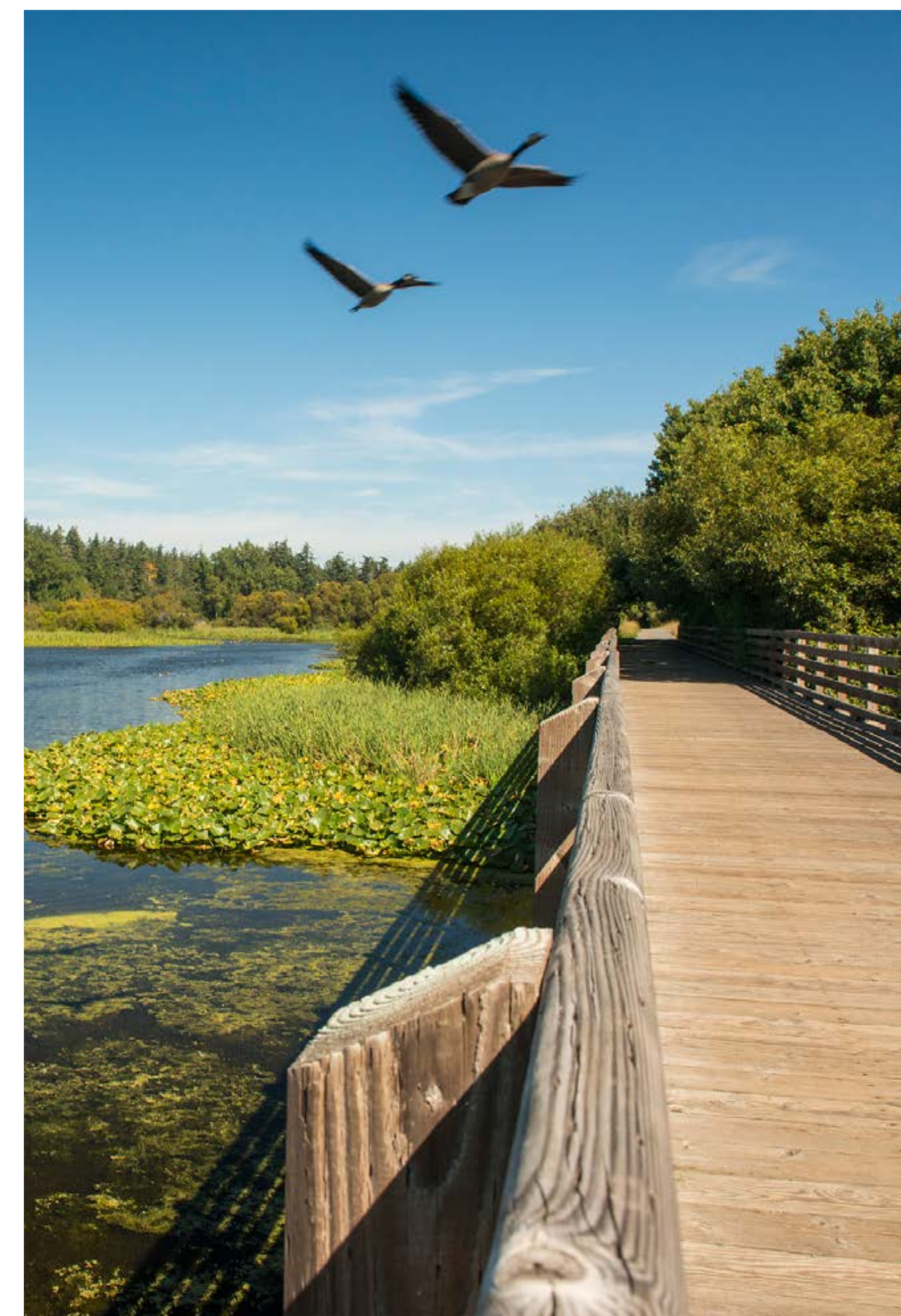


OVERVIEW

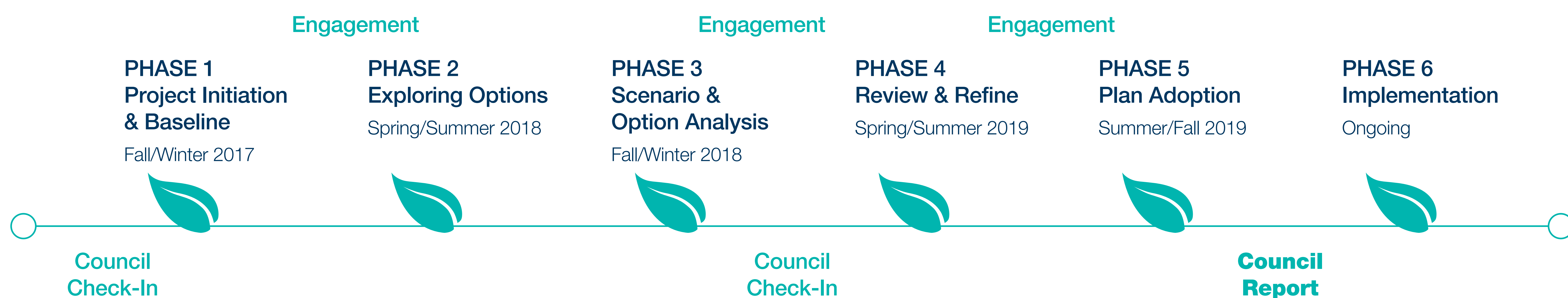


SAANICH IS DEVELOPING A PLAN TO:

- **Become a 100% renewable energy community**
- **Reduce our greenhouse gas emissions by 80% below 2007 levels**
- **Prepare for a changing climate**

A 100% Renewable Energy target helps us recognize that a step change is needed, and will allow our community to save money on carbon taxes, improve air quality and health, and develop new economic opportunities and jobs.

CLIMATE PLAN PROCESS AND TIMELINE



OVERVIEW

WHY ACT ON CLIMATE CHANGE?

1

IMPROVE QUALITY OF LIFE

Acting on climate change provides us with opportunities to save money, create a diverse economy and lasting jobs, improve air quality, and protect our natural environment.

2

LEAD LOCALLY

196 countries, including Canada, have committed to reducing GHG emissions enough to keep global temperature rise below 2°C. Local communities have an important part to play in meeting these goals.

3

AVOID GRAVE RISKS

Failure to act will drive rising global temperatures, more extreme storms, rising sea levels, droughts, and other impacts that will have devastating impacts on our health, environment, economy, and future generations.

WHY DOES IT MATTER WHAT SAANICH RESIDENTS DO?

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, in 2016, of the 195 countries in the world and over 7.6 billion people in it:

- Only 6 countries had bigger total CO₂ emissions than Canada.
- Per capita, only 7 countries have bigger CO₂ emissions than Canadians.

RENEWABLE ENERGY AROUND THE WORLD

Saanich is part of a worldwide transition to renewable energy and climate resilience.

- Hundreds of communities world-wide have committed to becoming 100% renewable. In Canada, Saanich joins Victoria, Vancouver, Nelson, Slokan and Oxford County.
- Britain, France, China, India and Norway are phasing out the sale of fossil-fuelled vehicles.
- China is on track to meeting its 2020 climate targets, while the EU met its 2020 targets 6 years early.
- Businesses around the world are investing millions in renewable energy:
 - Apple's data centres
 - Google's global operations
 - Nike's North American operations

are all powered by 100% renewable energy!



SAANICH ALREADY USES RENEWABLE ENERGY AND OUR GRID ELECTRICITY IS CURRENTLY 98% RENEWABLE

OVERVIEW

WHAT WILL THE PLAN INCLUDE?

The Plan will apply to both the District of Saanich's own Corporate operations and the wider Saanich Community and will embed the principles of Environmental Integrity, Social Well-being and Economic Vibrancy.



It will include actions under both our control and influence

Control

Direct – e.g. leading by example through our municipal infrastructure and operations, policy and regulations, etc.

Indirect – e.g. through land use and transportation planning and policy, building standards, waste diversion and participation on regional decision making boards, etc.

Influence

Direct – e.g. policies, programs, incentives and partnerships with stakeholders, institutions, agencies and other levels of government, etc.

Indirect – e.g. through advocacy, information sharing, municipally supported education programs, etc.

WHY 100% RENEWABLE ENERGY?

Renewable, low carbon energy will meet our needs with considerably lower impacts than non-renewable fossil fuels. Our plan is to become a 100% Renewable Energy Community by 2050, and the pathway relies on drastically reducing our energy waste in addition to switching to renewable supply. Overlaying this is the need to ensure we adapt to a changing climate.

OUR PLAN HIERARCHY

REDUCE

REDUCE - We will reduce our energy and material consumption and our waste generation through conservation, efficiency, and redesign.

RENEWABLE

RENEWABLE - We will shift to renewable energy sources to power our remaining energy needs.

RESILIENT

RESILIENT - We will design a responsive community that is prepared for a changing climate.

OVERVIEW

WHAT IS THE PLAN'S APPROACH?

Actions will be evaluated to maximize co-benefits and prevent negative impacts, for example, on equity, our ecosystems, and our health and well-being. We will be using the One Planet Living framework alongside an equity framework to help inform, evaluate and prioritize the potential actions and strategies identified for the Climate Plan. There are several local stakeholders such as shops, schools, businesses and non-profits also currently developing One Planet Action plans as part of the One Planet Saanich project – more information can be found at oneplanetsaanich.org.

ONE PLANET FRAMEWORK



	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



Bioregional

one earth

WHAT WILL IT MEAN FOR OUR QUALITY OF LIFE?

Many countries have a comparable quality of life with lower per capita emissions:

- Canada has 18.62 tonnes of GHG emissions per capita
- Saanich has 7.7 tonnes of GHG emissions per capita if we consider our consumption based emissions
- Greenland as 0.03 tonnes of GHG emissions per capita
- Sweden has 4.54 tonnes of GHG emission per capita, and
- The UK has 5.57 tonnes of GHG emissions per capita.

Our quality of life does not need to decrease and, if anything, addressing climate change can help improve our health, comfort, wealth and community equity as well as reducing our risk and liabilities.

MEASUREMENT

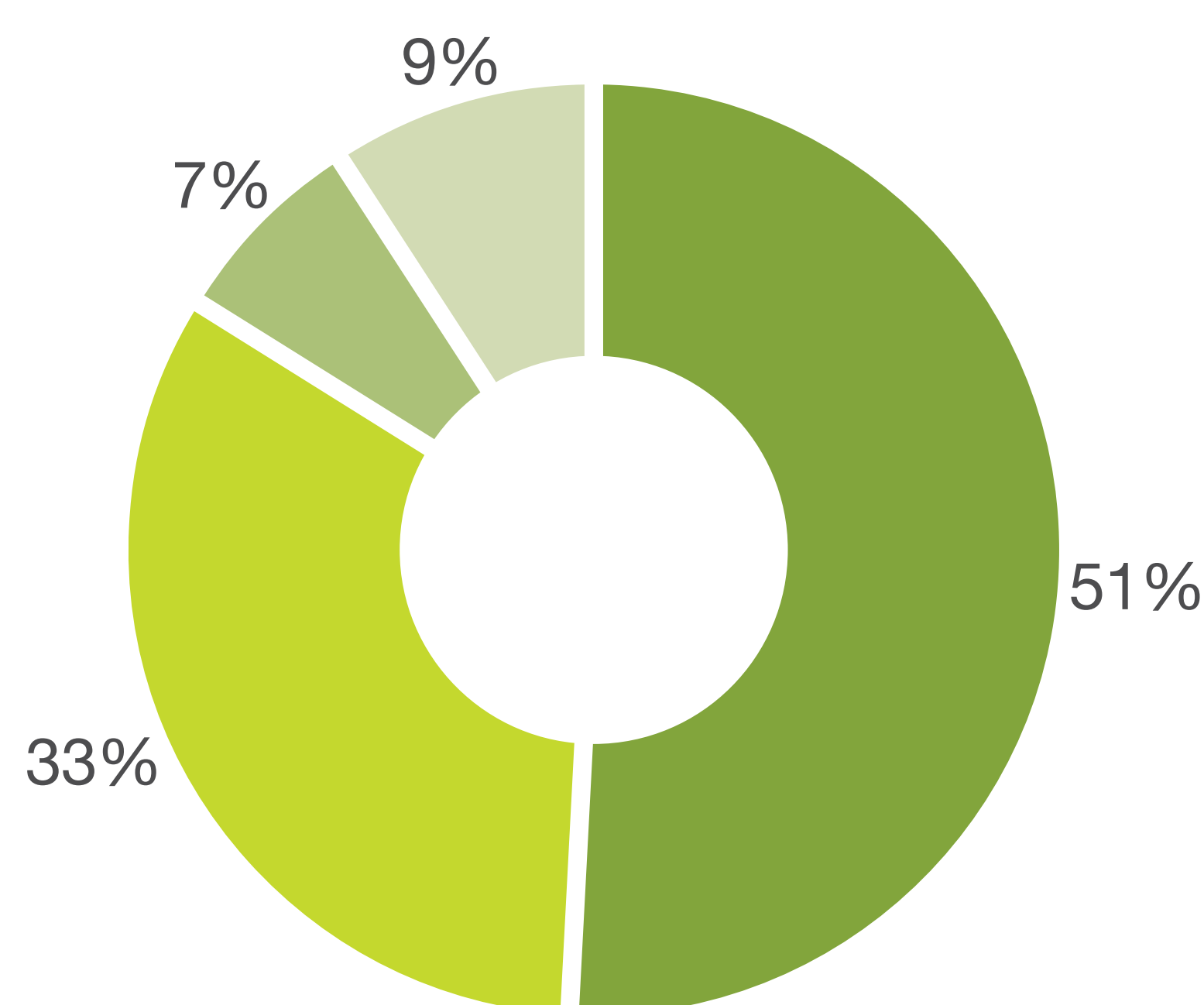
WHAT WILL WE MEASURE?

We measure our climate impact by calculating the greenhouse gases (GHG) we emit as a community within our municipal boundaries – our **Territorial GHG Emissions Inventory**. The majority of our emissions are from transportation, followed by buildings and then a smaller proportion from waste.

However, there are also climate impacts from the products we consume, like our food and clothing, which may have been produced and processed outside of Saanich and imported for our use. This is called our **Consumption Based GHG Emissions Inventory** – and it measures the GHG emissions from all of the goods and services that the Saanich Community consumes, regardless of where those goods and services are produced.

2007 Baseline Territorial GHG Inventory

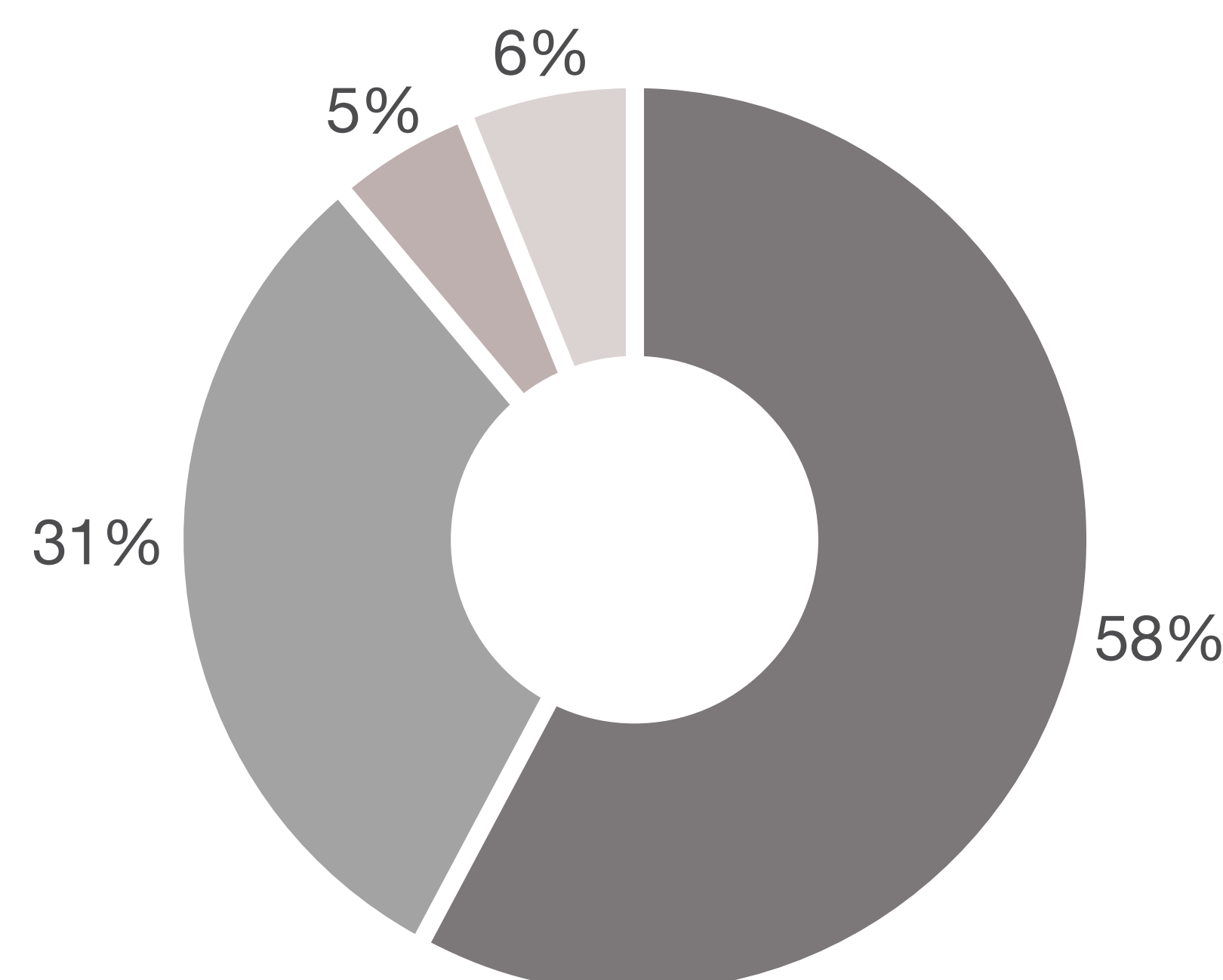
= 495,384 tonnes carbon
= 4.4 tonnes carbon/person



51% Transportation
33% Buildings
7% Waste
9% Other
Industrial Processes, and Product Use (IPPU)
Livestock, Land and Agriculture (AFOLU)

2017 Territorial GHG Inventory

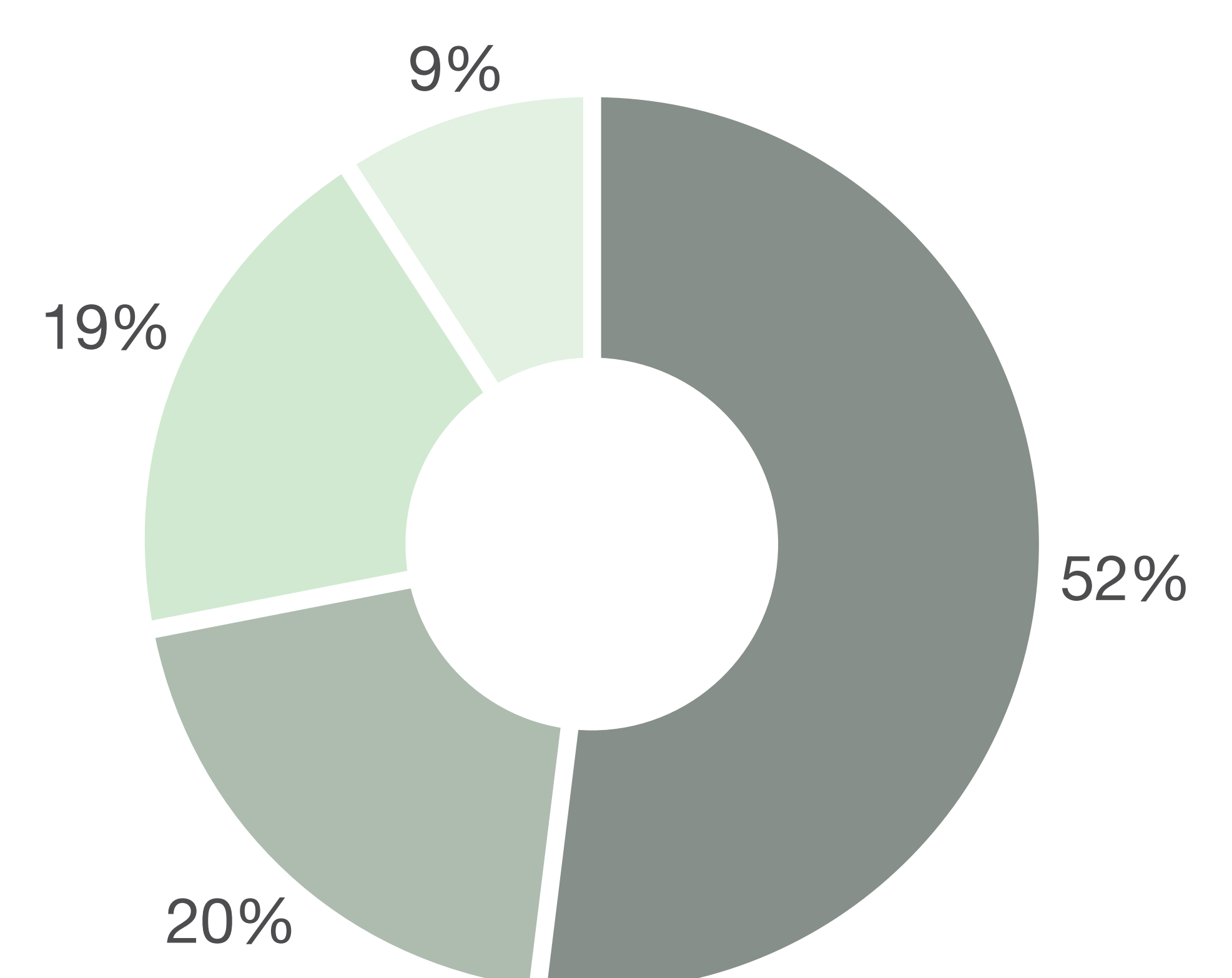
= 512,901 tonnes carbon
= 4.5 tonnes carbon/person



58% Transportation
31% Buildings
5% Waste
6% Other
Industrial Processes, and Product Use (IPPU)
Livestock, Land and Agriculture (AFOLU)

2015 Consumption Based GHG Inventory

= 881,000 tonnes carbon
= 7.7 tonnes carbon/person



52% Transportation
20% Buildings
19% Food
9% Consumables & Waste

While the Climate Plan's new targets apply to territorial emissions, the plan will also address our Consumption Based emissions.

WHY HAVE OUR EMISSIONS NOT GONE DOWN SINCE 2007?

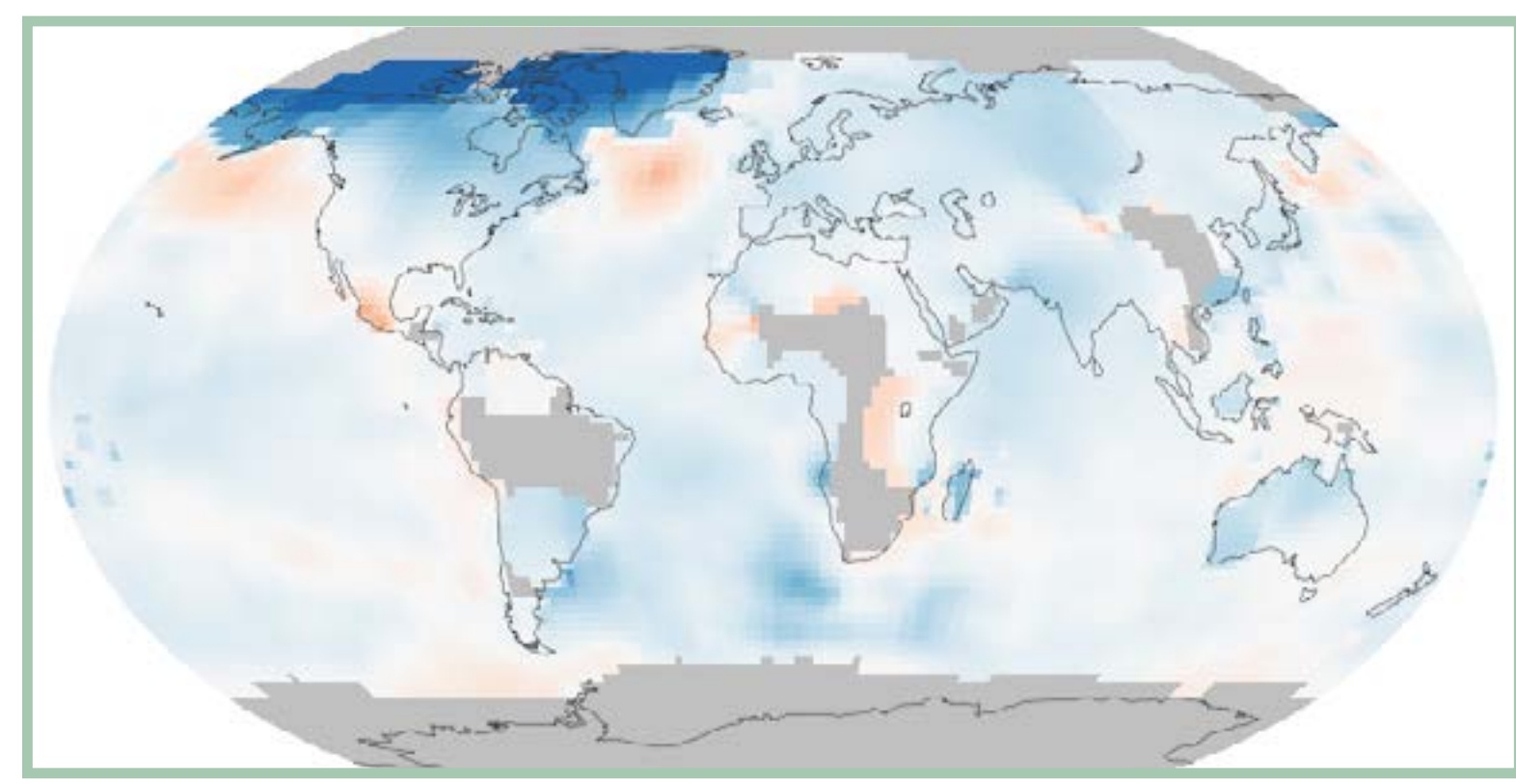
There have been great number of climate actions implemented by both the community and the District of Saanich. However, our emissions have increased since 2007:

- **Building emissions** went down until 2016 given Provincial Building Code energy efficiency standards and home energy retrofit rebates. However, 2017 was a much colder winter and there has been a notable increase in buildings switching from renewable electricity to natural gas for heating in the last two years. Alongside increased development, this may explain the increase in building emissions seen between 2016 and 2017.
- **Waste emissions** have also decreased since 2007 with the introduction of the Greener Garbage Program.
- **Transportation emissions** increased significantly between 2007 and 2016, owing potentially to an increase in vehicle size and non-renewable use given low fuel prices and increased wealth. However, there has recently been a considerable increase in active transportation, which, alongside improved vehicle emissions standards, likely contributed to the first decrease in transportation emissions seen in 2017 since our baseline. Current and reliable transportation data remains a constraint when monitoring our GHG emissions inventory and the District of Saanich continues to work with the Province and ICBC on this issue.

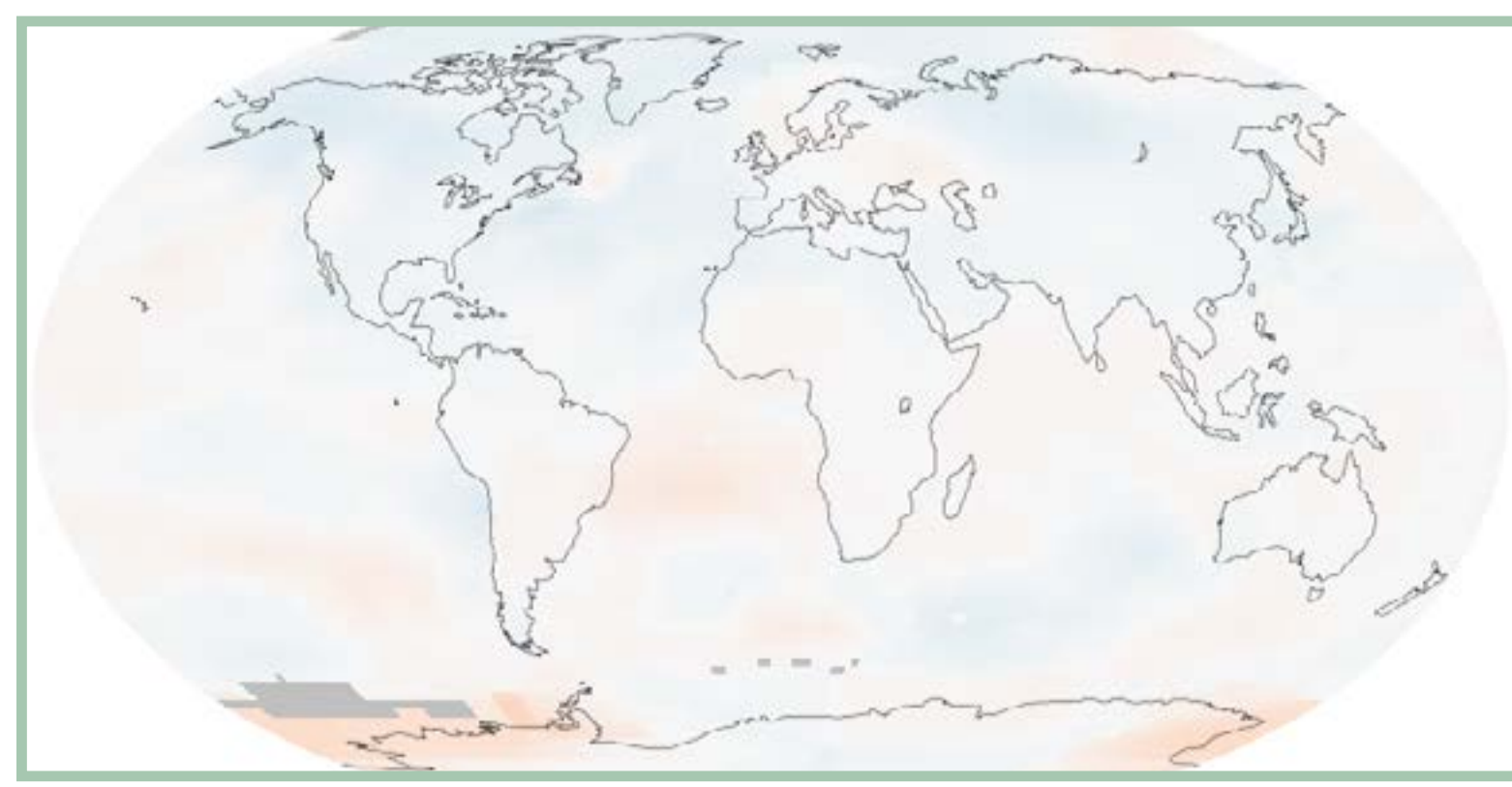
CLIMATE PROJECTIONS & SEA LEVEL RISE

CLIMATE CHANGES

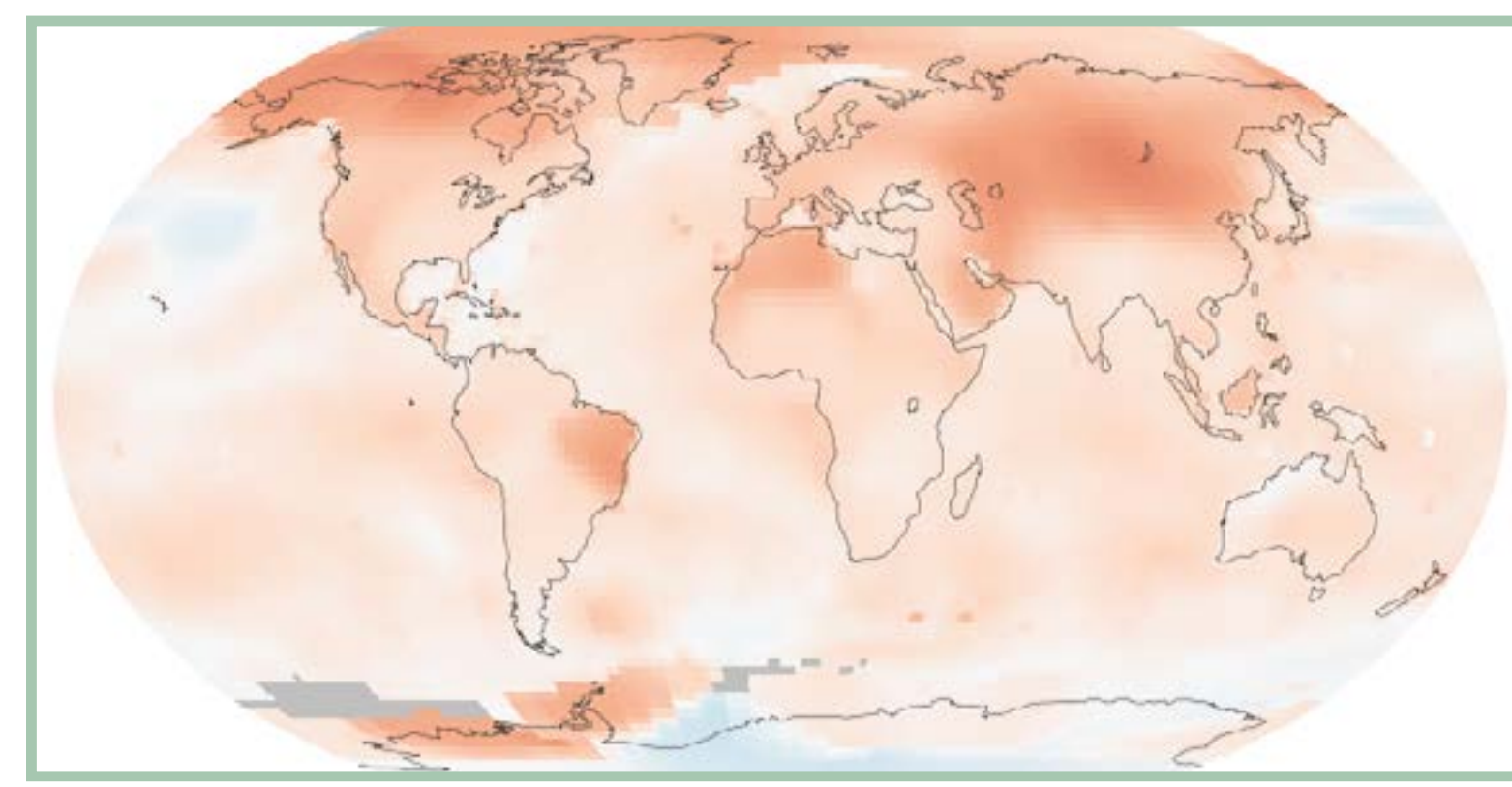
Globally our climate is warming and changes of this magnitude are now disrupting global air and water circulation systems such as currents and jet streams. This leads to a much wider variation in temperature extremes and weather patterns year to year.



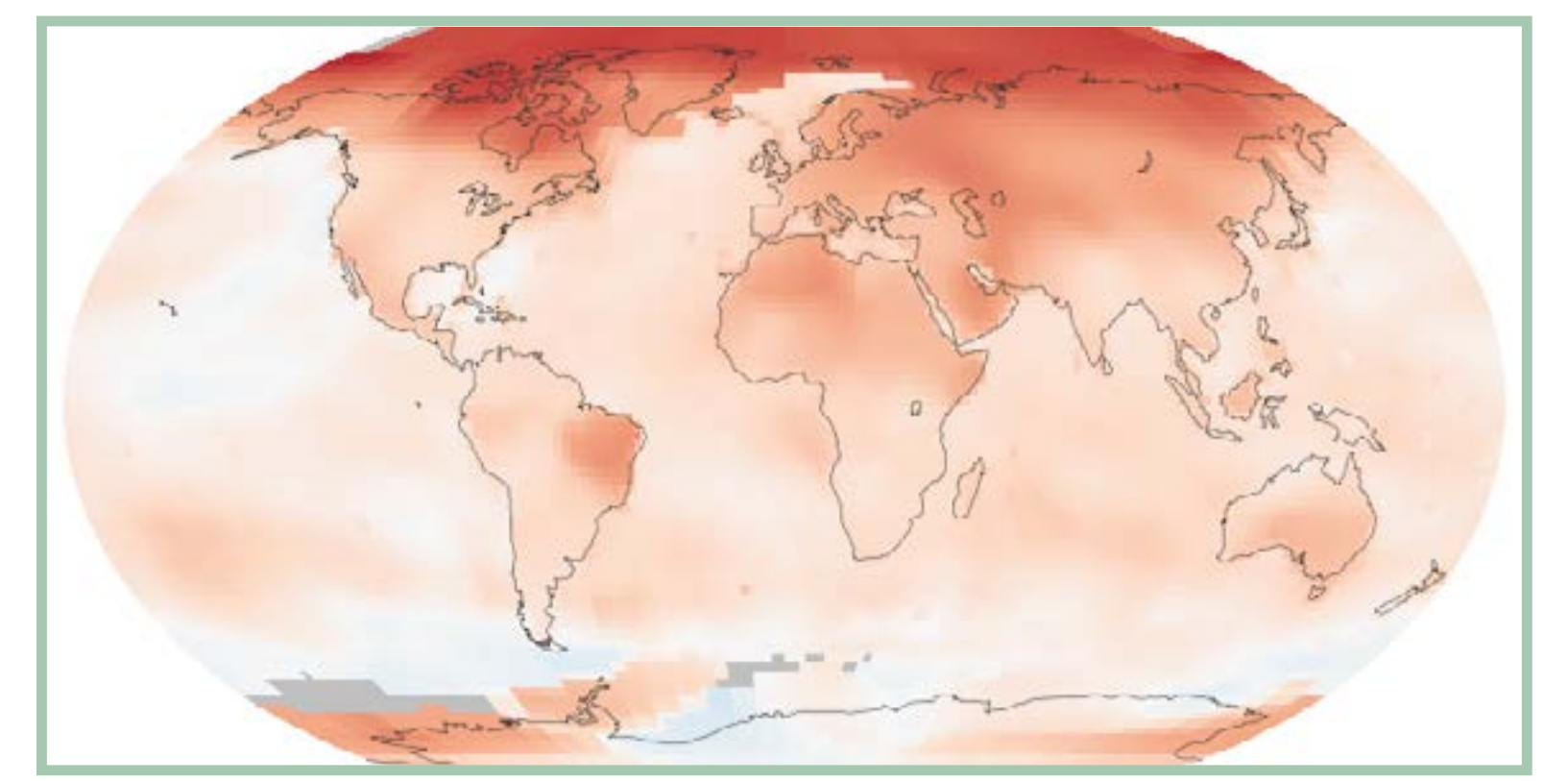
1885-1894



1965-1974



1995-2004



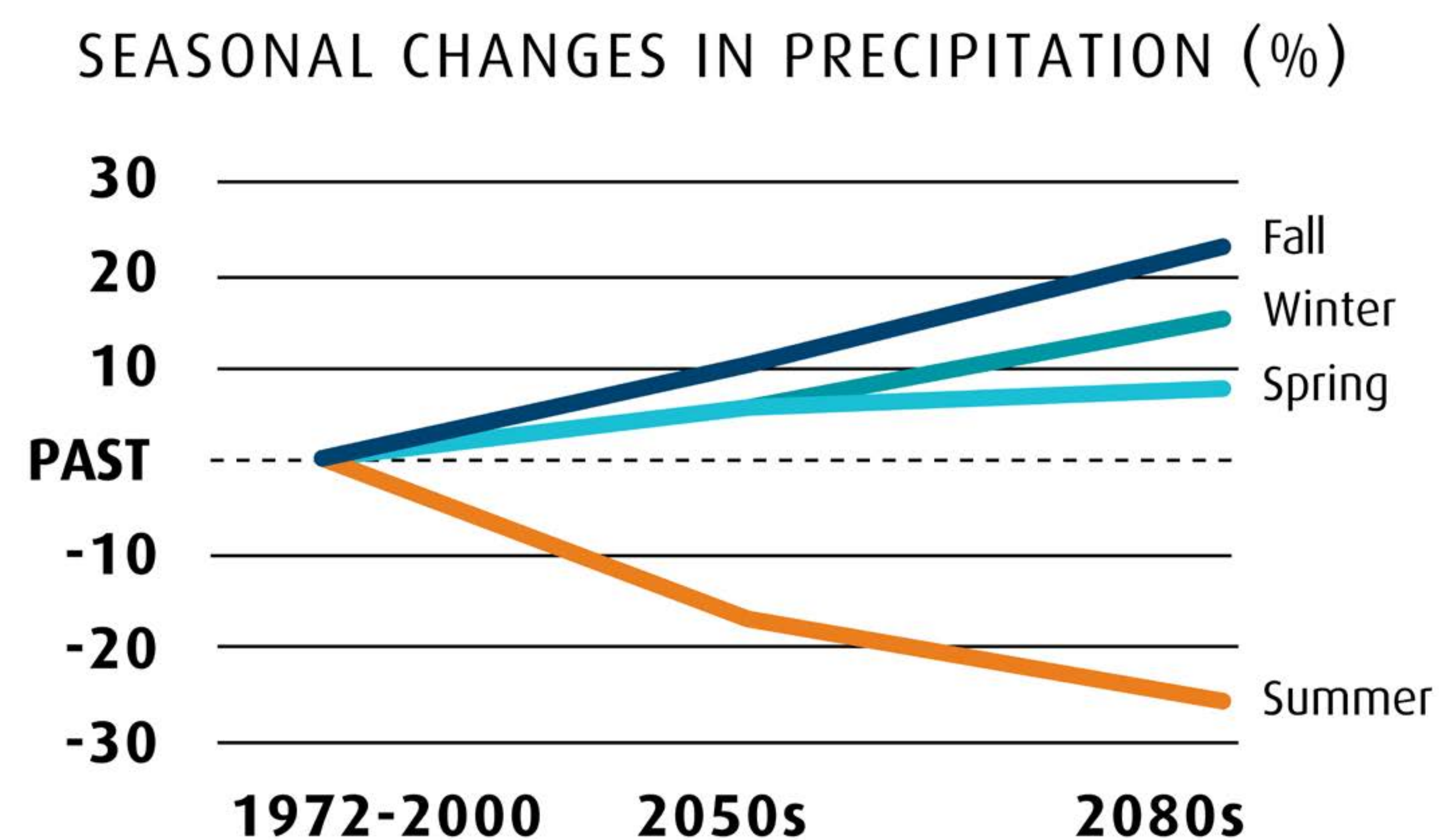
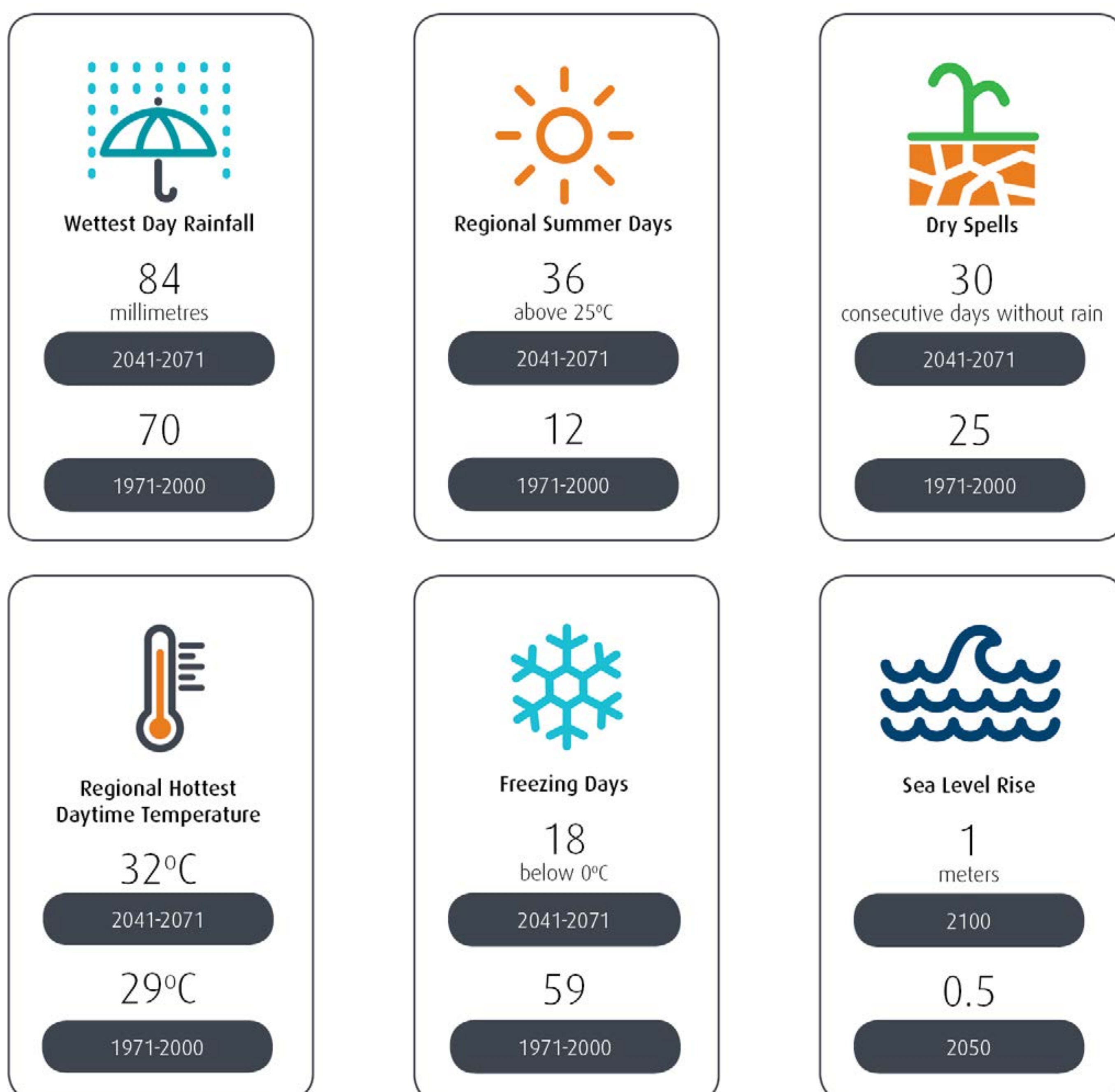
2005-2016 NASA

Locally temperatures are also warming and are projected to increase by 3°C by the 2050s.

As our local climate warms, we will face hotter and drier summers, increased numbers and intensity of winter storms and sea level rise.

For details see Capital Regional District, 2017, “Climate Projections for the Capital Regional District”, at crd.bc.ca/data

SELECTED CLIMATE PROJECTIONS FOR THE CAPITAL REGION



CLIMATE PROJECTIONS & SEA LEVEL RISE

WHAT ARE THE RISKS?

Costs, manpower, environmental degradation, health impacts and compromised quality of life.

- **Human Health**

e.g. hot summers & forest fires = heat exposure, disease and respiratory illnesses.

- **Buildings & Infrastructure**

e.g. increased rainfall and storms = flooding, erosion, slope instability, property damage.

e.g. increased heat = need for cooling.

- **Ecosystems and Species**

e.g. changes in temperature and rainfall patterns = increased invasive species and changes in species survivability and decline of biodiversity.

- **Food and Agriculture**

e.g. larger growing season could = economic benefits. However, floods, summer drought, heat stress, invasive species and increased pests and disease could have considerable negative impacts.



RISING WATERS

What could happen at 1 meter of sea level rise?

In the Capital Region, especially during storm surges, we could see flooding in:

- Gyro Park and neighbouring blocks
- Parts of the Saanich Gorge neighbourhood
- Victoria Inner Harbour marina
- Water and stormwater infrastructure
- And many other areas.

See crd.bc.ca/data for more information.

Additional sea level rise mapping in 2019 will help us better understand the impacts and risk.



RENEWABLE ENERGY

RENEWABLE ENERGY

CAN INCLUDE:

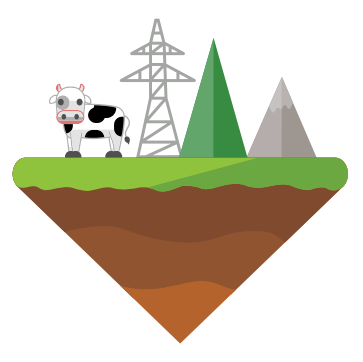
Hydro Electricity
Solar
Wind
Geothermal
Bioenergy
Wave & Tidal Power

WHAT IS RENEWABLE ENERGY?

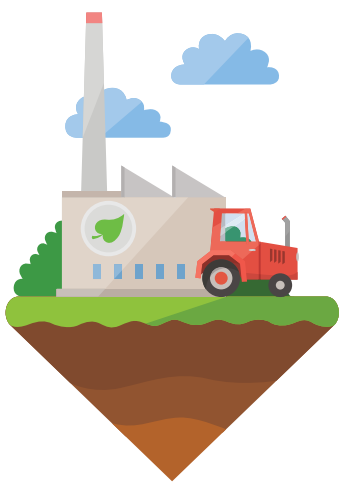
Renewable energy is energy derived from natural processes (e.g. sunlight and wind) that are replenished at a faster rate than they are consumed.



BC Hydro: hydro electricity purchased from BC Hydro is currently 98% renewable. It uses hydroelectric generation – which harnesses the power of moving or falling water to produce energy. This means that Saanich residents who use electricity for all of their home’s energy needs, including space and water heating, are already living in a 98% renewable home!



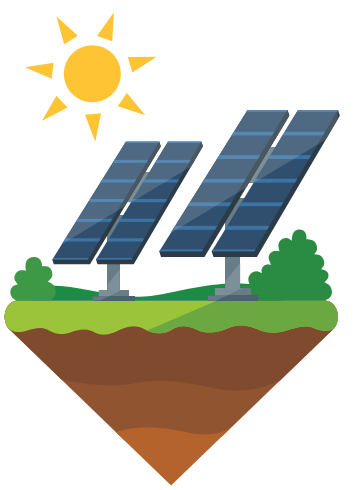
Fortis BC: Renewable Natural Gas customers can choose to purchase Renewable Natural Gas (RNG). This is natural gas that is produced from decomposing organic waste from landfills, agricultural waste and wastewater from treatment facilities. Learn more at fortisbc.com/NaturalGas/RenewableNaturalGas



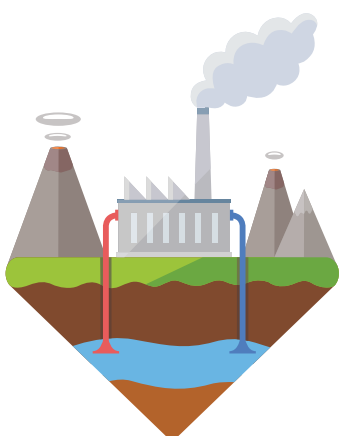
Biomass energy is the creation of heat and/or power from biofuel such as wood, agricultural crops, aquatic plants and animal wastes. Biomass technologies are generally considered to be renewable and carbon neutral due to the short processing cycle combined with replanting.



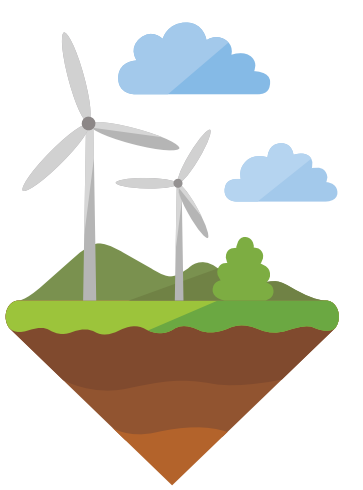
Solar thermal captures the sun’s energy as heat, typically for domestic water heating. Currently, at least 39 Saanich households are using solar thermal systems.



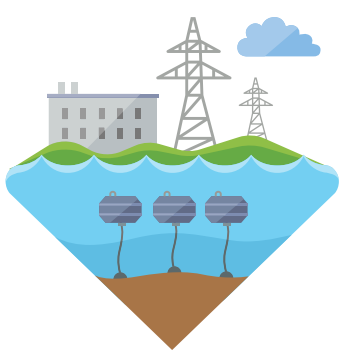
Solar photovoltaic (PV) transforms the sun’s energy into electricity for local use or selling to the grid. Currently, 55 Saanich residents and six businesses are producing solar electricity and are “net metering” customers with BC Hydro. Learn more at bchydro.com/netmetering



Geothermal energy is the use of heat stored in the Earth to generate electricity, and boost efficiency. A ground source heat pump is a common technology used to capture geothermal energy.



Wind energy harnesses the kinetic energy from the wind and converts it into electrical energy through wind turbines. BC has almost 700 MegaWatts of wind energy, supplying nearly 2% of our demand with large on-shore wind farms. Small scale generation (up to 1 MegaWatt) has been successful in urban settings in Europe.



Wave power is designed to capture the energy found near the surface of the water. BC has some of the best wave energy potential in the world with two projects on the west coast of Vancouver Island.



Tidal power is the energy generated from power found in ocean tidal currents and the use of tidal height differences. BC got an early lead in tidal development with the Race Rocks Tidal Project in 2006, just off Vancouver Island.



“Negawatt”: while not technically a source of energy, a negawatt is energy saved through conservation or an efficiency improvement. Negawatts can power new energy needs without having to generate new energy. Over 4000 Saanich households have participated in energy saving programs in the past 10 years, reducing utility bills and improving home comfort and longevity.

BE A PART OF THE ENERGY!

HOW TO GET INVOLVED! **We'd like to hear from you!**

Welcome to the Saanich Climate Plan
Public Presentations and Open House

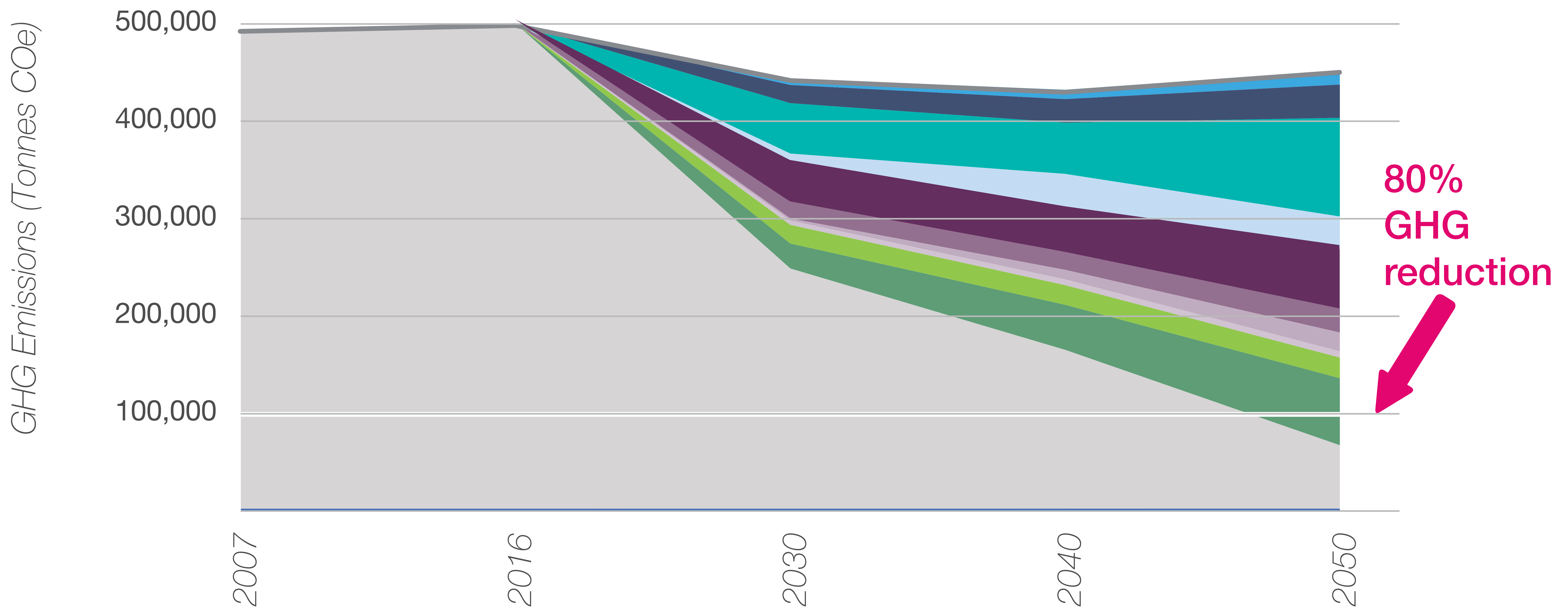
- 🍃 READ THE BOARDS, SPEAK WITH STAFF AND LEAVE COMMENTS
- 🍃 COMPLETE THE SURVEY AND/OR COMMENT ON THE POSTERS HERE
- 🍃 SIGN UP FOR A PRESENTATION ON ELECTRIC VEHICLES OR CLIMATE-FRIENDLY HOMES (*SEE WELCOME DESK*)
- 🍃 READ THE BACKGROUNDER
- 🍃 SIGN UP FOR THE CLIMATE PLAN EMAIL ALERTS

PATHWAY TO 100% RENEWABLE ENERGY

Transformational change in all the sectors below is required in order to reach the 2050 climate targets.

The draft actions presented in Phase 2 of the Plan Development focus on areas of control or influence by the District of Saanich, but success depends on coordinated action from residents, businesses, and all levels of government.

Pathway to Targets



Sustainable Mobility 38%

- Active transportation: 3%
- Transit improvements / electrification: 7%
- Electric vehicles: 21%
- Renewable vehicle fuels: 7%

Built Environment 23%

- Existing low carbon energy upgrades: 13%
- Existing envelope upgrades: 4%
- New construction: 4%
- Renewable natural gas: 1%

Food & Consumption 18%

- Organic waste diversion: 4%
- Miscellaneous fuels: 14%

WHAT WE HEARD IN PHASE 1 ENGAGEMENT

In Phase 1 Climate Plan Engagement, Saanich staff engaged thousands of residents and visitors from many walks of life about their priorities, concerns, and ideas about climate action.



We Heard a Broad Consensus

- Strong support for climate action
- Sense of urgency
- Desire for regulation and incentives
- Mitigation actions: support for action in many areas, including land use, public transportation and waste reduction
- Adaptation actions: major concern about climate impacts and support for action, including protecting our ecosystems, supporting adaptation on private property and public infrastructure, and maintaining health and well-being



Visit www.saanich.ca/climateplan for the full Phase 1 Engagement Report.

Project Phase 1	Response Rate
Number of key engagement events	28
Number of people actively engaged in Phase 1 climate discussions at these events	Over 1700
Number of comments/stickers on engagement boards at events	639
Number of surveys completed	945
Number of attendees at the Stakeholder Mitigation Workshop	66
Number of attendees at the Stakeholder Climate Adaptation Workshop	32
Number of attendees at the Claremont School Workshops	52
Number of attendees at public open houses and workshops	190
Number of letters/email correspondence received from stakeholders and the public	13

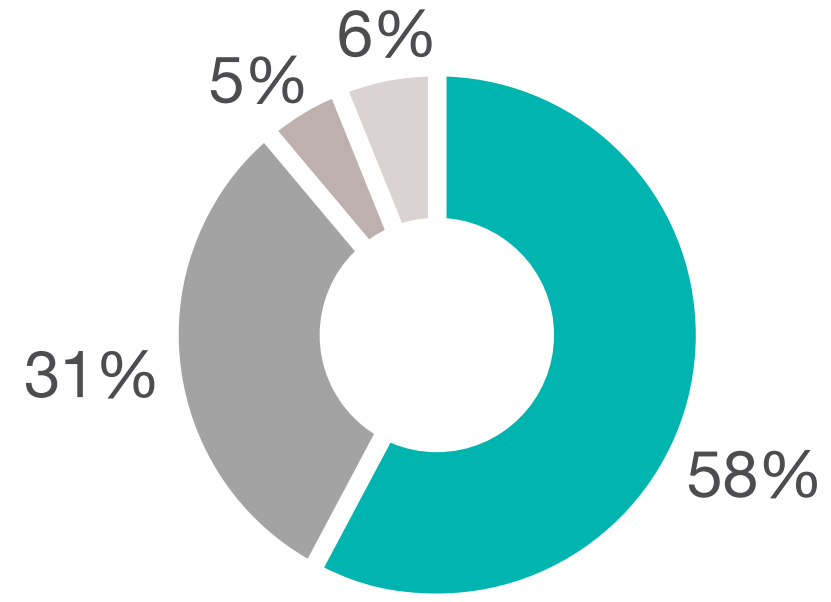
SUSTAINABLE MOBILITY

Strategy 1: Invest in Active Transportation

Strategy 2: Prioritize Transit-Supportive Policies and Practices

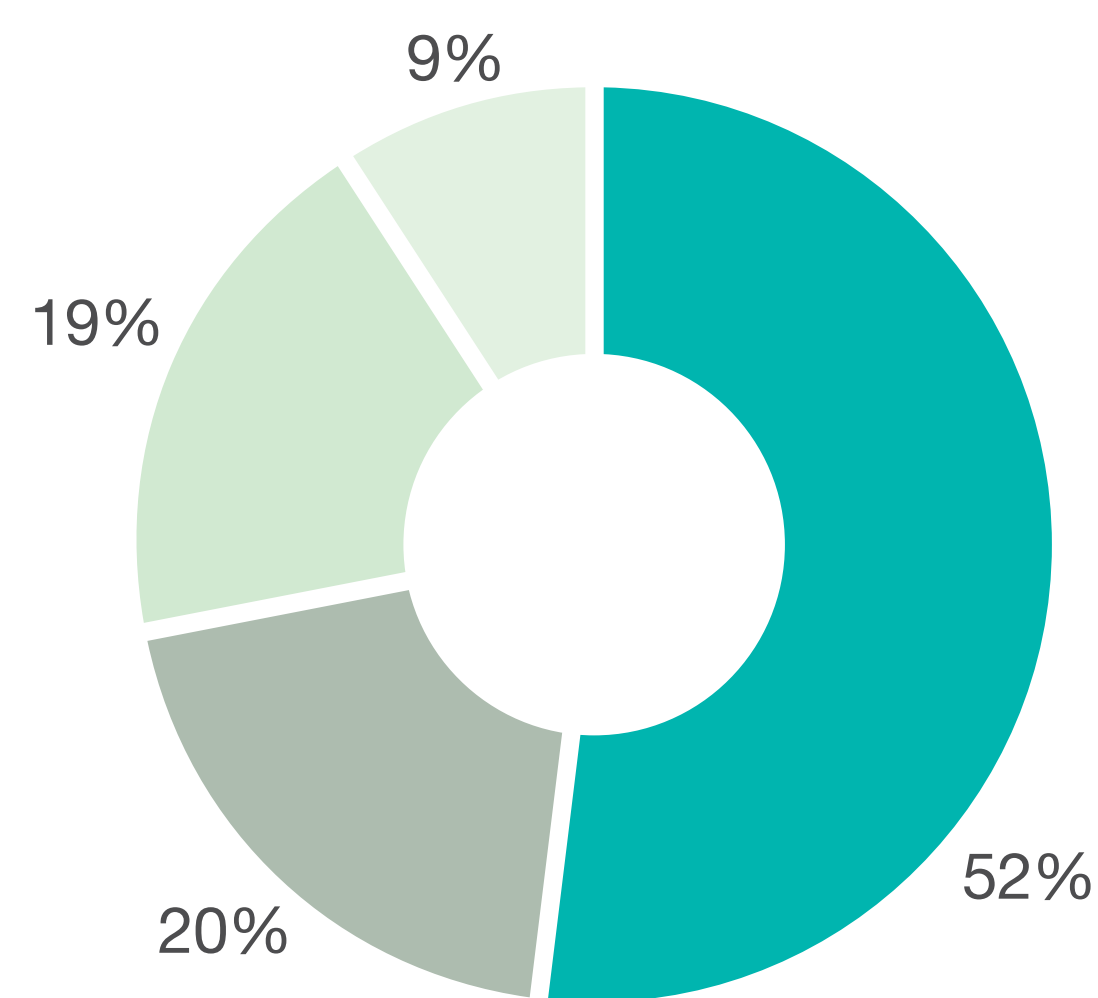
Strategy 3: Accelerate Adoption of Electric and Other Zero Emission Vehicles

2017 Territorial GHG Inventory
= 512,901 tonnes carbon
= 4.5 tonnes carbon/person



58% Transportation
31% Buildings
5% Waste
6% Other
Industrial Processes, and Product Use (IPPU)
Livestock, Land and Agriculture (AFOLU)

2015 Consumption Based GHG Inventory
= 881,000 tonnes carbon
= 7.7 tonnes carbon/person



52% Transportation
20% Buildings
19% Food
9% Consumables & Waste

Get Active with Active Transportation

Investing in active transportation (walking, cycling, wheeling, riding the bus, etc.) supports health, safety, equity, community building, and local businesses.

Ride the Bus

Public transit moves more people using less space and resources than if everyone uses their own car, making transit essential for moving people efficiently in urban areas.

Go Electric

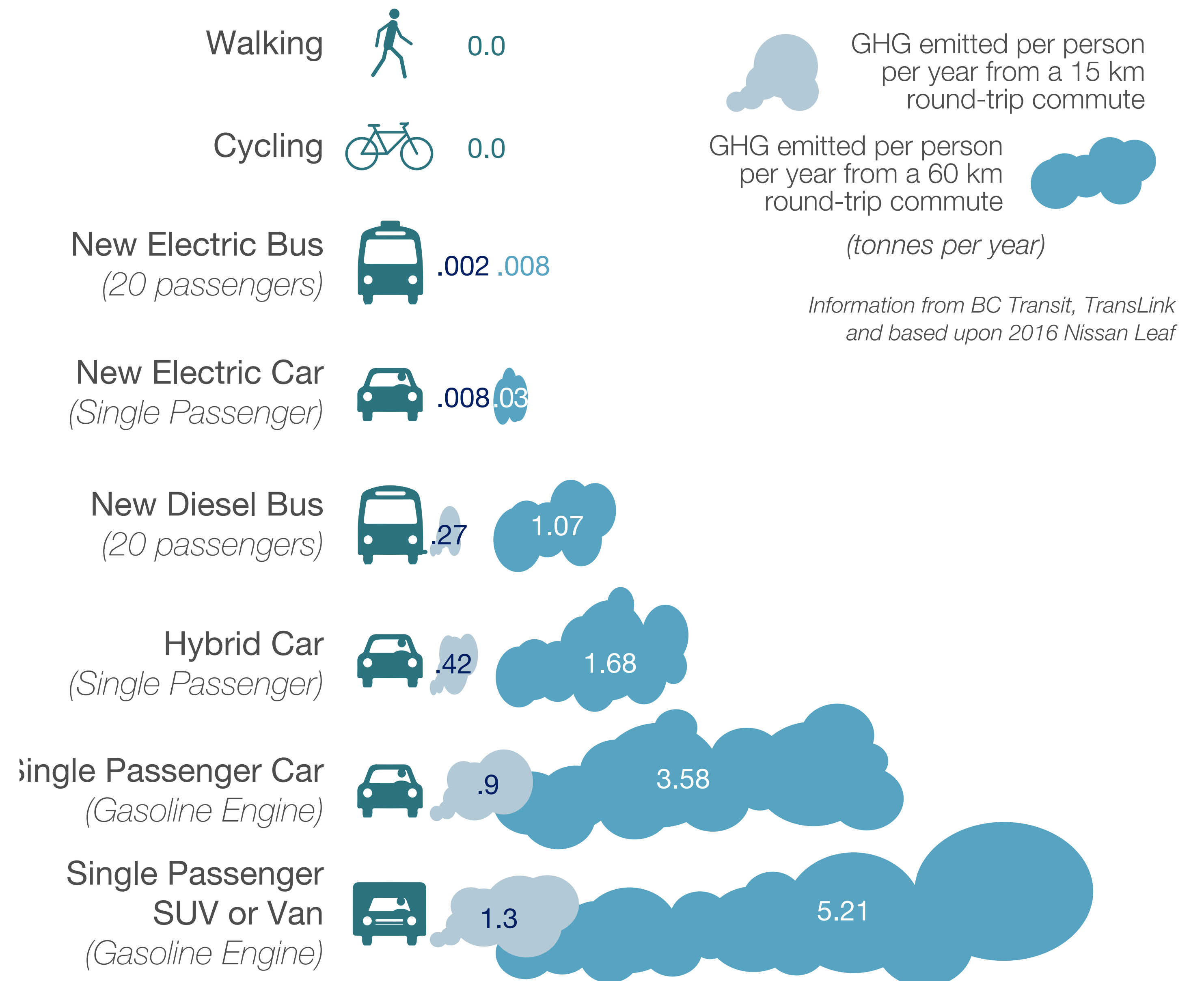
Electric vehicles have many benefits, including improved air quality, reduced noise pollution, and low operating and maintenance costs. To learn more about EVs and available rebates, visit www.pluginbc.com.

Some heavy duty vehicles and equipment do not have battery electric options today, so other renewable fuels and/or technological advances are required in order to reach our targets.

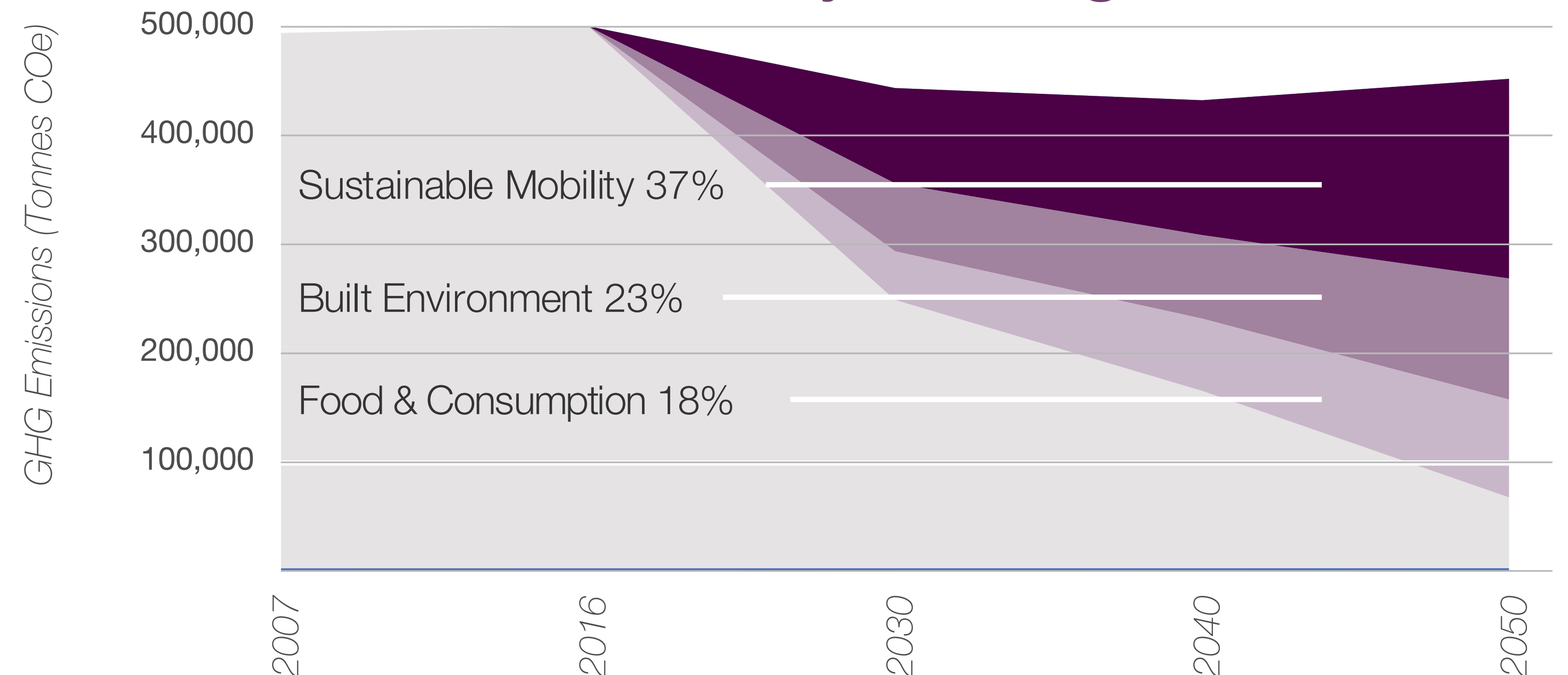


Transportation is the largest source of emissions in our community, representing 58% of our 2017 territorial emissions. The majority of these emissions are from passenger vehicles.

In order to reduce our transportation emissions, we must reduce energy needs by investing in and shifting to active and public transportation, and replacing remaining fossil fuel engines with electric and other zero emission vehicles.



Pathway to Targets

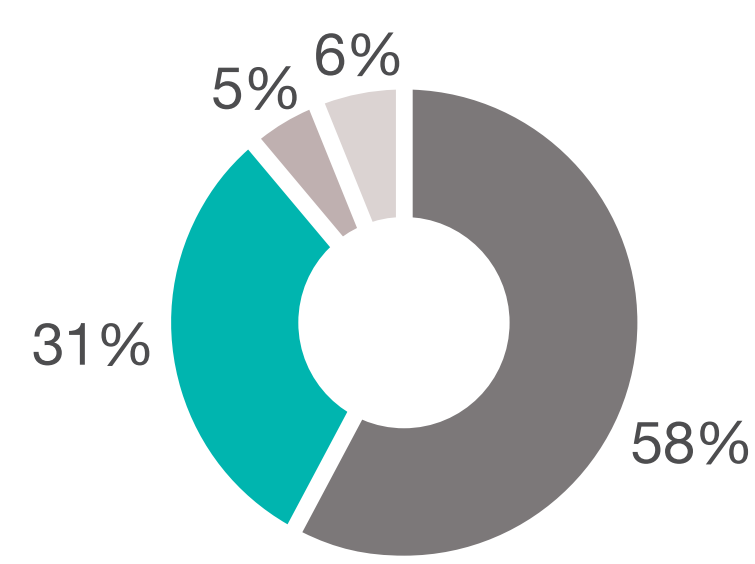


- Sustainable Mobility 37%**
- 50% active transportation mode share: 3%
 - Electrify all public transit: 7%
 - Electric vehicle conversion (90% personal and 50% commercial): 21%
 - 100% remaining vehicle fuel is renewable: 7%
- Difference in total due to rounding.

BUILT ENVIRONMENT

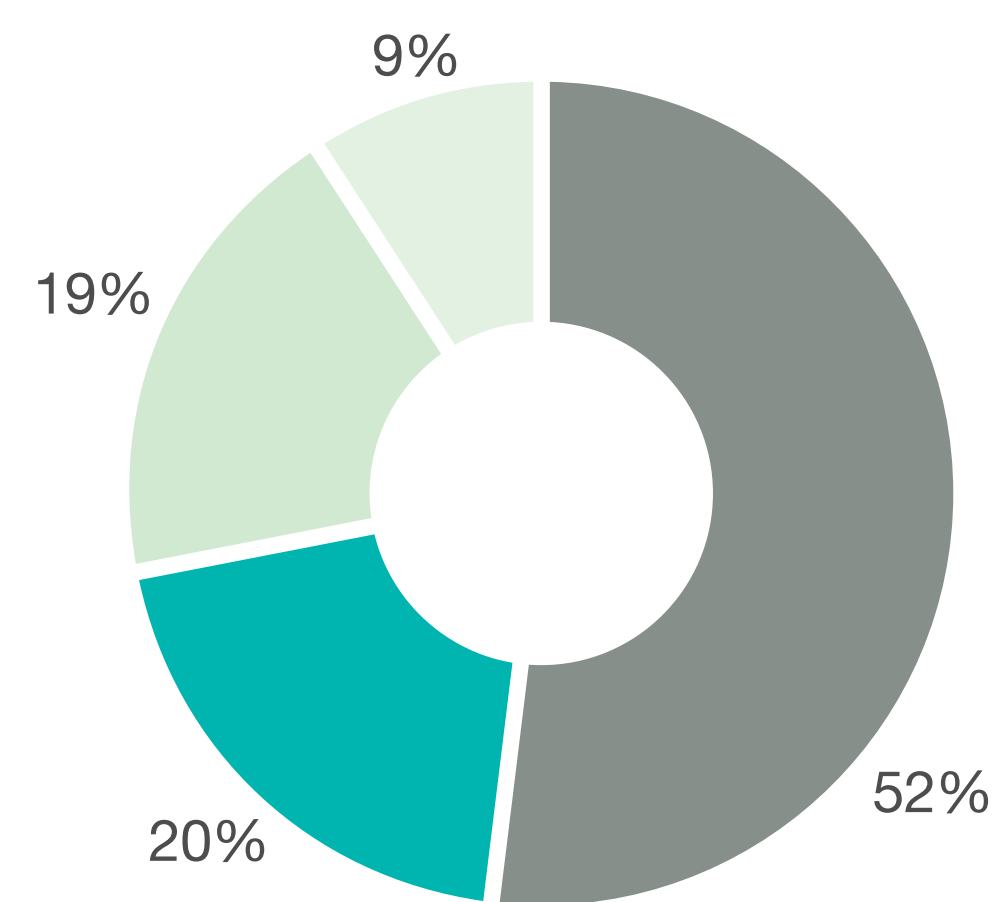
- Strategy 4: Require Efficient, Low-Carbon New Construction
- Strategy 5: Accelerate Efficiency and Renewable Energy Upgrades in Existing Building
- Strategy 6: Increase Energy Security and Renewable Energy Supply
- Strategy 7: Transition Towards a Climate-Ready Building Stock
- Strategy 8: Increase the Resilience of Saanich's Infrastructure and Assets
- Strategy 9: Prepare for Long Term Sea Level Rise

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- Industrial Processes, and Product Use (IPPU)
Livestock, Land and Agriculture (AFOLU)

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- 9% Consumables & Waste

Renewable, Comfortable, Affordable

The most effective way to reduce greenhouse gas emissions in buildings is to efficiently use renewable, low-carbon energy, such as hydroelectricity, instead of fossil fuels. Improving the performance of our buildings also brings opportunities to save costs, improve indoor health and comfort and make our buildings into sites of renewable energy production.

70% of the residential buildings that will be in operation in 2050 are already constructed today, meaning both zero-carbon upgrades to existing buildings and new construction are essential to achieving our climate goals.

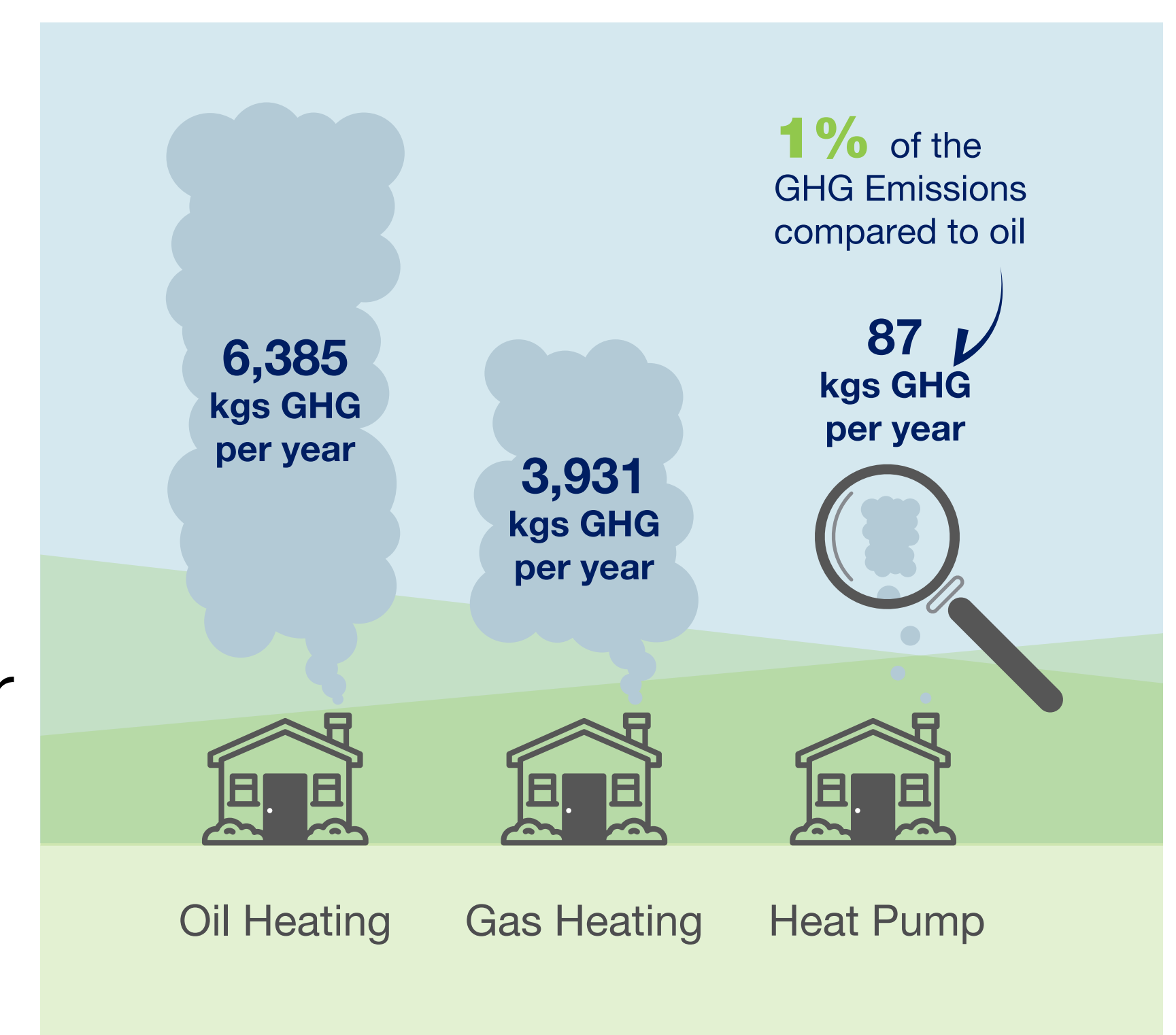
Getting to 100% Renewable Buildings

Since BC Hydro electricity is mainly sourced from hydro power (currently 97% renewable), many homes and buildings in Saanich are already powered by renewable energy. Rebates and assistance are available to help you shrink your energy bills, even if you rent! Visit efficiencybc.ca for more information.

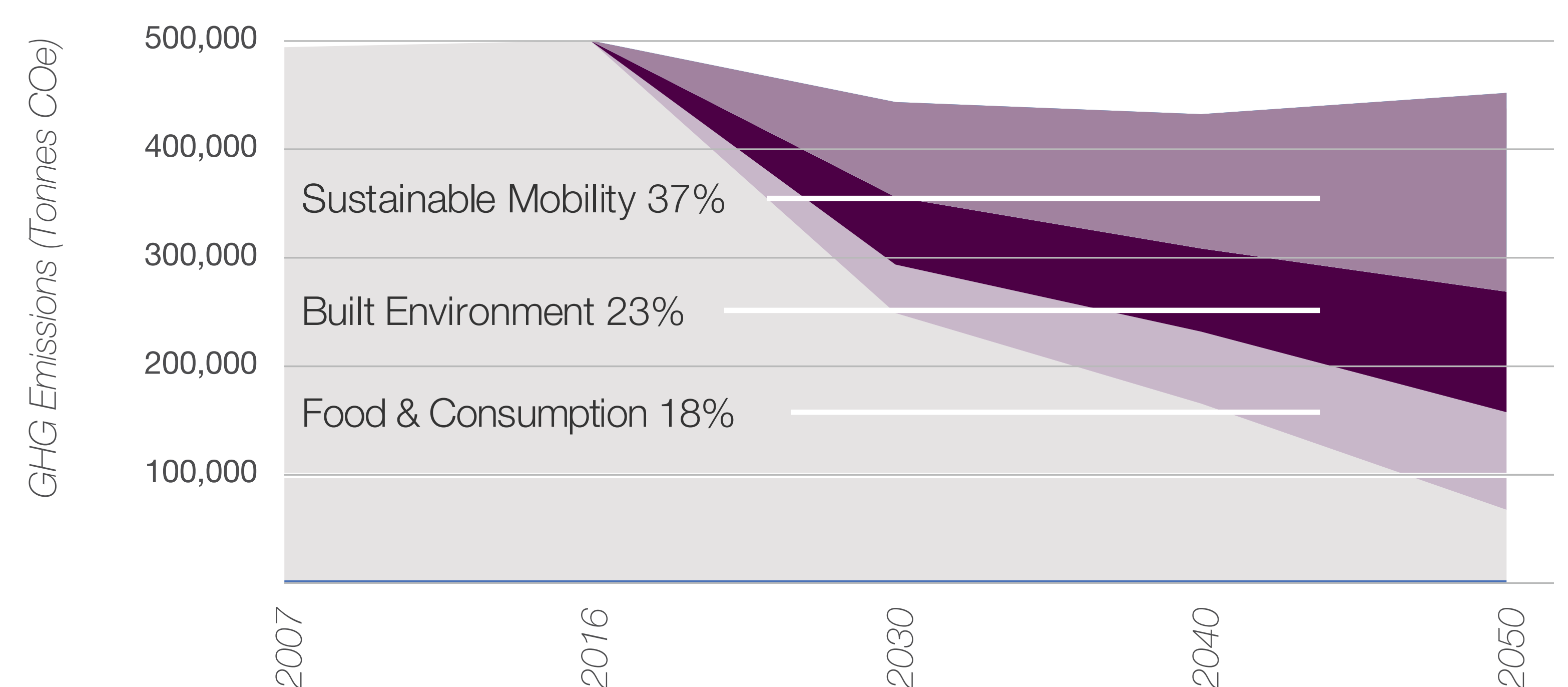
Buildings are the second largest source of GHGs in our community. Energy used for heating, powering, and cooling buildings in Saanich makes up 31% of our overall territorial GHG emissions.

Buildings Need to Adapt to Climate Changes

Ensuring our built environment is resilient to more extreme weather patterns and changing climate conditions is critical, especially since so many aspects of our infrastructure, such as buildings, pipes and roads last for decades. Our homes and buildings need to be prepared for more heat waves, poor air quality events, and heavy storms and rainfall, as does our drainage infrastructure. Meanwhile, sea level rise poses a threat to our coastal areas, and requires we plan ahead to ensure we retain these valuable amenities for generations to come.



Pathway to Targets



Built Environment 23%

- Upgrade 90% of existing building envelopes: 4%
- Low carbon energy systems (heat pumps) in 75% of existing buildings: 13%
- Require new buildings to be zero carbon: 4%
- 100% of remaining natural gas is renewable: 1%

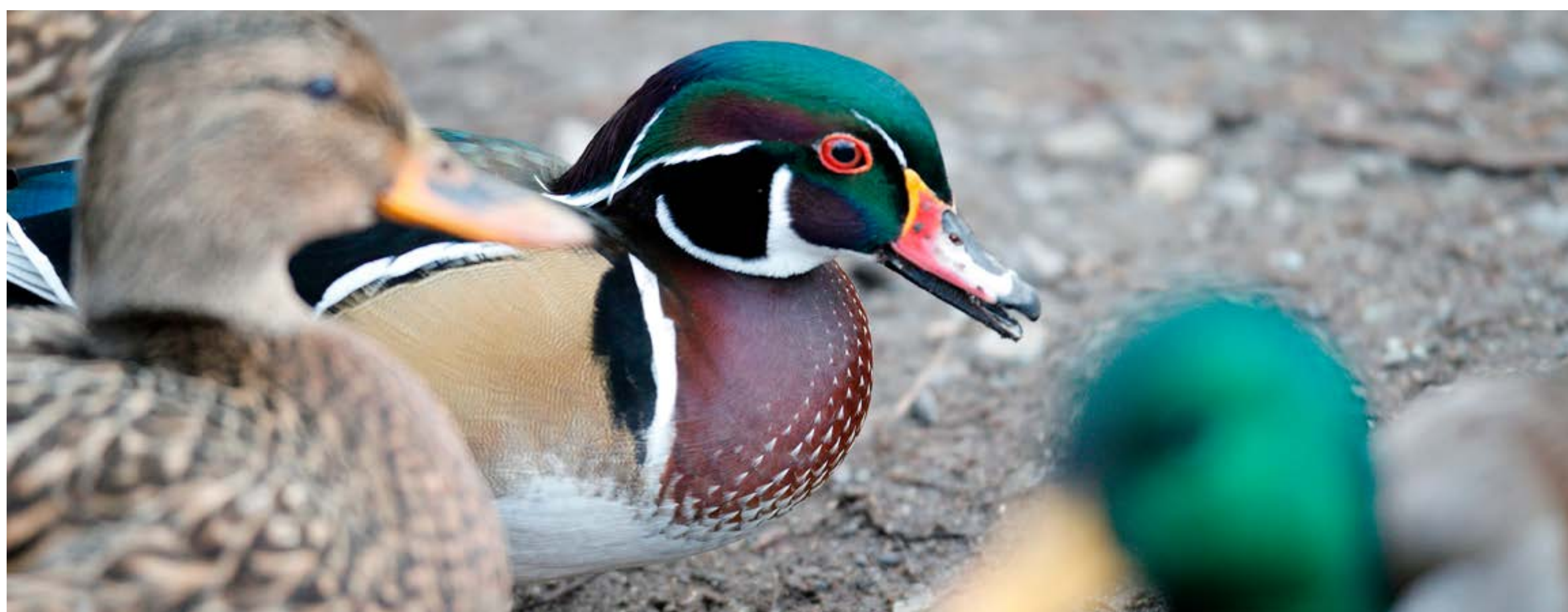
ECOSYSTEMS

Strategy 10: Enable Natural Systems to Thrive and Adapt
Strategy 11: Protect and Manage Natural Assets as Critical Infrastructure



Climate Changes will Affect Local Species

Increasing average temperatures, hotter, drier summers, coastal “squeeze” due to sea level rise, and more rain from fall through spring will cause a range of impacts, such as increased opportunities for invasive species, pests and diseases, compromised water quality and availability, and reduced viability of some native species.



Saanich’s natural areas and biodiversity are at high risk due to climate change, and many species and ecosystems are already showing strains.

Climate risks for ecosystems are higher than many other areas because there is no “technological fix”, and impacts are assessed to be very likely and potentially irreversible.

We Can Help Local Ecosystems

However, solutions that improve the resilience of ecosystems, such as expanding natural areas, connecting protected areas with natural corridors, and adapting our management techniques can have rich co-benefits for the community as a whole, such as increased recreational opportunities, physical and mental health, and air quality.

Healthy natural systems also have the potential to support our adaptation and resilience efforts by delivering critical services such as storm water management, carbon sequestration and cooling.

Nature Provides Essential Services

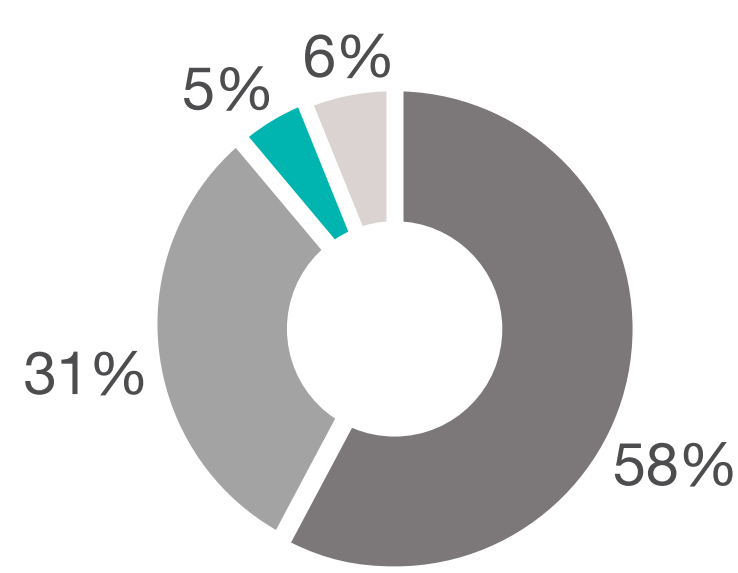
By viewing ecosystem services as part of our critical infrastructure and integrating it within our asset management approach, we can support the adaptation of our natural areas, while improving our own ability to respond to extreme weather and other changes.



FOOD AND CONSUMPTION

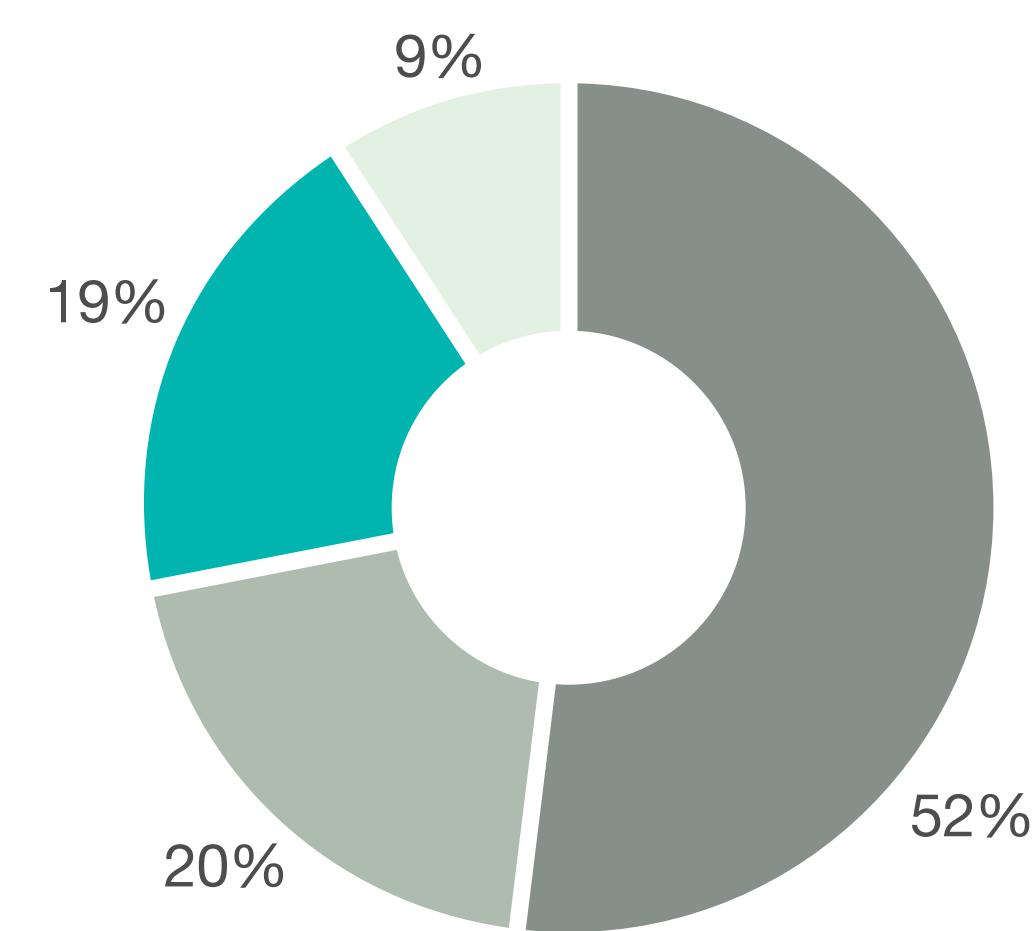
- Strategy 12: Improve the Resiliency and Self-Sufficiency of the Local Food System
- Strategy 13: Reduce Climate Impact of Food Production and Consumption
- Strategy 14: Move Towards Zero Waste Production in Saanich

2017 Territorial GHG Inventory
= 512,901 tonnes carbon
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- 31% Buildings
- 5% Waste
- 6% Other
Industrial Processes, and Product Use (IPPU)
Livestock, Land and Agriculture (AFOLU)

2015 Consumption Based GHG Inventory
= 881,000 tonnes carbon
= 7.7 tonnes carbon/person



- 52% Transportation
- 20% Buildings
- 19% Food
- 9% Consumables & Waste

Using a consumption-based inventory, the food and goods we buy and throw away, whether they are produced locally or anywhere else in the world, represent 19% and 9% of our community emissions, respectively - the largest emissions categories after transportation and buildings.

Food Security and Local Food Challenges in a Changing Climate

As the climate changes, we anticipate increasing problems with food production and affordability globally, along with new challenges and opportunities for local farmers. Focusing on improving local climate-friendly food production and access for residents choices will all contribute to a more climate-friendly and resilient community.

Lighter Living Choices

Reducing our consumption of goods such as textiles, plastics, and paper will reduce our consumption-based emissions. We seek out opportunities for reduction, reuse and repair, and circular economy products.

To learn more, read the Food and Consumption and Waste backgrounders available at www.saanich.ca/climateplan.

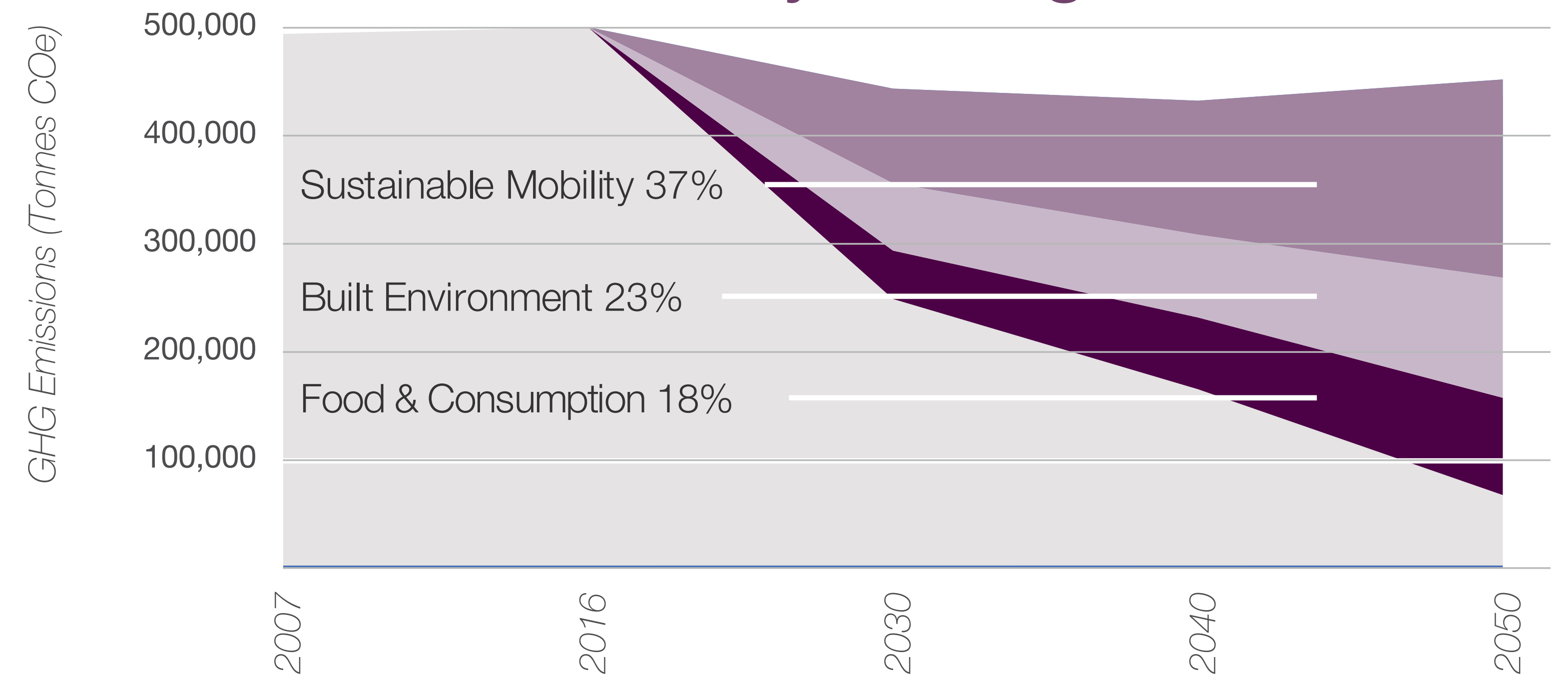


SHRINK FOOD WASTE

On average 390 kg of food per year are wasted per Canadian each year. That represents \$30 billion dollars wasted and 21 million tonnes of GHG

emissions every year from food waste in Canada. Avoid food waste by planning your food shop, storing food properly to keep it fresh, and using it up on time.

Pathway to Targets



- Food and Consumption 18%**
 - Achieve 100% organic waste diversion: 4%
 - 80% reduction of miscellaneous consumer emissions: 14%

COMMUNITY WELL-BEING

- Strategy 15: Empower Saanich Residents and Businesses to Prepare for a Changing Climate
- Strategy 16: Maintain Health Outcomes and Ensure Emergency Preparedness and Response Keeps Pace with Climate Change
- Strategy 17: Enhance Community Well-Being through Climate Action

Climate change has the potential to negatively impact the well-being of our community, with more extreme weather such as heat, poor air quality, and major storms exacerbating or causing health issues, damaging personal property, testing the limits of our emergency response capacity, and infringing on public amenities such as beaches.



Those Already Vulnerable will Face Bigger Challenges

Vulnerable populations such as low-income households, individuals with pre-existing health conditions, or those with mobility challenges will be disproportionately impacted.

Empowering the Community

By taking proactive action and empowering people and organizations to be involved in the solutions, prepare themselves and their neighbourhoods, and work collaboratively towards a shared vision of the future, we can not only “weather” the changes ahead, but foster a more inclusive, connected and engaged community.



We also have a unique opportunity to stimulate economic development and increase employment opportunities in the green economy. If done right, climate action represents an opportunity to improve the health and well-being of our community with vibrant and complete neighbourhoods, options for active transportation, improved access to nature, a green local economy, and an engaged population that is prepared to work together.

LEADING BY EXAMPLE

- Corporate Strategy 1: Integrate Climate Action into Saanich processes and decision-making
- Corporate Strategy 2: Transition to a Zero Emission Fleet and Sustainable Commuting
- Corporate Strategy 3: Showcase Renewable, Efficient Municipal Buildings
- Corporate Strategy 4: Reduce Waste and Support Low Carbon Materials

Saanich has reduced greenhouse gas emissions from our municipal operations since the launch of our 2010 climate action plan, but more action is needed to reach our new, more ambitious targets. To learn more about Saanich's climate action, including electric vehicle fleets, solar thermal and photovoltaic energy production, and more, visit the Leading by Example backgrounder available at www.saanich.ca/climateplan.

We Are Reducing Energy Use

Electric Vehicles – In 2014 the EV pool fleet program was established. Saanich now has 9 EVs, including an electric zamboni and aims to electrify all non-police, light-duty cars by 2020.

Ice Rink Improvements – introduction of a REALice system at Pearkes Arena in 2016, saved 45 tonnes of carbon per year, equivalent to taking 10 cars off the road! A REALice system is planned for the green rink in 2019.

Efficient Streetlights - In 2016, Saanich began a five year program to convert 6,000 of its 9,000 street lights to energy efficient Light Emitting Diodes (LEDs). The program will result in a 51% reduction in overall electricity use, an annual savings of \$214,000 and 26 tonnes of carbon once fully complete.

Building Upgrades – to the most energy efficient options available. In 2017 and 2018 Saanich Municipal Hall mechanical and lighting systems were upgraded, including controls, heating coils, a high efficiency boiler and LEDs, saving 60 tonnes of carbon per year.

REDUCING WASTE

Greener Garbage Program – introduced in 2015 diverts approximate 3,650 tonnes of organics from the landfill each year.

Recycling – has been integral to our own facilities for many years but is getting an upgrade to significantly reduce waste diversion with a goal to becoming zero waste by 2050.

CHOOSING RENEWABLES

Gordon Head Recreation Centre – had a new high efficiency Air Source Heat Pump and condensing boiler installed in 2016/17 and commissioned into 2018. This is expected to reduce GHG emissions by approximately 400 tonnes of carbon annually.

Saanich Commonwealth Place – will be designed to replace the current fossil fuel boilers with a renewable biomass heating system, expected to reduce the building's GHG emissions by 90%. The purchase of Renewable Natural Gas is being considered to offset the remaining natural gas use to become a 100% renewable energy facility.

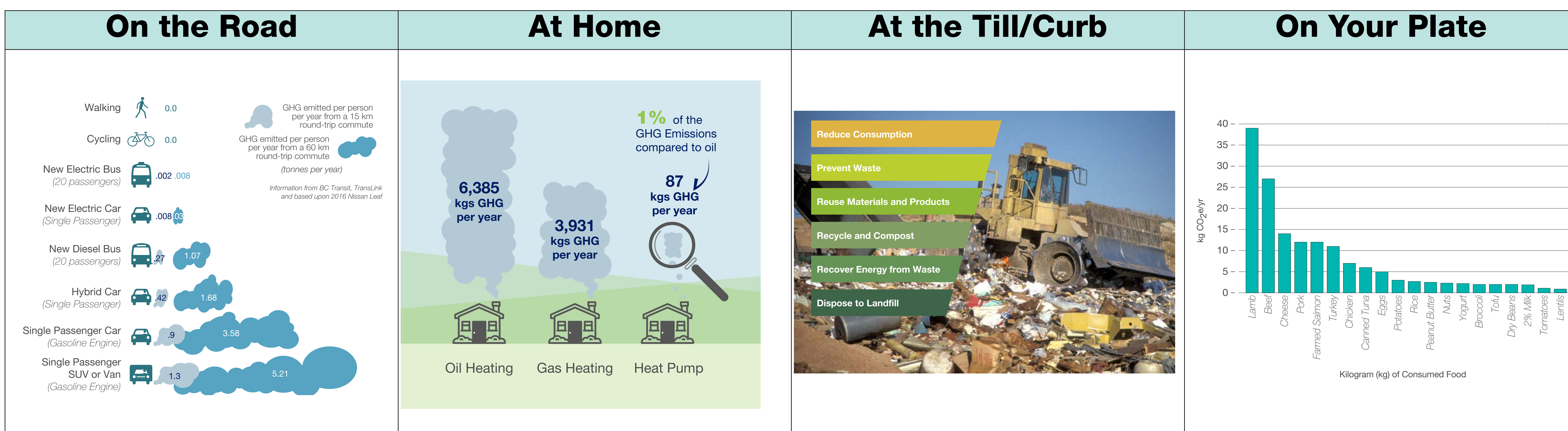


WHAT YOU CAN DO

Getting to Zero Carbon and 100% Renewable is Easy as 1, 2, 3!

1. Use the Saanich Carbon Calculator to find your personal GHG emission profile.
2. Starting with the biggest sources of emissions, consider ways to reduce waste/consumption, then switch to efficient renewable options.
3. Take action yourself, and help your friends and family to take action too!

Low Carbon Lifestyle Options



Support for Your Low Carbon Lifestyle

On the Road	At Home	At the Till/Curb	On Your Plate
<ul style="list-style-type: none"> • BC Transit • CRD Bike Maps • Saanich Trails • PluginBC 	<ul style="list-style-type: none"> • BetterHomesBC.ca 	<ul style="list-style-type: none"> • Rent, borrow, share, repair, and take part in second-hand economy. • Use the CRD Myrecyclopedia.ca 	<ul style="list-style-type: none"> • Love food hate waste campaign: www.lovefoodhatewaste.ca




Adaptation Tips

Consider Building Upgrades	Conserve Water	Prepare for Extreme Weather Events
<ul style="list-style-type: none"> • Improve insulation, windows, and air sealing to keep heat out in summer and keep cozy in the winter. • Consider installing a heat pump for efficient cooling (air conditioning) in the summer and affordable heating in the winter. • Visit saanich.ca/rebates 	<ul style="list-style-type: none"> • Install high-efficiency water fixtures and appliances. • Plant drought-tolerant, native species. • Harvest rainwater. • Reclaim greywater. 	<ul style="list-style-type: none"> • Get to know your neighbours. • Make an emergency plan. • Keep an emergency kit. • Visit saanich.ca and search for “Emergency Program” to learn more.

TRY THE SAANICH CARBON CALCULATOR

Visit (www.saanich.ca/climateplan) to find out how big your personal climate impact is, and read the Climate Backgrounder for ways to get to 100% renewable and resilient! In order to protect our communities and ecosystems, greenhouse gas emissions need to come down to zero by 2050.

Which of the Carbon Lifestyles Below is Most Like You?

	 Aimée Grande	GHGs tCO2e	 Diego Medio	GHGs tCO2e	 Jean Small	GHGs tCO2e
Transportation						
Daily Travel	Gas truck for 30 km per day.	3.05	Hybrid car for 15 km per day.	0.84	Electric car for 15 km per day.	0.06
Long Distance Travel	Flies to the UK twice a year, and within North America 2 times a year.	1.73	Flies to Mexico once a year for vacation.	0.47	Vacations in Tofino and Rath Trevor by electric car.	0.01
Home						
	Non-upgraded oil heated older home.	6.55	Non-upgraded gas heated older home.	4.00	Upgraded efficient older home with a heat pump for heating and cooling.	0.21
Food						
	<ul style="list-style-type: none"> • Heavy on beef, cheese, and other animal foods. • Significant food waste/spoilage 	3.02	<ul style="list-style-type: none"> • Most animal protein from poultry/pork/fish, with less beef and cheese. • Moderate food waste/spoilage. 	1.55	<ul style="list-style-type: none"> • Mostly plant-based diet with occasional poultry/pork/fish. • Very little to no food waste/spoilage. 	0.97
Consumable Goods and Waste						
	<ul style="list-style-type: none"> • High consumption and waste. 	1.91	<ul style="list-style-type: none"> • Medium consumption and waste. 	1.37	<ul style="list-style-type: none"> • Low consumption and waste. 	0.09
Annual tonnes of GHG emissions per person						
	16.25		8.23		1.34 *	
	Room for improvement!		Almost there!		Way to go!	

*It's not zero, but once you've got this low, consider focusing on helping others shrink their emissions and working on collective carbon sequestration opportunities.