

2021-2022

CLIMATE ACTION PLAN UPDATE

Info Sheet



THE CLIMATE ACTION PLAN

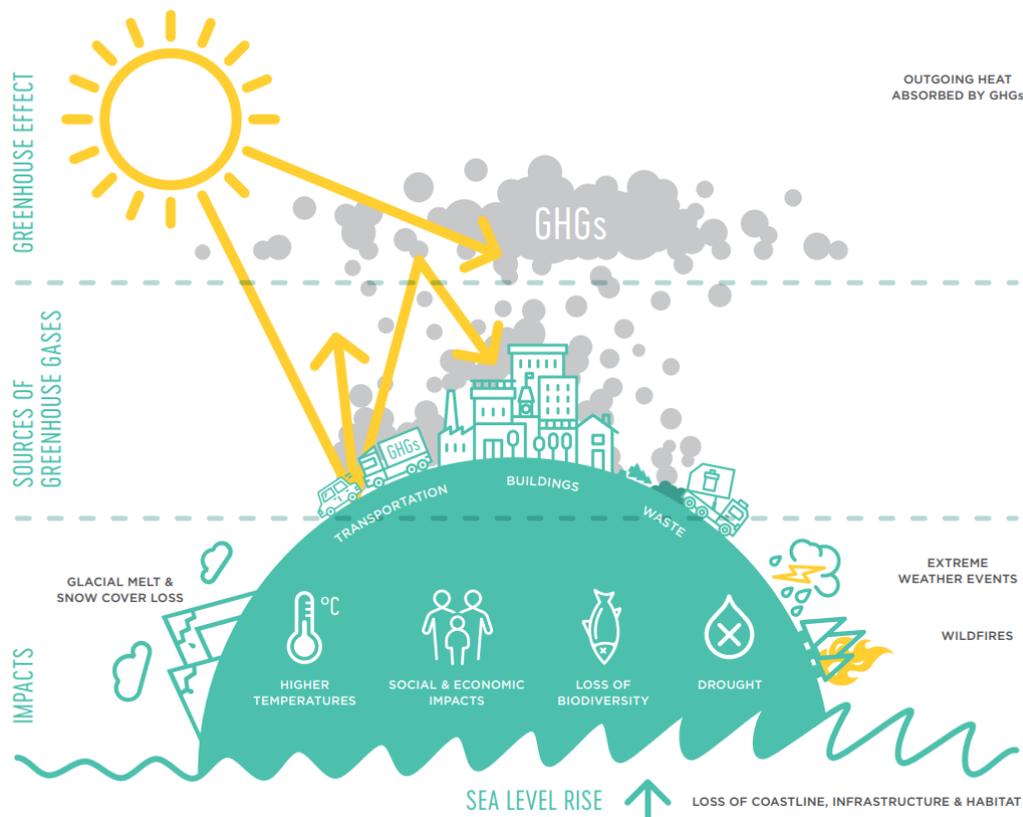
What is a Climate Action Plan?

A Climate Action Plan is a strategic plan to reduce energy consumption and greenhouse gas (GHG) emissions throughout our community (including from Town operations) and to guide the Town in how it can adapt to climate change risks. The Town of Sidney is initiating a process to update the 2010 Climate Action Plan. The new plan will include:

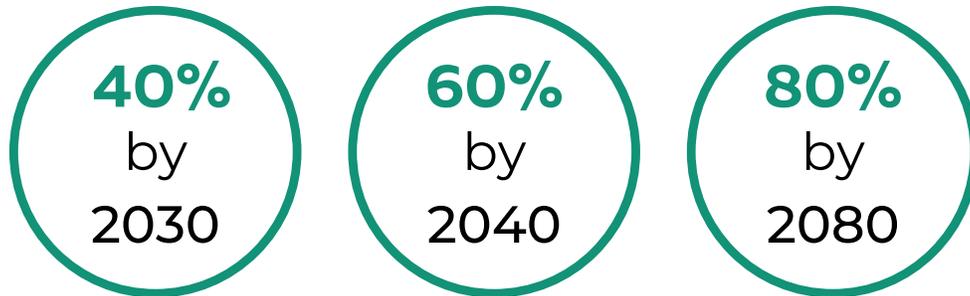
- A baseline inventory of energy consumption, GHG emissions, and local climate risks;
- Targets to reduce GHG emissions and become more resilient;
- Actions that we can take to help us achieve these targets and goals;
- An implementation strategy to ensure the plan is a success.

Why are we updating the plan?

There is strong scientific evidence that climate change is real, caused by humans, and already starting to impact life on this planet. Climate change is largely the result of a rapid build-up of greenhouse gases in our atmosphere. See the illustration below for an overview on climate change causes and impacts.



The need to take action to reduce our impact on the climate and prepare for climate change risks has been recognized by governments at all levels. The Province of British Columbia has legislated the following province-wide targets to reduce total GHG emissions (from 2007 levels):

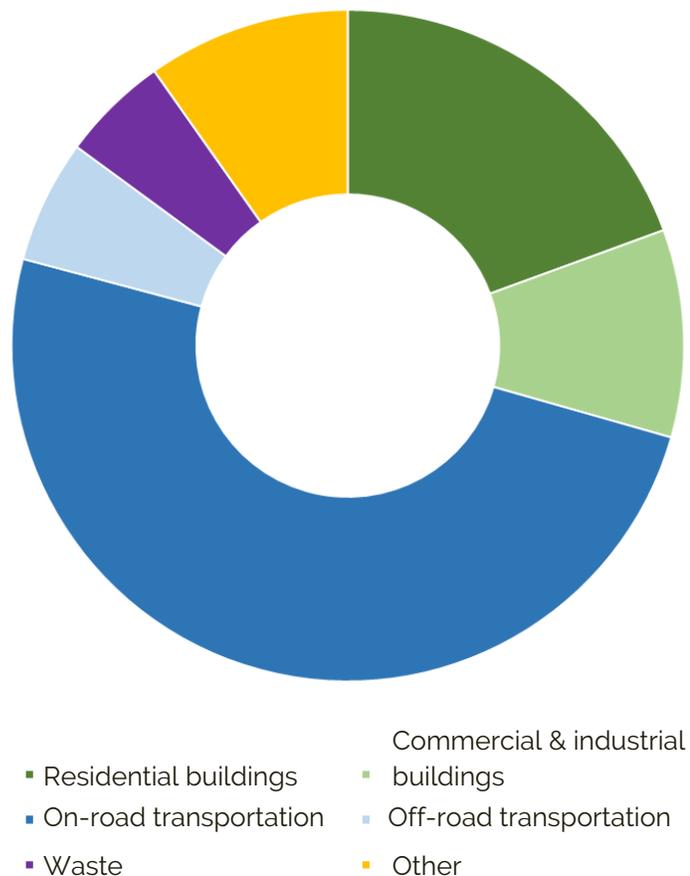


Sidney is not alone in this work. Communities across British Columbia are undertaking planning processes - such as creating or updating their CAPs - in an effort to understand the climate risks ahead and how they can be reduced so that our communities can continue to thrive for decades to come.

Our current situation

An energy and GHG emissions inventory helps us to understand how much we emit and where our emissions come from. Once we know that, we can set targets and develop actions to reduce our energy consumption and GHG emissions. In 2018, our energy consumption and GHG emissions were approximately 56,194 tonnes of carbon dioxide equivalents (CO₂e). Carbon dioxide equivalents describe the global warming potential of greenhouses gases using the functionally equivalent amount or concentration of carbon dioxide (CO₂) as the reference. The figure below shows these emissions broken down by sector as established in the latest emissions inventory completed by the CRD for all the local governments in the region.

2018 GHG Emissions (tCO₂e)



What do each of the GHG Emissions Inventory categories mean?

Transportation (56%): On-road transportation emissions estimates are based on a count of the vehicles registered in the region, an estimate of fuel consumption based on type of vehicle, and an estimate of the number of kilometres driven. Off-road transportation includes marine, aviation, and other off-road vehicles.

Buildings (29%): This includes the energy to heat, cool, and power residential, commercial and industrial buildings, as well as the activities that occur within these residences and facilities.

Waste (5%): Waste does not directly consume energy but when deposited into landfills, it decomposes and releases methane gas which is a greenhouse gas stronger than carbon dioxide.

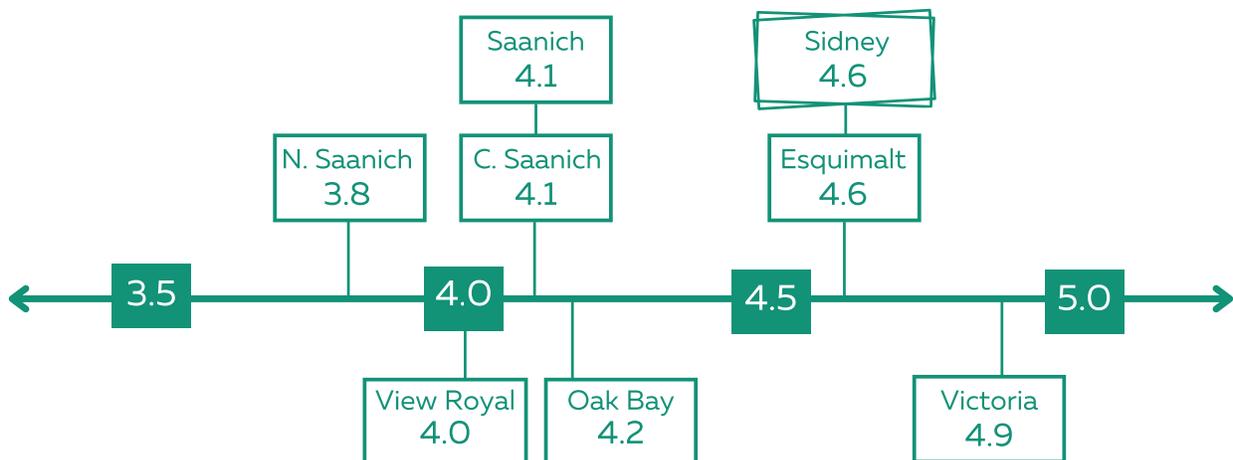
Other (10%): This category includes agriculture, forestry, fishing, land use, and certain industrial processes.

If you want to learn more about how this inventory was conducted or more specific numbers on each sector's emissions, check out the CRD's report linked [here](#).

How do we compare?

To better understand our current situation with respect to GHG emissions, it may be helpful to see how we compare to other communities in our region on a per capita basis.

2018 GHG emissions (tCO₂e) per capita comparison



FAQS

What is a greenhouse gas?

Greenhouse gases - or GHGs for short - are gases in the air, such as carbon dioxide, water vapour, nitrous oxide, and methane, that trap heat in the atmosphere. While some GHGs enter the atmosphere through natural processes, like "soil respiration," we add excess GHGs to the air primarily by burning fossil fuels (e.g., gasoline, natural gas, oil, etc) that emit carbon dioxide. This can happen when:

- We drive our cars
- We heat and cool our buildings
- We transport our goods
- Our garbage decomposes in our landfills
- We grow our food - through fertilizer use, manure management, and animal digestion
- We cut down trees that aren't replaced

What is a tonne of CO₂e (tCO₂e)?

"Tonne" is a fancy way of writing metric ton, or 2,200 pounds. CO₂e means "Carbon dioxide equivalent," which is a standard unit for counting GHG emissions regardless of whether they are from carbon dioxide or another gas, such as methane. For example, one unit of methane would be equal to around 28 units of CO₂, because it is a much more powerful greenhouse gas.

Residents in the Town of Sidney emit approximately 4.6 tonnes of CO₂e per capita. One tonne is approximately equivalent to using:

- 385 litres of gasoline (or around 10 fill-ups)
- \$200 of natural gas (20 Gigajoules)
- Electricity to heat 3 homes for a year (38,000 kW hours)

What is a climate risk?

For the purposes of our climate action planning process, a **climate risk** is a hazard that our community currently faces or will face in the future that is either caused by or worsened by climate change. This includes risks like increasing temperatures, extreme weather, and sea level rise.



OUR CHALLENGE

Our challenge as a community is to reduce our energy consumption and GHG emissions while also learning about the risks we face in our community and preparing for them.

- How much can we reduce our emissions?
- Where will we set our GHG emissions targets?
- How can we improve our resilience to climate risks?
- What policies and actions will we commit to in our CAP?

These questions and more will be addressed during the development of the Plan.

Resources

To find out more about climate change and what you can do about it, check out these websites:

Let's Talk Science - Introduction to Climate Change:

<https://letstalkscience.ca/educational-resources/backgrounders/introduction-climate-change>

Climate Reality Project - Climate Change Adaptation vs. Mitigation, and Why it Matters: <https://www.climaterealityproject.org/blog/climate-adaptation-vs-mitigation-why-does-it-matter>

David Suzuki Foundation - 10 Things You Can do About Climate Change:

<https://david Suzuki.org/what-you-can-do/top-10-ways-can-stop-climate-change/>

BC Climate Action Toolkit: <http://www.toolkit.bc.ca/>

Stay in the loop & connect

For more information about the Climate Action Plan update, please visit www.sidney.ca/climateaction or contact:

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