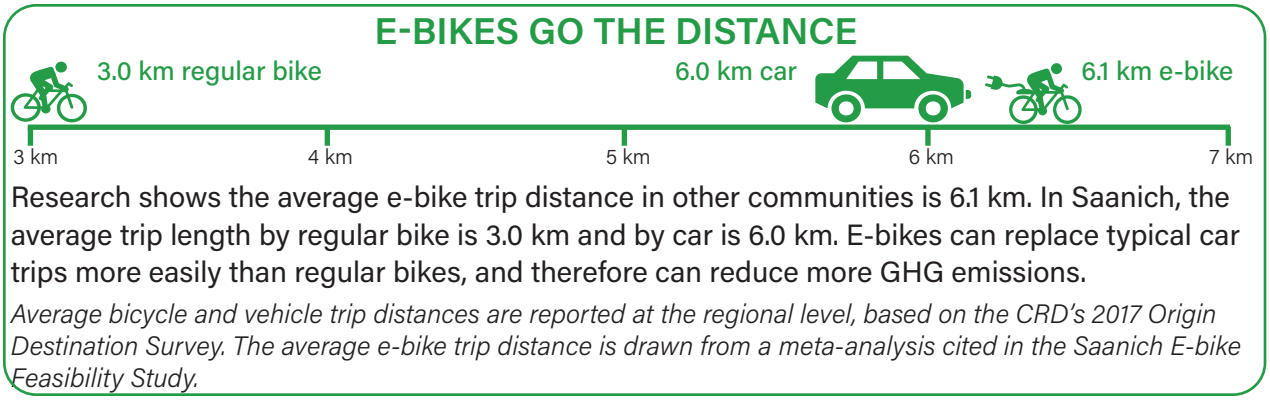


Figure 13. E-Bikes Go the Distance

EV adoption has grown rapidly; in BC, 9% of all new vehicle sales in 2020 were EVs, but this grew to over 22% of all new vehicles sales in 2023 and 2024. The total number of EVs in Saanich more than doubled between 2021 and 2024, with EVs representing about 5% of vehicles on the road as of 2024.[48] We also more than doubled the number of Saanich owned public EV chargers between 2020 and 2024, and the total number of Level 2 public EV charging stations in Saanich has tripled over the same time. As of 2020, all new residential developments in Saanich are required to be "EV-ready", with the electrical infrastructure for charging in place to increase access to at-home charging.

HIGHLIGHTS FROM THE LAST 5 YEARS

- 40 km+ of bike routes installed, for a total of 192 km of cycling network;
- 5 km+ added to the sidewalk network, for a total of 291 km of sidewalks;
- 100% of traffic signals now have audible pedestrian signals;
- 51% of pedestrian signals now have cyclist detection;
- 57% of bus stops now meet accessibility standards;
- 100% of new residential units are now required to have EV-ready parking stalls;
- 15 MURBs (Multi-Unit Residential Buildings) have retrofitted 1,074 parking stalls to make them EV-Ready;
- 22 new Saanich-owned public EV charging stations installed, for a total of 34 stations;
- 25 electric buses in the Victoria Regional Transit System; and
- Official Community Plan updated to further support compact, complete communities.

HOW DOES LAND USE IMPACT GHG EMISSIONS?

Sustainable land use, delivered through compact, complete communities that focus population growth in our centres and corridors (Primary Growth Areas), is necessary to achieve our climate goals and targets. This is the approach taken in the Saanich Official Community Plan (OCP) and Centre, Corridor and Village (CCV) plans.

Compact Communities Reduce Energy and Emissions

Multi-unit buildings such as apartments, duplexes and townhouses improve energy efficiency by reducing heat loss through shared walls and use less operating energy per person. They also reduce the amount of building materials used for each unit, and the amount of paved surface per person for vehicles compared with a single detached home (Figure 14) resulting in fewer embodied emissions than housing the same number of people in detached housing.

Compact, complete communities also support sustainable transportation modes such as walking, cycling and transit, as everyday amenities and destinations are closer to where people live. There is a strong inverse correlation between proximity to amenities and vehicle mode share - the more services that are located close to where you live, the fewer trips will be made by car (Figure 13). Proximity score (or Spatial Access Measure) is used by Statistics Canada to measure the ease of access to services, and measures the distance from homes to a range of amenities such as employment, grocery stores, health care services, child care, and more. The higher the proximity score, the closer you are to this range of amenities.

Compact Communities Protect Natural Areas

In addition, compact, complete community development helps protect our ecosystems. Our forests, agricultural and rural lands play an important role in carbon sequestration, and through the application of a strong Urban Containment Boundary, Saanich has been able to concentrate new development and minimize impacts on the integrity of our natural environment. This approach to managing growth limits car-dependent land use and prioritizes the protection of ecologically productive areas. The Urban Forest Strategy and Biodiversity Conservation Strategy aim to improve biodiversity and tree cover in Saanich as we grow.

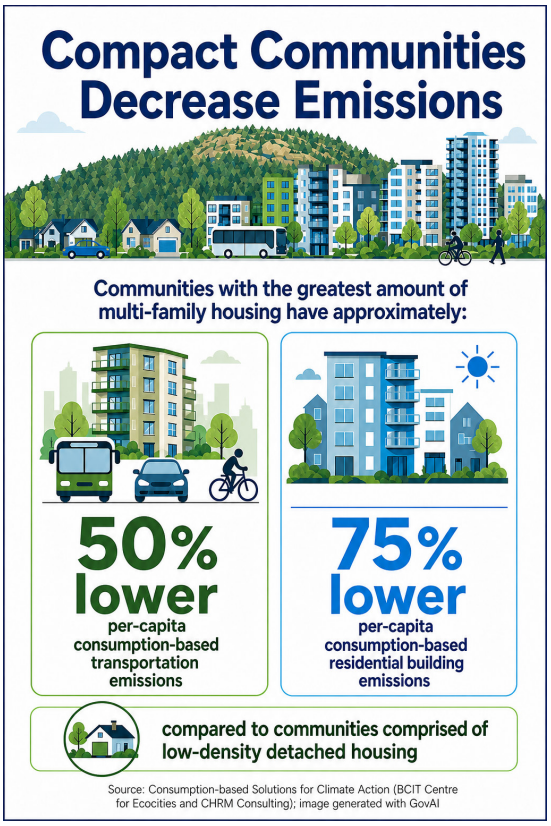


Figure 14. Compact Communities Decrease Emissions

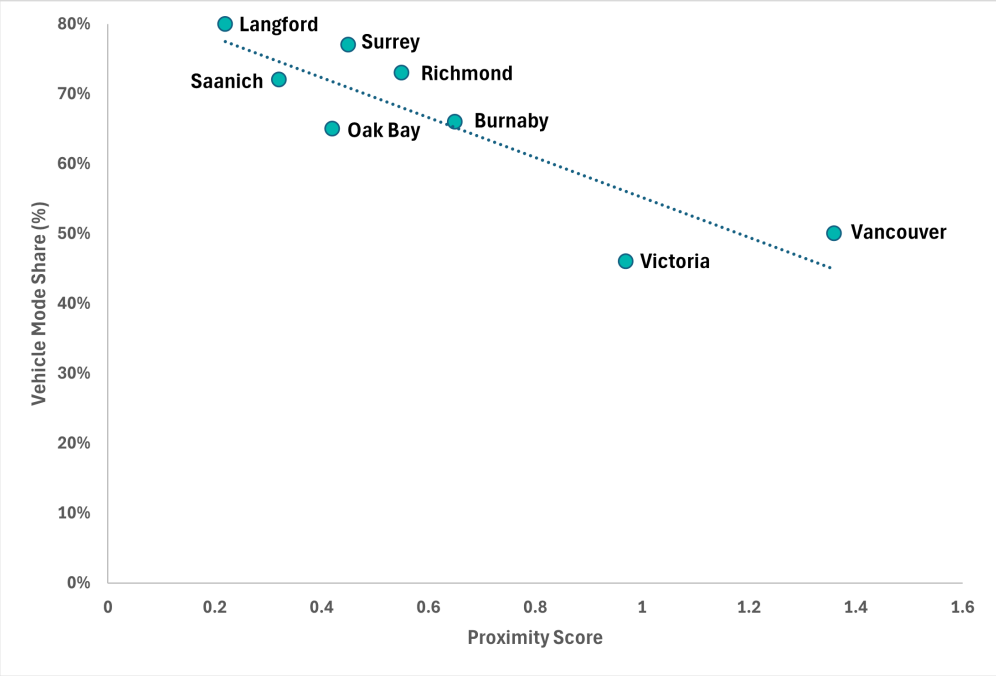


Figure 15. Average proximity to amenities and services compared with vehicle mode share for communities across Metro Vancouver and the CRD

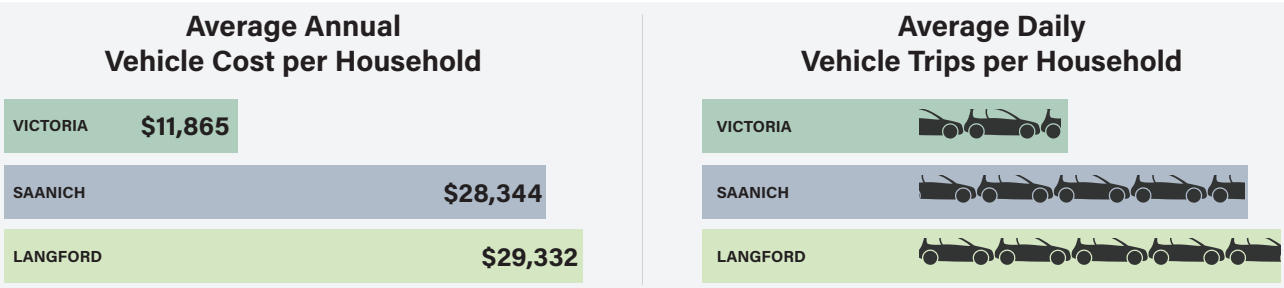
Compact Communities Save Money

Compact land use can also save money in multiple ways. It makes the construction and maintenance of infrastructure, including roads, bike lanes, transit, and utilities more efficient and affordable by serving a greater population with a more compact system. It also means that a higher level of service and quality (e.g. transit frequency and priority and AAA bike lanes) can be provided with the same resources, further supporting sustainable transportation choices and ensuring tax-payer dollars are used most efficiently. And lastly, having close access to a range of services in a walkable neighbourhood can help reduce household costs for gas and vehicles (Figure 15 and 16).

Reducing Transportation Costs Supports Overall Affordability

- Transportation costs tend to be lower in geographies where a broader choice of transportation options are available and where density and mixed use development is prevalent as it is in Victoria, southern Saanich and Sidney;
- Transportation costs tend to be higher in areas where households depend more exclusively on personal vehicle use in order to access services and employment opportunities;
- Vehicular ownership rates are generally lower in more mixed use walkable centres such as the core of Victoria;
- Transportation choice provides more potential for savings at a household level; and
- Some households may benefit from transportation cost savings by choosing to live in well serviced areas of the region where there is more ready access to services and employment opportunities, and less demand for personal vehicle usage.

From the CRD Housing and Transportation Cost Estimate Study (2020)



Low proximity = everyday destinations are further and can take longer to reach

High proximity = more everyday destinations within a shorter distance

	Langford Family	Saanich Family	Victoria Family
Proximity Score	**0.22 (low)**	**0.32 (low)**	**0.97 (high)**
Average Daily Vehicle Trips*	**4.3**	**4.1**	**1.9**
Vehicles per Household*	**1.78**	**1.72**	**0.72**
Average Vehicle Cost per Household**	**$29,332**	**$28,344**	**$11,865**

*From CRD 2022 Origin Destination Household Travel Survey. **Estimated average monthly vehicle cost per household using Ratehub.ca's Canadian car ownership estimate ($1,373/month). Includes operating costs (fuel, maintenance, parking, car insurance) and vehicle payments; does not include depreciation.

Figure 16. Average Annual Vehicle Costs and Daily Vehicle Trips per Household in Cities with Low vs. High Proximity Scores

What about the impact of population growth and lifestyles?

When we consider the limited resources that our planet can provide and that current consumption is far exceeding Earth's sustainable capacity, global population growth is often raised as a key concern for climate change. As such, at the global level, girls' education and women's health initiatives and empowerment are essential to climate mitigation and resilience.[49,50] But it is important to consider the per person impact when considering humanity's impact on the climate. If everyone on earth lived like an average Saanich resident, we'd need 4 earths to sustain us all.[51] The average Canadian emits 13tCO_2e per person, while our neighbours in the European Union emit a much lower 5tCO_2e per person,[52] while having a similar quality of life.[53]

There is also a close relationship between wealth and impact – the world's wealthiest 10% are responsible for 77% of global emissions and the richest 1% of the world's population produce as much carbon pollution as the poorest two-thirds of humanity[54] – this includes the impacts of corporations. With this wealth divide continuing to increase, there is a need for greater accountability and advocacy to higher levels of government for action to address extreme wealth.

Locally, municipalities cannot influence global population growth, but they can influence how a community is designed and grows, the delivery of services and the quality of life for both the current and future community members. And in this way, local governments can enable us to have a lower impact on the climate and be more resilient to climate changes.

Expanding Transportation Options in Saanich

The District has made significant progress in expanding its active transportation network. Since 2020, more than 40 kilometers of protected bike lanes and over 5 kilometers of sidewalks have been added, alongside a range of improvements to transit accessibility, bus shelters, and overall road safety. Today, 57% of bus stops meet accessibility standards.

These investments are making it safer for everyone to move around the community, whether they walk, cycle, take transit, or drive. The infrastructure lowers the risk of collisions between drivers and vulnerable road users, and supports healthier lifestyles.

Expanding transportation options also makes it easier for people to choose reliable alternatives to driving. Sustainable modes like walking, cycling and transit are much more space-efficient than the average vehicle, so as more trips shift to these modes there is more road space available for those who need to drive, including emergency responders, delivery vehicles, and residents making essential car trips.

The recent Tillicum bike lane upgrades show what this can look like in practice. One resident, who primarily drives but also cycles with children, said the improvements made them feel confident enough to consider buying an e-bike to help "*get one more car off the road.*" For another user, who operates a home repair business by cargo bicycle, the change has been even more immediate: "*cycling on Tillicum road used to be a frightening white-knuckle experience. I now breathe a sigh of relief and ease my grip when I enter the newly protected portions of Tillicum. The difference is night and day.*" - Testimonials from Nicole McKenzie (Capital Region resident) and Philip Marciniak (Saanich resident and business owner)

"Cycling on Tillicum road used to be a frightening white-knuckle experience. I now breathe a sigh of relief and ease my grip when I enter the newly protected portions of Tillicum. The difference is night and day."

~ Philip Marciniak

"get one more car off the road."

~ Nicole McKenzie

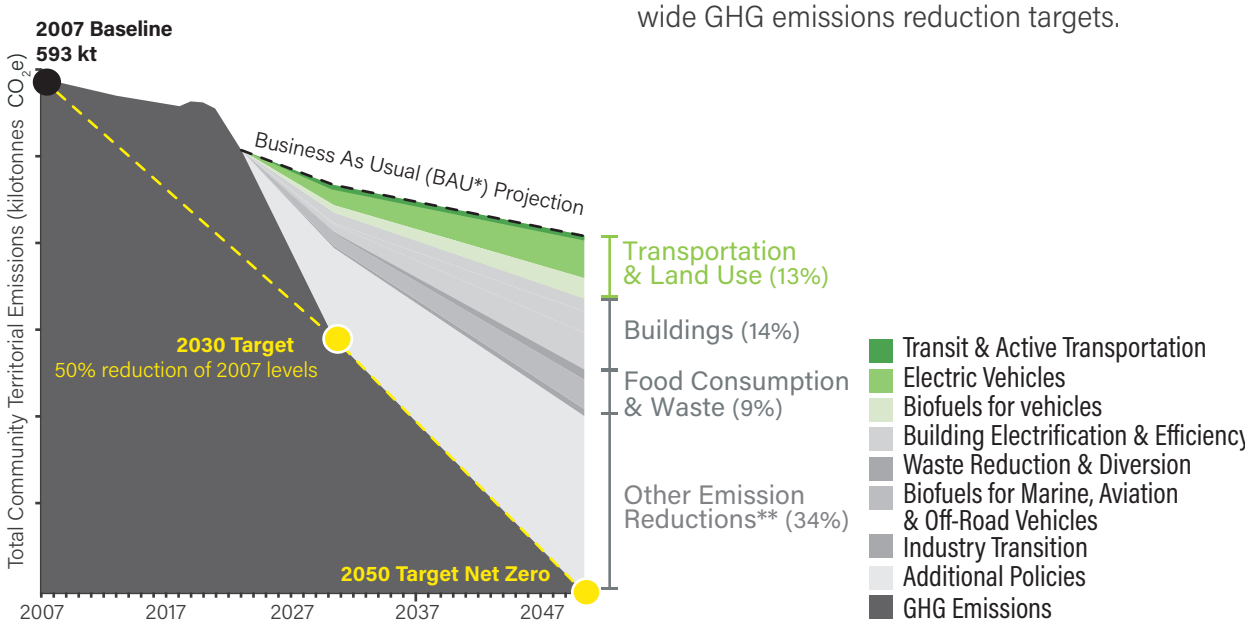
Where We Need to Go

REDUCING EMISSIONS

Sustainable land use, delivered through compact, complete communities is needed to help residents travel shorter distances to meet their needs. This is a core principle behind Saanich's transition to a 15-minute community, which provides people with walkable access to daily amenities such as jobs, schools, childcare, grocery stores, pharmacies, parks, recreation facilities, restaurants and more. This greatly increases the ability to use active transportation (walking and cycling) and transit, which, alongside electric mobility options, such as electric vehicles for personal transportation, business and moving goods, are critical to achieving our climate goals.

TRANSPORTATION EMISSIONS REDUCTION STRATEGIES

Figure 17 and Table 2 show the business as usual (BAU) and modelled GHG emissions reductions from different actions related to transportation and land use needed to meet our community-wide GHG emissions reduction targets.



*BAU Projection includes increases in population and employment, anticipated building type mix, and the effects of confirmed and existing policies and regulations at all levels of government.

**More policies (including primarily federal and provincial policies) and industry changes are required beyond those modelled above in order to meet our targets. Remaining emissions are found in all sectors.

Figure 17. Modelled Pathway - Transportation emission reductions for 2050

Business As Usual Emissions include: projected population growth, building changes (based upon a land capacity analysis and planning policy), improved Proximity Score changes, full build-out of the Active Transportation Plan network, confirmed and existing policies from all levels of government (e.g. Zero Carbon Step Code, energy benchmarking, existing building retrofit programs, provincial Low Carbon Fuel Standard), and technology and market changes mainly related to market-driven electric vehicle adoption. Should any of these policies or programs be defunded or rescinded, these emissions would increase.

Modelled Pathway	Key Transportation Policies/Actions and Outcomes
Electric Vehicles (EV)	▪ Increased BC Zero Emissions Vehicle Act target of 55% by 2030 and 90% by 2035 (previously 100% by 2035 and recently cut to 75%); ▪ 90% EV ownership by 2050; ▪ Buildout of EV public charging network; and ▪ Increased turnover of older gasoline vehicles with a municipal SCRAP IT program.
Land Use, Transit, & Active Transportation	▪ Increased Proximity Score (improved proximity to services through compact, complete development resulting in fewer kilometers travelled per person by single occupancy vehicle); ▪ Full buildout of Active Transportation Plan network by 2050; ▪ Increased e-bike adoption with incentive program; and ▪ Transit improvements.
Biofuels for vehicles	▪ BC Low Carbon Fuel Standards Act, by 2050 achieves blends of 15% ethanol, 100% renewable diesel and 5% renewable naptha for remaining small (light-duty) on-road vehicles.

Table 2. Modeled pathway to reduce Transportation GHG emissions

Walking, cycling, wheeling, and other human-powered forms of transportation have no GHG emissions (except for the emissions associated with constructing, maintaining and disposing of the bike, for example, and they also support health, safety, equity, local business and community building. Families with young children and seniors benefit from electric assist micromobility (e.g. e-bikes) and safer more inclusive active transportation routes.

Public transit and active transportation move more people using less space and resources than personal vehicles, making them essential for moving people efficiently in urban areas with growing populations. Even for buses that are still fueled by diesel or gasoline, the fuel use (and GHGs) per person is lower for a trip by bus than for the same trip by single-occupant vehicle. Electric buses lower GHGs even more.

Saanich's Active Transportation Plan outlines the transportation mode split targets for 2030 and 2050 (Figure 18).

Many Saanich residents, particularly people with disabilities, seniors, families with young children, and people using vehicles for long trips, carrying bulky items, and for business, will continue to use personal vehicles for trips.

Electric Vehicles have much lower lifecycle GHG emissions than internal combustion engine (ICE) vehicles. They also improve air quality and reduce noise pollution in the community. Multiple battery electric options are now available for medium and heavy-duty vehicles, and equipment and technology in this field is developing rapidly with other renewable fuel options such as renewable diesel acting as an interim fuel. Figure 19 shows the GHG emissions per trip for different modes of transportation.

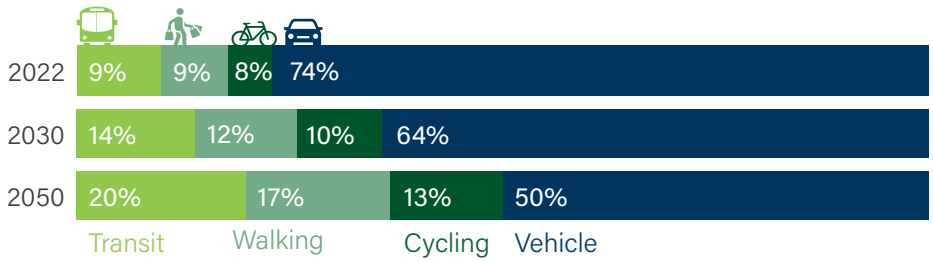


Figure 18. Transportation Mode Targets for Personal Trips

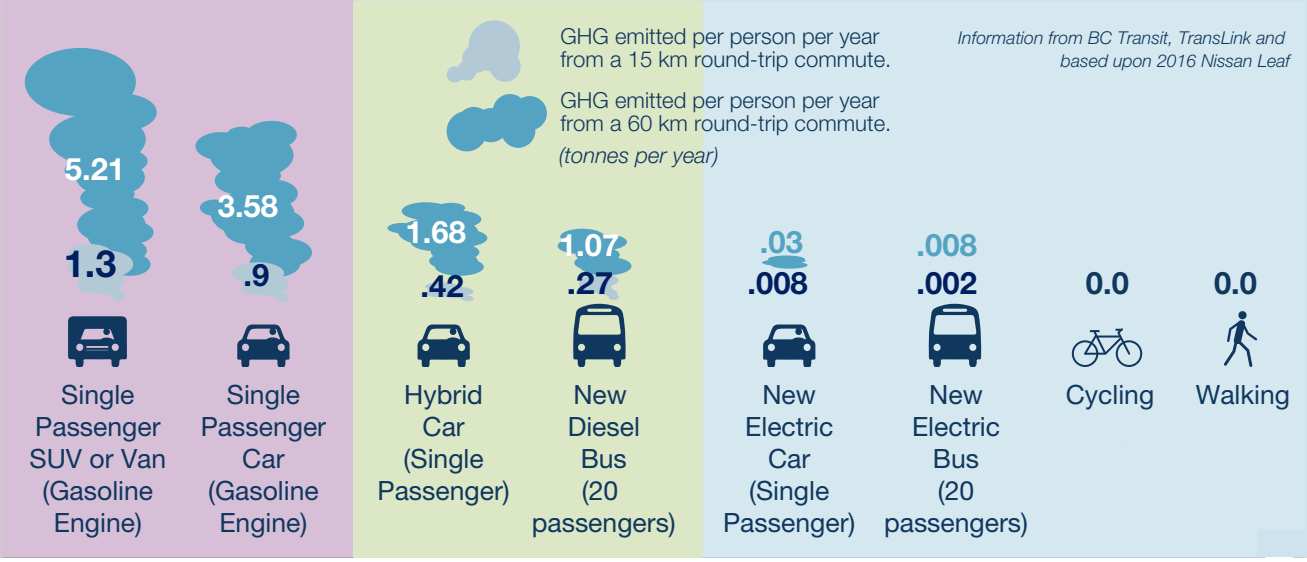


Figure 19. GHG emissions per trip and per person for different modes of transportation

There are three stages to a vehicle's lifecycle: manufacture, operations, and end-of-life. EV emissions at manufacturing stage are larger than conventional vehicles. In the operations stage, however, EVs in BC generate 99% fewer emissions than their gas-powered counterparts (Figure 20). Depending on the range and other factors, EVs make up for their higher manufacturing emissions before they have clocked 30,000 km and continue to outperform gas-powered vehicles until their end-of-life. Overall, EVs in BC generate 85 to 90% fewer emissions than gas cars over their lifecycle. In addition, EV batteries can be recycled in Canada, lowering their embodied carbon even further.[55]

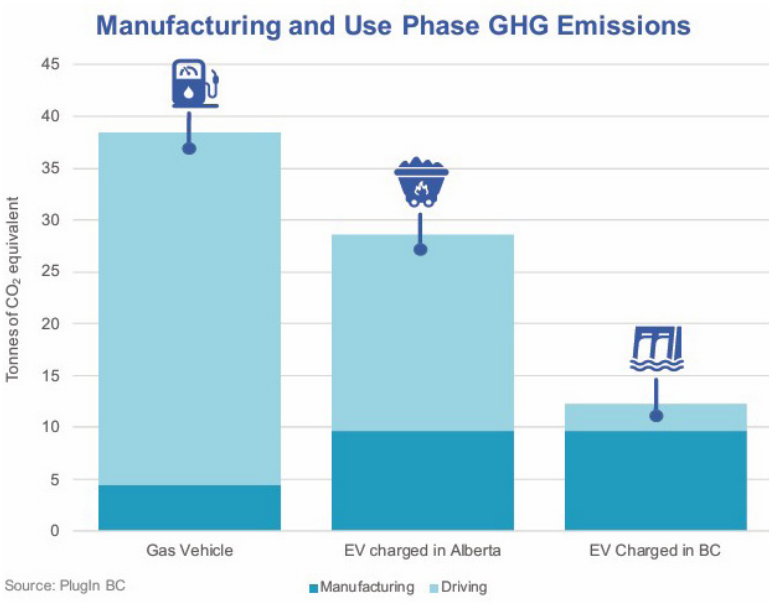


Figure 20. Manufacturing and Use Phase GHG Emissions

Sonya and Bob helped their strata complete an EV Ready Plan and install the electrical infrastructure so that all residents can easily plug in at their own stalls. The large strata complex in Cadboro Bay has 4 buildings and 71 units that benefited, with 142 stalls being made EV-ready. They received incentives from the Province and the District of Saanich through the Go Electric EV Charger Rebate Program, with the grants covering approximately 35% of the total project costs.

DISTRICT OF SAANICH'S ROLE:

- Designing, building and maintaining public streets, signals, sidewalks, bike lanes, trails, corporate buildings and public spaces, integrated with the natural environment and urban forest;
- Developing and using land-use plans and policies and urban design guidelines to influence the location and design of new development;
- Regulating road use on streets in our jurisdiction, through measures such as speed limits, parking management and charges, space allocation, etc.; and
- Delivering education and incentive programs that support climate-friendly transportation choices.

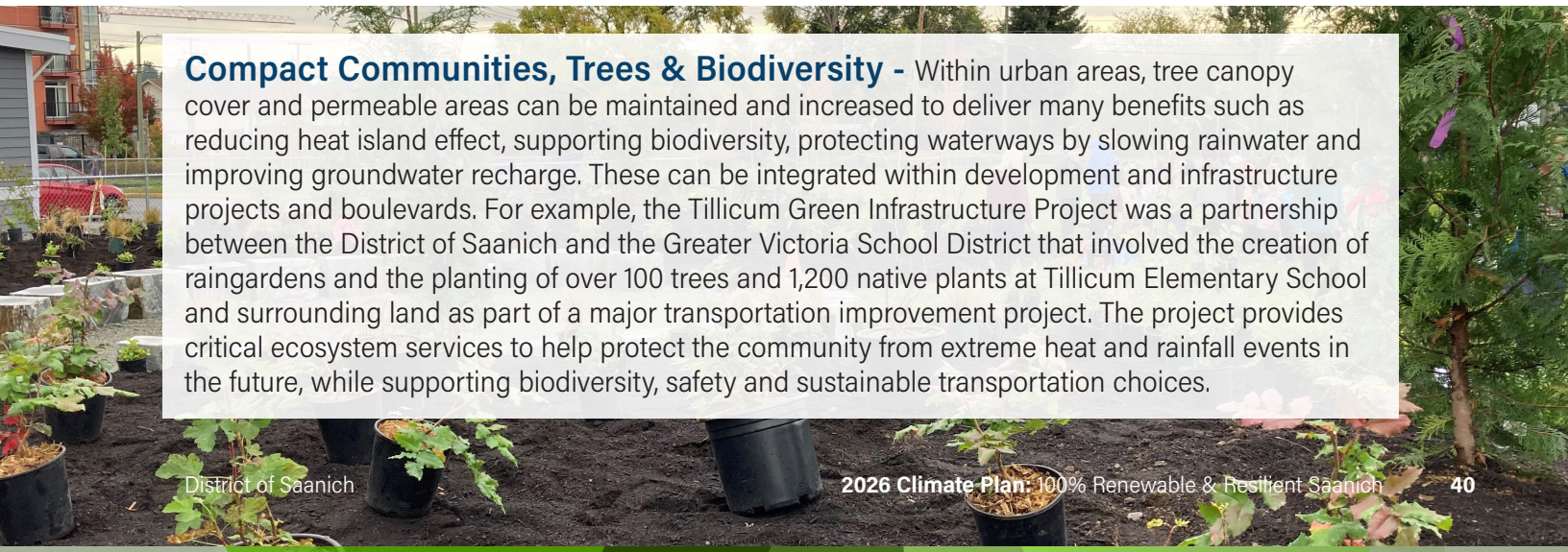
WORKING WITH OTHERS TO SUCCEED:

- BC Transit and the Victoria Transit Regional Commission, who set routes, service levels, fares and local taxes for transit purposes;
- CRD and neighbouring municipalities on regional transportation planning and the Regional Growth Strategy;
- Development community, who provide active and public transportation amenities, and private amenities such as EV charging, in new developments;
- Province of BC, responsible for highways, utilities, vehicle emissions regulations, the Motor Vehicle Act and more;
- Province of BC and federal government for critical grants and funding support for transit and active transportation projects; and
- People and businesses in Saanich, who are responsible for their own transportation choices.

IMPROVING RESILIENCY

Climate change will impact our transportation and land use. This could include impacts to the lifespan and maintenance needs of our transportation assets, the way we deliver our services, the resources needed to continue the same level of service, the ability of our community to use those services and the livability of our community.

Local governments can improve climate resilience by using climate projections to inform land use and transportation decisions, for instance, using land use policy to limit development in areas subject to hazards such as sea-level rise, flooding and wildfires, and designing transportation infrastructure to mitigate the urban heat island effect and support cyclists and pedestrians during heat waves.



Compact Communities, Trees & Biodiversity - Within urban areas, tree canopy cover and permeable areas can be maintained and increased to deliver many benefits such as reducing heat island effect, supporting biodiversity, protecting waterways by slowing rainwater and improving groundwater recharge. These can be integrated within development and infrastructure projects and boulevards. For example, the Tillicum Green Infrastructure Project was a partnership between the District of Saanich and the Greater Victoria School District that involved the creation of raingardens and the planting of over 100 trees and 1,200 native plants at Tillicum Elementary School and surrounding land as part of a major transportation improvement project. The project provides critical ecosystem services to help protect the community from extreme heat and rainfall events in the future, while supporting biodiversity, safety and sustainable transportation choices.

How We'll Get There: Strategies and Actions

Climate actions are presented under each of the Transportation & Land Use Strategies below.

Strategy T1: Implement sustainable land use patterns

T1.1 Incorporate climate change projections and adaptation needs into land use decisions

Ensure land use plans and bylaws consider climate change projections by:

- restricting specific land uses and development within areas subject to wildfire risk, overland flooding and sea-level rise;
- incorporating land uses and policies for the protection and expansion of parks, biodiversity, the urban forest, and natural areas that address extreme heat, the urban heat island effect and provide ecosystem services; and
- incorporate policies to support climate change resiliency.

See related Actions in the Community Well-Being and Resilient Infrastructure Focus Area under *Strategy C1: Transition towards climate-ready infrastructure* and *Strategy C2: Prepare for long-term sea-level rise*.

T1.2 Develop and deliver communications and educational resources to combat misinformation and support the community to take action

Support public education and raise awareness of sustainable land use and transportation by providing resources and addressing common areas of misinformation through educational campaigns.

T1.3 Complete the District's comprehensive update to Off-Street Parking and Loading Regulations

Complete the update of the Off-Street Parking and Loading Regulations to reflect modern transportation trends, support sustainable development, and align with housing and mobility goals in the Official Community Plan (OCP).

T1.4 Develop policies and resources for parking management and enforcement

Develop enabling policies and dedicated resources for on-street parking management and enforcement, to optimize use of space and support a mode shift towards active, public and renewable-energy transportation.

Dependency T1.1 Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas

Well-designed compact, complete communities greatly increase the ability to use active transportation and transit and reduce car dependence, by enabling residents to live close to services and amenities. Focusing growth and density in Saanich's centres, corridors and villages (CCVs) supports the delivery of rapid and frequent transit service, and is the most efficient and cost-effective way to build-out the active transportation network. It also yields significant sustainability co-benefits, including cost savings, increased affordability, protection of our ecosystems, improved social networks and community health outcomes.

Strategy T2: Increase active transportation uptake

T2.1 Advocate for significant investment in active transportation infrastructure and programs

Advocate for significantly increased Provincial and Federal government investment in active transportation infrastructure, including sidewalks and other pedestrian safety measures, and programs in partnership with the CRD and other local municipalities, including the reinstatement of the BC Active Transportation Grant Program and the federal government's Active Transportation Fund. Explore alternative funding opportunities (see also Action L1.7).

T2.2 Support the increased use of e-bikes and other micro-mobility devices in the community

Support the uptake of e-bikes and other micro-mobility devices (e.g. cargo e-bikes, electric kick scooters) in the community through such measures as:

- the provision of income-tested e-bike rebates;
- continuing to participate in the Province's micro e-mobility pilot, and encouraging an update to the BC Motor Vehicle Act (MVA) to allow these devices on streets;
- increasing education and training opportunities on how to safely use these devices; and
- supporting bicycle-share and scooter-share programs in the community.

T2.3 Update bicycle parking requirements for new development

Update bicycle parking requirements for new development as part of the comprehensive update of the Off-Street Parking and Loading Regulations. Requirements should align with and support delivery of the Active Transportation Plan mode share targets and reflect the increased and projected demand, space and charging required for non-standard bicycles (e.g. cargo-bikes and trailers) and e-bikes.

T2.4 Implement a program to deliver increased bicycle parking in existing buildings

Develop and implement a program that provides increased bicycle parking for existing commercial and multi-unit residential buildings with the potential conversion of vehicle parking stalls, which may include standardized design templates, case studies, incentives, and other supports.

Dependency T2.1 Implement the Active Transportation Plan and Road Safety Action Plan within or before the identified Plan timeframes

Continue to identify opportunities to accelerate the implementation of the Active Transportation Plan, to deliver a well-connected, complete and convenient active transportation network for all ages and abilities, and ensure our streets are safe for all road users through the implementation of the Road Safety Action Plan.

The Zero Emission Vehicles (ZEV) Act - The ZEV Act is provincial legislation in British Columbia that regulates the sale of new vehicles to reduce GHG emissions. The legislation primarily targets vehicle suppliers (automakers and major distributors), requiring them to meet an escalating annual percentage of new light-duty vehicle sales that must be zero-emission.

As of early April 2026, the Province introduced significant amendments to realign the province's targets with federal policies. This included:

- Lowered 2035 Target: The requirement for zero-emission vehicle sales by 2035 has been reduced from 100% to 75%; and
- ICE Sales Ban Removed: The previous prohibition on the sale of new internal-combustion engine (ICE) vehicles starting in January 2035 has been removed.

Strategy T3: Support transit and multi-modal transportation options

T3.1 Advocate to the Victoria Regional Transit Commission (VRTC), the Capital Regional District (CRD), and the Province to accelerate transit service expansion and investment

Advocate for significantly increased provincial and local funding needed to expand and improve public transit service levels to meet our public transit mode share targets, including potential consideration of free transit for youth.

T3.2 Identify and fund Saanich projects to improve transit service

Work with BC Transit, the CRD and other partners to support transit service expansion and improve transit efficiencies, through the funding of five key projects identified using results from the upcoming BC Transit Bus Speed and Reliability Report (2027). Decrease travel times for public transit trips through the use of technology or dedicated transit infrastructure where appropriate, for example, dedicated bus lanes, signal priority and queue jumps.

T3.3 Collaborate and support the development of new facilities to enable transit growth

Support BC Transit, the CRD, and other partners in the rapid development of new transit facilities and exchanges that enable fleet and service expansion.

T3.4 Support efforts to electrify transit

Encourage BC Transit to continue the transition towards electrification of its bus fleet and help facilitate shared learning opportunities on electrification for commercial vehicle fleet managers in the region.

T3.5 Support car share services

Support shared-mobility options for residents, including car share programs that reduce the need for personal vehicle ownership and encourage more multi-modal trips. Include measures to support access for lower income households.

Strategy T4: Embed climate resilience into the active transportation network

T4.1 Integrate climate adaptation measures into transportation projects

Integrate climate adaptation measures and ecosystem services within transportation infrastructure design and projects. This should aim to minimize the urban heat island effect and protect infrastructure, people and assets related to active transportation services from the impacts of extreme heat, drought and precipitation, while maximizing the protection and provision of ecosystem services. Projects should include a baseline evaluation (% tree canopy cover, # trees, % Effective Impervious Area, baseline surface and air temperature) and integration of design elements by a landscape architect/biologist to maximize ecosystem services and goals. They should consider future climate projections and such strategies as:

- tree retention and planting;
- shade structures and shelters;
- raingardens and bioswales;
- treatment of stormwater;
- cool/reflective surfaces and/or surface treatments;
- drinking fountains and misting stations;
- design standards (e.g. thermopaint vs. MMA, asphalt vs. concrete, traffic signal cabinets that withstand heat, bike counters, grid versus solar powered cross-walk and transit shelter lighting etc.);
- dust suppression management during construction phases; and
- associated capital and operating costs and procedures.

Strategy T5: Accelerate electric vehicle adoption

T5.1 Update the Electric Mobility Strategy

Undertake a review and strategic update of the E-Mobility Strategy to build on successes to date; identify emerging opportunities and barriers; address persistent gaps; provide more detailed direction on Saanich investments (e.g. number and location of future public charging stations); and ensure Saanich continues to support a rapid uptake of EVs in our community.

T5.2 Deliver a robust public charging network

Ensure access to a robust public EV charging network by:

- continuing to operate a high-quality network of District-owned EV charging stations, and expanding the network as needed;
- encouraging private-sector investment in the public EV charging network by streamlining permitting requirements, exploring third-party delivery of on street public chargers, leveraging the provision of charging infrastructure through development where appropriate, and other opportunities; and
- partnering with BC Hydro to support access to DC Fast Chargers in the community.

T5.3 Support access to charging for residents in multi-family buildings

Support access to charging for residents that live in multi-family buildings by:

- continuing to offer incentives for EV-Ready plans and infrastructure;
- ensuring EV Ready requirements in new construction are supporting access to charging, as intended;
- locating public chargers in neighbourhoods with a high density of existing multi-family buildings; and
- supporting the electrification of carshare vehicles.

T5.4 Work with local organizations and businesses to reduce emissions from fleets and employee commuting

Work with BC Transit, School Districts, businesses and other organizations in Saanich to share best practices and identify opportunities to reduce emissions from fleets (e.g. electrification, transitioning to renewable, low-carbon fuels and right-sizing fleets), and support sustainable commuting programs amongst employers.

T5.5 Seek opportunities to foster and support innovation in the transition to a resilient, low carbon and healthy transportation system

Continue to pilot, collaborate and explore opportunities to foster innovation that accelerates progress towards our goals, for instance by:

- testing Vehicle 2 Grid (V2G) technologies to provide back-up power during outages or reduce peak loads;
- combining battery and/or solar with EV charging infrastructure to reduce demand charges, peak loads, etc.; and
- considering adoption of new technologies as they become available, such as sodium-ion batteries and AI programs.

T5.6 Advocate to senior levels of government for programs and policy to support rapid uptake of EVs

Provincial and Federal policy and programs that are needed include (but are not limited to):

- a strong Zero Emissions Vehicle (ZEV) sales requirement;
- the continuation of low carbon fuel standards and the associated credit market for achieving compliance;
- access to affordable EVs through trade policy, incentives, sales tax exemptions, or other tools (e.g. a SCRAP-IT program to accelerate the replacement of ICE [Internal Combustion Engine] vehicles with EVs);
- ongoing support for the expansion of a high-quality public charging network, including through BC Hydro and incentives for public or privately hosted chargers; and
- support for access to at-home charging in multi-family buildings, including continuing the EV Ready retrofit incentives; establishing EV-ready requirements for new residential construction in the BC building code; and creating "right to charge" legislation that covers existing rental apartments.

4.2 Buildings

VISION

Our homes and buildings are comfortable, healthy, efficient and affordably powered with renewable energy. Buildings in Saanich are designed or upgraded with projected climate changes in mind to ensure we are resilient to extreme heat, wildfires and smoke events, extreme precipitation, drought and sea-level rise.

STRATEGIES

B1. Create a strong foundation for the transition to an efficient, resilient and electrically-powered building stock

B2. Require efficient, net-zero carbon new construction

B3. Accelerate zero-carbon, energy efficiency and resiliency in existing buildings

B4. Increase energy resiliency and renewable energy supply

District of Saanich

District of Saanich

METRICS

New Construction Emissions:

- 100% of new buildings have all electric hot water and heating by 2026
- 80% of new buildings have no fossil fuel connections and use by 2030

Existing Building Emissions:

- 100% of oil heating systems are replaced by electric heat pumps by 2035
- 40% of natural gas heating systems are replaced by electric heat pumps by 2030 (from 2026), 100% by 2050
- 20% of existing buildings have switched from fossil fuel to electric hot water by 2030 (from 2026), 100% by 2050

Building Resiliency:

- 100% of all new Part 9 & Part 3 residential units have mechanical cooling by 2030
- 40% of all existing Part 9 and Part 3 residential units have mechanical cooling by 2030
- 100% of all Part 9 and Part 3 residential units have mechanical cooling by 2050
- Decrease the # of residential units located within areas subject to current and future flood inundation over time

Did you know?
Since 2017 nearly half (45%) of residents have replaced their oil heating systems with an electric heat pump in Saanich

Where We Are Today

Buildings are the second largest source of community-wide territorial GHG emissions in Saanich and these emissions are mainly from fossil fuel natural gas (Figure 21).

The energy used to heat, power and cool buildings in Saanich makes up 23% of our overall territorial GHG emissions. An additional 16% comes from other stationary sources (construction and landscaping equipment, outdoor heaters, etc.), as well as agriculture, forestry, fishing, and related activities. Significant actions to reduce GHGs from buildings will therefore be vital to meeting our targets, while also improving affordability, performance, and health of our buildings. Many homes and buildings in Saanich are already powered by renewable energy as BC Hydro's electricity is mainly sourced from hydro power, with growing investments in wind and solar. Homes that are heated using fossil fuels such as oil or natural gas emit at least 16 times more than homes that are heated with electricity, on average emitting more GHGs than a typical car each year.

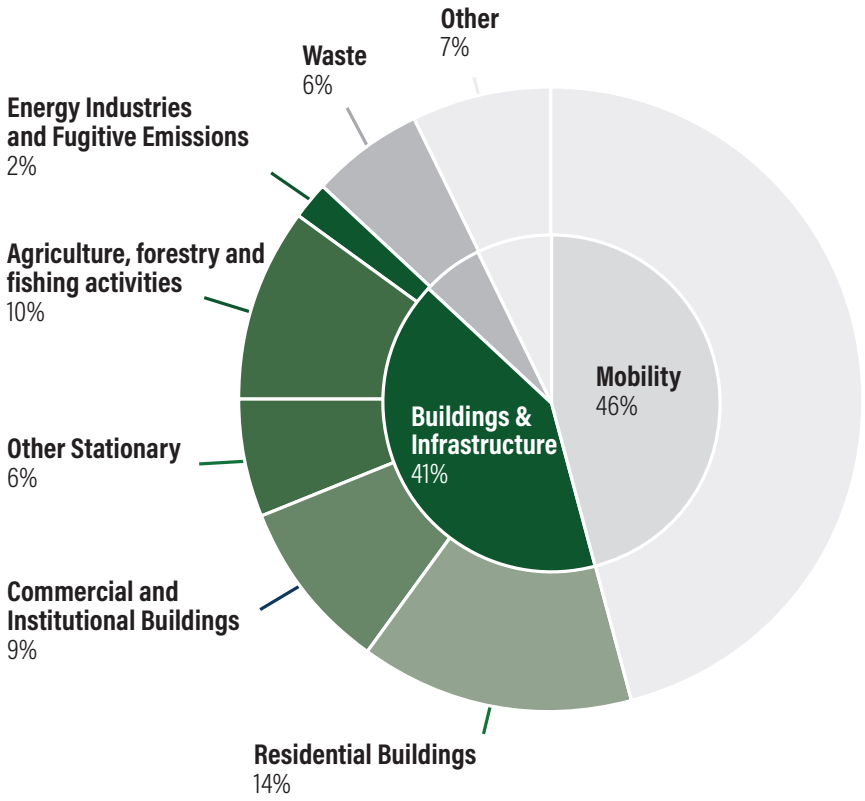


Figure 21. Buildings emissions in Saanich Territorial GHG Inventory, 2024

Progress to date

There has been a 10% decrease in GHG emissions from stationary energy, with a 31% decrease from residential and commercial building operating energy in 2024 compared to 2007 levels. These reductions have occurred thanks to home and building owners switching from oil and natural gas to heat pumps and making their homes more energy efficient.

Zero Carbon Step Code requirements for new construction have recently come in effect, ensuring that new buildings use renewable energy efficiently. While data is not available back to 2007, as of 2025, 77% of new buildings in Saanich are zero carbon (defined as all-electric space and hot water heating), up from 46% in 2023. New (Part 9) homes are now installing heat pumps 79% of the time as compared to 55% in 2023, providing improved energy efficiency and climate resilience.

HIGHLIGHTS FROM THE LAST 5 YEARS

- 1,300+ residential oil heating and 950+ natural gas systems have been replaced by a heat pump;
- 70 oil and gas furnaces replaced with assistance from the Saanich Heat Pump Financing Program;
- 720+ new solar net metering customers in Saanich, for a total of 815 solar PV contributors to the grid;
- 575+ Saanich residents received free portable air conditioner units through BC Hydro and the Province; and
- 77% of new buildings in Saanich had all-electric space and hot water heating.

Since launching in 2022, Saanich's Heat Pump Financing Program has helped 70 residents replace polluting oil and gas furnaces with clean high-efficiency electric heat pumps, providing a 0% interest loan tied to the property.

Scott, a resident who completed the program in 2025, shared that the heat pump has been "quiet and keeps the house comfortable in all seasons", and notes that "the zero-interest loan over a 10-year period is a hugely beneficial feature."

Purnima, another local resident remarked on the "improvement in air quality" and that the heat distribution is "gentler and more even". The program made it financially viable for Purnima's household to switch from heating oil, sharing that they are happy to no longer be "dependent on a fuel that's becoming less and less viable" and feeling in the long-term the switch will contribute to "health, climate and peace of mind."

Where We Need to Go

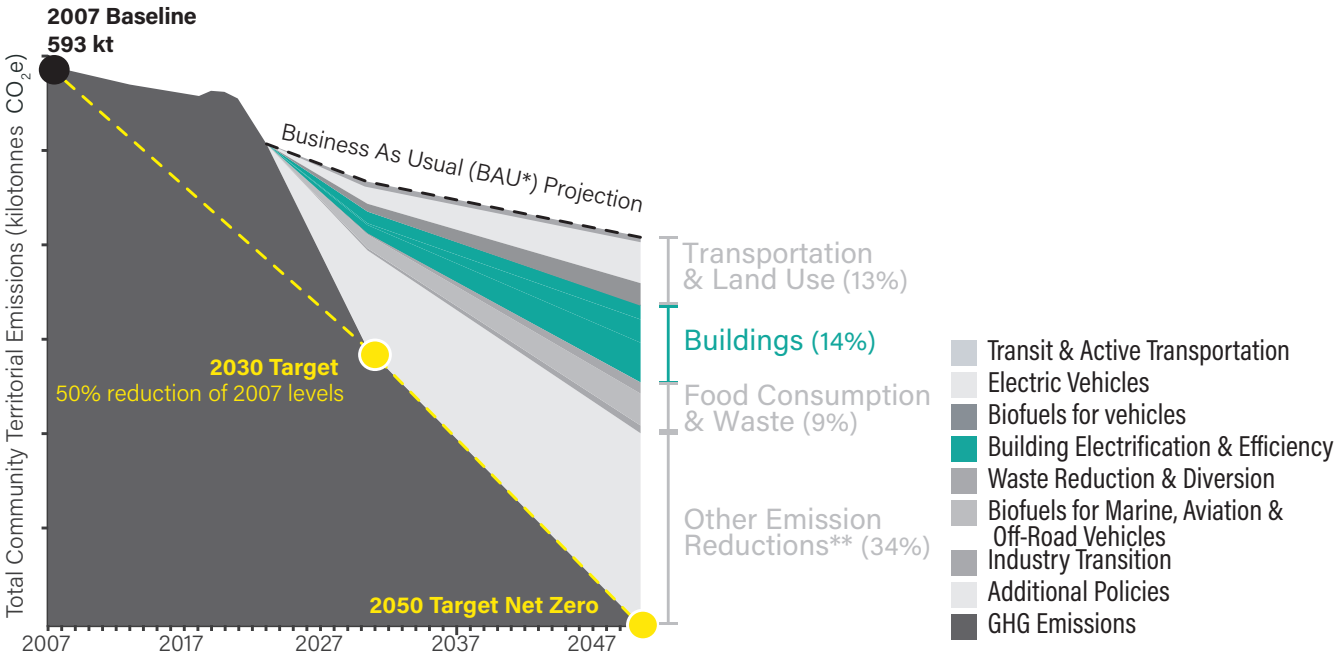
REDUCING EMISSIONS

To become a resilient, 100% renewable community and achieve net-zero emissions by 2050, all buildings and infrastructure in Saanich will need to be energy efficient, powered by renewable energy, designed for future climate conditions, and built using sustainable and low-carbon materials (Figure 22 and Table 3).

Most of the buildings that will be in operation in 2050 are already constructed today, meaning retrofits are essential to achieving our climate goals. New development must be built to be fully renewable, energy efficient and resilient to prevent more costly retrofits in the future. They must also be built for longevity to make the most out of the embodied carbon in their materials.

BUILDING EMISSIONS REDUCTION STRATEGIES

Figure 20 shows the business as usual (BAU) and modelled GHG emissions reductions from different actions related to buildings that are needed to meet our community-wide GHG emissions reduction targets.



*BAU Projection includes increases in population and employment, anticipated building type mix, and the effects of confirmed and existing policies and regulations at all levels of government.

**More policies (including primarily federal and provincial policies) and industry changes are required beyond those modelled above in order to meet our targets. Remaining emissions are found in all sectors.

Figure 22. Modelled Pathway - Building emissions reductions for 2050

Business As Usual Emissions include: projected population growth, building changes (based upon a land capacity analysis and planning policy), improved Proximity Score changes, full build-out of the Active Transportation Plan network, confirmed and existing policies from all levels of government (e.g. Zero Carbon Step Code, energy benchmarking, existing building retrofit programs, provincial Low Carbon Fuel Standard), and technology and market changes mainly related to market-driven electric vehicle adoption. Should any of these policies or programs be defunded or rescinded, these emissions would increase.

Modelled Pathway	Key Building Policies/Actions and Outcomes
BC Provincial Policies	▪ Provincial Highest Energy Efficiency Standard (HEES); and ▪ Building Alterations Code.
District of Saanich and Regional Policies	▪ Zero Carbon Step Code + ensure fully electric buildings and no conversions to fossil fuels following occupancy; ▪ Building Performance Standard for larger buildings commencing 2030 achieving 43% energy use reduction (1.4% per year); ▪ Direct Install Program supporting 300 low income homes by 2030 and 2,200 by 2050; ▪ Heat Pump Financing Program supporting 130 heat pump conversions per year in single detached homes; ▪ Oil Heating Phaseout requirement starting 2029 with full phase out by 2035; ▪ Part 3 Energy Benchmarking – 80% participation by 2030; ▪ Part 9 Fuel Source Declaration – 80% participation by 2030; ▪ Strata Energy Advisor Program and Rental Apartment Retrofit Accelerator - 3% participation per year achieving 35% energy savings, with some fuel switching; and ▪ Regional Home Energy Navigator – 1% of single detached homes per year with 26% energy savings per home.
University of Victoria	▪ Climate and Sustainability Action Implementation Plan

Table 3. Modelled pathway to reduce building GHG emissions

While there are a larger number of Saanich policies and actions, it is important to note that we are highly dependent upon the implementation of key provincial building legislation and policy, which account for more than double the impact on our climate targets.

Implementation of the provincial Highest Efficiency Equipment Standards (HEES), will ensure all space and water heating replacements are at least 100% efficient in existing buildings, effectively shifting the market towards electric heat pumps and away from stand-alone fossil fuel equipment, not only addressing GHG emissions but also increasingly our climate resiliency by providing cooling in summer months, mitigating the impacts of heat waves and increasing summer temperatures.

It is also important that this legislation is designed in a way that delivers the desired outcomes. For example, while the highest level of the provincial Zero Carbon Step Code (Emissions Level 4) is labelled 'Zero Carbon', it still allows for notable use of fossil fuels in buildings, including natural gas fireplaces, stoves, dryers, pools, and heated patios etc. New 'Zero Carbon' buildings in Saanich and elsewhere are still including natural gas connections for these uses and this will impact our ability to mitigate climate change.

WHY SWITCH TO RENEWABLE ENERGY SYSTEMS NOW?

Switching to renewable energy for space and water heating systems is essential to meeting our GHG emission reduction targets, and protects our community against fluctuating oil and gas prices that can be volatile and subject to international conflicts. A shift to renewables keeps more money in the BC economy and can help improve resiliency when tied with emerging technologies such as battery storage.

Energy efficiency and building envelope improvements will continue to be important in the transition to 100% renewable energy; through efficiency we can make best use of electrical capacity, minimize the need for electrical upgrades and support affordable energy costs for residents and businesses. However, energy efficiency alone will not be sufficient to meet our targets, and we must accelerate the replacement of fossil fuels with renewable energy to power our buildings.

Most residential space heating systems using fossil fuel last between 15 and 25 years. Every time an existing fossil fuel (e.g. natural gas) furnace or hot water system is due to be replaced, it is a crucial opportunity to switch to a renewable energy system.

Planning ahead for a heat pump replacement before the previous system breaks is key. While heating system replacements are a regular cost of building ownership, access to affordable and appropriate capital remains the most commonly cited concern regarding building retrofits, despite typically achieving operational cost savings. Electric heat pumps are the highest efficiency, lowest emissions technology for space and water heating in detached homes while also providing cooling.

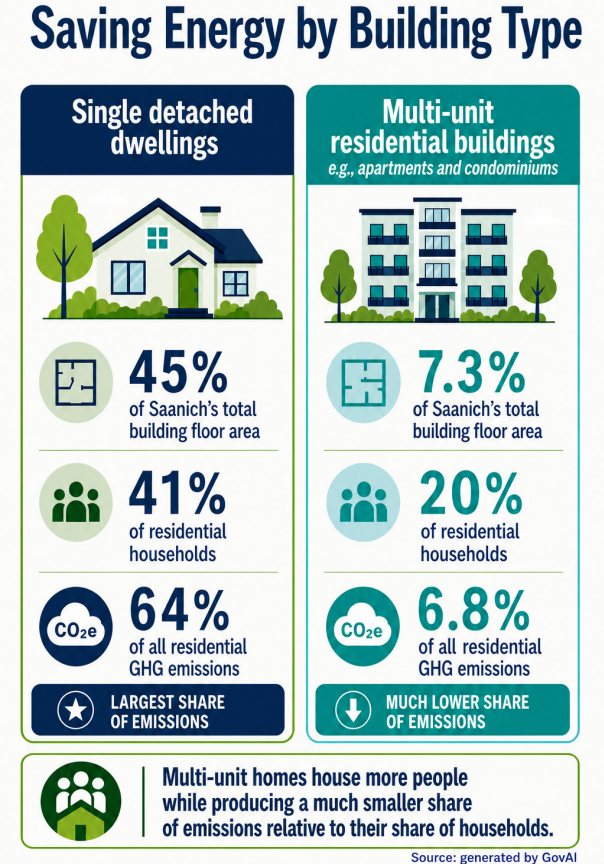


Figure 23. Saving energy by building type

IMPROVING RESILIENCE

Existing buildings and infrastructure have been designed for historic climate conditions. Our homes and buildings need to be prepared for more heat waves, poor air quality events and heavy storms and rainfall. These are health and mortality issues, not just for comfort.

As one example, most homes in Saanich were not built with mechanical cooling systems because our overnight temperatures have historically become low enough overnight to avoid dangerous overheating. The 2021 heat dome showed how harmful (and in some cases deadly) it can be when we have high temperatures over multiple days and nights, and no way for our bodies to cool down. Mechanical cooling at home is an important safety feature for climate adaptation, and must be accessible to all who need it, especially those most vulnerable to overheating.

DISTRICT OF SAANICH'S ROLE:

- Designing, building and maintaining municipal buildings;
- Regulating land use and development through zoning, plans (Centre, Corridor and Village Plans), design guidelines, standards, permits, policies and bylaws; and
- Delivering education and incentive programs to support electrification, efficiency and resiliency upgrades and behaviours in homes and buildings.

WORKING WITH OTHERS TO SUCCEED:

- The Provincial and Federal governments on building code or other regulatory updates, including emissions and efficiency standards, climate resilience and health and safety standards, and residential tenancy act requirements;
- Provincial and federal governments for critical grants and funding support for building related programs and retrofits;
- Utilities and senior levels of government on long range energy supply planning, infrastructure projects, fuel-switching and energy efficiency directives and programs, and funding to support local governments and residents;
- Capital Regional District and neighbouring municipalities on planning, advocacy to other levels of government, joint funding applications, public capacity building, education and community programming;
- Industry stakeholders, including developers, architects and designers, construction and retrofit trades, and real estate agents, who are responsible for implementing and communicating about energy and climate performance of buildings; and
- People in Saanich, who make decisions about building purchases, renovations and operations.

How We'll Get There: Strategies and Actions

Climate actions are presented under each of the Building Strategies.

Strategy B1: Create a strong foundation for the transition to an efficient, resilient and electrically-powered building stock

B1.1 Improve data quality and access through data reporting programs, improved tracking processes, partnerships and advocacy

Continue striving for better data to inform programs and policies and improve tracking towards our targets. Key partners include the Province of BC, Natural Resources Canada, BC Hydro, Fortis BC, the Zero Emissions Innovation Centre, Technical Safety BC, and the CRD, and includes data related to:

- program participation e.g. rebate and program uptake;
- energy use by fuel and building type, including utility data, Energy & Carbon Emissions (ECE) benchmarking program data, and a Fuel Source Declaration for smaller buildings (those not subject to the ECE program);
- the provision of data aggregation services by utilities (i.e. for buildings with multiple accounts);
- energy scores and other outputs from energy evaluation programs e.g. the Province's Home Energy Planner and NRCan's EnerGuide Rating System;
- step code level achieved in new construction;
- natural gas connections; and
- the oil permit database and records of oil spills.

B1.2 Advocate to the Province, BC Hydro and other partners to adopt and communicate a clear and integrated vision and pathway for efficient electrification in BC

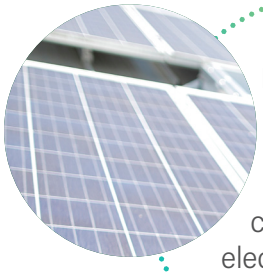
Continue to communicate the importance of clear Provincial direction on efficient electrification, including the need for:

- an integrated energy plan that maps out how BC will transition from fossil fuels to electricity over time and with which Utilities' Integrated Resource Plans must align;
- a strategy for the pruning of the gas network, including considerations for a new business model for gas utilities;
- ongoing and expanded support for fuel switching, including direction for BC Hydro to embed fuel switching in their mandate and programs; and
- clearer direction for the BC Utilities Commission (BCUC) to consider GHG and resilience outcomes in addition to affordability in their decision making.

B1.3 Identify and remove municipal barriers to a sustainable building stock

Review Saanich bylaws, processes and policies to identify potential barriers to resilient, efficient, zero-carbon buildings, and make changes to reduce or eliminate barriers, while aligning with efficient and timely application processing goals. Consider a range of desired outcomes, including:

- reducing embodied emissions and waste e.g. the use of alternative building materials or techniques;
- streamlining house-relocations;
- supporting high performance new construction; and
- enabling installation of climate-friendly equipment, such as solar panels, heat pumps, solar shading devices, and EV chargers.



Did you know? There are 815 solar photovoltaic customers contributing to the electrical grid in Saanich.

B1.4 Develop and deliver communications and educational resources to combat misinformation and support the community to take action

Support public education and awareness building on low carbon and resilient buildings by providing resources and addressing common areas of misinformation through educational campaigns, including:

- the ability of the grid to support electrification of buildings and to add electrical capacity over time;
- opportunities to reduce electrical loads in buildings e.g. power efficient design, energy management systems, smart grid integration etc.;
- benefits and opportunities for on-site energy generation;
- the relative carbon intensity of different fuel types used for space and water heating;
- competitive costs of construction for higher performing buildings;
- health risks of overheating, and opportunities to improve thermal safety in buildings; and
- myth-busting on heat pumps e.g. cost of operation, ability to perform in cold weather, etc.

Strategy B2: Require efficient, net-zero carbon new construction

B2.1 Continue to achieve zero carbon new buildings through implementation of the Zero Carbon Step Code

Continue to require the highest levels of the Zero Carbon Step Code (EL4). Ensure the intent of the Step Code is being met by:

- monitoring implementation and encouraging continued renewable electricity use in Part 9 buildings post occupancy; and
- explore implementation of a new building commissioning requirement for Part 3 buildings.

B2.2 Develop regulatory tools or incentive programs to achieve net-zero energy and/or zero carbon new construction

Explore strategies to achieve a greater proportion of 100% electric new construction with no gas connection and encourage more on-site renewable energy systems, for example, by requiring the highest steps of the Energy Step Code be met, with an option to relax this requirement in developments with no natural gas connection. Explore options to support solar PV installation at time of construction.

B2.3 Develop policy and tools to support the measurement and reduction of embodied carbon in new construction

Develop tools to report on embodied energy and emissions and other ways to encourage the use of low-carbon materials in new construction.

B2.4 Advocate for the use of future weather files in the design of new buildings

Ensure buildings that are constructed today will provide safe indoor temperatures for the life of the building by advocating to the Federal and Provincial governments to incorporate the use of future weather files[56] into the building code. Future-shifted weather files can be used to understand how building energy performance will be affected by climate change.

Dependency B2.1 Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas

Building more attached housing forms like apartments, duplexes, and townhouses improves building energy efficiency by reducing heat loss by sharing walls. It also reduces the amount of building materials used for each unit, reducing embodied emissions compared with a single detached home.

Strategy B3: Accelerate electrification, energy efficiency and resiliency in existing buildings

B3.1 Deliver programs and supports to accelerate building retrofits and electrification, and address remaining gaps

Continue to offer and/or partner with other organizations to ensure delivery of key programs that are supporting market transformation towards electrification across all building types and tenures, such as retrofit concierge programs and incentives, including:

- Strata Energy Advisor Program;
- Rental Apartment Retrofit Accelerator;
- Greater Victoria 2030 District;
- Home Energy Navigator;
- Climate Action Tax Exemption Program;
- Heat Pump Financing Program;
- Regional Benchmarking Program;
- direct install programs for vulnerable or low-income residents e.g. for free or low-cost heat pumps or air conditioners; and
- targeted and consistent marketing campaigns for the above.

Continue to explore, evaluate, and implement programs that fill remaining gaps, while protecting affordability for all, including low income renters.

B3.2 Expand the successful Saanich Heat Pump Financing Program and advocate for Provincial Property Assessed Clean Energy (PACE) financing legislation and support

Pursue additional government, foundation and/or private capital funding options to expand the Saanich Heat Pump Financing Program to include a broader range of buildings and upgrades that reduce energy use, GHG emissions and make buildings more resilient to extreme weather, while supporting affordability and reducing the capital cost barrier for these retrofits.

Continue to advocate to the Provincial government for PACE legislation and centralized program administration to better enable scaling the program and to streamline administration, enable more sources of capital, and realize cost-efficiencies. Encourage the Province to also explore other tools that can similarly address the capital cost barrier, such as on-bill financing through BC Hydro.

B3.3 Implement municipal policy and legislation to ensure a low-carbon, resilient and energy efficient building stock

Implement and monitor policy and legislation that supports the transition to a low-carbon, resilient and energy efficient building stock, partnering with other local governments where feasible. The needed regulations include:

- the Energy & Carbon Emissions (ECE) Reporting Requirement (i.e. benchmarking) for large buildings;
- an oil tank removal requirement (currently under development);
- a Fuel Source Declaration for Part 9 buildings (see Building Retrofit Strategy);
- a retro-commissioning requirement to identify and fix performance issues in existing buildings e.g. newly constructed buildings not performing to Step Code requirement, or existing buildings that are significantly underperforming relative to other similar buildings; and
- maximum indoor temperature standards for all rental units.
- additionally, a review of potential energy evaluation or upgrade requirements for renovation permits could be explored.

B3.4 Advocate to the Province for the policy needed to effectively regulate emissions and ensure thermal safety in existing buildings, as well as the programs and supports to ensure a successful transition.

Advocate to the Provincial and Federal Governments, utilities and other key actors for the policies, programs and regulations that will ensure an equitable, affordable and expedient energy transition, including, as a top priority, a mechanism to regulate energy and emissions in existing buildings. These may include:

- a Building Performance Standard for large buildings;
- the Highest Efficiency Equipment Standard (HEES) for replacement of HVAC and domestic hot water (DHW) equipment, implemented at point-of-sale and/or point-of-installation;
- integration of thermal safety and cooling for existing buildings into building code and/or alterations codes;
- long term, consistent incentive programs with clear and phased end dates, targeting more difficult market segments, such as rental homes with split incentives, lower income households and new technologies;
- removal of dual fuels in Demand Side Management programs for Climate Zone 4;
- Property Assessed Clean Energy (PACE) and/or on-bill financing to facilitate more streamlined and preferential rates to access capital for retrofits; and
- home energy labelling and public disclosure at the time of sale/lease.

B3.5 Explore the use of municipal bylaws to ensure equitable access to mechanical cooling

This may include but is not limited to:

- restricting rental property mechanical cooling bans; and
- implementing maximum indoor temperature standards for all rental units.

Evaluate the costs, benefits and options for implementation, and consider building limitations, tenant risk factors, supports for property owners, methods to minimize occupant disruptions, and potential to align with other local governments.

B3.6 Seek opportunities to foster and support market development and innovation in the transition to a resilient, low carbon and healthy building stock

Continue to actively collaborate with a variety of partners to lead, support or participate in activities that support market transformation, including:

- Industry training and capacity building;
- Ongoing research and development of tools and resources to address barriers to realize opportunities; and
- Piloting new or innovative technologies, processes or programs.

B3.7 Identify measures to reduce air quality impacts from residential wood burning

Explore the development of a community wood smoke reduction program in the Urban Containment Boundary, potentially in partnership with other local governments and the Capital Regional District, to protect air quality while balancing needs for backup heating and cultural wood burning practices.

Dependency B3.1 Implement the Building Retrofit Strategy, and update it as needed

Continue to implement the actions in the Building Retrofit Strategy to ensure Saanich continues to support retrofits that result in efficient, low-carbon, resilient and affordable homes and buildings. Undertake a review and strategic update of the Retrofit Strategy as needed (anticipated between 2028-2030), to build on successes, identify emerging opportunities and barriers, and address persistent gaps.

Strategy B4: Increase energy resiliency and renewable energy supply

B4.1 Accelerate the installation of solar and other on-site renewables

Support the acceleration of solar power generation in Saanich, including:

- identifying opportunities for the municipality to lead or facilitate community solar projects;
- promoting rebates and support programs available for solar installations, and exploring opportunities for Saanich to incentivize installations;
- developing and distributing resources or tools to support solar uptake or address barriers;
- ensuring a streamlined process for solar permitting; and
- identifying opportunities to accelerate new technologies or applications such as low cost balcony solar installations.

B4.2 Work with BC Hydro and other partners to support grid capacity and resilience

Ensure efficient use of energy and electrical infrastructure by supporting programs, technologies, tools and codes that promote energy efficiency measures and the reduction of peak loads (e.g. power efficient design, batteries, load-shifting incentives, energy management systems).

B4.3 Support development of local Renewable Natural Gas production for use in hard to electrify sectors

Support the development of local Renewable Natural Gas (RNG) production, such as the RNG facility at Hartland landfill and regional farms to increase supply for use in hard to electrify sectors..

B4.4 Assess opportunities to support the development of Thermal Energy Networks (also known as District Energy)

Engage with key partners and internal departments to assess opportunities to develop Thermal Energy Networks, including an exploration of potential energy sources (e.g. sewer heat recovery, geoexchange), redevelopment sites and governance and delivery models.

A Fuel Source Declaration for Part 9 buildings would require homeowners to provide information on their building's space and water heating systems and fuel source to support policy and program development and communications.

Did you know?

A well-insulated and draft-proof new home that is built to the highest energy efficiency standards and uses an efficient natural gas furnace for heating will have considerably higher GHG emissions than an old home with poor insulation that uses electricity for heating. This is because natural gas is a potent fossil fuel with extremely high GHG emissions compared to electricity in BC (Figure 24).

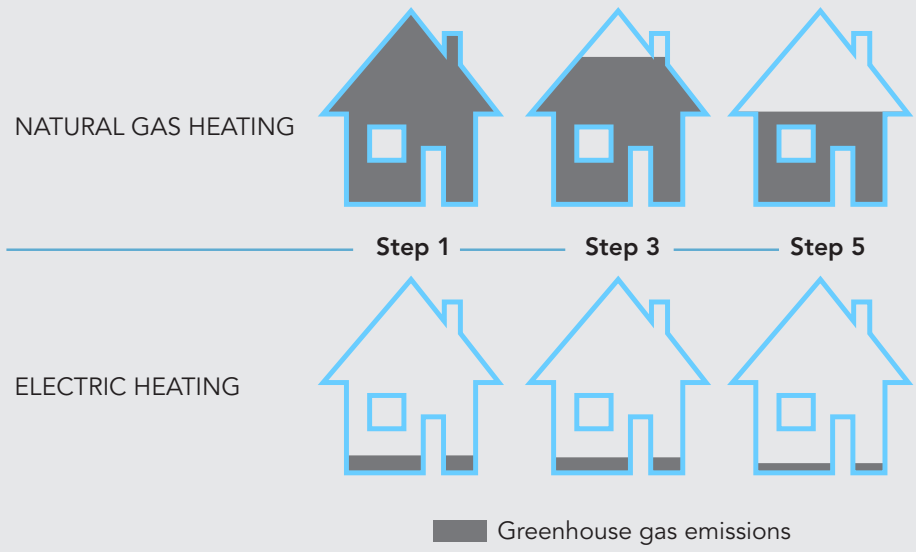


Figure 24. Greenhouse gas emissions by building heating type

4.3 FOOD, CONSUMPTION & WASTE

VISION

Saanich is home to an affordable, abundant, environmentally responsible and resilient food system and circular economy, where the climate impacts of food and consumption are minimized and waste is reimagined as a resource that strengthens local economic development.

STRATEGIES

F1. Reduce the climate impact of food production and consumption

F2. Improve the resiliency and self-sufficiency of the local food system

F3. Move towards "lighter living" and a circular economy in Saanich

District of Saanich

District of Saanich

METRICS

Consumption-Based Emissions Inventory

- 50% reduction by 2040 from 2007 levels

Amount of waste landfilled per person per year

- 250kg/person per year by 2031
- 210kg/person per year by 2040
- 125kg/person per year by 2050

Organics

- 100% of organic waste diverted by 2030

Agriculture

- There are 1,840 hectares of land within the Agricultural Land Reserve (ALR) as of 2050 (baseline of 1,840 hectares as of 2025 i.e. there is no change)
- 50% of Farms within the Agricultural Land Reserve (ALR) are actively farming and have BC Farm Status by 2030 and 80% by 2050 (45% or 238 out of 533 A-zoned parcels in the ALR have BC Farm Status as of 2025)
- 20 Saanich Farms have an Active Environmental Farm Plan by 2030 and 200 in 2050 (8 farms in the CRD have an Active Environmental Farm Plan as of 2025)

Did you know?

Recycle BC's 2024 Annual Report shows that 98% of the residential plastic packaging collected through its program was recycled, and more than 99% was sent to local recycling end markets in Metro Vancouver. This means that, in BC, almost all residential plastic packaging that is collected is recycled, and most of it is processed in the Lower Mainland.[67]

Where We Are Today

While emissions from consumption, food, and waste are lower than those from transportation and buildings, they are still significant, especially when viewed from a consumption-based emissions perspective.

Our Territorial GHG Inventory (Figure 25) accounts for food and materials in the following ways:

Waste (6%)

- Decomposition of organic matter (e.g. food waste) sent to landfill, sewage, and composting kitchen scraps and yard waste.

Industrial Processes and Product Use (IPPU) and select **Agriculture, Forestry and other Land Use (AFOLU) emissions** (7%)

- Emissions produced from industrial processes that chemically or physically transform materials, and emissions from the use of products (e.g. refrigerants, foams, aerosol cans, etc.) by industry and end-consumers in Saanich; and
- Methane and nitrous oxide emissions from livestock, manure, fertilizer, and agricultural soil management. Note: our data is not adequate at this point to measure the GHGs sequestered or emitted through land use and land use changes. These are not included in the totals above.

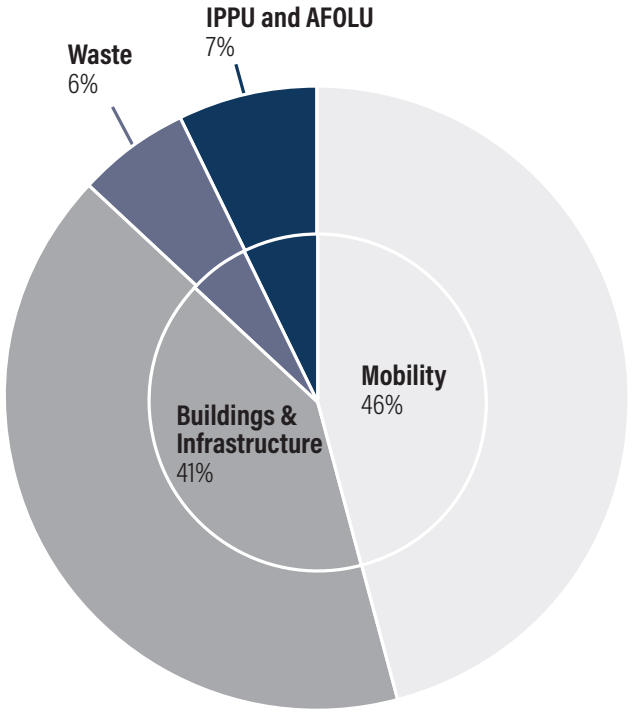


Figure 25. Food, Consumption & Waste emissions in Saanich Territorial GHG inventory, 2024

Using a **Consumption-Based GHG Inventory (CBEI)**, our emissions more than double, because it includes the GHG emissions that are generated across the full lifecycle of the food and materials we consume, including production, manufacturing, transportation and end of life management/disposal, regardless of whether they are produced locally or elsewhere in the world.

When we account for consumption-based impacts, food represents 20% of our community emissions and consumables & waste (materials) represents 11% as shown in Figure 26. Saanich's consumption-based emissions remained relatively constant between 2015 and 2021 (our latest CBEI inventory).

Even though most food is imported in Saanich, less than 10% of food-related emissions are due to transportation (i.e. food miles). Most of the emissions associated with food occur during production (largely from managing soils, fertilizer, enteric fermentation, and manure on farms). Nearly three quarters of the emissions from our food are from animal proteins, particularly red meat and dairy products (Figures 27 and 28).

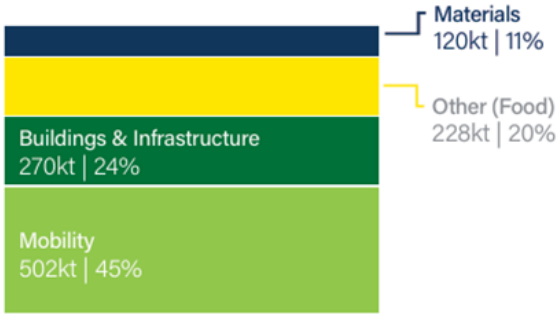


Figure 26. Saanich's 2021 Consumption-Based Emissions

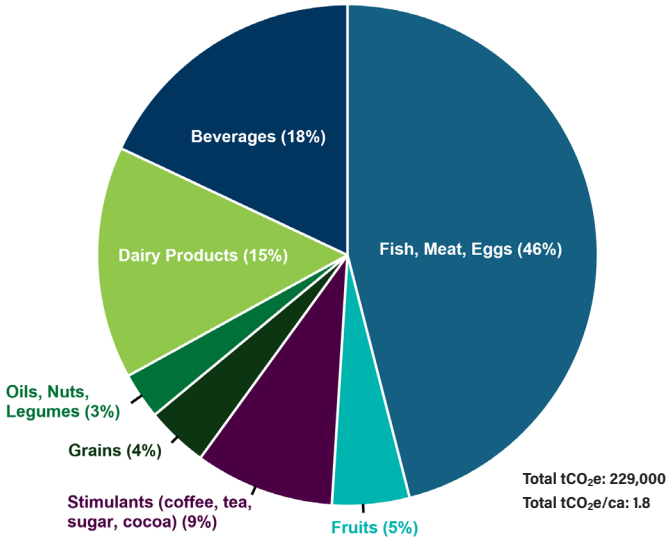
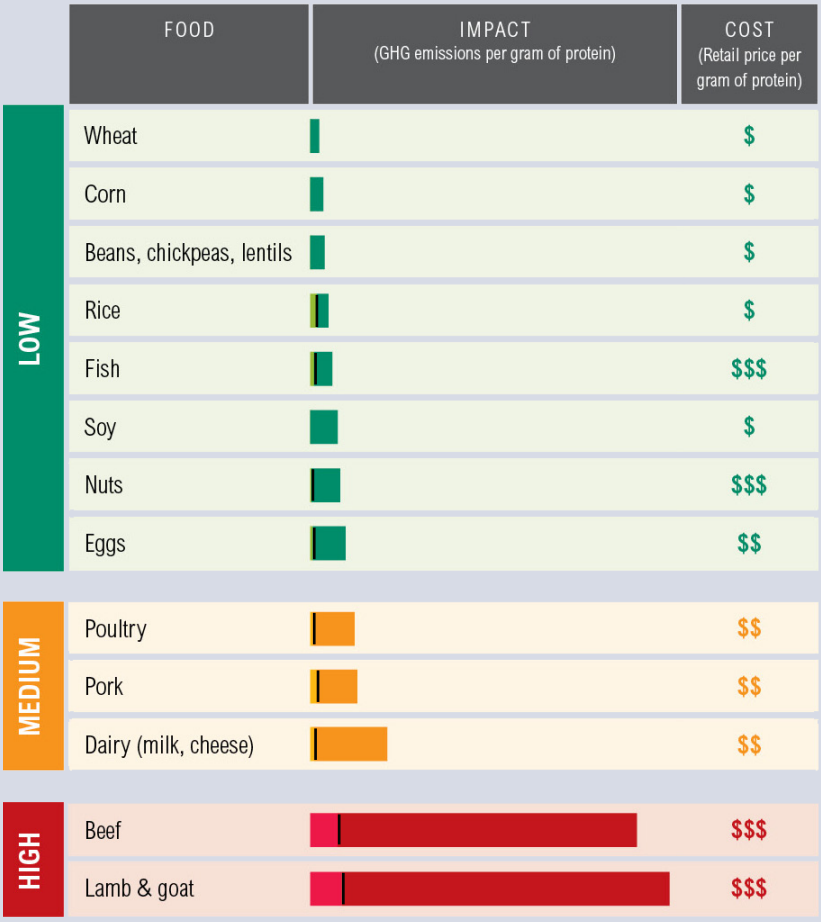


Figure 27. GHG emissions from different food types in Saanich (Consumption-Based Emissions Inventory 2021)



Nearly half of the food produced in Canada is wasted, with much of this waste occurring across the supply chain. This loss is economically and environmentally inefficient, and it also raises equity concerns, particularly when equity-deserving groups (including children) are experiencing hunger and/or hardship in food affordability.

Figure 28. GHG emissions impacts of different sources of protein. The lighter shade indicates emissions from agricultural production; the darker shade indicates emissions from land use change. Source: www.wri.org/resources/data-visualizations/proteinscorecard

Within the consumption & waste (materials) category of our CBEI, the highest-impact streams are textiles[57] , plastics and household hygiene products (Figure 28). This information helped to prioritize which material streams should be targeted for reduction in the Saanich Zero Waste Strategy (2026).

When we look at the consumption-based emissions for buildings and transportation, operating emissions continue to be the largest contribution by far. For example, the operating emissions for transportation (i.e. the gasoline and diesel fuel used to power the vehicles that are driven in Saanich) are 62% of total consumption-based emissions. Of the remaining 38% (embodied emissions), most are still linked to fossil fuels through the extraction, processing, and transport of fuels used across the vehicle lifecycle and supply chain. Taken together, gasoline and diesel account for roughly 90% of transportation's consumption-based emissions, underscoring the importance of accelerating transportation electrification globally.

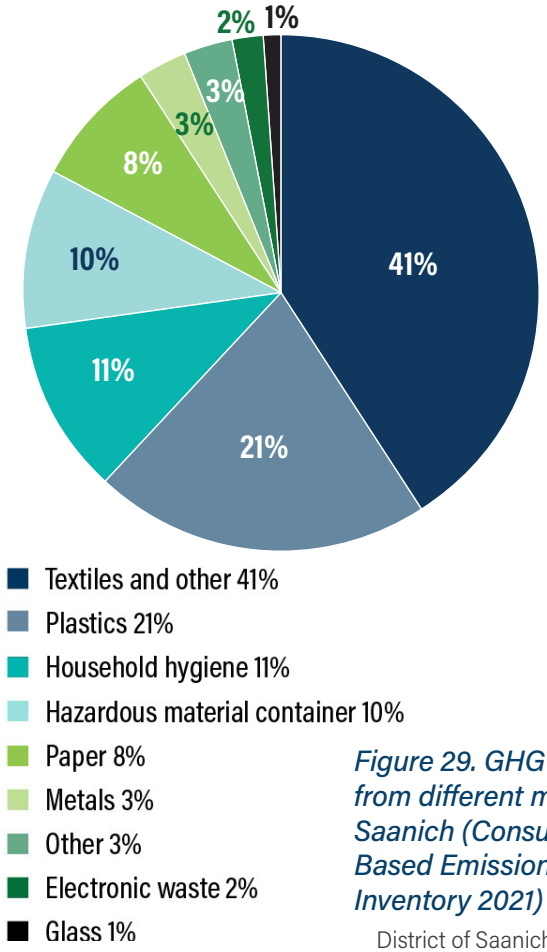


Figure 29. GHG emissions from different materials in Saanich (Consumption-Based Emissions Inventory 2021)

District of Saanich

Progress to date

As of 2023, territorial waste emissions were 53% below the 2007 baseline due to Saanich's Greener Garbage program and improved landfill management at Hartland Landfill (including methane capture and the biological treatment of wastewater solids). In 2024, a temporary decrease in methane capture at Hartland Landfill led to a short-term increase in emissions, with the most recent inventory showing a 22% reduction from the baseline. This increase is expected to resolve by the 2026 inventory, with emissions returning to levels more consistent with previous years.

Over the past few years, the amount of waste per person sent to landfill has also declined. In 2024, regional waste generation was 338kg per person per year, down from 382kg in 2023. The Saanich Zero Waste Strategy provides a pathway to reduce the amount of waste generated and sent to the landfill in our community.

Actions in the Agriculture and Food Security Plan also support emissions reductions in this area by advancing sustainable farm practices that can sequester carbon, protecting agricultural land from development and increasing the production, sale and purchase of local food.

HIGHLIGHTS FROM THE LAST 5 YEARS

- Bylaw adopted to establish maximum Farm Residential Footprint and house sizes to protect agricultural land;
- Pop-up farm markets and farm markets permitted in variety of zones to support the sale of local food;
- Roadside farm stands permitted in urban areas;
- 13% decrease in landfill per capita waste emissions from 2023 to 2024;
- 2021 bylaw banning plastic checkout bags
- Reusable dish program piloted at Saanich festivals and events;
- Greener by Default program launched;
- Love Food Hate Waste campaign;
- Larger organics collection bins and incentive based cart pricing introduced to help organics diversion;
- Circular Economy Accelerator Program launched;
- Saanich Food Hub Feasibility Study completed;
- Update underway for the 2017 Agriculture & Food Security Plan;
- Saanich Economic Development Strategy adopted (2024);
- Corporate Sustainable Procurement Policy updated (2025); and
- Saanich Zero Waste Strategy adopted (2026).

Where We Need to Go

It is important to note that managing waste costs money. Saanich residents currently pay for waste collection and services related to Hartland Landfill, which is expected to reach capacity within the next 24 years. Construction of the landfill's second to last cell has begun and is estimated to cost between $9 - $11 million. Many climate actions that aim to reduce consumption and divert waste not only reduce GHG emissions but also generate cost savings for the District, residents, businesses and community.

REDUCING TERRITORIAL EMISSIONS

From a territorial emissions point of view, we need to reduce emissions from food, consumption and waste (Figure 31 and Table 4). This includes diverting all feasible organic matter from the landfill, applying the Zero Waste Hierarchy (Figure 30) to minimize waste generation, and reducing emissions from "other" GHG sources tied to consumer choices and industry transition, including:

- High global warming potential refrigerants, aerosols and foams;
- Emissions from biological sources such as landfill decomposition, livestock, fertilizer, wastewater treatment, private septic systems, land use changes, and other sources., etc.;
- Fossil fuel extraction and processing activities and mineral mining elsewhere in BC;
- Marine, aviation, and other non-road transportation emissions associated with moving goods and passengers; and
- Off road fossil fuel equipment, including machinery used in construction, agriculture, landscaping, and similar activities.

Some of these emissions are attributed to Saanich based on activities occurring elsewhere in the province that are then allocated to us based on population. This limits Saanich's ability to directly influence or track these sources and means progress will rely more heavily on advocacy for provincial and federal action.

THE WASTE REDUCTION HIERARCHY

The waste reduction hierarchy is a tiered system that ranks waste reduction and management options from most to least preferred, prioritizing waste prevention at the top with the least desirable outcome (i.e. landfill) at the bottom.

Rethink/Avoid/Reduce: Stop waste from being created in the first place (e.g. design waste out of our systems, design for durability, buy less, choose unpackaged goods).

Share/Reuse/Repair: Extend the life of goods by using them multiple times and repairing as needed (e.g. mend clothing and fix appliances, use refill containers).

Recycle/Compost: Once goods reach their end of life, turn these materials into new products.

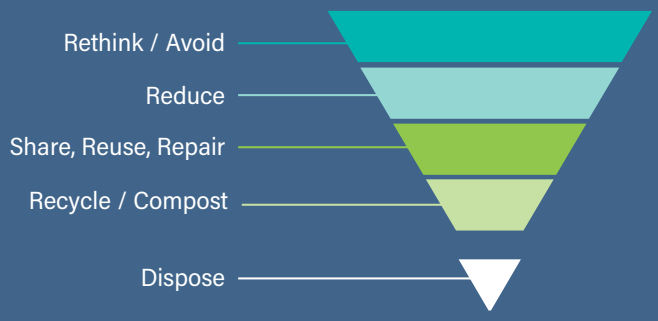
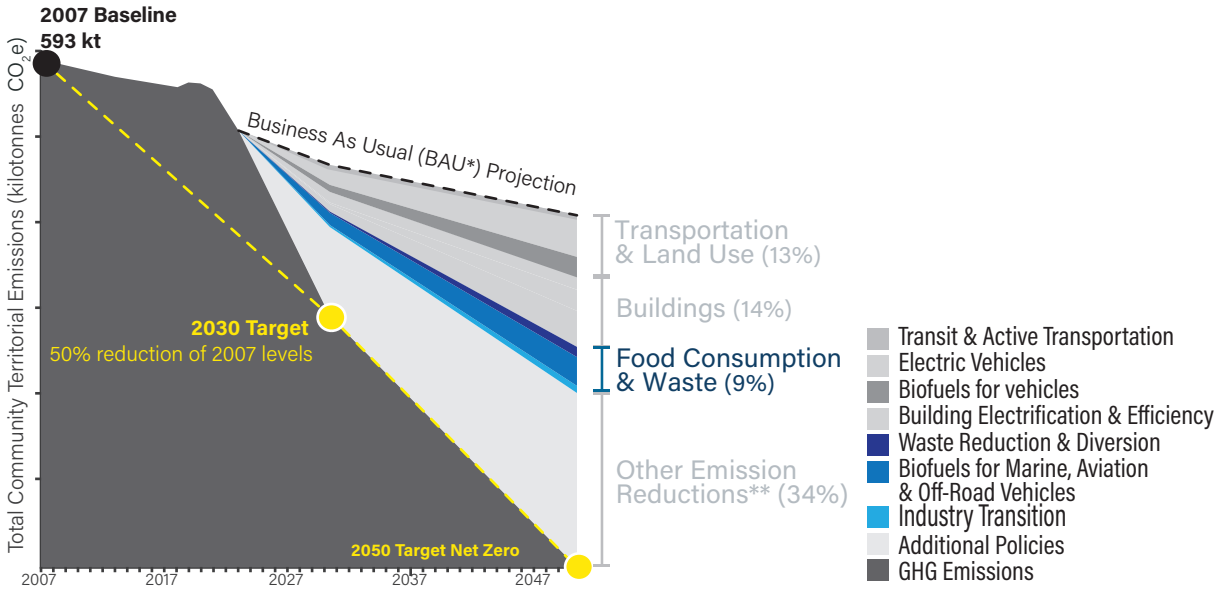


Figure 30. Zero Waste Hierarchy

Dispose: The least desirable option, only for materials that cannot be managed any other way.



*BAU Projection includes increases in population and employment, anticipated building type mix, and the effects of confirmed and existing policies and regulations at all levels of government.

**More policies (including primarily federal and provincial policies) and industry changes are required beyond those modelled above in order to meet our targets. Remaining emissions are found in all sectors.

Figure 31. Modelled Pathway - Waste emission reductions for 2050 (Territorial Inventory)

Business As Usual Emissions include: projected population growth, building changes (based upon a land capacity analysis and planning policy), improved Proximity Score changes, full build-out of the Active Transportation Plan network, confirmed and existing policies from all levels of government (e.g. Zero Carbon Step Code, energy benchmarking, existing building retrofit programs, provincial Low Carbon Fuel Standard), and technology and market changes mainly related to market-driven electric vehicle adoption. Should any of these policies or programs be defunded or rescinded, these emissions would increase.

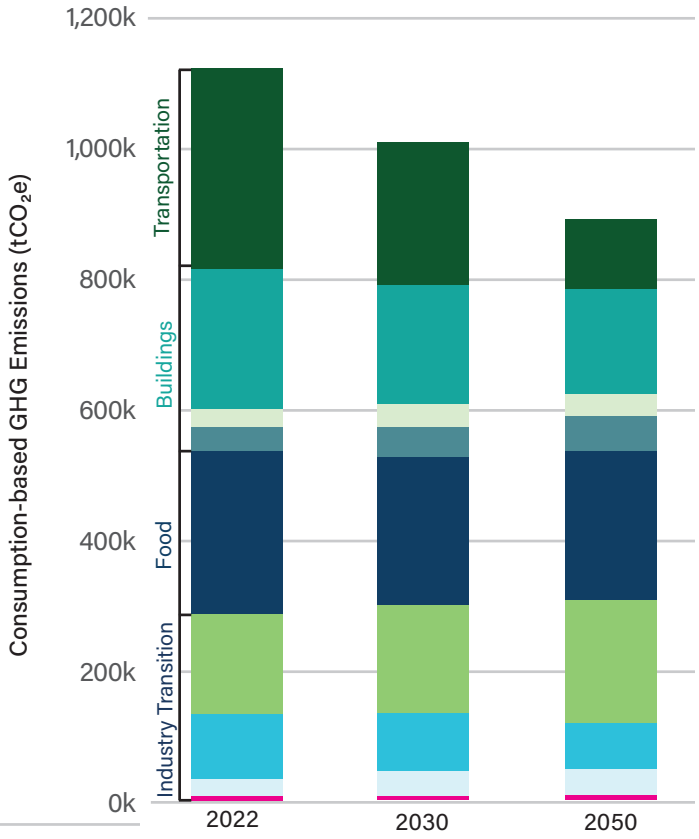
Modelled Pathway	Key Food, Consumption & Waste Policies/Actions and Outcomes
Organic Waste Diversion:	▪ By 2030, a 100% diversion of compostable organic waste is achieved.
Wastewater	▪ Ensure effectiveness of energy capture and use that displaces fossil fuels from municipal wastewater treatment; and ▪ Ensure private septic systems are well-maintained (these actions reduce methane production and release to atmosphere).
Other Reductions	▪ Emissions from sources related to consumer choice and industry transition (e.g. refrigerants, aerosols, foams, equipment, livestock, fertilizer, heavy equipment, etc.) are reduced by 33% by 2030 and by 100% by 2050.

Table 4. Modeled policies for consumption, food, and waste GHG reductions

CONSUMPTION-BASED EMISSIONS

We also modelled a pathway to Consumption-Based Emissions Reductions (Figure 32). While our baseline consumption-based emissions are much higher than our territorial emissions, we have opportunities to reduce them significantly through actions outlined in Table 5.

Consumption-Based Emissions Business as Usual



Consumption-Based Emissions Reduction Pathway

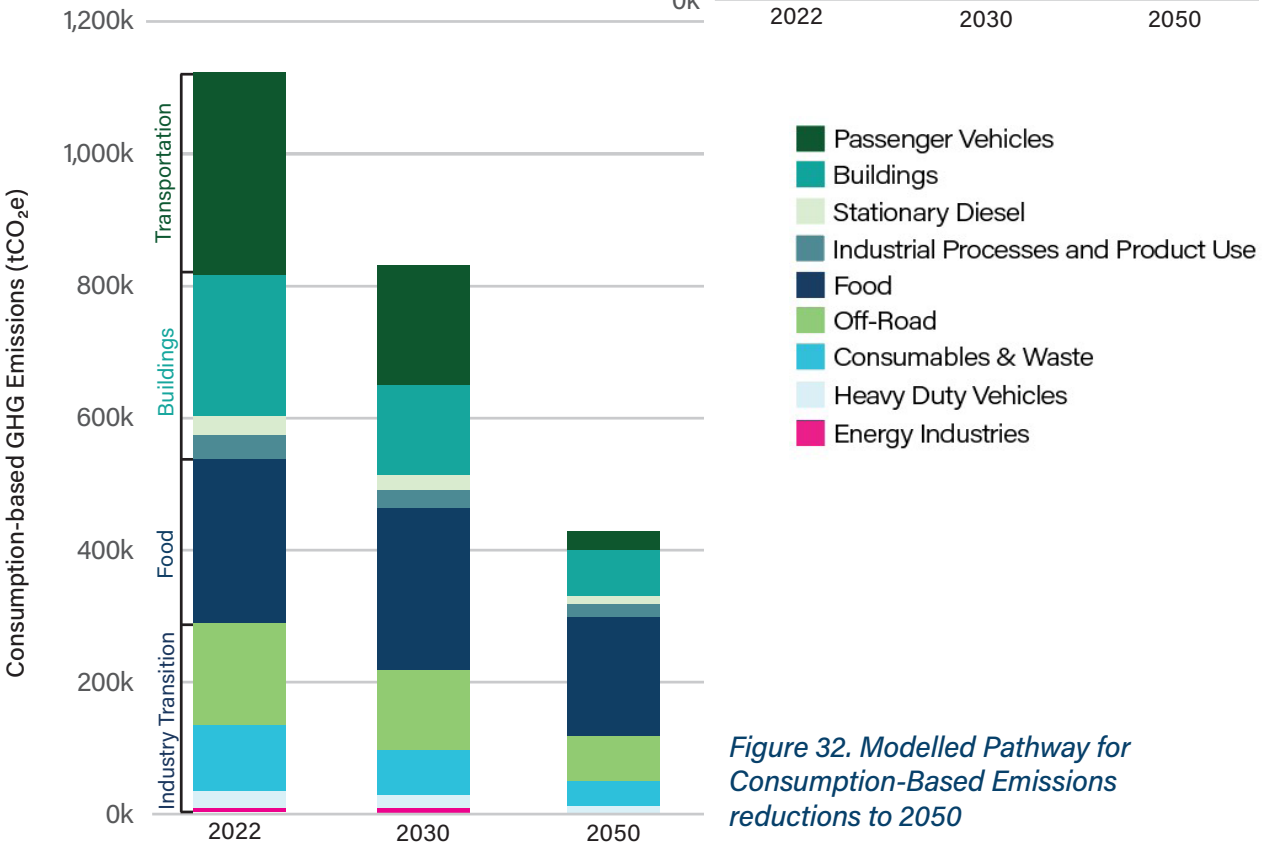


Figure 32. Modelled Pathway for Consumption-Based Emissions reductions to 2050

Sector	**Modelled Pathway Policies** - *Same as territorial model plus:*
Passenger vehicles	▪ Decreasing vehicle ownership per person through land use driven changes in transportation choices (but overall increase in number of vehicles); ▪ Supply chain GHG intensity reduced through industry efficiencies and electrification; ▪ Reductions in methane leaks for energy along manufacturing and supply chains.
Heavy Duty and Off-Road Vehicles	▪ Reductions in embodied emissions for renewable diesel compared to conventional diesel.
Buildings	▪ Total embodied emissions from materials increasing overall due to increased construction, but this is mitigated to a degree by the use of low carbon materials; and ▪ Embodied emissions of fuels are decreased, including from better methane capture.
Stationary Diesel	▪ Local phaseout of fossil fuel powered yard, construction, portable heating equipment etc.; and ▪ Clean Construction Declaration sign-on and implementation by industry in Saanich.
Food	▪ 50% reduction in avoidable local food waste; ▪ 20% reduction from diet shift (e.g. 1 less serving of red meat per week); and ▪ Low carbon regenerative local farming.
Consumables and Waste	▪ Reductions in supply chain emissions estimated from modeling in Canada's 2030 Emissions Reduction Plan and reductions estimates for industry based on Net Zero targets, renewable grids and electrification of industry resulting in reductions from life cycle emissions falling faster than population growth; ▪ Saanich Zero Waste Plan diversion rates result in additional reductions in embodied impacts; and ▪ Reductions in cement, chemicals, commercial refrigeration – grocery stores, ice rinks, etc. through industry transitions such as the implementation of the Kigali Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer.

Table 5. Consumption-based modelled pathway for community-wide GHG emission reduction

IMPROVING RESILIENCE

Food and agriculture are fundamental elements of the long term sustainability, resilience and health and well-being of Saanich. In recent years, changes in climate (drought, extreme heat, flooding), energy costs, water availability and agricultural production have drawn attention to the ongoing resilience of the region's food system. The average age of farmers in the capital region remains higher than the Canadian average and represents a warning sign for the future of food production in the region.

Ensuring a sustainable local food system requires a holistic approach that integrates environmental stewardship into agricultural practices and embeds circular economy opportunities and education to support local food growers. Such systems rely on sustainable land management practices, improved soil health, flooding and drainage measures, water management and availability, valuing cultural food growing practices and Indigenous knowledge, economic supports for local farmers and food growers, as well as access to land and the amount of agricultural land in food crop production.

Restoring Indigenous Food Systems

Prior to colonization, what is now known as Southern Vancouver Island supported a large population of people with diverse food and materials sources that were tended with sophisticated sustainable management techniques. For example, the bulb of the common camas flower (ḴŁO,EL in SENĆOŦEN or qʷəɬáʔalʔ in ləkʷəŋen) is an important root vegetable and source of carbohydrates. Camas bulb fields are tended by different families and harvested in summer. Harvesting methods encourage the growth of new bulbs the next year. Bulb beds can be burned every year after harvest to also increase the yield for the next year.[58]

These sustainable management practices were disrupted by colonization and ecological damage. Ongoing restoration efforts can improve the relationship of people with the land and the ability of the land to sustain more needs locally. Cultural burning practices are supportive of maintaining Garry Oak meadows in a meadow state. Garry Oak meadows are among the most endangered ecosystems in Canada with only three percent remaining in a natural state.

Photo: Smoked salmon made by Spectrum students and shared at Tillicum Elementary School during the land Blessing Ceremony for the Tillicum Green Infrastructure Project led by Elder Mary Anne Thomas of the Xwsepsum (Esquimalt) Nation. Photo courtesy of the Greater Victoria School District.

DISTRICT OF SAANICH'S ROLE:

- Regulating land use regarding local agriculture and waste diversion processing, storage and distribution facilities;
- Purchasing products for municipal operations;
- Serving food in municipal facilities;
- Collecting garbage and organics (kitchen scraps and yard waste);
- Educating people in Saanich about waste reduction, composting and recycling;
- Encouraging pollinator corridors, organic farming, and opportunities for farm businesses
- Promoting and permitting community gardens; and
- Supporting businesses transitioning to more circular business practices.

WORKING WITH OTHERS TO SUCCEED:

- Capital Regional District on waste diversion targets, Solid Waste Management Plan implementation and Hartland landfill management;
- Capital Regional District on landfill material bans, material specific disposal fees, facility licensing and blue box recycling program (with Recycle BC);
- Provincial and federal governments on regulating packaging, products and recycling e.g. Extended Producer Responsibility (EPR) programs;
- Local businesses, institutions and organizations on circular economy opportunities;
- First Nations on cultural food growing and land management practices;
- Local farmers and food growers on agriculture issues in Saanich;
- Food providers (e.g. grocery stores, restaurants) on food choices provided to consumers; and
- People in Saanich, who make their own food and consumption choices.

How We'll Get There: Strategies and Actions

Given the strong alignment between zero waste, local food security, agriculture and climate goals, there is a significant dependency between the Climate Plan and the recently adopted Saanich Zero Waste Strategy (2026) and updated Saanich Agriculture and Food Security Plan (underway). As such, more detailed actions are contained within those documents.

Climate actions are presented under each of the Consumption, Food & Materials Strategies below.

Strategy F1: Reduce the climate impact of food production and consumption

F1.1 Reduce emissions from local food production

Partner with farmers, other food growers, First Nations, researchers, and other levels of government to support GHG emissions reductions in farm operations and food growing in Saanich such as soil regeneration, management of environmental runoff, manure management, electrification opportunities, energy efficiency measures, etc., using cost-effective and cost-saving approaches.

F1.2 Encourage residents to choose low-carbon foods and reduce food waste

Encourage people in Saanich to choose low-carbon foods and reduce food waste through such means as promoting the "Love Food, Hate Waste" campaign, plant-based food choices (e.g. Greener by Default program), community participation and practical skill-building programs (e.g. food preservation workshops, community kitchens), and the Saanich Carbon Calculator.

F1.3 Encourage food service establishments to reduce GHG emissions from their operations

Encourage food service establishments in Saanich to reduce food waste, offer low carbon/plant-based food options, and use renewable-energy cooking methods, through such methods as restaurant and hospitality sector partnerships, recognition programs and policy levers.

Strategy F2: Improve the resiliency and self-sufficiency of the local food system

F2.1 Work with partners to better understand our reciprocal relationship with the land and the climate change risks and opportunities for local agriculture and food production

Work with First Nations, local farmers and agricultural organizations, the CRD, the Province, and other relevant parties to better understand the risks to local food production and agriculture from climate change, including:

- The impacts from extreme heat, wildfires, invasive species, plant diseases etc.;
- projected water availability and quality for both CRD-water supplied and self-supplied sources;
- risks to cultural food growing practices, including climate related risks and land-based contamination sources for clam/sea gardens; and
- risks to septic systems from climate change (e.g. from flooding).

Share knowledge and identify opportunities and land management solutions that mitigate these risks and deliver on an environmentally responsible and resilient food system, and use these to inform the Agriculture and Food Security Plan update.

Did you know?
Only a small proportion of the climate impact of food is associated with transportation, or food miles, whereas 97% of the consumption-based emissions are associated with the amount of land and energy used in growing the food.

F2.2 Work with partners to identify and address farmers' and local food growers' barriers to adapting to a changing climate

Through a survey, workshop, or other engagement means, identify key barriers local farmers face in sustaining and expanding their businesses in a changing climate and adopting climate resilience measures, including:

- incorporating adaptation measures on owned or leased farmland;
- participating in the Province's Environmental Farm Plan Program and accessing other Provincial funding and programs; and
- adopting efficient water use practices and installing water storage infrastructure.

Use findings to input to the Agriculture and Food Security Plan update and identify potential tangible supports for food growers (e.g. water storage assistance).

F2.3 Explore options to connect local farmers and food growers to agricultural inputs

Identify the agricultural input needs of local farmers (e.g. compost, leaf litter, biochar) and explore local sourcing and circular economy opportunities to support access to these inputs.

Dependency F2.1 Update and Implement the Saanich Agriculture & Food Security Plan

The Saanich Agriculture & Food Security Plan provides a roadmap for enhancing the viability and long term sustainability of Saanich agriculture and food security. It supports the Climate Plan goals and targets by identifying the actions needed to deliver a thriving, accessible, and environmentally responsible food system, ensuring ecosystems flourish as a result of responsible land and water stewardship on both urban and rural agricultural lands.

Strategy F3: Move towards “lighter living” and a circular economy in saanich

F3.1 Work with partners on circular economy initiatives

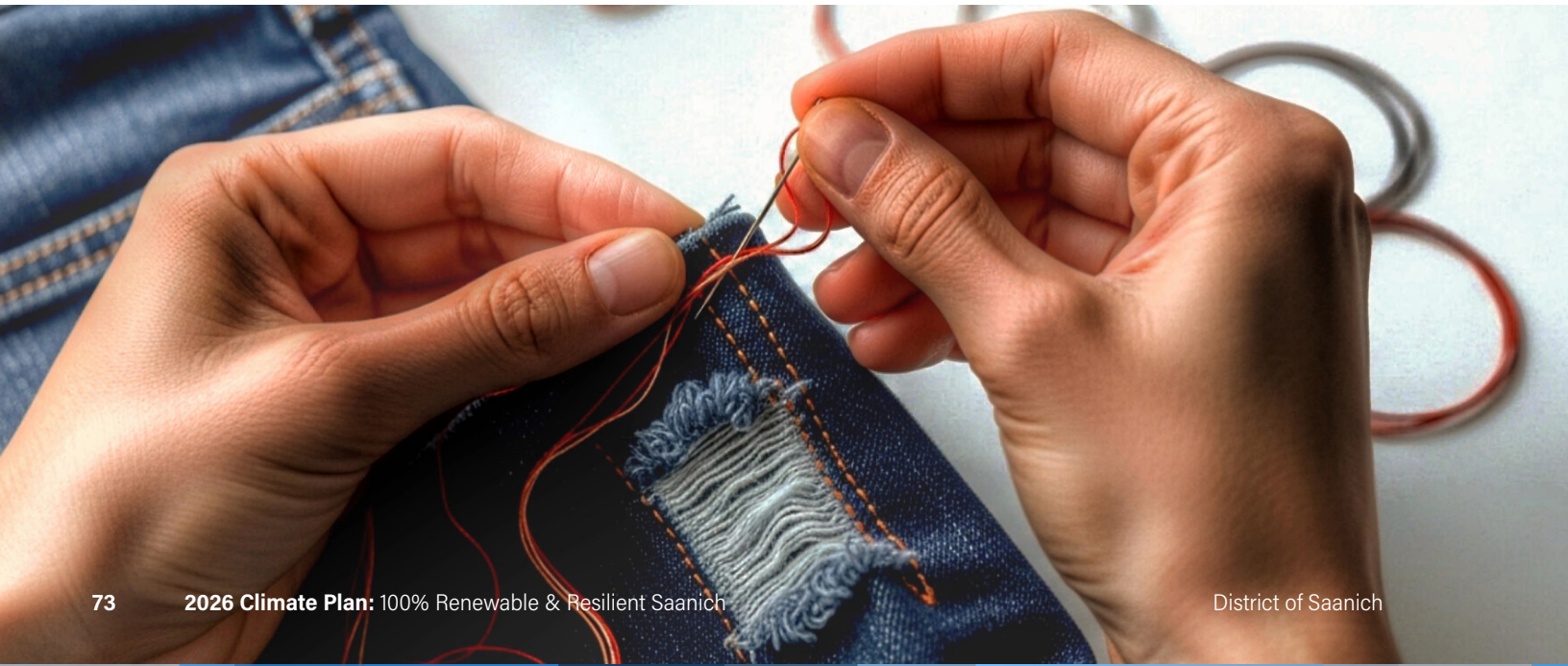
Work with local businesses, organizations and other levels of governments on circular economy initiatives and supporting a circular marketplace that move away from a traditional linear model of ‘take-make-waste’ and focus instead on reintegrating materials back into the system so that they never become waste and are reused at their highest and best use – a ‘take-make-reuse/repair/regenerate/repurpose’ model.

F3.2 Mobilize residents and businesses towards "lighter living"

Mobilize Saanich residents and businesses towards “lighter living”, enabling them to advance climate goals through mindful consumption; rethinking and reimagining products and services and reducing unnecessary consumption by using educational tools, such as the Saanich Carbon Calculator, and supporting lighter living initiatives, such as tool libraries, repair cafes and second-hand initiatives. Develop an approach to reduce GHG emissions from equipment such as outdoor heaters, garden equipment, construction equipment, etc. informed by the corporate Zero Emissions Equipment Strategy (Action L3.3).

Dependency F3.1 Implement the Saanich Zero Waste Strategy

The Zero Waste Strategy sets a clear, practical pathway to reduce waste, conserve resources, and move toward a more circular local economy; maximizing co-benefits such as cost savings, emissions reductions, improved health and well-being, and local economic development. The Strategy’s four focus areas and associated actions are aligned with the Zero Waste Hierarchy and use the Consumption-Based Emissions Inventory (CBEI) to prioritize the highest-impact material streams. It focuses on avoiding and reducing waste before it is even created, strengthening share, reuse and repair systems, and improving recycling and organics diversion. As such, implementation of the Strategy is essential to reducing both Saanich’s territorial waste emissions and its consumption-based emissions.



Embodied emissions are GHG emissions associated with the energy used in creating and delivering a material (e.g. consumable good or infrastructure), including energy used for extraction of raw materials, manufacturing and transportation of the end product, as well as dealing with any waste products at the end of its life.

Saanich has been making great efforts to reduce our single use items, minimize waste and lower the carbon footprint of our food at Saanich festivals and events. This includes hiring local non-profits to help direct people at our waste diversion stations, prioritizing plant-based foods at meetings and events (including locally made vegan "nice-cream" at Strawberry festival, which sold out by end of day!), and moving to reusable stainless steel bowls at Strawberry Festival with more than 4,000 disposable bowls saved each year.

4.4 Ecosystems

VISION

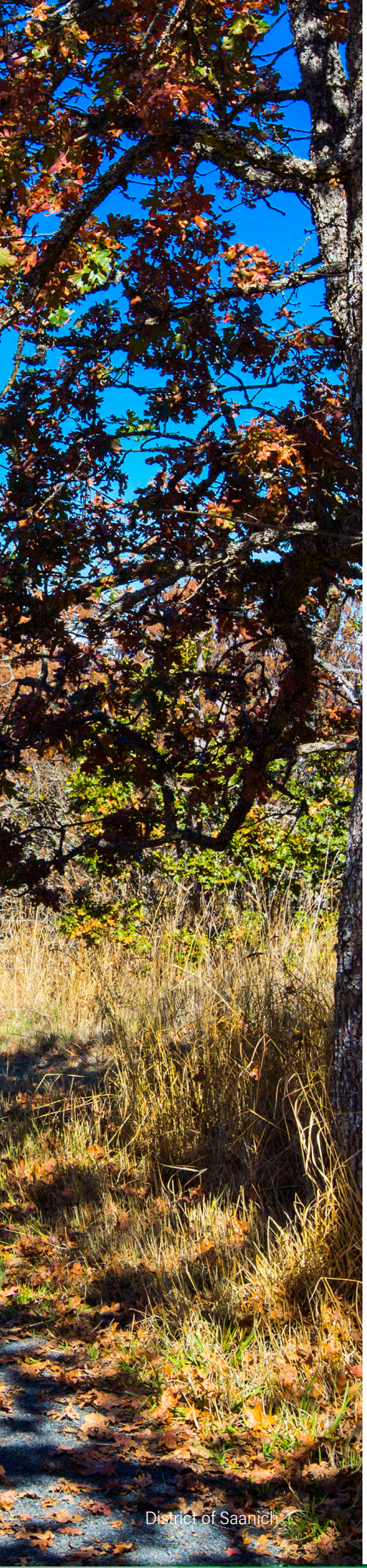
Local ecosystems are cared for, respected, protected and restored and continue to thrive, adapt, provide critical services and support Indigenous ways of being.

STRATEGIES

E1. Protect and manage natural assets as critical infrastructure

E2. Enable natural systems to thrive and adapt in a changing climate

District of Saanich



District of Saanich

METRICS

Tree canopy cover for:

- The whole of Saanich is 44% by 2064 (43% as of 2019);
- Saanich Primary Growth Areas is 20% by 2064 (24% as of 2019) – interim targets to be determined;
- Saanich Neighbourhoods is 35% by 2064 (31% as of 2019) – interim targets to be determined;
- Saanich Neighbourhood Hubs is 30% by 2064 (28% as of 2019) – interim targets to be determined; and
- roadways is 34% by 2064 (26% as of 2019) – interim targets to be determined.

- Impervious Area for the whole of Saanich is X% by 2030 and X% by 2050 (15.8% as of 2023) – targets to be determined following completion of drainage modelling; and
- Impervious Area within the Urban Containment Boundary is X% by 2030 and X% by 2050 (29.5% as of 2023) – targets to be determined following completion of drainage modelling.

AN ABUNDANT PLACE

Indigenous peoples have a history of taking care of this land that provided a richness of food and materials from diverse ecosystems. As told by one W̱SÁNEĆ knowledge holder to researchers: "Ours was an abundant land. Our forests, meadows, creek sides, marshes, and sea shores offered many plants for our use." (Dave Elliot Senior, in Saanich Ethnobotany: Culturally Important Plants of the W̱SÁNEĆ People)

The species in Tables 6 and 7 below are just a few examples of local species that have been valued and used by Indigenous peoples here for millenia, and that we can support through ecological restoration.

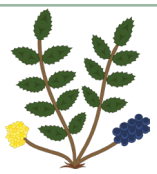
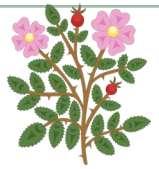
English and Latin Names		Hul'q'umi'num'[59]	SENĆOŦEN[60,61]	Examples of Uses[51]
Garry Oak *quercus garryana*		čəŋéɬč	ĆEN̲,IŁĆ	bark is used in medicines; Garry Oak meadows maintained for camas habitat
Common Camas *Camasia quamash*		qʷɬáʔəl	ḰŁO,EL	important root vegetable and carbohydrate source
Red-flowering currant *Ribes sanguineum*		xʷixʷkʷiɬč	W̱IW̱QIŁĆ	currants dried into cakes for winter use, mixed with salal berries
Oregon grape *Mahonia aquifolium*		səniʔíɬč	SENI,ŁĆ	berries eaten raw, boiled or jellied; other parts used for dyes and medicine
Snowberry *Symphoricarpos albus*		pəpq̓iyas	PEPKIYOS	sticks used for clam skewers, drying salmon, and medicine
Nootka Rose *Rosa nutkana*		qəl̓qəʔíɬč	K̲EL,K̲E,ŁĆ	roots, shoots and flowers are eaten; branches used for medicine

Table 6. Local terrestrial Plant Species in four languages

Art Credit: Sarah Jim

English and Latin Names		lək̓ʷəŋen[62]	SENĆOŦEN[63,64]	Examples of Uses
Coho Salmon ***Oncorhynchus kisutch*** *Photo credit: Saanich Parks*		qə́čəqs	ŦÁ,WEN	reef net fishing is used to harvest coho salmon[65]
Littleneck clam ***Protothaca staminea***		sk̓ʷɬeʔiʔ	SQŁÁ,I,	many kinds of clams can be harvested year-round in cultivated clam or sea garden structures[66]
Herring eggs ***Clupea harengus***		č̓əmə̓š	JEM,EŚ	cedar and balsam branches are used to collect herring eggs and then hung in the wind to dry to put away until next winter[58]

Table 7. Local Riparian and Marine Species in four languages

GARRY OAK ECOSYSTEMS IN A CHANGING CLIMATE

Saanich is located entirely within the Coastal Douglas-fir (CDF) Biogeoclimatic Zone, which is the smallest zone, encompassing only 0.3% of British Columbia. It is also the least protected (6%) and located mainly (80%) on private land. As a result, all 36 ecological communities in the CDF are ranked globally and provincially as critically imperiled, and 218 species of wildlife and plants in the CDF are at risk. Garry oak ecosystems are home to a high percentage of the rare species found in the CDF zone. The CDF zone, and Garry oak ecosystems in particular, are the highest conservation priority in BC in regard to climate change, with less than 5% of Garry Oak ecosystems remaining. Historically, Garry oak ecosystems occurred inland and northward of their current range. These ecosystems are currently at the northern limit of their range and are considered valuable to protect as the range of species moves northward.

Where We Are Today

Saanich is home to some of B.C.'s most unique and rare ecosystems and species. These include biologically diverse areas of Coastal Douglas-fir biogeoclimatic forests and remaining pockets of Garry Oak ecosystems.

Saanich also has a rich marine foreshore, productive lakes and wetlands, and complex river systems. These support a diversity of plant, insect, fish, and wildlife populations and communities. The **Lək̓ʷəŋən** and the W̱SÁNEĆ peoples have been caring for the land known now as Saanich since time immemorial; including the land, water, plants and animals that lived here to ensure that future generations could be sustained. Their relationship with ecosystems and all that they contain is one of respect and their role as protectors of the land continues to be vital today. Indigenous languages contain rich information about ecosystems. For example, the **SENĆOŦEN** name for the ocean is SW̱KENE, the home of the whale, indicating habitat and relationality.

Natural areas cover 39% of Saanich, and 43% of Saanich is classed as "backyard biodiversity" (in private yards, agricultural fields, and boulevards and street trees) that provides some habitat value albeit not in a natural state. The District manages 171 parks (ranging from neighbourhood parks to multi-sport athletic parks to natural areas and open spaces) covering more than 825 hectares with more than 100 kilometres of trails. The park system is ecologically diverse, offering residents a spectrum of active living experiences and opportunities to connect with nature. More than half of the system is composed of natural areas protecting local ecosystems. Signature parks known throughout the region and beyond include PKOLS, Mount Tolmie, Gorge, Cuthbert Holmes, Cedar Hill and Prospect Lake Parks.

Ecological Restoration at Pimlott Place in Saanich

As part of the Neighbour to Neighbour (N2N) Resilience Initiative, a group of 20 neighbours came together to remove invasive species and brush piles to replace with native plants. Kids joined the project to build and decorate bird houses. They hope through this effort to draw more birds to their cul de sac, reduce fire risk, learn about native species, and commit to taking care of the small plot of land together. Learn more about the N2N grants at Saanich.ca/n2n

Progress to date

Since the 2020 Climate Plan, the District has updated policies, improved data, and implemented actions that support ecosystem function and resilience. Some examples include:

Selected Policies and Information Resources

- **Official Community Plan:** focuses our projected population growth into centres and corridors so that natural areas are preserved and it contains land use strategies that support ecosystems;
- **Environmental Policy Framework:** provides a coordinated approach to environmental protection across the District, aimed at creating a sustainable and resilient municipality through protection of biodiversity, ecosystem conservation and the management of natural assets;
- **State of Biodiversity Report:** provides a baseline of current conditions related to nature within Saanich to track progress towards targets;
- **Biodiversity Habitat Network:** identifies natural areas with high biodiversity conservation value as well as linkages that connect them together;
- **Biodiversity Conservation Strategy:** focuses on stewardship of private and public lands and park management and restoration;
- **State of the Urban Forest Report:** provides a baseline of current conditions related to the urban forest within Saanich to help track progress towards targets;
- **Urban Forest Strategy:** offers a long term plan to achieve a sustainable urban forest in Saanich; and
- **Natural Asset Inventory:** summarizes the number, condition, service provision, risks, and preliminary valuation of the natural assets. Similar to engineered assets, natural assets enable the provision of many municipal services.

Selected Actions

- **Land Acquisition:** to support multiple climate resilience goals such as providing greenspace for cooling the urban heat island effect and daylighting streams, the District acquires property to turn into parks e.g. the recent acquisition of land on Church Street in the Shelbourne Valley;
- **Private and Public Land stewardship:** the District works with many organizations and residents on programs such as the Saanich Biodiversity Partners pilot program with the Habitat Acquisition Trust (2024-25), Garry Oak Ecosystem Restoration program (2023-2024), updated Saanich Naturescape Program (2026), and more; and
- **Green Infrastructure Pilots:** in partnership with the Greater Victoria School District, the District of Saanich implemented a nature-based, climate-resiliency project on lands around and including Tillicum Elementary School. The project includes the creation of multiple rain gardens and extensive tree and native vegetation planting accompanying improvements to cycling and walking infrastructure.

Existing and growing climate stress on our ecosystems

Saanich's natural areas and biodiversity are at high risk due to climate change and many other pressures. Many species and ecosystems are already showing strains. Climate changes, including rising average temperatures, hotter and drier summers, heat island effect, coastal "squeeze" due

to sea-level rise, and more intense storms and rainfall events will cause a range of impacts such as reduced species health, increased mortality, increased opportunities for invasive species, pests and diseases, compromised water quality and availability, and reduced viability of some native species. Climate risks for ecosystems are higher than many other risk areas because there are fewer "technological fixes", such as mechanical cooling that humans can benefit from.

Our ecosystems and natural areas protect us from climate change

Saanich's natural areas provide important ecosystem services such as shade, purifying the air, pollination, regulating climate, and storing carbon that would otherwise contribute to climate change (Figure 33). Natural areas also support the District's stormwater management by reducing flooding and filtering contaminants. Protecting and enhancing natural areas ensures that they will continue to provide these vital services. It also makes them more resilient to urban development, climate change, and other pressures.

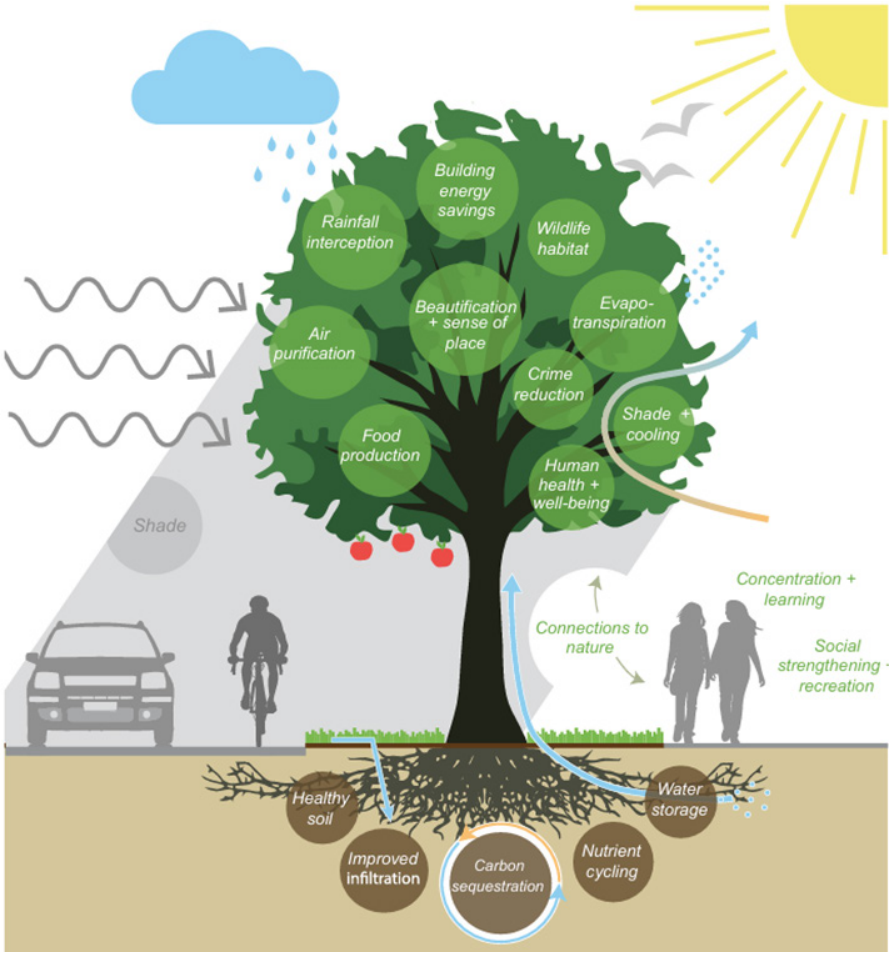


Figure 33. Ecosystem services provided by trees and the urban forest

HIGHLIGHTS FROM THE LAST 5 YEARS

- 44% target set for tree canopy cover in Saanich by 2060;
- 14,500+ trees planted on District-owned lands;
- 80,000+ volunteer hours given through the Pulling Together Program, including invasive species removal, planting native species, monitoring and training;
- ~750m of stream restoration across two Colquitz River tributaries (Swan Creek and Gabo Creek), and ~300m restored along the main Creek at Mann Ave/Copley East;
- ~1000m^2 of flood zone restored within four alcoves at Cuthbert Holmes along the Colquitz Creek;
  ~250m restored along Finnerty Creek in Haro Woods; and
- 3,200+ residents engaged in environmental education via community events and learning sessions with topics including iNaturalist/community science, Saanich biodiversity, invasive plant management, the Saanich Naturescape program, and Parks volunteering opportunities.

Where We Need to Go

Solutions that improve the resilience of ecosystems include expanding natural areas, connecting protected areas with natural corridors, considering future climate suitability of different species, and adapting our management techniques, including learning from Indigenous traditional practices.

These can have rich co-benefits for the community as a whole, such as increased recreational opportunities, physical and mental health benefits, social benefits, and improved air quality.

Healthy natural systems also have the potential to support our adaptation and resilience efforts by supporting the delivery of critical services, such as stormwater management, erosion control, carbon sequestration, containment filtration, air filtration and cooling. By viewing ecosystem services as part of our critical infrastructure and integrating them within our asset management approach, we can support the adaptation of our natural areas while improving our own ability to respond to changing conditions, such as drier, hotter summers.

The Biodiversity Strategy and Urban Forest Strategy outline pathways to protect and enhance natural areas, natural assets, ecosystem services, and biodiversity in Saanich, which helps meet climate goals. The Climate Plan Transportation and Land Use Focus Area addresses how land use can support ecosystems.

Residents are Naturescaping

The Saanich "Good Neighbours" pilot Program, a partnership between Saanich Parks and the Habitat Acquisition Trust, worked with Saanich residents throughout 2024 and 2025 to support community-based biodiversity conservation and restoration on private land. The project included W̱SÁNEĆ knowledge and SENĆOŦEN language through educational materials supported by a dedicated W̱SÁNEĆ Land Steward and SENĆOŦEN Language Specialist. 500 residents were invited, and 36 attended workshops, 11 received land assessments, 6 received free invasive species removal and 5 Habitat Steward Agreements were signed. The project increased resilience to climate change by increasing functionally protected areas (under private stewardship), increasing connectivity, providing buffers around protected sites, improving habitat, and controlling invasive species. To learn more, check out the Good Neighbours Saanich Biodiversity Report 2025.

While the pilot program did not receive additional funding to continue, in 2026, Saanich Parks launched a revitalized Naturescape program - a stewardship and education program that encourages residents to create healthier, more resilient yards and gardens using nature-friendly landscaping practices. It supports actions such as planting native species, improving habitat for pollinators and wildlife, reducing invasive plants, and managing rainwater in ways that benefit the local environment. The program helps connect private landscapes to broader community goals around biodiversity, watershed health, and climate resilience.

If you have a yard, you can support natural habitat for local native species including pollinator insects and birds. Visit www.saanich.ca/naturescape to learn more.

CAPTURING CARBON

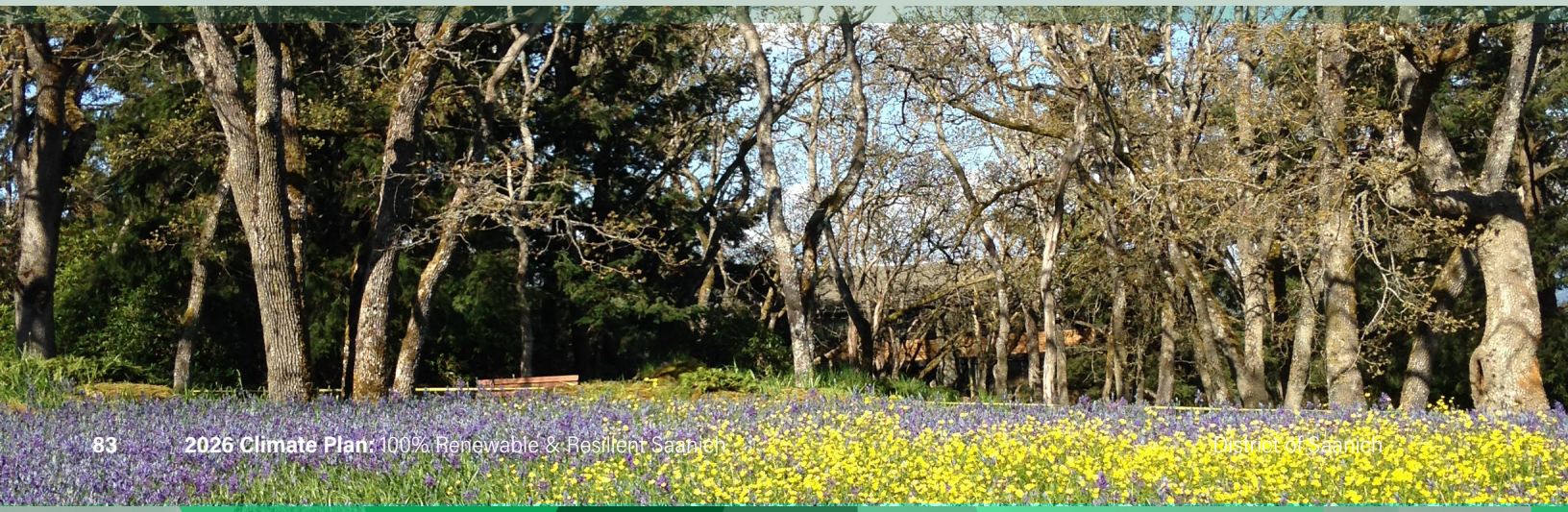
Healthy ecosystems in Saanich can play a small but essential role in achieving net-zero GHG emissions by 2050. Planting trees and expanding greenspace will increase carbon sequestration, reducing Saanich's GHG emissions and also helping to increase the resilience of our community and ecosystems. However, carbon sequestration is not a substitute for eliminating our fossil fuel use and switching to renewable energy, which must be the primary focus for action to reduce our GHG emissions.

IMPROVING RESILIENCE

While climate change will continue to impact Saanich's ecosystems, we can improve their resilience by supporting their overall health, observing how species are responding to climate changes, and adjusting management practices accordingly. Different approaches will be needed for different circumstances (e.g. plant and tree species choice, watering schedules, restoration projects, etc.). The use of natural assets for helping humans adapt to climate change is covered in the Community Well-being and Resilient Infrastructure Section 4.5.

DISTRICT OF SAANICH'S ROLE:

- Protecting, managing, and enhancing the urban forest on public lands;
- Protecting, enhancing, connecting, and managing native biodiversity and ecosystems;
- Managing the District's natural assets;
- Growing the parks and trails system to include links and connections between high priority biodiversity areas;
- Restoring and protecting natural areas and biodiversity in Saanich parks in partnership with the community;
- Overseeing Saanich's invasive species management program on public and private lands and managing the Pulling Together volunteer program;
- Educating residents and park users on Saanich's native species and ecosystems and involving them in the care of public and private lands;
- Maintaining the Urban Containment Boundary to protect natural spaces and habitats;
- Using the Tree Protection Bylaw to regulate the removal of trees on private and public property; and
- Protecting native ecosystems as part of the development process.



WORKING WITH OTHERS TO SUCCEED:

- Federal and provincial governments, who research and regulate species at risk, wildlife, pollution abatement, spill response, pesticide use, water, fisheries, and more;
- Other parks and wildlife agencies, including CRD Regional Parks, BC Parks (Ten Mile Point Ecological Reserve), and Canadian Wildlife Service (Victoria Harbour Migratory Bird Sanctuary);
- The CRD and other local governments on such programs as the Regional Invasive Species Program, the Capital Region Invasive Species Partnership (CRISP), the Gorge Waterway Initiative and Bowker Creek Initiative;
- First Nations on ecosystems monitoring and land management practices;
- Community stakeholders, including volunteers, residents' groups, individuals and the development industry; and
- People who make choices about ecosystem management on private and institutional lands in Saanich.

Did you know?
Compact, complete communities help to preserve our natural areas by reducing urban sprawl and the housing footprint per person or family, leaving more space for our ecosystems to thrive.

Photo credit: US Fish and Wildlife Service

How We'll Get There: Strategies and Actions

Given the strong alignment between biodiversity, urban forest and climate goals, there is a significant dependency between the Climate Plan and the recently adopted Saanich Biodiversity Conservation Strategy (2024) and updated Urban Forest Strategy (2024).

In order for Saanich to become resilient to climate change, the Climate Plan is dependent upon their implementation. Additional or nuanced Climate actions are presented under each of the strategies for Ecosystems below. It should also be noted that there are multiple actions in other Focus Areas that relate to ecosystem services and resiliency for example, shoreline and wildfire actions are included in the Community Well-being & Resilient Infrastructure Focus Area.

Strategy E1: Protect and manage natural assets as critical infrastructure

E1.1 Protect and expand the urban forest and green infrastructure

Use the Capital Region Heat Information Portal and other climate hazard data to support implementation of the Biodiversity Conservation Strategy and Urban Forest Strategy, delivering tree retention, green infrastructure, tree canopy cover, and parks land acquisition that enables equitable access to ecosystem services and mitigates the impacts of climate change.

E1.2 Restore natural areas to increase climate resiliency

Restore, connect and expand natural areas in Saanich to maximize ecosystem services, habitat, climate resiliency and carbon sequestration potential, including priority wetland restoration projects and associated hydrology modelling at Panama Flats and Rithet's Bog to support on-site water retention to adapt to increasing summer droughts.

E1.3 Embed the value of natural assets into decision making

Continue to improve data on the value of natural assets to the District (e.g. stormwater management, cooling, pollination) and the potential avoided costs from their protection and enhancement. Use this to further inform policy, project design, specifications, asset management, service planning, and budget decisions.

E1.4 Regularly measure, monitor and report on natural assets

Develop a process to regularly measure and monitor key indicators of climate resiliency, including permeable/impermeable areas and tree canopy cover at the Saanich-wide and neighbourhood-level. This could include pre- and post-construction impermeable area and tree canopy cover measurements for rezoning and development permit applications to inform monitoring at the site level. Explore more frequent LiDAR (Light Detection and Ranging) and orthoimagery data analysis or alternative methods e.g. the use of satellite imagery analysis.

Dependency E1.1 Implement the Urban Forest Strategy

The urban forest is a critical asset in the delivery of ecosystem services such as shade, stormwater management and carbon sequestration, necessary for climate change resiliency and to support our GHG emissions targets.

Dependency E1.2 Implement the Biodiversity Conservation Strategy

By providing the roadmap and actions to protect and enhance biodiversity and the Biodiversity Habitat Network, the Biodiversity Conservation Strategy supports the delivery of ecosystem services such as shade, stormwater management and treatment, pollination, and carbon sequestration, necessary for climate change resiliency and delivery of our GHG emissions targets.

Strategy E2: Enable natural assets to thrive and adapt in a changing climate

E2.1 Monitor changes in natural assets in response to climate change

Partner with others e.g. First Nations, other orders of government, academic institutions, environmental organizations and volunteers to monitor changes in our natural assets (e.g. species composition) in response to climate change and other pressures on ecosystems. This could include, phenology diary data, soil moisture monitoring, intertidal species inventories before and after heat waves, tracking response of trees to climate change through monitoring changes to growth and health (including pathogens/disease and mortality rates), and the identification of emerging species. Use this data and analysis to inform decision making.

E2.2 Amend management and maintenance practices for trees, native species and ecosystems to adapt to climate change

Use data and analysis (e.g. from Action E2.1) to identify changes to operations and maintenance practices that are needed to support the adaptation of natural assets to future climate changes. This could include expansion of the Pulling Together Volunteer program, extension of watering programs and seasons, leveraging of Integrated Stormwater Management Plan modeling to examine urban riverine communities and prioritize creeks and waterways enhancement to manage flooding and flow restrictions, expansion of irrigation systems, more frequent and pro-active tree assessment and maintenance, regular review of plant and tree planting lists, assisted migration of new drought tolerant species, and new strategies such as biochar and vertical mulching etc. Pilot new approaches and amend management practices, maintenance programs and budgets accordingly and include public education on the need and approach. Explore alternative solutions to salt for road de-icing, given cost and environmental impact.

E2.3 Support cultural fire management practices

Explore opportunities to partner with Indigenous community and First Nations to reintroduce prescribed burns and fire management practices for the preservation and restoration of Garry Oak and other ecosystems and culturally significant plants.

4.5 COMMUNITY WELL-BEING & RESILIENT INFRASTRUCTURE

VISION

People and organizations in Saanich are healthy and resilient in a changing climate, connected to the natural environment and their community, and empowered to take climate action. Saanich takes a holistic approach, embedding projected climate changes into decision making, service delivery, asset management, and infrastructure upgrades and design.

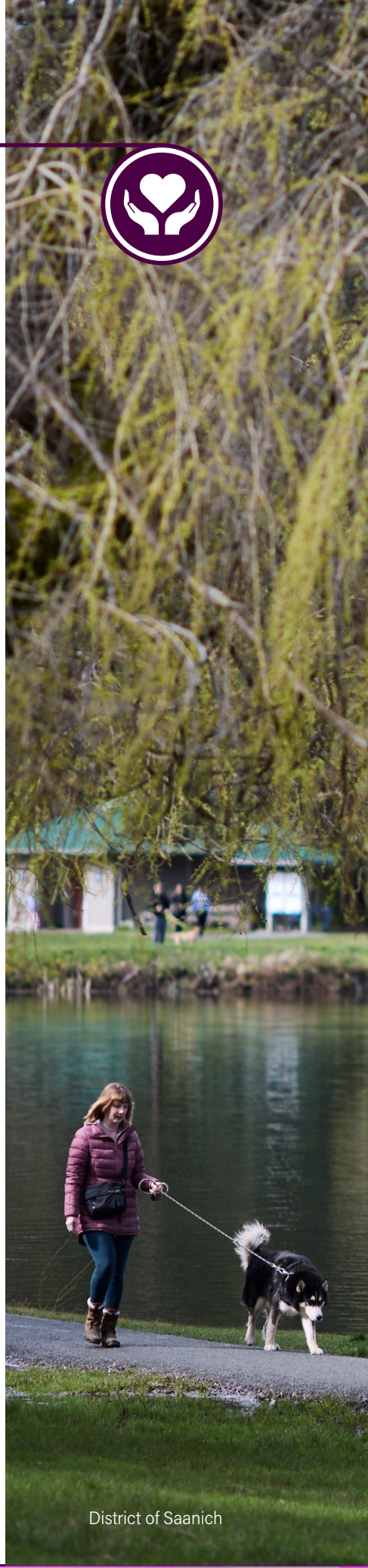
STRATEGIES

C1. Transition towards climate-ready infrastructure

C2. Prepare for long-term sea-level rise

C3. Ensure all Saanich community members are resilient to climate change

C4. Empower Saanich residents and businesses to take climate action



District of Saanich

District of Saanich

METRICS

Infrastructure Resiliency

- % of climate change risks to service delivery that indicate a high level of risk are decreasing (2026 baseline); and
- The impacts of extreme rainfall (precipitation) events on Saanich infrastructure (based upon calls for service) are decreasing.

Community Member Resiliency

- 10 Neighbour to Neighbour (N2N) projects completed per year by 2030;
- 100 participants in N2N projects per year by 2030;
- 600 participants in the Saanich Emergency Program per year by 2030;
- #participants in Naturescaping Program per year by 2030 #participants in Pulling Together program and # of volunteer and training hours per year by 2030;
- # participants in Park Ambassador program per year by 2030; and
- # trees planted through Partnership Tree Program per year by 2030.

Did you know?
You can protect yourself from wildfire smoke by using a MERV (Minimum Efficiency Reporting Value) 13 filter on your heat pump and by ensuring your windows and doors are well-insulated, draft-free, and have efficient ventilation. These solutions support better air filtration and save on energy and costs.

Where We Are Today

Our community has experienced increasing numbers and severity of extreme weather events since the 2020 Climate Plan was adopted. The early impacts of climate change are already affecting our physical and mental health, our ecosystems, our infrastructure, and our economy, resulting in damages and costs. Many members of our community have had to modify their daily routines due to poor air quality from wildfires or overheating in their buildings during hot summers, including multiple extreme heat events.

The heat dome in 2021 resulted in the loss of over 600 lives across BC, with 18 of these deaths and 43 hospitalizations within the South Island. 2023 was the worst wildfire season on record yet in BC. Major storms and flooding have impacted Saanich as well. For example, the November 2021 atmospheric river event caused flooding and road washouts throughout BC, resulting in fuel supply shortages and impacts to distribution networks and resulting costs in Greater Victoria as supply routes were interrupted and delayed.

To better understand how climate change may affect our community, and to identify and prioritize actions needed to increase our resiliency, the District completed two complementary processes:

1. **A Community Climate Hazard and Resilience Assessment** - which included extensive data analysis and public engagement through workshops, surveys, and meetings in 2025. It outlines 40 actions the District can take to improve community resilience, along with additional actions in collaboration with others.

2. **A Climate Risk Assessment for Municipal Assets** - using the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol, informed by extensive data and analysis, and which included multiple workshops with asset groups across the organization throughout 2025 that focused on identifying impacts, scoring risks and identifying actions to mitigate those risks and impacts.

The climate risk assessment for municipal assets found that the highest risks were associated with:

- the impacts of heat, drought, and sea-level rise on our natural assets, parks and trails structures; and
- the impact of wildfire in the drinking water supply area on our drinking water quality, and the impact of wildfire in parks on our natural assets.

District of Saanich

The Saanich Community Climate Hazard and Resilience Assessment found that climate hazards are having short- and long-term impacts on our community, which are likely to become more frequent and intense over time and that these impacts are not distributed equitably. The process also helped to identify the many strengths our community can draw on when facing these hazards, including:

- extensive natural areas, tree cover and permeable areas providing multiple ecosystem services for residents;
- land use planning for compact, complete communities that incorporates green infrastructure and considers the urban heat island effect;
- incorporation of climate projections into stormwater management planning;
- regional planning for abundant drinking water supply for a growing population and changing climate;
- a relatively low risk of wildfires compared to other places in BC (Saanich has the best Fire Underwriters Survey insurance rating on the Island and one of the best ratings in the province); and
- work underway to improve the accessibility of municipal services and facilities to people facing barriers to inclusion.

SEA-LEVEL RISE AND THE LEGEND OF CAMOSSUNG

Prior to colonization, what we now call the Tillicum neighbourhood of Saanich provided abundant shelter and food to First Nations people. The location of the reversible falls under the Gorge Bridge is significant in the history of the **lək̓ʷəŋən** peoples.

The story of Cammosung, her grandfather and Haals has been shared by many **lək̓ʷəŋən** knowledge holders.[68, 69, 70] Anthropological findings that go back at least 4,000 years along the Gorge Waterway show how abundant the area has been. Two boulders that are central to the story of this area were destroyed without permission in the 1960s by the owner of a boathouse in the area who wanted to make passage easier for his customers.

Image: Statue of Camossung by Frank Dobbs located in Gorge Waterway Park

Climate change is causing sea-levels to rise, including in the Gorge Waterway and Portage Inlet. Flooding is already happening in this area, impacting private, public and natural spaces and areas of cultural significance.

In 2021, the CRD Coastal Flood Inundation Mapping Project was released, which identified the Gorge and Portage Inlet as particularly vulnerable to sea-level rise, being located in low-lying areas with high population density. Building on this work, the Gorge Coastal Flood Adaptation Strategy is a collaboration between Victoria, Esquimalt, Saanich and View Royal, with support from the Capital Regional District and provincial funding. This project aims to increase public awareness of sea-level rise, and includes a risk assessment, engagement and the identification and prioritization of shoreline measures to increase the resiliency of this area.

Progress to date

Significant data has been developed regionally since the 2020 Climate Plan was approved, including updated Climate Projections for the region (2024), the Capital Region Extreme Heat Information Portal and Map (2024), and Sea Level Rise and Flood Inundation mapping (updated 2021), each intended to support future policy and program development.

The Province has released multiple resources to address extreme weather events and climate change, including the BC Provincial Heat Alert and Response System, the BC Flood Strategy, and funding through such programs as the Union of BC Municipalities (UBCM)-administered Disaster Risk and Reduction - Climate Adaptation grant. The Province has also launched a program providing free portable air conditioners to the most at-risk residents.

Saanich has also been supporting residents to take action in their own lives, including:

- Interactive resources such as the Residents' Climate Action Guidebook, Carbon Calculator, and Climate Action Workshop Series;
- The Neighbour to Neighbour (N2N) Resilience Initiatives and community grants program;
- One Planet Saanich, which supports organizations in implementing sustainability initiatives;
- The Cool It! Climate Leadership Training Program, providing workshops in schools;
- Retrofit concierge programs to make the retrofit journey easier, such as the Strata Energy Advisor and the Home Energy Navigator;
- Incentives for building retrofits, e-bikes, EV-ready Plans and more; and,
- Infrastructure investments such as bike lanes and public EV chargers to make these choices safe and convenient.

Our local community has responded, with thousands of residents participating in these programs and taking action to reduce emissions and make their communities more resilient.

N2N Project: Marsett Place Emergency Preparedness Initiative

Three strata properties worked together to increase community resilience to many types of hazards including those worsened by climate change. The group developed plans to help each other in emergencies, become more prepared by getting to know their neighbours, promoted resident knowledge of the Saanich Emergency Program, and improved the resilience of people and nature to climate change.

HIGHLIGHTS FROM THE LAST 5 YEARS

- 13 community-led projects completed through the Neighbour to Neighbour (N2N) Resilience Initiative grants;
- Cool-It! Climate Leadership workshops delivered in 172 classrooms, reaching 4,161 students;
- Incorporation of climate change considerations into municipal processes including the Official Community Plan (OCP), Centre Corridor and Village (CCV) plans, Integrated Stormwater Management Plan, Biodiversity Conservation Strategy, Asset Management and Risk Management Programs, and more;
- The launch of the CRD's Extreme Heat Information Portal, providing information and maps to help residents and municipal staff understand vulnerability to extreme heat;
- Completion of the Tillicum Green Infrastructure Project, piloting the inclusion of resilient green infrastructure in transportation projects; and
- The launch of the Gorge Flood Adaptation Strategy, to support aligned sea-level rise planning amongst neighbouring municipalities.

Spotlight on Resilient Built Infrastructure:

The District of Saanich is responsible for managing many types of assets, including roads and storm drains, drinking water supply, and waste water systems. The District is working to ensure our infrastructure is resilient in a changing climate in order to support community well-being.

Resilient infrastructure considers the following characteristics:

- **Robustness** – ability to withstand disaster forces without substantial degradation of performance;
- **Redundancy** – extent to which systems and elements are substitutable and capable of supporting continued functionality;
- **Resourcefulness** – ability to diagnose and prioritize problems and initiate solutions; and
- **Rapidity** – capacity to restore functionality in a timely way.

The Province is also working to improve resilience. The recent Disaster, Climate, Risk and Resilience Assessment (2025) identified the following key resilience pathways for built infrastructure:[71]

- Reinforce or upgrade physical structures;
- Complete regular risk assessments;
- Conduct real-time monitoring and smart predictive analytics;
- Consider adaptive design components that address multiple hazards;
- Engage communities;
- Ensure robust maintenance and inspections; and
- Prioritize a resilience-first approach in funding and policies.

Where We Need to Go

REDUCING EMISSIONS

Reducing GHG emissions can benefit the community and foster well-being in many ways, including through improved affordability, better health outcomes, providing local clean energy jobs, and more. To achieve our emissions reductions goals and associated benefits, Saanich residents and businesses must be empowered and enabled to make the changes needed in their own lives. This includes having affordable options, having access to supporting infrastructure and services (e.g. access to bike lanes that feel safe, convenient and reliable transit, EV charging), and sufficient knowledge to make informed choices. Saanich can support these needs through infrastructure investments, partnerships, educational campaigns, and programs that help overcome remaining barriers, such as rebates and financing for high capital costs and support programs for complex building retrofits.

IMPROVING RESILIENCY

Existing infrastructure has been designed for historic climate conditions and sea-levels. Ensuring our infrastructure is resilient to climate change means anticipating the changes ahead and making the necessary investments, so we are prepared for these changes and can minimize the costs associated with potential damages or more reactive interventions.

In addition to investing in our own assets, Saanich must continue to help empower people and organizations to contribute to solutions, prepare themselves and their neighbourhoods, and work collaboratively towards a shared vision of the future. By fostering a community that is more inclusive, connected and engaged, we are also supporting higher levels of well-being, social cohesion, and resiliency in the face of climate impacts. The 2021 heat dome clearly demonstrated that social connection and neighbourhood-level response can be life-saving.

District of Saanich

Learning from Indigenous Worldviews for Climate Resiliency

Indigenous perspectives on climate risk assessment and resilience planning offer important lessons for climate action.

As an example, Figure 34 outlines Gitxsan philosophies contrasting with the segmented, linear thinking often seen in Western frameworks for climate risk assessments. The reciprocal and cyclical core elements such as land, water, food and healthy water sources lead to healthy food sources, which leads to healthy people, and all are dependent on the health of the land.

Understanding interactions between land, health, seasons, and cycles is crucial. Management of Territories and Communities is interconnected, highlighting that decisions made in one area affect others. The artwork of a grandmother (on the right hand side of the figure) represents culture, observation and teaching. Cultural practices that reinforce balance and respect support proactive responses to environmental changes to ensure sustainability.

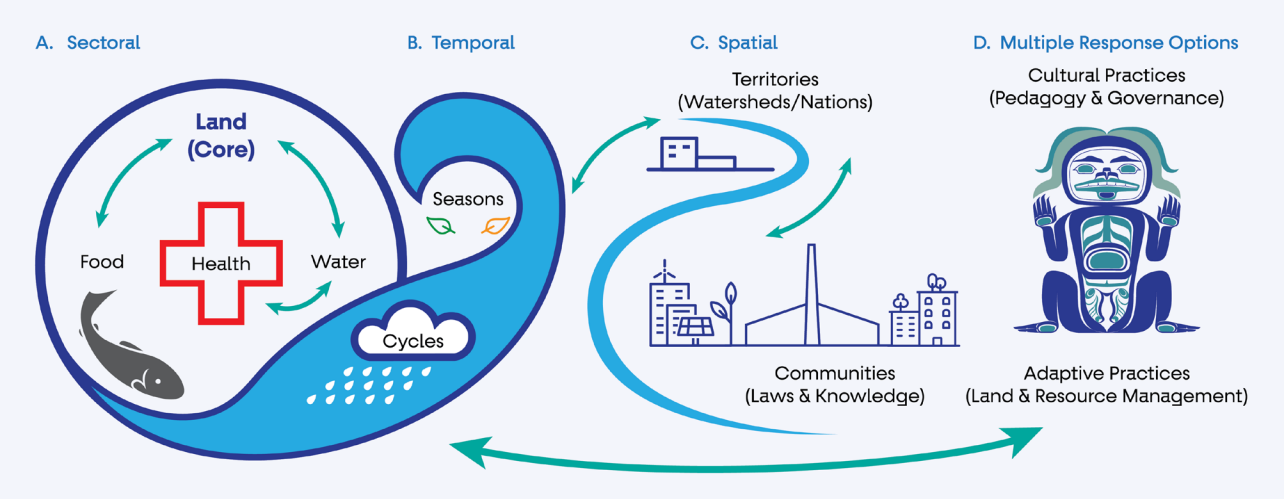


Figure 34. Gitxsan philosophies on the interaction, relationships, and interdependencies within human and environmental worlds. Image credit: Yellowhead Institute. Used with permission.

Green Infrastructure: Working with Water

The District of Saanich developed a wetland stewardship plan and is undertaking restoration at Chatterton Marsh, within Rithet's Bog to help two species at risk (Vancouver Island beggartick and northern red-legged frog). The restoration focuses on invasive species removal using benthic barrier to smother reed canary grass and hand pull invasive cattails. Rithet's bog provides vital ecosystem services, including stormwater filtration, flood storage, and drainage control for the Colquitz watershed. The area is facing pressures from urban development, invasive species, and climate change. The restoration project will use volunteer power through the Pulling Together Program.

DISTRICT OF SAANICH'S ROLE:

- Valuing our natural assets, including their protection, restoration, care and management;
- Designing, building and maintaining grey and green infrastructure, including natural assets, municipal roads, storms, sanitary sewer, water supply, parks & trails and others;
- Supporting quality green and grey infrastructure and public services, including public safety and local emergency response through the operation of Saanich Fire, Saanich Police, Saanich Public Works, Saanich Engineering, Saanich Parks, and the Saanich Emergency Program;
- Supporting social well-being through improving equitable access to affordable housing, food security, employment, parks, recreation, community services, arts and culture, heritage, equity, and similar initiatives; and
- Ensuring residents, businesses and organizations have the knowledge, tools and supports to take climate action in their own lives.

WORKING WITH OTHERS TO SUCCEED:

- Federal government, which provides funding to municipalities for infrastructure renewal and climate adaptation, issues alerts for severe weather events and is responsible for setting national climate targets and motivating action through broad climate and social policies;
- Provincial government, which conducts disaster and climate readiness assessments and plans, administers Emergency Management BC and BC Centre for Disease Control, provides grant funding to municipalities for climate resiliency measures, and provides climate programs;
- Capital Regional District, which is responsible for regional planning, provides rental housing, and manages drinking water supply, sewer treatment and parks and trails;
- Island Health, which is responsible for providing health care to the community, including working with local governments on improving the social and environmental determinants of public health (e.g. a Planetary Health approach);
- First nations on ecosystems monitoring, coastal flood adaptation strategies, and land management practices; and
- Individuals, households, businesses, community groups, volunteers and non-profit organizations, who are involved in multiple human health, social and economic well-being initiatives.

Did you know?
Saanich's Neighbour to Neighbour Resilience Initiative provides a $500 grant for community projects that address emergency preparedeness, climate action and caring for nature at a neighbourhood scale. Find out more at saanich.ca/N2N.

Tree Equity - the 3:30:300 Rule

Tree equity is when all people can access the benefits of the urban forest in proportion to their needs. In 2021, Saanich Council endorsed the 3:30:300 Rule as a guiding principle for urban forest management (Figure 35).

The updated Urban Forest Strategy (2024) used a Tree Equity Score to measure how equitably Saanich's tree canopy is distributed. Areas with lower Tree Equity Scores occur in more urbanized areas like Uptown, Shelbourne, and Tillicum, as well as areas with a legacy of less tree planting like suburban Gordon Head and Carey.

Figure 35. Tree Equity Score targets for tree proximity and coverage (infographic via Gov AI)

How We'll Get There: Strategies and Actions

Climate actions are presented under each of the Community Well-Being & Resilient Infrastructure strategies below, but it is important to note that many actions within the other Focus Areas also support community well-being and resiliency to climate change for example, extreme heat is a key climate hazard that is addressed through actions in the Buildings Focus Area and Land Use & Transportation Focus Area.

Strategy C1: Transition towards climate-ready infrastructure

C1.1 Update wildfire risk mapping and resiliency plans

Update the Community Wildfire Protection Plan with a new Community Wildfire Resiliency Plan (CWRP), with full collaboration across departments and informed by updated Provincial Fire Risk Maps and results from the Climate Risk Assessment for Municipal Assets. This should include:

- advocacy to and collaboration with the Province to update Provincial Fire Risk Maps based on recent data and experience;
- considerations for the cumulative impacts of future development, increased extreme heat, extended droughts, and risks of significant wildfire fire in Saanich;
- options for mitigation measures such as additional local reservoirs, and review of municipal water system connections and the water shuttle service;
- fire resiliency and preventative design options for infrastructure replacement and renewal;
- specific actions to mitigate fire risk and loss of power to the PKOLS (Mt. Douglas Park) Communications Tower and backup options for SCADA (Supervisory Control and Data Aquisition);
- an update to the Wildfire Interface Development Permit Area (DPA); and
- collaboration with First Nations to explore options for cultural fire management practices (also see Action E2.3).

This should then be used to inform the updated Saanich Water Masterplan and to advocate for Saanich staff inclusion in the CRD's regional Water Treatment Plan and update to the CRD's Regional Water Supply Strategic Plan (2025), with regional collaboration on the pursuit of external funding to support implementation.

C1.2 Develop a FireSmart program aligned with biodiversity goals

Develop and implement integrated and harmonized FireSmart and Naturescaping programs and associated resources to apply to District and private properties, based on the fire risk rating, local biogeoclimatic and ecological data/conditions, Indigenous knowledge and cultural values, and identifying and prioritizing higher risk areas for implementation. Include an updated Parks native plant and tree species list based upon resiliency to extreme heat, drought and wildfire, that is aligned with other goals, including those from the Official Community Plan (OCP), Environmental Policy Framework, Biodiversity Conservation Strategy (BCS), and Urban Forest Strategy (UFS). Embed this action within the updated CWRP (Community Wildfire Resiliency Plan).

C1.3 Develop a strategy to embed green infrastructure in public and private infrastructure and development

Develop a Green Infrastructure strategy, informed by climate projections, the forthcoming Natural Assets Management Plan, the Integrated Stormwater Management Plans (ISMPs), flood mapping, Coastal Flood Adaptation Strategies, the Biodiversity Conservation Strategy and Urban Forest Strategy, to outline requirements, guidance and programs that support the integration of green infrastructure in District infrastructure projects and private development and help deliver on stormwater management, climate, urban forest and biodiversity goals. This should:

- be used to inform updates to the stormwater and permeability requirements for new development, and the broader Stormwater Management Plans; and
- be integrated with the updated Design Guidelines and Standards for Parks and Trails infrastructure (see Action C1.4) and the work to embed climate adaptation measures into transportation projects (see Action T4.1).

C1.4 Integrate climate adaptation measures into asset and infrastructure design, project planning and management

Develop and implement updated design standards and other guidelines or policy for the integration of climate adaptation measures into assets and infrastructure projects. This should minimize the urban heat island effect and protect infrastructure, people and assets from the impacts of extreme heat, drought and precipitation and maximize the protection and provision of ecosystem services. The guideline and projects should consider future climate projections and such strategies as:

- tree retention and planting;
- ecosystem restoration that includes all vegetation layers, trees, shrubs and herbaceous plants, plus adding large woody debris to help with forest floor moisture retention and habitat;
- shade structures and shelters;
- raingardens and bioswales;
- cool/reflective surfaces and/or surface treatments;
- drinking fountains, splash pads and misting stations;
- a review and update of irrigation procedures and programming;
- a review and update of tree and plant species lists in light of climate projections (e.g. drought and extreme heat tolerant, fire resistant etc.);
- dust suppression management during construction phases; and
- associated capital and operating costs and procedures.

Relevant recommendations should be integrated within the Sports Field Masterplan update as they relate to Parks & Trails Structures assets.

C1.5 Complete a District wide landslide risk assessment

Complete a District wide assessment of landslide risk, incorporating climate change projections. This should identify mitigation options and associated costs and benefits and make recommendations that are incorporated into future infrastructure planning.

C1.6 Support residents and building owners to increase the climate resiliency of their buildings and property

Provide support through integrated programs, educational materials and other strategies to help residents and businesses identify climate risks and make improvements to their buildings and property to withstand a range of climate impacts. This includes:

- supporting the development and use of tools that assist with risk identification and solutions, such as the Resiliency Opportunity Assessment and Response (ROAR) tool being developed by UVic and the Greater Victoria 2030 District;
- developing and distributing materials that are tailored to different audiences and climate impacts including rural Saanich such as the CRD Septic Savvy Program;

- facilitating communities of practice and learning exchange to deepen knowledge on topic areas through existing networks (e.g. Greater Victoria 2030 District, Strata Energy Advisor, Rental Apartment Retrofit Accelerator, etc.) and leveraging existing Saanich learning and outreach programs such as the Naturescape program;
- embedding adaptation more deeply in existing programs, for instance:
  - providing a broader range of adaptation supports through the retrofit concierge programs;
  - leveraging existing programs such as the Neighbour 2 Neighbour initiative to address high risk impacts; and
  - expanding existing programs such as allowing baseboard to heat pump conversions in the Heat Pump Financing Program; and
- providing education and trees to homeowners through the Tree Partnership Program and tree giveaways to improve shade and support tree planting to provide household cooling.

C1.7 Explore the development of drainage utility service

Explore a drainage utility and rate structure that recognizes the importance of managing stormwater effectively and encouraging adaptive management at the site level on private property.

Did you know?
The CRD's Extreme Heat Information Portal shows you how vulnerable your neighbourhood is to extreme heat and provides tips for how to prepare.

Dependency C1.1 Develop and Implement the Integrated Stormwater Management Plans

The 2023 to 2027 District of Saanich Strategic Plan includes an initiative to advance work towards a District-wide Drainage Master Plan through creating baseline Integrated Stormwater Management Plans for Cordova Bay (completed); Douglas Creek-10 Mile; Colquitz; and Boundary Streams, and a Stormwater Plan for Rural Areas. This work is incorporating climate adaptation including projected changes in precipitation intensity, duration, and frequency. These plans will then be able to inform floodplain mapping, which can inform updated Flood Construction Levels on key watersheds. Through implementation, consideration should be given to::

- *establishing lot by lot information for residents about their flood risks;*
- *prioritizing infrastructure improvements to reduce flooding in areas with the highest populations first;*
- *requiring lot grading plans in new development so that the impacts of overland flow are understood from lot to lot;*
- *requiring formal stormwater management plans in new development such that impacts of development are mitigated; and*
- *establishing impermeable surface requirements at the lot level in the zoning bylaw.*

Dependency C1.2 Develop and Implement Asset Management Plans

Integrating climate change projections into District Asset Management Plans is a key strategy for ensuring long-term community resiliency and infrastructure sustainability. By embedding climate data directly into asset lifecycle planning, we can ensure that infrastructure is designed, maintained, or replaced to withstand future conditions.

Strategy C2: Prepare for long-term sea-level rise

C2.1 Update sea-level rise related data and mapping

Continue working with the Regional District to keep sea-level rise data and mapping current; embed latest information in land-use and development policies and bylaws; and inform asset management planning and infrastructure investments. This should include:

- developing a comprehensive list of assets facing permanent versus temporary inundation and timelines; and
- mapping sea-level rise with and without the 1 in 200 yr flood event or storm surge and wave action to better understand future daily and permanent flood inundation levels in addition to flooding impacts from a 1 in 200 year flood event.

C2.2 Develop and implement Coastal Flood Adaptation Strategies

Develop Coastal Flood Adaptation Strategies (CFAS) for the Gorge, Cadboro Bay and Cordova Bay, that identify short, medium and long term actions for adapting public infrastructure and amenities, supporting and maintaining coastal ecosystems, and regulating land uses in response to sea-level rise projections. Ensure these focus on nature-based approaches such as Green Shores. Commence implementation of short term actions. Engage the community as part of this process, increasing sea-level rise knowledge and capacity through the development and delivery of educational resources and materials. Collaborate with local First Nations on strategy development and aligned actions, for example, creating the conditions such as cooler microclimates for intertidal species that could support long term goals such as the restoration of Indigenous sea gardens.

C2.3 Update land-use and development policies, guidelines and bylaws to increase resiliency to overland flooding and sea-level rise

This would be informed by sea-level rise mapping, Coastal Flood Adaptation Strategies (CFAS) and the results of Flood Plain Models (FPM) and could include:

- updated Floodplain Development Permit Area (DPA) maps in the DPA Design Guidelines;
- potential creation of a Sea-Level Rise DPA;
- implementation of Flood Construction Levels (FCLs) and associated standards, zoning bylaw amendments and flood hazard area bylaws that limit development in areas subject to future flood inundation; and
- measures to support compliance with updated standards in Engineering Specifications that relate to the impacts of development on neighbouring properties in response to sea-level rise (e.g. sea wall construction).

Strategy C3: Ensure all Saanich community members are resilient to climate change

C3.1 Regularly update the community climate risk assessment

Update the community climate risk assessment every five years to inform the development of the updated Climate Plan and support ongoing community climate adaptation actions. Integrate the latest regional climate projections and local climate data.

C3.2 Apply an equity lens

Continue to apply an equity lens on municipal climate actions to improve the climate resiliency of those who are vulnerable in our community and to fairly share the benefits of climate action. Factors such as income, age, gender, ethnicity and ability can affect resilience to climate change and the ability to transition to renewable energy. The equity approach includes: compiling and reporting on equity data; developing ongoing relationships with equity-seeking groups in the community to inform action; and evaluating program design to avoid replicating or furthering historical inequities and to better address the diverse barriers, needs, and priorities of different parts of our community. An example includes the tree equity score and 3-30-300 rule included as part of the updated Urban Forest Strategy (2024).

C3.3 Continue to work with partners to identify proactive resiliency measures and coordinated responses

Work with the Province, CRD and Island Health to further advance data monitoring and proactive program development to ensure community members are more prepared and resilient during extreme weather events and related health events e.g. new vector borne diseases. Work with service providers to vulnerable populations (e.g. long-term care facilities) and community based organizations to facilitate adaptation planning e.g. the provision of cooling and air filtration in buildings in anticipation of severe heat and poor air quality events. Ensure a coordinated response during extreme weather events.

Dependency C3.1 Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas

Well-designed compact, complete community development yields significant sustainability co-benefits, including improved social networks and community health outcomes, increased affordability, and protection and enhancements of our ecosystems.

Strategy C4: Empower Saanich residents and businesses to take climate action

C4.1 Improve community climate adaptation knowledge and data sharing

Expand climate communications, using novel strategies to better highlight the urgency of climate action and to help improve community climate adaptation knowledge, showcasing success stories and amplifying targeted outreach and education programs, such as One Planet Saanich, the Cool It! Climate Leadership Training in schools program, Saanich's Emergency Preparedness Program, Neighbour to Neighbour Resilience Initiative, Naturescaping, Pulling Together, Park Ambassador and Partnership Tree programs. Explore options for reaching equity deserving groups including people with disabilities, low income people, newcomers, etc., and continue to work with schools to support youth climate literacy.

Continue to host an annual Earth Day event where progress and success are celebrated, key lessons are shared, cross-pollination of ideas are encouraged, and citizen-led networks are strengthened.

Share data and information to empower residents to take action and be prepared e.g. education about insurance needs, flood risk maps, extreme heat alerts, energy access opportunities for people with disabilities or who require electricity to run medical devices during emergency events, online services, etc.

C4.2 Seek opportunities to work with local First Nations

Explore options for collaborative projects with local First Nations that support multiple climate resiliency and reconciliation goals (e.g. sea garden restoration to support cultural food security, restoration, and sea-level rise goals; support for cultural fire practices).

C4.3 Identify opportunities to support local economic development aligned with climate action

Identify and implement policy tools, partnerships, and incentives (e.g. zoning bylaw revisions, permitting requirements, regional programs) to retain existing and attract new businesses that contribute to the Sustainable Saanich vision and climate targets. Work with regional partners and educational institutions to develop or support programs (e.g. micro-grants, training, certifications, inter-business collaborations, or tailored guidance documents and programs) to grow a climate-aligned local workforce and help existing businesses transition to more sustainable and circular business practices and become resilient to a changing climate. Showcase success stories and identify green business opportunities e.g. cycle tourism, access to green energy for events such as the film industry and music concerts etc.

C4.4 Expand neighbourhood-level climate resiliency programs

Continue to provide, support and expand programs that encourage and empower neighbours and residents to take action on climate change and that improve their connectedness, emergency preparedness and climate resiliency e.g. the Neighbour to Neighbour Resilience Initiative, Naturescape, Pulling Together, Park Ambassador and Partnership Tree programs and air filter workshops etc. These programs can serve multiple functions, including improving connectedness and addressing mental health challenges associated with climate grief.

C4.5 Partner with research organizations

Continue to partner with research organizations and post-secondary institutions on the development of climate resiliency data collection, research and program development.

4.6 LEADERSHIP IN DISTRICT OPERATIONS

VISION

By 2040, the District of Saanich will have fully embedded climate-change mitigation and adaptation into its operations and organizational culture. Municipal services are powered with 100% renewable energy, achieve zero greenhouse gas emissions, minimize embodied emissions and waste, and remain resilient in a changing climate.

STRATEGIES

L1. Integrate climate action into Saanich processes and decision-making

L2. Become a climate-friendly employer

L3. Transition to efficient, renewably-powered and resilient vehicles and equipment

L4. Transition to efficient, renewably-powered and resilient municipal buildings

L5. Reduce waste and implement a circular economy approach throughout District operations

METRICS

- 65% reduction in GHG emissions from District operations by 2030 from a 2007 baseline (District operations include Municipal, Fire and Police); and
- 100% reduction in GHG emissions from District operations by 2040.

- Provide continuous indoor environmental quality monitoring in at least 50% of occupied District of Saanich buildings with DDC systems by 2030, including indoor temperature and priority indoor air quality metrics, to inform operations and protect occupants during extreme heat and wildfire smoke events; and
- Percentage of occupied District building floor area with access to mechanical cooling. Establish performance metrics to improve occupant safety, service continuity, and equitable access to cooling.

Did you know?
Saanich staff are taking advantage of the opportunity to use e-bikes to commute to different work sites across the district. To date, 153 staff have participated in e-bike safety training. With 6 e-bikes available, staff are enjoying the exercise, convenience and time-savings.

Where We Are Today

The District of Saanich provides many services to residents, and in doing so produces greenhouse gas (GHG) emissions and operates infrastructure that is vulnerable to climate change. While the GHGs from Saanich's corporate operations (which includes municipal, fire and police services) make up less than 1% of Saanich's community wide emissions, there is tremendous value in climate action in terms of cost savings, increased efficiencies, demonstrating leadership, driving the market and local economic development, developing local expertise, piloting technologies, and contributing to more informed policy and programs through our own experience.

Progress to Date

The 2020 Climate Plan adopted a target of reducing GHG emissions from the District's municipal operations by 50% of 2007 levels by 2025 and 100% by 2040. In 2025, the District achieved a 47% reduction in our corporate GHG emissions from our 2007 baseline (Figure 36), placing us incredibly close to our 2025 target. This is a major milestone reflecting successful decarbonization and energy efficiency initiatives across the corporate portfolio and positioning Saanich among British Columbia's leading municipalities tackling climate change.

Success has been driven by major building energy upgrades and fuel switching to renewables, alongside a switch to electric vehicles, supported by multiple grants and reaping many co-benefits. As of 2025, about two-thirds of our remaining corporate GHG emissions are from fossil fuels used for powering our fleet and equipment, with one third coming from buildings and infrastructure (Figure 37). Many upgrades completed are providing overall lifetime financial savings compared to business as usual approaches, including building controls optimization, LED streetlights, lower fuel and maintenance costs for EVs, and renewable energy generation projects with relatively quick payback periods.

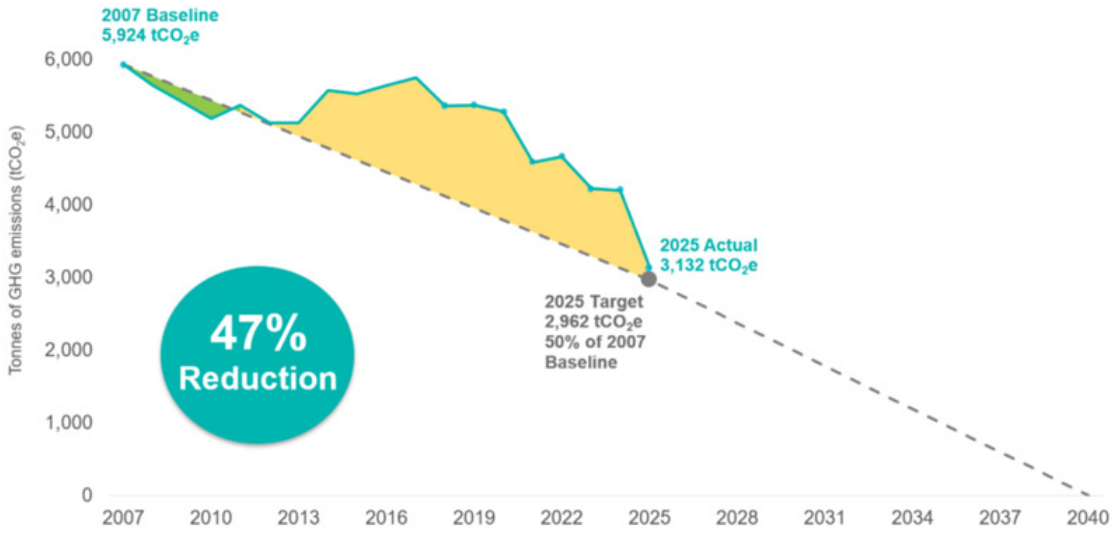


Figure 36. 2025 GHG emissions and targets for Saanich corporate operations

*Figure 37. 2025 District of Saanich Corporate GHG Emissions Inventory (from November 2024 to October 2025)**

Biogenic emissions are non-fossil fuel emissions of carbon dioxide, methane, and nitrous oxide from biomass combustion including from wood, ethanol, biodiesel, and renewable natural gas. These emissions must be reported separately from fossil fuel emissions. In 2025, our corporate biogenic emissions were 1,965 $tBioCO_2$ compared with a 2007 baseline of 108 $tBioCO_2$.

Saanich is also beginning to increase our climate resiliency, with some building upgrades that have added cooling and improved indoor air quality for occupants during wildfire smoke events, and early exploration of greater on-site renewables and battery storage. In addition, a comprehensive Climate Risk Assessment for Municipal Assets was completed throughout 2025 using the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol. This assessment identified actions needed to mitigate the current and future climate risks and impacts to our assets and their service levels. This report has been used to inform the 2026 Climate Plan and is being used to embed climate change considerations into Saanich Asset Management Plans and budget decisions.

Climate risks quickly develop into financial risks to local governments and must be taken into account in government decision-making. We are already seeing increased budgetary pressures from climate change, including increased demands for watering street trees, operating cool spaces for the public during heat waves, greater wear and tear on equipment and infrastructure due to extreme weather, and more.

We have also made some progress on the emissions from corporate food, consumption and waste with actions that include improved waste diversion services and signage at District offices, promotion of low carbon foods and provision of a reusable dish kit for corporate meetings and engagement sessions, staffed waste-sorting stations and replacement of single-use items with reusable dishware at Saanich festivals and events, and working with food vendors to offer more plant-based food options and reusable food service ware.

However, demonstrating leadership means more than just upgrading our infrastructure, electrifying our fleet and reducing our waste. Saanich is working to embed climate considerations and our Climate Plan Guiding Principles in our planning and decision-making processes. This includes maintaining accountability and transparency with comprehensive annual progress reports, monitoring key metrics, allocating the resources needed to achieve our climate targets, and fostering a culture of sustainability within the organization.

Importantly, we are collaborating with other municipalities, orders of government, and organizations across BC and beyond to share knowledge and lessons learned, provide proof of concepts to higher levels of government, identify new opportunities, find efficiencies and cost savings, advocate for action, hold others accountable, spur innovation and market development, and identify alternative funding sources.

HIGHLIGHTS FROM THE LAST 5 YEARS:

- A total of 52 electric vehicles and 41 networked chargers in the municipal, fire and police fleets;
- E-bike pool fleet and training program launched, with 6 e-bikes available at 4 facilities and 153 staff trained to use the bikes for work trips;
- Adoption of the Zero Emissions Fleet Strategy (2025);
- Major building retrofits at key facilities including a heat recovery system at G.R. Pearkes Recreation Centre, a biomass boiler at Saanich Commonwealth Place, and heat pumps and envelope improvements at Cedar Hill Recreation Centre;
- 100% of streetlights across the District upgraded to LEDs;
- Expanded building digital control systems to better measure and manage energy use, environmental conditions and user comfort;
- Inclusion of embodied emissions considerations in new facility developments;
- Waste reduction initiatives such as improved waste diversion programs at key facilities and a reusable dish kit for meetings and events;
- Greener by Default program to support low-carbon, plant-based food options at meetings and events;
- Garbage Truck Route Optimization Project, increasing service delivery and saving 11% in fuel costs ($35,000 annually); and
- Corporate Sustainable Procurement Policy updated and supporting tool developed to help embed sustainability into purchasing decisions (2025).

Our Fleet Services are taking Climate Action!

The District currently operates 52 electric vehicles (EVs) across municipal, police, and fire operations. These EVs are delivering significant cost savings, including an ~80% reduction in fuel costs and additional savings from reduced maintenance (e.g. no engine oil changes and reduced brake wear) and downtime.

Compared to diesel and gasoline vehicles, the EVs reduce vehicle operational GHG emissions by more than 97%, or by more than 80% when full lifecycle emissions are considered (including vehicle manufacturing and energy supply). EVs also reduce noise and eliminate tailpipe pollution, helping to improve air quality in the community.

Fleet electrification is a key component of the District's Zero Emissions Fleet Strategy, providing a cost-effective pathway to net-zero corporate emissions by 2040.

The Garbage Truck Route Optimization Project has delivered ~11% in fuel savings ($35,000 savings per year). Fleet Services has also identified bulk purchase opportunities, finding time and cost savings and a considerable reduction in single use items and waste by ordering Diesel Exhaust Fluid (DEF) in a refillable 1,000L tote rather than disposable 10L containers. (DEF is a liquid used to reduce the amount of air pollution created by a diesel engine and is used on all Fleet Services diesel vehicles.)

Building Energy Upgrades & Cost Savings

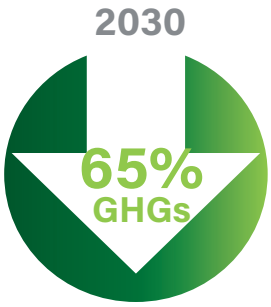
Two major building retrofit projects have recently been completed at the Cedar Hill and G.R. Pearkes Recreation Centers that are significantly reducing GHG emissions, saving energy, improving comfort and accessibility, and providing climate resiliency through cooling. Key themes include efficient electrification with heat pumps, capturing and re-using waste heat, LED lighting, and enhanced building controls. These projects were developed as part of the overall Building Retrofit Strategy to support our climate goals and together they leverage $5.4 million in external grant funding from the CleanBC Communities Fund and Infrastructure Canada's Green and Inclusive Community Buildings (GICB) Program. The projects are estimated to achieve approximately $68,000 in annual energy savings combined.

Where We Need to Go

Building on the success in reaching our 2025 target, this Plan establishes a new 5 year target for 2030.

Targets

Reduce greenhouse gas (GHG) emissions from municipal operations to 65% of 2007 levels by 2030.



Achieve net-zero GHG emissions from municipal operations by 2040.

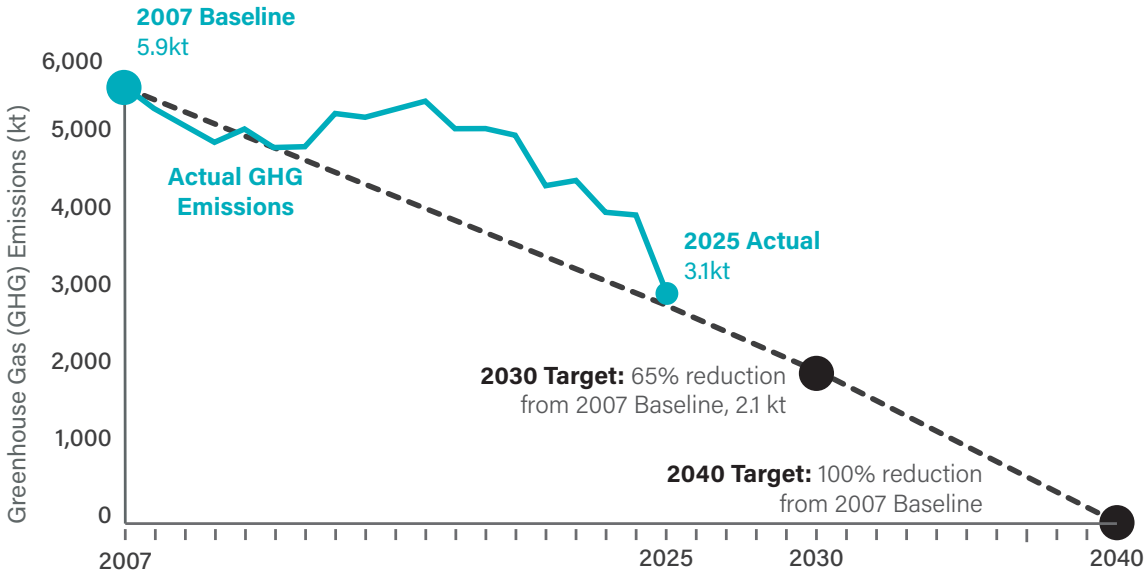


Figure 38. New 2030 GHG Reduction Target for Corporate Emissions

REDUCING EMISSIONS

Figure 38 outlines the District of Saanich's corporate climate targets. The District can continue to be a leader, demonstrating that these targets are achievable while showcasing the considerable benefits they provide, and helping to build market capacity alongside other municipal leaders.

As we move towards our 2030 and 2040 targets, there will be growing opportunities for integration of climate goals and strategies. For instance, vehicle and building electrification, on-site renewable energy generation, and back-up power sources that can assist with resilience as well as reducing energy demand charges and costs, can simultaneously achieve mitigation and adaptation objectives. The coming years present opportunities for the District to take advantage of mature technologies that have drastically reduced in cost, including solar and batteries, and explore the integration of on-site renewable energy generation with batteries and vehicle to grid technology to manage our peak energy demand charges and reduce energy costs, while increasing our resiliency.

Looking ahead, a greater focus on our consumption-based and embodied emissions and our corporate waste generation will present opportunities for further efficiencies, potential cost savings and climate benefits, and testing emerging technologies, such as building integrated photovoltaic (BIPV) energy systems, as they develop.

IMPROVING RESILIENCE

The District is committed to protecting and preparing its assets in a changing climate and helping the community cope with extreme weather events by implementing the recommendations from the Climate Risk Assessment for Municipal Assets and embedding it within our corporate Asset Management Plans and budgeting processes.

This will include continuing to upgrade Saanich buildings to improve cooling capacity and air filtration to address extreme heat and wildfire smoke events, and to ensure the right programs and procedures are in place to maintain employee comfort and safety alongside effective service delivery during extreme weather events.

As climate impacts progress and change over time, the District will need to ensure we adequately monitor and report on extreme weather events and their implications and update the Climate Risk Assessment for Municipal Assets accordingly.

Did you know?
The building retrofit upgrades at Cedar Hill Recreation Centre have reduced energy use by 25% and greenhouse gas emissions by 50% over the last 3 years at this building.

How We'll Get There: Strategies and Actions

Climate actions are presented under each of the Leadership in District Operations strategies below.

Strategy L1: Integrate climate action into Saanich processes and decision-making

L1.1 Monitor and track climate related extreme weather events and their impacts to Saanich

Establish a monitoring and reporting process for data and information related to extreme weather events that impact Saanich, to include the type of event, duration, financial costs (corporate and public), additional staff time and resources, remediation costs, impact to assets (including natural assets) and services, and other impacts etc. Programs that monitor specific climate metrics should also be explored, including:

- a review of the existing regional weather station program and data, and recommendations for improvements;
- the monitoring and recording of areas subject to annual flooding (from both overland and coastal flooding);
- an approach for continued rainfall gauge data collection and integration with the Supervisory Control and Data Acquisition (SCADA) system; and
- updates to the regional Extreme Heat Map and Information Portal.

L1.2 Regularly update the corporate climate risk assessment

Update the corporate climate risk assessment every five years to inform the development of updated Asset Management Plans, the Saanich Risk Register and the Climate Plan, and support alignment across the District. Integrate the latest regional climate projections and local climate data.

L1.3 Integrate climate change costs and risks into Asset Management Plans and budget considerations

Use climate mitigation and adaptation cost information (Action L1.1) alongside climate projections and corporate climate risk assessment findings to inform the Capital and Operating Forecasts in the Asset Management Plans and related budgeting, in order to increase the organization's resiliency to climate change and maximize our avoided costs.

L1.4 Develop and update corporate procedures to increase climate resiliency

Develop programs and procedures to increase corporate resiliency in preparation for extreme weather events, including:

- exploring changes to operational or work procedures during extreme heat events and associated cost-benefits e.g. moving construction to the early morning, late evening or overnight and training on new PPE (Personal Protective Equipment) used in hotter locations;
- planning for increased staff capacity to respond to impending events e.g. forecasted atmospheric rivers or extreme heat events;
- incorporating climate projections and changed demands in the design of corporate infrastructure, upgrades and replacements, and moving towards a more predictive maintenance approach in asset management planning;
- establishing a stock of necessary materials for natural disaster and emergency response; and
- developing a more effective and potentially automated communication system with staff during emergencies (e.g. regarding scheduling and work requirements).

L1.5 Embed climate considerations into decision making

Build upon previous work and industry best practice to embed consideration of operational and embodied GHG emissions, climate resiliency and life cycle costs into the design for major building retrofits and new building construction.

L1.6 Increase maintenance funding to mitigate the impacts of extreme weather events

Explore the business case and co-benefits of increasing maintenance funding to mitigate the impacts of extreme weather events and avoid resulting costs, including for example:

- incorporating climate change projections into the development of standards and guidance for Saanich Parks' tree planting and maintenance, specifically identifying additional tree maintenance and hazardous tree evaluations required with increased drought, extreme storm and precipitation events;
- increasing annual maintenance funding for natural areas maintenance including restoration planting and invasive species management;
- increasing the annual funding for pavement crack sealing and grading to allow delivery of this preventative maintenance program in the Fall in addition to Spring;
- investigating the operation and maintenance requirements for existing District owned, large stormwater management facilities; and
- investigating the cost/benefit of increasing funding for the yearly preventative maintenance programs for stormwater systems.

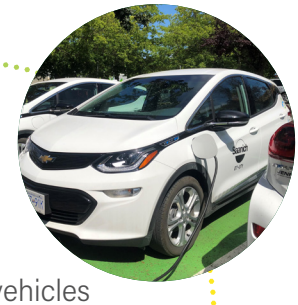
Did you know? Staff have been working to upgrade streetlights across the District, replacing over 9250 aging High Pressure Sodium (HPS) lights with higher efficiency Light Emitting Diode (LED) lights, decreasing Saanich's monthly BC Hydro Bill by $21k.

L1.7 Identify and establish new, long-term funding opportunities

Identify and pursue alternative sources of funding for climate action, particularly where wealth and accountability reside, including:

- continued pursuit of government, utility, foundation and other grants;
- action to recover climate-change related costs from accountable organizations such as fossil fuel companies;
- developing new utility services such as a stormwater utility; and
- advocacy to other orders of government for modernized legislation and funding models and greater policy driven alternative funding mechanisms such as expansion of the successful Low Carbon Fuel Standard credit program, increase in 'Polluter-Pays' requirements (e.g. Extended Producer Responsibility programs), use of capital rebalancing mechanisms or accumulated assets contributions for the extremely wealthy, and a redistribution of these funds to local governments.

Continue to re-invest savings from energy projects into future climate related actions.



Did you know?
The District of Saanich currently operates 44 electric vehicles for municipal operations, helping reduce fuel use by about 80%, and delivering roughly $500,000 in fuel savings over the estimated service life of the vehicles.

L1.8 Review and ensure alignment of financial institution and investment choices with the Sustainable Saanich Vision and goals

Align our financial institutions and investment choices with sustainability by:

- transiting to financial institutions with strong, demonstrated commitments to the Principles for Responsible Banking or similar sustainability frameworks;
- defining ESG (Environmental, Social and Governance) requirements in Requests for Proposals (RFPs) when selecting banking partners;
- mandating that partner banks provide regular ESG and carbon footprint reports for their lending and investment portfolios; and
- divesting from high-emissions assets.

L1.9 Explore actions to minimize the climate impacts of AI

Explore measures to minimize the climate impact of AI use, recognizing that AI can offer many benefits related to climate action and that data centres are located outside of Saanich, which limits our ability to regulate energy use. Strategies may include the development of policies that limit use of AI to work that demonstrates strong benefits and give preference to solutions that use less energy intensive models etc.

L1.10 Showcase success and share lessons learned

Showcase successful projects and share lessons learned with other local governments, businesses and organizations across BC and beyond to increase knowledge, accelerate progress and uptake, raise awareness and galvanize support for future initiatives through increased stakeholder buy-in.

Strategy L2: Become a climate-friendly employer

L2.1 Finalize and implement a Climate-Friendly Commuter Program

Finalize and implement a Climate-Friendly Commuter Program that aims to achieve more affordable, sustainable, and healthy commuting for Saanich staff and which encourages staff to shift towards walking, cycling, public transit, carpooling and electric vehicles (EVs).

L2.2 Implement a training and capacity building program

Continue targeted training and education on specific aspects of climate change that relate to cross-departmental work and expand education programs for staff to include climate literacy and the financial and wellness benefits associated with climate adaptation and mitigation, and consumption-based emissions reduction opportunities. Further support staff in understanding how the Official Community Plan (OCP) Sustainable Saanich vision relates to their roles and daily work.

L2.3 Support a culture of sustainability

Recognize staff that support a culture of sustainability by showcasing and celebrating innovation and successes.

Strategy L3: Transition to efficient, renewably-powered and resilient vehicles and equipment

L3.1 Increase the resiliency of the Saanich fleet

Incorporate findings from the Climate Risk Assessment of Municipal Assets into implementation of the Zero Emission Fleet Strategy and fleet operations, including:

- exploring emergency alternative fuel delivery methods in the event of a closure on the Malahat supply route due to extreme weather events, in collaboration with other local governments and large buyers in the region;
- establishing a fueling prioritization process in the region in the event of fuel shortages and exploring the potential expansion of on-site fuel storage at key corporate locations;
- exploring options for improved HVAC systems, air filtration, cooling and other strategies in vehicle bays and fleet centres;
- exploring options for novel cooling PPE equipment to support staff repairing vehicles;
- exploring the cost-benefit of purchasing vehicles with enclosed cabs and air conditioning during vehicle replacements;
- right sizing vehicles and equipment where applicable; and
- continuing to electrify our fleet to lower the dependency and use of both gasoline and diesel and manage electrical load sharing to reduce usage during peak periods.

L3.2 Expand the E-bike Pool Fleet program

Identify additional needs and opportunities to expand the Saanich E-Bike Pool Fleet program across the District, including reducing barriers to entry and evaluating additional operational uses such as cargo e-bikes and trailers for additional capacity and cost savings.

L3.3 Transition to zero emission equipment

Identify and implement a cost-effective electrification pathway for equipment that meets service delivery needs, maximizes health co-benefits for staff and the community, while transitioning to zero emissions by 2040. This will follow industry best practices and be informed by learnings from our municipal peers and the implementation of new equipment pilots.

Dependency 3.1 Implement the Zero Emission Fleet Strategy to reduce corporate vehicle emissions

Implement the Zero Emissions Fleet Strategy; transforming Saanich's corporate fleet to 100% renewable energy with a focus on electric vehicles (EVs) supported by the interim use of renewable combustion fuels (such as renewable diesel). Share data and lessons learned, including from any pilots of medium and heavy-duty commercial EVs, to support the transition to EVs in other private and public fleets in the region and across BC.

Strategy L4: Continue to transition to efficient, renewably-powered and resilient municipal buildings

L4.1 Transition to highly efficient and renewably-powered existing municipal facilities

Continue to improve efficiency and transition to renewable energy at existing municipal facilities, prioritizing electrification of buildings, with additional energy from on-site solar and other renewables, the integration of battery storage, and the use of renewable natural gas (RNG) where hard to electrify. Integrate the need for electric fleet and equipment charging at each site and consider embodied emissions and the health impacts of materials used. Support this through continuous optimization, energy efficiency measures, retro-commissioning, operational cost savings and implementation of Saanich's Strategic Energy Management Plan (SEMP). Evaluate the need for a more comprehensive Corporate Building Retrofit Strategy to guide this work and ensure integration in the Saanich Facilities Asset Management Plan and the updated Strategic Facilities Masterplan.

L4.2 Design all new District facilities to be 100% renewable and Zero Carbon

Design all new District facilities to maximize energy efficiency and be fully powered by renewable energy, prioritizing electrification first and incorporating future fleet Electric Vehicle (EV) charging needs – minimizing operational costs, local air pollution, and GHG emissions. Evaluate alternative construction contract vehicles that promote the inclusion of guaranteed energy savings, energy-performance commissioning and Measurement & Verification (M&V) procedures, such as Energy Savings Performance Contracts (ESPC).

L4.3 Minimize embodied emissions from new facilities

Adopt a Whole-Building Lifecycle Assessment (WBLCA) approach to quantify and reduce embodied carbon for new facilities, aligned with best practices in this area (i.e. zero carbon building certifications) and update the Saanich Green/Sustainable Building Policy accordingly.

L4.4 Increase on-site renewable energy generation and battery storage at District facilities

Pilot renewable energy generation and storage projects to increase electrical savings, offset operating costs and increase resiliency across municipal facilities. Pilot electric vehicle (EV) to building/grid technology for electric fleet vehicles, enabling fleet vehicles to power buildings and other EVs. Partner with BC Hydro, educational

institutions and other organizations and maximize grant funding. Share data and lessons learned to support the transition to on-site renewable energy generation and storage in other private and public buildings in the region and across BC.

L4.5 Increase the resiliency of District facilities

Complete and maintain an inventory of cooling and advanced air filtration spaces in District facilities and prioritize locations for upgrades.

Implement retrofits to ensure access to cooling and clean air during extreme heat or air quality advisory events for municipal staff and the public, based upon the most recent climate projections and BC Centre for Disease Control (CDC) standards.

Pilot an integrated and harmonized Saanich FireSmart and Naturescaping program on appropriate District facilities to inform improvements to the program and increase resiliency to wildfire risks (see Action C1.2). Explore the opportunity for the integration of other sustainable building features such as greywater recycling.

L4.6 Expand building monitoring, benchmarking and optimization

Employ technology, including digital and advanced building monitoring systems, where appropriate, to monitor indoor temperatures and air quality across Saanich facilities.

Expand current benchmarking and reporting to track key parameters and inform data analysis for building performance to support improved municipal facilities and evaluate future operational and capital decisions. Augment this with occupant feedback surveys. Key parameters and targets can include energy, water, indoor air quality, cooling, occupant comfort, waste diversion and embodied carbon.

Strategy L5: Reduce waste and implement a circular economy approach throughout District operations

L5.1 Increase waste diversion across the organization

Enhance waste diversion and collection streams at all District facilities and identify opportunities for reducing waste and achieving associated cost savings within operations and service delivery.

L5.2 Model zero-waste and low-carbon diets in Saanich meetings and events

Demonstrate leadership by eliminating single-use items, opting for plant-based foods and striving for zero waste at all Saanich meetings, festivals and events, including those held by external organizations at Saanich parks and facilities.

L5.3 Support and monitor implementation of the updated Saanich Sustainable Procurement Policy and Guidelines

Support implementation of the Saanich sustainable procurement policies, guidelines, and tools to ensure the District is using its purchasing power to minimize waste and consumption and increase efficiencies.

L5.4 Pilot low impact materials, products and processes

Collaborate with District departments to pilot new or alternative products, services, construction processes, and materials that reduce consumption, waste and the corporation's overall climate impact, while also improving efficiency and reducing costs (e.g. optimized designs that reduce overall material use, adaptive design and building reuse, building deconstruction, offsite modular construction, salvaged or recycled materials, and low embodied carbon materials). Identify opportunities to scale existing circular initiatives across the District's construction, planning and infrastructure work.

Dependency L5.1 Implement the Saanich Zero Waste Strategy

5 Plan Implementation & Monitoring

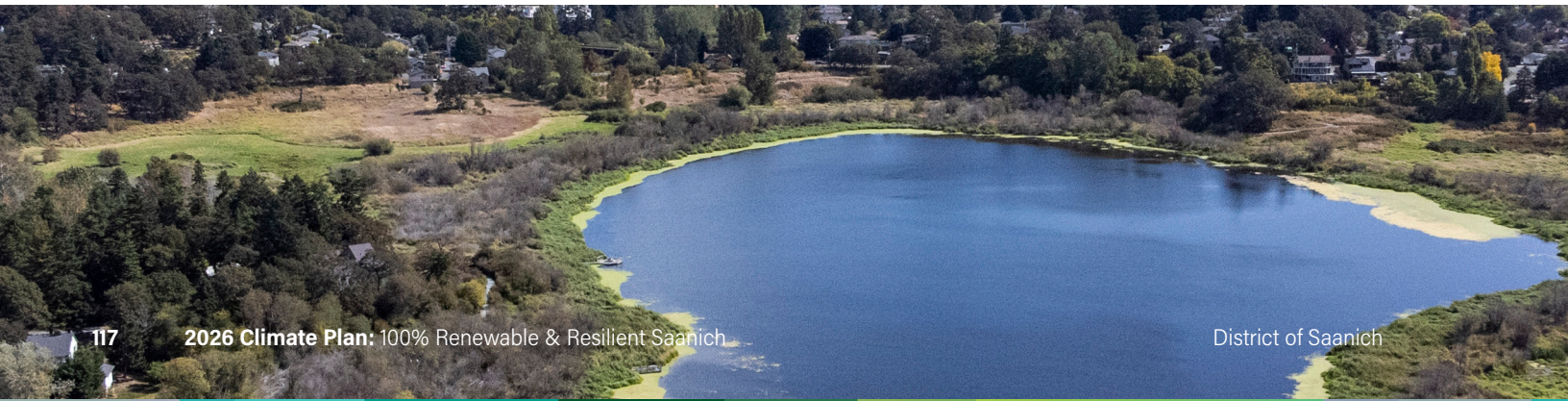
5.1 IMPLEMENTATION, MONITORING & REPORTING PROCESS

This Plan identifies 98 actions associated with each of the six Focus Areas (outlined in Section 4) to meet the District of Saanich's climate goals. The tables in Section 5.2 provide a summary of all actions, including their implementation timelines and the lead Saanich departments.

The actions are focused primarily on the next five years of Plan implementation (2026-2030) because we can more accurately predict and control this period of implementation and it aligns with the rapid, transformational change that is needed to meet our 2030 targets. The implementation plan will be reviewed and may be adjusted periodically, if necessary, to ensure that the most impactful actions are pursued. In 2030, the Climate Plan will be updated again to reflect new conditions, new challenges and new opportunities and this will be informed by updated corporate and community climate risk and hazard assessments.

The internal, cross-departmental climate working group will continue to guide implementation of the Climate Plan, and ensure that climate action continues to be an important and integral part of District planning and priority-setting. Transparency and accountability will continue to be key to the success of the Climate Plan and the District will continue to report publicly on progress through the annual Climate Plan Report Card.

While more than half of the Climate Plan actions can be undertaken without additional resources, some actions would require additional capital or operating funding, and many actions will result in cost savings and/or avoided costs. As actions are developed, a comprehensive business case is undertaken on a project by project basis, informed by data and analysis. This would include for example, full life cycle costs, financial savings, operational savings, payback period, external funding sources (e.g. grants), cost sharing opportunities, revenue generation, consideration of co-benefits etc. It is important to note that many actions have short payback periods and actually provide financial savings for the municipality and/or community. There are also multiple sources of external funding that will be maximized. This data would be used to inform any resource requests presented to Council through the annual budgeting process.



District of Saanich

5.2 IMPLEMENTATION PLAN

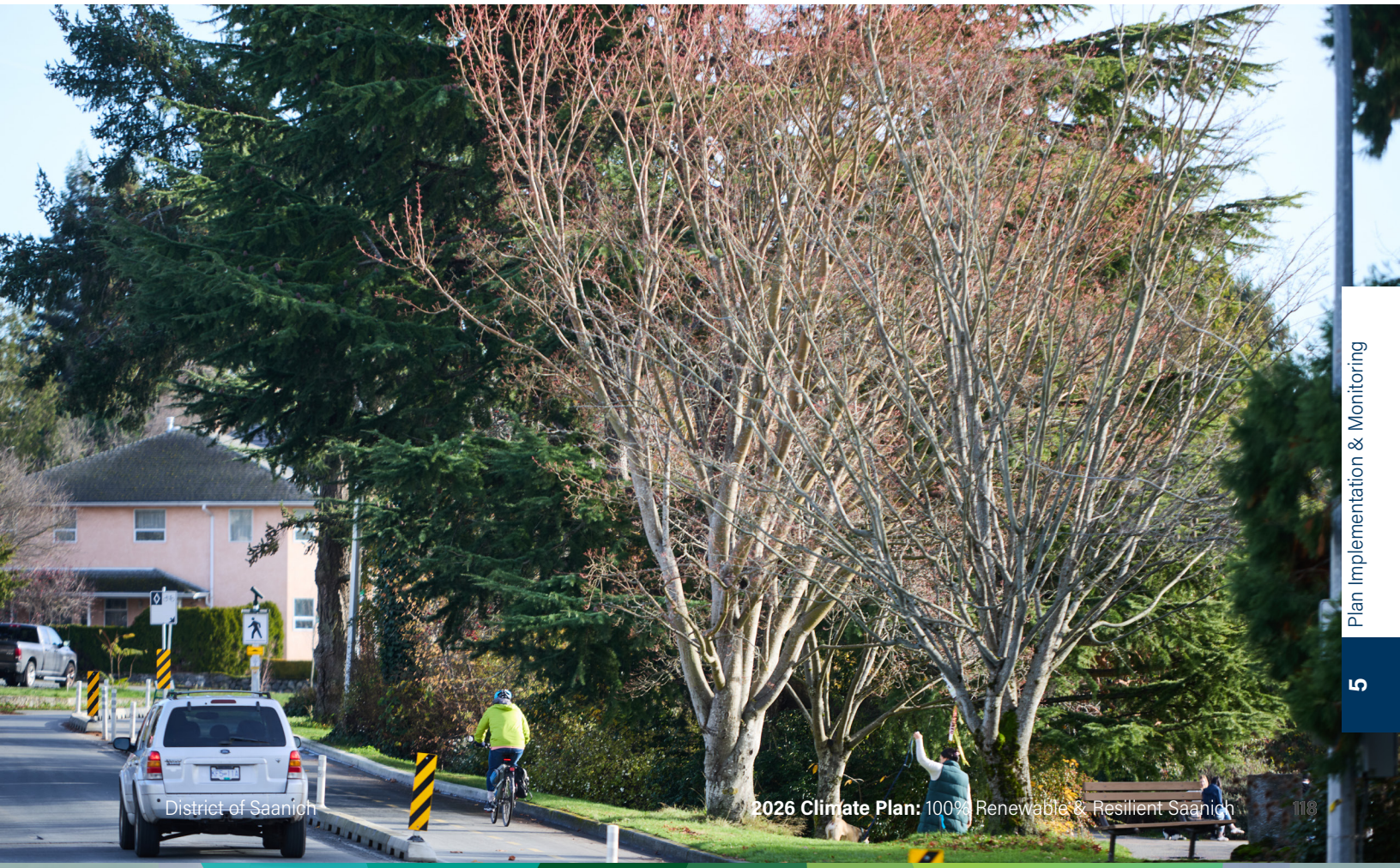
This section includes tables that outline the implementation timelines and lead Saanich department for each action, categorized under the strategies within each of the Plan's six focus areas:

1. Transportation & Land Use
2. Buildings
3. Food, Consumption & Waste
4. Ecosystems
5. Community Well-being
6. Leading by Example

Action timelines were developed and prioritized based on the following criteria:

- Urgency and window of opportunity - based on such considerations as the estimated time to achieve results, alignment with legislation from other levels of government, funding or partnership opportunities, payback periods/cost savings, data availability, market conditions, readiness of technology etc.;
- Potential GHG emissions reductions;
- Potential for climate risk mitigation (i.e. improved adaptation and resiliency); and
- Co-benefits and alignment with other Saanich strategic priorities.

Amendments may be made to action implementation timelines and priorities based upon opportunities, such as new external funding, opportunities for cost sharing and/or collaboration, market transformation etc.



TRANSPORTATION & LAND USE

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy T1: Implement sustainable land use patterns					
T1.1	Incorporate climate change projections and adaptation needs into land use decisions		●	Planning & Sustainability	2026 (ongoing)
T1.2	Develop and deliver communications and educational resources to combat misinformation and support the community to take action	●	●	Sustainability	2026 (ongoing)
T1.3	Complete the District's comprehensive update to Off-Street Parking and Loading Regulations	●		Planning	2025 (2027)
T1.4	Develop policies and resources for parking management and enforcement	●	●	Transportation, Sustainability & Finance	2029 (2031)
Dep. T1.1	*Dependency T1.1: Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas*	●	●	*Planning*	-
Strategy T2: Increase Active Transportation Uptake					
T2.1	Advocate for significant investment in active transportation infrastructure and programs	●	●	Transportation & Finance	2026 (ongoing)
T2.2	Support the increased use of e-bikes and other micro-mobility devices in the community	●		Sustainability	2027 (ongoing)
T2.3	Update bicycle parking requirements for new development	●		Planning	2025 (2027)
T2.4	Implement a program to deliver increased bicycle parking in existing buildings	●		Sustainability	2027 (2030 ongoing)
Dep. T2.1	*Dependency T2.1: Implement the Active Transportation Plan and Road Safety Action Plan within or before the identified Plan timeframes*	●		*Transportation & Finance*	-

TRANSPORTATION & LAND USE

Strategy T3: Support transit and multi-modal transportation options					
T3.1	Advocate to the Victoria Regional Transit Commission (VRTC), the Capital Regional District (CRD), and the Province to accelerate transit service expansion and investment	●	●	Transportation	2026 (ongoing)
T3.2	Identify and fund Saanich projects to improve transit service	●	●	Transportation & Finance	2027 (2030)
T3.3	Collaborate and support the development of new facilities to enable transit growth	●		Transportation	2027 (2029)
T3.4	Support efforts to electrify transit	●	●	Sustainability	2026 (ongoing)
T3.5	Support car share services	●	●	Transportation	2026 (ongoing)
Strategy T4: Embed climate resilience into the active transportation network					
T4.1	Integrate climate adaptation measures into transportation projects		●	Transportation, Sustainability & Parks	2026 (ongoing)
Strategy T5: Accelerate electric vehicle adoption					
T5.1	Update the Electric Mobility Strategy	●		Sustainability	2028
T5.2	Deliver a robust public EV charging network	●	●	Sustainability	ongoing
T5.3	Support access to charging for residents in multi-family buildings	●	●	Sustainability	2026
T5.4	Work with local organizations and businesses to reduce emissions from fleets and employee commuting	●		Sustainability	2027
T5.5	Seek opportunities to foster and support innovation in the transition to a resilient, low carbon and healthy transportation system	●	●	Sustainability	2026 (ongoing)
T5.6	Advocate to senior levels of government for programs and policy to support rapid uptake of EVs	●	●	Sustainability	2026

BUILDINGS

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy B1: Create a strong foundation for the transition to an efficient, resilient, and electrically-powered building stock					
B1.1	Improve data quality and access through data reporting programs, improved tracking processes, partnerships and advocacy	●	●	Sustainability	2026
B1.2	Advocate to the Province, BC Hydro and other partners to adopt and communicate a clear and integrated vision and pathway for efficient electrification in BC	●	●	Sustainability	2026 (2027)
B1.3	Identify and remove municipal barriers to a sustainable building stock	●	●	Sustainability	2026
B1.4	Develop and deliver communications and educational resources to combat misinformation and support the community to take action	●	●	Sustainability	2026
Strategy B2: Require efficient, net-zero carbon new construction					
B2.1	Continue to achieve low-carbon new buildings through implementation of the Zero Carbon Step Code	●	●	Sustainability	ongoing
B2.2	Develop regulatory tools or incentive programs to achieve net-zero energy or zero carbon new construction	●	●	Sustainability	2027 (2029)
B2.3	Develop policy and tools to support the measurement and reduction of embodied carbon in new construction	●		Sustainability	2028 (2030)
B2.4	Advocate for the use of future weather files in the design of new buildings	●	●	Sustainability	2026 (ongoing)
Dep. B2.1	*Dependency B2.1 Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas*	●	●	*Planning*	-

BUILDINGS

Strategy B3: Accelerate zero-carbon, energy efficiency and resiliency in existing buildings					
B3.1	Deliver programs and supports to accelerate building retrofits and electrification, and address remaining gaps	●	●	Sustainability	2026 (ongoing)
B3.2	Expand the successful Saanich Heat Pump Financing Program and advocate for Provincial Property Assessed Clean Energy (PACE) financing legislation and support	●	●	Sustainability	2026
B3.3	Implement municipal policy and legislation to ensure a low-carbon, resilient and energy efficient building stock	●	●	Sustainability	2027 (2029)
B3.4	Advocate to the Province for the policy needed to effectively regulate emissions and ensure thermal safety in existing buildings, as well as the programs and supports to ensure a successful transition.		●	Sustainability	2026 (ongoing)
B3.5	Explore the use of municipal bylaws to ensure equitable access to mechanical cooling	●		Sustainability, Inspections	2028 (2030)
B3.6	Seek opportunities to foster and support market development and innovation in the transition to a resilient, low carbon and healthy building stock	●	●	Sustainability	2027 (ongoing)
B3.7	Identify measures to reduce air quality impacts from residential wood burning		●	Sustainability	2030 (2031)
Dep. B3.1	*Dependency B3.1: Implement the Building Retrofit Strategy, and update it as needed*	●	●	*Sustainability*	-
Strategy B4: Increase energy resiliency and renewable energy supply					
B4.1	Accelerate the installation of solar and other on-site renewables	●	●	Sustainability	2028 (ongoing)
B4.2	Work with BC Hydro and other partners to support grid capacity and resilience	●	●	Sustainability	2026 (ongoing)
B4.3	Support development of local Renewable Natural Gas production for use in hard to electrify sectors	●		Sustainability	2029
B4.4	Assess opportunities to support the development of Thermal Energy Networks (TENs, also known as District Energy)	●		Sustainability	2030

FOOD CONSUMPTION & WASTE

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy F1: Reduce the climate impact of food production and consumption					
F1.1	Reduce emissions from local food production	●		Sustainability	2026 (ongoing
F1.2	Encourage residents to choose low-carbon foods and reduce food waste	●		Sustainability	2026 (ongoing)
F1.3	Encourage food service establishments to reduce GHG emissions from their operations	●		Sustainability	2027 (2029)
Strategy F2: Improve the resiliency and self-sufficiency of the local food system					
F2.1	Work with partners to better understand our reciprocal relationship with the land and the climate change risks and opportunities for local agriculture and food production	●	●	Sustainability	2026 (ongoing)
F2.2	Work with partners to identify and address farmers' and local food growers' barriers to adapting to a changing climate	●		Sustainability	2026 (ongoing)
F2.3	Explore options to connect local farmers and food growers to agricultural inputs	●	●	Sustainability	2026 (2027)
Dep. F2.1	*Dependency F2.1: Update and Implement the Saanich Agriculture & Food Security Plan*	●	●	*Planning*	-
Strategy F3: Move towards "lighter living" and a circular economy in saanich					
F3.1	Work with partners on circular economy initiatives	●		Sustainability	2026 (ongoing)
F3.2	Mobilize residents and businesses towards "lighter living"	●		Sustainability	2026 (ongoing)
Dep. F3.1	*Dependency F3.1: Implement the Saanich Zero Waste Strategy*	●		*Sustainability*	-

ECOSYSTEMS

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy E1: Protect and manage natural assets as critical infrastructure					
E1.1	Protect and expand the urban forest and green infrastructure	●	●	Parks	2026 (ongoing)
E1.2	Restore natural areas to increase climate resiliency		●	Parks	2026 (ongoing)
L1. 3	Embed the value of natural assets into decision making	●	●	Parks & Sustainability	2026 (ongoing)
L1.4	Regularly measure, monitor and report on natural assets	●	●	Parks & Sustainability	2026 (2027 – for process and start)
Dep E1.1	*Dependency E1.1: Implement the Urban Forest Strategy*	●	●	*Parks*	-
Dep E1.2	*Dependency E1.2: Implement the Biodiversity Conservation Strategy*	●	●	*Parks*	-
Strategy E2: Enable natural assets to thrive and adapt in a changing climate					
E2.1	Monitor changes in natural assets in response to climate change		●	Parks	2026 (ongoing)
E2.2	Amend management and maintenance practices for trees, native species and ecosystems to adapt to climate change	●	●	Parks	2027 (ongoing)
E2.3	Support cultural fire management practices		●	Parks	2026 (ongoing)

COMMUNITY WELL-BEING & RESILIENT INFRASTRUCTURE

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy C1: Transition towards climate-ready infrastructure					
C1.1	Update wildfire risk mapping and resiliency plans		●	Fire	2026 (2027)
C1.2	Develop a FireSmart program aligned with biodiversity goals		●	Fire & Parks	2026 (2027)
C1.3	Embed green infrastructure in public and private infrastructure and development		●	Water Resources & Sustainability	2029 (2030)
C1.4	Integrate climate adaptation measures into asset and infrastructure design, project planning and management		●	Sustainability, Parks, Recreation & Engineering	2027 (2029)
C1.5	Complete a District wide landslide risk assessment		●	Sustainability	2027 (2028)
C1.6	Support residents and building owners to increase the climate resiliency of their buildings and property		●	Sustainability	Ongoing
C1.7	Explore the development of a drainage utility service		●	Water Resources	Ongoing
Dep. C1.1	*Dependency C1.1: Develop and Implement the Integrated Stormwater Management Plans*		●	*Water Resources*	-
Dep C1.2	*Dependency C1.2: Develop and Implement Asset Management Plans*		●	*Engineering*	-
Strategy C2: Prepare for long-term sea-level rise					
C2.1	Update sea-level rise related data and mapping		●	Sustainability	2026 (2027 and ongoing)
C2.2	Develop and implement Coastal Flood Adaptation Strategies		●	Sustainability	2026 (2029)
C2.3	Update land-use and development policies, guidelines and bylaws to increase resiliency to overland flooding and sea-level rise		●	Sustainability & Water Resources	2027 (2030)

COMMUNITY WELL-BEING & RESILIENT INFRASTRUCTURE

Strategy C3: Ensure all saanich community members are resilient to climate change					
C3.1	Regularly update the community climate risk assessment		●	Sustainability	2029 (2030)
C3.2	Apply an equity lens		●	Sustainability	2026 (ongoing)
C3.3	Continue to work with partners to identify proactive resiliency measures and coordinated responses		●	Sustainability, Fire	2026 (ongoing)
Dep. C3.1	*Dependency C3.1: Implement the Official Community Plan (OCP) and ensure Centre, Corridor and Village Plans align with the OCP to facilitate more compact development in the Primary Growth Areas*	●	●	*Planning*	-
Strategy C4: Empower saanich residents and businesses to take climate action					
C4.1	Improve community climate adaptation knowledge and data sharing		●	Sustainability	2026 (ongoing)
C4.2	Seek opportunities to work with local First Nations	●	●	Sustainability, Parks	2026 (ongoing)
C4.3	Identify opportunities to support local economic development aligned with climate action	●	●	Sustainability, Economic Development	2026 (ongoing)
C4.4	Expand neighbourhood-level climate resiliency programs		●	Sustainability	2026 (ongoing)
C4.5	Partner with research organizations	●	●	Sustainability	2026 (ongoing)

LEADERSHIP IN DISTRICT OPERATIONS

Action #	Action Title	Mitigation	Adaptation	Lead Department/ Division	Initiation Timeline (completion)
Strategy L1: Integrate climate action into saanich processes and decision-making					
L1.1	Monitor and track climate related extreme weather events and their impacts to Saanich		●	Sustainability	2027 (ongoing)
L1.2	Regularly update the corporate climate risk assessment		●	Sustainability	2030 (2030)
L1. 3	Integrate climate change costs and risks into Asset Management Plans and budget considerations		●	Sustainability	2026 (ongoing)
L1.4	Develop and update corporate procedures to increase climate resiliency		●	Sustainability	2027 (2029)
L1.5	Embed climate considerations into decision making	●	●	Sustainability	2027 (2029)
L1.6	Increase maintenance funding to mitigate the impacts of extreme weather events		●	All asset group managers	2027 (ongoing)
L1.7	Identify and establish new, long-term funding opportunities	●	●	Sustainability	2026 (ongoing)
L1.8	Review and ensure alignment of financial institution and investment choices with the Sustainable Saanich Vision and goals	●	●	Finance, Sustainability	2028 (2030)
L1.9	Explore actions to minimize the climate impacts of AI	●		IT	2027 (ongoing)
L1.10	Showcase success and share lessons learned	●	●	Sustainability	2026 (ongoing)
Strategy L2: Become a climate-friendly employer					
L2.1	Finalize and implement a Climate-Friendly Commuter Program	●		HR, Municipal Facilities	2026
L2.2	Implement a training and capacity building program	●	●	All departments	2027
L2.3	Support a culture of sustainability	●	●	Communications	2026

LEADERSHIP IN DISTRICT OPERATIONS

Strategy L3: Transition to efficient, renewably-powered and resilient vehicles and equipment					
L3.1	Increase the resiliency of the Saanich fleet		●	Fleet Services, Parks, Sustainability	2027 (ongoing)
L3.2	Expand the E-bike Pool Fleet program	●		Sustainability	2028 (2029)
L3.3	Transition to zero emission equipment	●		Sustainability	2027 (ongoing)
Dep. 3.1	*Dependency 3.1: Implement the Zero Emission Fleet Strategy to reduce corporate vehicle emissions*	●		*Fleet Services, Sustainability, Fire, Police*	
Strategy L4: Continue to transition to efficient and renewably-powered, resilient municipal buildings					
L4.1	Transition to highly efficient and renewably-powered municipal facilities	●	●	Municipal Facilities & Sustainability	2026 (ongoing)
L4.2	Design all new District facilities to be 100% renewable and Zero Carbon	●	●	Strategic Facilities Planning	2026 (ongoing)
L4.3	Minimize Embodied Emissions from new facilities	●		Strategic Facilities Planning	2026 (ongoing)
L4.4	Increase on-site renewable energy generation and battery storage at District facilities	●	●	Sustainability, Municipal Facilities	2026 (ongoing)
L4.5	Increase the resiliency of municipal facilities with climate change		●	Municipal Facilities & Sustainability	2026 (ongoing)
L4.6	Expand building monitoring, benchmarking and optimization	●	●	Sustainability & Municipal Facilities	2026 (ongoing)
Strategy L5: Reduce waste and implement a circular economy approach throughout District operations					
L5.1	Increase waste diversion across the organization	●		Sustainability, Municipal Facilities	2026 (2028)
L5.2	Model zero-waste and low-carbon diets in Saanich meeting and events	●		Sustainability	2026 (ongoing)
L5.3	Support and monitor implementation of the updated Saanich Sustainable Procurement Policy and Guidelines	●	●	Finance & Sustainability	2026 (2026)
L5.4	Pilot low impact materials, products and processes	●		Sustainability	2026 (ongoing)
Dep 5.1	*Dependency 5.1 Implement the Saanich Zero Waste Strategy*	●		*Sustainability*	

GLOSSARY

Adaptation Actions taken to help our community cope with or adjust to a changing climate. Contrasted with mitigation.

Assisted Migration Human intervention to assist in the movement of organisms in response to climate change to locations deemed more suitable.

Biofuel A fuel (solid, liquid or gas) derived from renewable biological sources that can be replenished readily, unlike fossil fuels that are replenished on a much longer timescale. Biofuels can include biodiesel, syngas, wood, bio-ethanol, and other fuels.

Biogeoclimatic zone Geographic area featuring similar plant life, soils and climate characteristics.

Carbon Dioxide Equivalent A unit that allows different greenhouse gases, which have different global warming potentials over a set amount of time, to be compared against each other.

Carbon Sequestration Natural or technological processes that provide longer-term storage of carbon dioxide from the atmosphere.

Circular Economy Minimizing waste and using waste as a resource (in contrast to a linear economy from production to use and disposal).

Climate Change In the context of this report, climate change refers to the effects of burning fossil fuels and emitting other greenhouse gasses (including methane and refrigerants), which trap increasing amounts of the sun's energy in our atmosphere, causing potentially serious and rapid changes in the earth's climate.

Climate Projections Anticipated changes in temperature, precipitation, extreme weather events, etc., based on climate models.

Consumption-Based Emissions Inventory A tally of the greenhouse gas emissions resulting from production and consumption of goods and services within a region, regardless of where those goods and services are produced.

Embodied Emissions The greenhouse gas emissions produced in creating and delivering a particular material (e.g. infrastructure or consumable goods), including the energy used for extraction of raw materials, manufacturing and transportation of the end product.

Fossil Fuel Fuels such as coal, gasoline, natural gas, oil, diesel, etc. that are sourced from organic materials formed over a long geological time period.

Global Warming Potential The Global Warming Potential metric examines the ability of each type of greenhouse gas to trap heat in the atmosphere, compared to carbon dioxide (CO_2) and measured over a specified time horizon.

Greenhouse Gas A gas that contributes to climate change by trapping heat in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Mitigation Actions Actions taken to reduce climate change, primarily by reducing greenhouse gas emissions—contrasted with adaptation.

Net-Zero Carbon For the purposes of this report, net-zero carbon for our community means that territorial (GPC Basic +) greenhouse gas emissions minus carbon sequestration equals zero on an annual basis.

Net-Zero Energy In the context of a building, it is a building that produces as much energy as it consumes on an annual basis.

Renewable Energy Renewable energy is energy derived from natural processes (e.g. sunlight and wind) that are replenished at a faster rate than they are consumed.

Renewable Natural Gas (RNG) Renewable natural gas is biogas (primarily methane) that is produced from decomposing organic waste (from landfills, agricultural waste and wastewater from treatment facilities) and then purified to be used as an energy source.

Resilience Capacity to withstand and/or recover from hazards, risks and challenges associated with a changing climate.

Retrofit To improve an existing building's energy performance (including mechanical systems, such as space and water heating systems), and building envelope (including insulation, windows and doors, and air sealing).

Solar Photovoltaic System Panels that convert the sun's energy into electricity.

Solar Thermal System A system that harvests the sun's heat, usually for domestic water heating.

Stationary Energy Emissions from the energy used to heat, cool, and operate residential, commercial, and industrial buildings, including related energy losses, fugitive emissions, and some off-road equipment emissions.

Territorial Emissions Inventory A tally of the greenhouse gas emissions in a specific geographical region. In Saanich's case, we use the Global Protocol for CommunityScale Basic Plus (GPC Basic+) methodology. With regard to emissions from transportation, we choose to calculate emissions from Saanich registered vehicles.

Zero Emission Vehicle A vehicle that produces no tailpipe exhaust, such as a battery electric vehicle.

ACROYNYMS

AFOLU Agriculture, Forestry, Other Land Use (GPC Basic+ GHG Inventory category)

BAU Business as usual

CBEI Consumption-Based Emissions Inventory

CO_2e Carbon dioxide equivalent

GHG Greenhouse gas

GPC Global Protocol for Community-Scale Greenhouse Gas Emission Inventories

ICE Internal combustion engine (e.g. gas-powered car)

IPPU Industrial Processes and Product Use (GPC Basic+ GHG Inventory category)

RNG Renewable Natural Gas

Endnotes

1 Comeau, L. (2026). Canadians (still) care about climate change: Closing the perception gap on climate concern and action [Technical report]. Re.Climate. https://reclimate.ca/

2 Janzwood, A., Harrison, K., & Carter, A. (2026). Canada's climate policy crossroads: Supply-side pressures and competing energy futures. *The Extractive Industries and Society,* 25, 101793. https://doi.org/10.1016/j.exis.2025.11793

3 IRENA. (2025). Renewable power generation costs in 2024. International Renewable Energy Agency. https://www.irena.org/

4 BC Hydro. (2026). Ready when you are. https://www.bchydro.com/

5 Province of British Columbia. (2024). Powering our future: BC's clean energy strategy. https://www2.gov.bc.ca/

6 First Nations Leadership Council. (2022). BC First Nations Climate Strategy and Action Plan. https://fnlcclimatestrategy.ca

7 Assembly of First Nations. National Climate Strategy. https://afn.ca/environment/national-climate-strategy/

8 Island Health. (2025). Strengthening health and resilience in a changing climate: A primer for local governments. https://www.islandhealth.ca/sites/default/files/environment/documents/health-and-resilience-climate-report.pdf

9 Community Social Planning Council. (2026). Climate equity by design, Saanich: What we heard – climate impacts, adaptation, and resilience in Saanich. Prepared for the District of Saanich. https://www.saanich.ca/assets/Community/Documents/Planning/sustainability/Saanich-Climate-Equity-Report-Feb-2026.pdf

10 Province of British Columbia. DCRRA. https://climatereadybc.gov.bc.ca/pages/dcrra

11 University of British Columbia Faculty of Medicine. (2023). Climate change is increasing the risk of Lyme disease in Canada: Take steps to protect yourself. https://www.med.ubc.ca/news/climate-change-is-increasing-the-risk-of-lyme-disease-in-canada-take-steps-to-protect-yourself

12 Roth, D., Henry, B., Mak, S., Fraser, M., Taylor, M., Li, M., Cooper, K., Furnell, A., Wong, Q., & Morshed, M. (2010). West Nile virus range expansion into British Columbia. Emerging Infectious Diseases, 16(8), 1251–1258. https://doi.org/10.3201/eid1608.100483

13 Canadian Climate Institute. (2026). Prepare or Repair: How climate-proofing public infrastructure pays off. https://climateinstitute.ca/reports/prepare-or-repair-canada-infrastructure

14 Canadian Centre for Policy Alternatives, BC Office. (2026, January). Climate reckoning: The case for climate action in B.C. https://www.policyalternatives.ca/wp-content/uploads/attachments/ccpa-bc_Climate-Reckoning_web.pdf

15 Government of Canada. (2024). Government of Canada Adaptation Action Plan. https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy/action-plan.html

16 Comeau, L. (2026). Canadians (still) care about climate change: Closing the perception gap on climate concern and action [Technical report]. Re.Climate. https://reclimate.ca/

17 Hemingway, A. (2025). Worried about infrastructure costs? Then end the apartment ban. Canadian Centre for Policy Alternatives. https://www.policyalternatives.ca/news-research/housing-infrastructure

18 Abrams, Z. (2023). Study links adoption of electric vehicles with less air pollution and improved health. Keck School of Medicine of USC. https://keck.usc.edu/news/study-links-adoption-of-electric-vehicles-with-less-air-pollution-and-improved-health

19 University of Toronto Department of Civil & Mineral Engineering. (2023). New research reveals how large-scale adoption of electric vehicles can improve air quality and human health. https://civmin.utoronto.ca/new-research-reveals-how-large-scale-adoption-of-electric-vehicles-can-improve-air-quality-and-human-health/

20 Government of Iceland. Energy. https://www.government.is/topics/business-and-industry/energy/

21 European Environment Agency. (2025). Share of renewable energy in final energy consumption (Norway). https://www.eea.europa.eu

22 European Environment Agency. (2025). Share of renewable energy in final energy consumption (Sweden). https://www.eea.europa.eu

23 International Energy Agency. (n.d.). Brazil. https://www.iea.org/countries/brazil

24 Lauri Myllyvirta. (2025). Analysis: China's CO2 emissions have now been flat or falling for 18 months. Carbon Brief. https://www.carbonbrief.org

25 European Environment Agency. (2025). Total net greenhouse gas emission trends and projections in Europe. https://www.eea.europa.eu

26 Germanwatch. (2025). Climate Change Performance Index 2026. https://app.23degrees.io/view/usrnJFdjebBLsRRO-choro-overall-results

27 We look forward to learning **lək̓ʷəŋən** words and concepts that align with this guiding principle.

28 ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 1. The note states: "Where you can paddle to within your life." This concept is used to represent **W̱SÁNEĆ** territory.

29 ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 2. The note states: "Belief or law." The English concepts of "belief' and "law" are interchangeable in **SENĆOŦEN**.

30 ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 3. The note states: "Ancestor; tradition; heritage; birthright; speeches; history; what has been handed down through generations; and, something that belongs here."

31 ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 4. The note states: "Of the **W̱SÁNEĆ** People; or, of the **W̱SÁNEĆ** Lands." This term refers to the ways of the **W̱SÁNEĆ** people.

32 "ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 5. The note states: Ancestral, family name, birthright name." The ancestral names that establish **W̱SÁNEĆ** peoples' responsibilities to the land and water.

33 ÁTOL,NEUEL Memorandum of Understanding. (2021), n. 8. The note states: **SENĆOŦEN** for "To honour one another."

34 Intergovernmental Panel on Climate Change. (2022). Climate change 2022: Impacts, adaptation and vulnerability. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg2/

35 The 2020 Climate Plan did not report a decrease in emissions from our 2007 baseline. However, improvements in data sources and updates in methodologies since then have resulted in recalculations of the previous years inventories. More information is available about our territorial GHG inventories at https://www.saanich.ca/climateprogress

36 BC Hydro buys and sells electricity in the North American market, so we are also reliant on the larger grid to decarbonize in order to reach our targets.

37 Clean Energy Canada. (2025). Reality check: B.C. is ready for an electrified 2030, and it's good news for household energy bills and grid security. https://cleanenergycanada.org/report/reality-check/

38 Canadian Climate Institute. (2023). Heat Pumps Pay Off – Unlocking lower-cost heating and cooling in Canada. https://climateinstitute.ca/wp-content/uploads/2023/09/Heat-Pumps-Pay-Off-Unlocking-lower-cost-heating-and-cooling-in-Canada-Canadian-Climate-Institute.pdf

39 District of Saanich & CRD. (2023). Make the Switch: How upgrading from a natural gas furnace or boiler to a heat pump has cut costs and carbon pollution for British Columbia homeowners. https://saanich.ca/maketheswitch

40 Novak, E. (2019). Are electric vehicles the new economy cars? MoneySense. https://www.moneysense.ca/spend/shopping/auto/are-electric-vehicles-the-new-economy-cars/ (moneysense.ca)

41 Government of British Columbia, Ministry of Energy and Climate Solutions. (2026). Increasing B.C.'s electricity supply with new clean-energy proposals. BC Gov News. https://news.gov.bc.ca/releases/2026ECS0003-000056

42 Ritchie, H & Rosado, P. (2024). Battery costs have declined by 99% in the last three decades, making electrified transport a reality. Our World in Data. https://ourworldindata.org/battery-price-decline

43 Layne, R. (2026). Falling battery storage costs are quietly reshaping electricity markets. Working Knowledge. https://www.library.hbs.edu/working-knowledge/falling-battery-storage-costs-are-quietly-reshaping-electricity-markets

44 British Columbia Utilities Commission. (2024). Order G-77-24: FortisBC Energy Inc. biomethane energy recovery charge rate methodology and comprehensive review of a revised renewable gas program. https://www.ordersdecisions.bcuc.com/bcuc/orders/en/522191/1/document.do

45 International Energy Agency. (2025). Breakthrough Agenda Report 2025. https://www.iea.org/reports/breakthrough-agenda-report-2025/hydrogen

46 Government of British Columbia. (2025). CleanBC independent review final report. https://engage.gov.bc.ca/app/uploads/sites/121/2025/11/CleanBC-Independent-Review-Final-Report-November-2025.pdf

47 Capital Regional District. (2022). 2022 origin-destination household travel survey report. https://www.crd.ca/media/file/crd-2022-origin-destination-household-travel-survey-report

48 ICBC. Vehicle population data. Tableau Public. https://public.tableau.com/app/profile/icbc/viz/VehiclePopulationIntroPage/VehiclePopulationData

49 Our World in Data. Women's educational attainment vs. fertility. https://ourworldindata.org/grapher/womens-educational-attainment-vs-fertility

50 Patterson, K. P., Jameel, Y., Mehra, M., & Patrone, C. (2021. Girls' education and family planning: Essential components of climate adaptation and resilience [Policy brief]. Project Drawdown. https://drawdown.org/sites/default/files/Drawdown_Lift_Policy_Brief_Girls_Education_122121.pdf

51 CHRM Consulting, for the District of Saanich. (2023). Saanich 2021 consumption-based ecological and carbon footprint assessment. https://www.saanich.ca/climateplan

52 COTAP. Per capita CO2 emissions by country. https://cotap.org

53 World Population Review. HDI by country 2024. https://worldpopulationreview.com/country-rankings/hdi-by-country

54 Oxfam. (2023). Richest 1% emit as much planet-heating pollution as two-thirds of humanity. https://www.oxfam.org/en/press-releases/richest-1-emit-much-planet-heating-pollution-two-thirds-humanity

55 Call2Recycle Canada. EV battery recycling services. https://call2recycle.ca/programs/ev-battery-services/

56 Pacific Climate Impacts Consortium. Weather files. University of Victoria. https://www.uvic.ca/pcic/data-analysis-tools/data-portal/weather-files/index.php

57 This category includes 80% textiles, rubber, and non-demolition wood waste.

58 Turner, N. J., & Hebda, R. J. (2012). Saanich ethnobotany: Culturally important plants of the WSANEC people. Royal BC Museum..

59 FirstVoices **xʷsépsəm ləkʲʷáŋən**, https://www.firstvoices.com/lekwungen

60 FirstVoices **SENĆOŦEN**, https://www.firstvoices.com/sencoten

61 **SENĆOŦEN** Word List, https://sites.itservices.cas.unt.edu/~montler/saanich/wordlist/SaanichIndex.html

62 FirstVoices **xʷsépsəm ləkʲʷáŋən,** https://www.firstvoices.com/lekwungen

63 FirstVoices **SENĆOŦEN**, https://www.firstvoices.com/sencoten

64 **SENĆOŦEN** Word List**,** https://sites.itservices.cas.unt.edu/~montler/saanich/wordlist/SaanichIndex.html

65 Elliott, D., Sr. (1983). Saltwater people. Native Education, School District 63 (Saanich). https://wsanec.com/wp-content/uploads/2019/03/saltwater-people-1983-delliot-sr-compressed.pdf

66 W̱SÁNEĆ Leadership Council. (2020, March 10). The Clam Garden Restoration Project. https://wsanec.com/the-clam-garden-restoration-project

67 Recycle BC. (2025). Annual report 2024. https://recyclebc.ca/

68 District of Saanich. (2023). Tillicum neighbourhood history. Saanich Archives. https://saanich.ca/

69 Keddie, G. (1991). The legend of Camosun. Discovery, 4–5. Royal BC Museum.

70 Keddie, G. (2025, January). Camossung: Bridging two worlds. https://grantkeddie.com/2025/01/camossung-bridging-two-worlds/

71 Province of British Columbia. (2025). British Columbia disaster and climate risk and resilience assessment: Provincial report. Executive summary. https://nrs.objectstore.gov.bc.ca/xedyjn/Projects/2025/dcrra/DCRRA_execsummary_oct_2025.pdf

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