

NelsonNext:

A New Community Vision for Climate Action

Climate change is a global challenge that requires bold and collaborative action. Every jurisdiction, community and individual has a role to play.

The City of Nelson recognizes the need to further embrace our role and deepen our commitment to climate action. We will do this by consolidating and amplifying current climate initiatives, while also pursuing a range of additional tactics to address emerging risks and opportunities. This new chapter of climate leadership is called *Nelson Next*.

Nelson Next is an action plan and roadmap to a healthier and safer city. It is a comprehensive and dynamic framework aimed at reducing our greenhouse gas (GHG) emissions and our vulnerability to climate change impacts. This complementary approach to climate action planning coordinates and mainstreams low carbon and resilient solutions across departments, sectors, and jurisdictional boundaries. Addressing climate change in this integrated way leads to lower costs, stronger relationships and capacities, and maximized benefits to both ecosystems and human society.

Informed by scientific evidence and community experience, Nelson Next is shaped by a robust set of baseline data, and built with the enthusiastic and skilled contributions of countless residents, community organizations, local businesses, and local and regional government staff. It stands on the foundation of our previous work as a city and a community, and identifies new opportunities for increased impact on the issues that matter most to Nelsonites.

Nelson Next is a new vision for acting on climate change and will guide our community toward:

Safer communities, a more stable economy and a healthier environment

Connecting to each other and our local ecosystems

Local action, regional collaboration and global contribution

A transition to low carbon resilience that is financially accessible and benefits all citizens

Creating a great place to live now, and an even better place to live next

Our Climate Reality

Climate

The effects of climate change are already apparent in our city and region, with observable and increasing shifts in temperature, precipitation and extreme weather events. In the future, Nelson can expect to see higher average annual and seasonal temperatures with an increasing number of heat days, as well as shifting precipitation patterns with increases in annual precipitation and heavy rainfall days. These changing climatic conditions are likely to result in a range of serious impacts, such as wildfire, drought, shifts in local plant composition and increased mental health distress.

Nelson's Climate Future		Low Carbon Scenario (RCP 4.5)	High Carbon Scenario (RCP 8.5)
Variable	Baseline (Average Annual b/w 1961-1990)	Average 2041 to 2071 ¹	
Annual Mean Temperature (°C)	8.3	10.9	11.6
Annual Hot Days (27.7 °C+)	36	62.5	70.5
Annual Extreme Heat Days (30 °C+)	19.4	43.4	52.4
Annual Precipitation (mm)	640.8	666.9	675.4

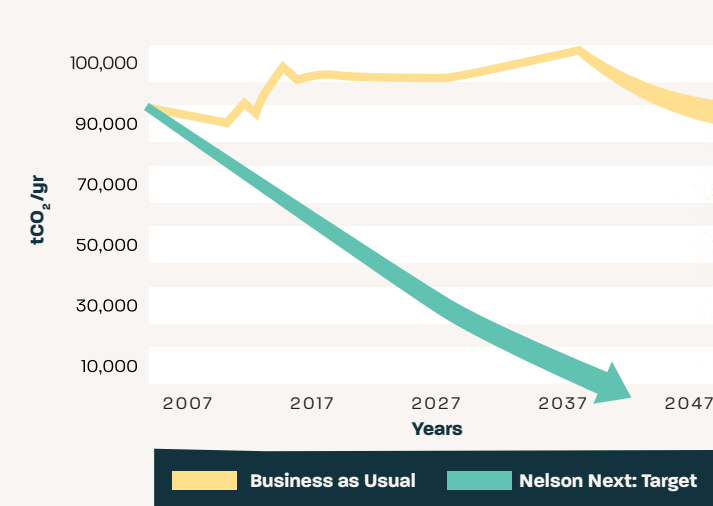
1. Note: Climate projections for the 2050s indicate the modelled average for the 2041-2070 period

Emissions

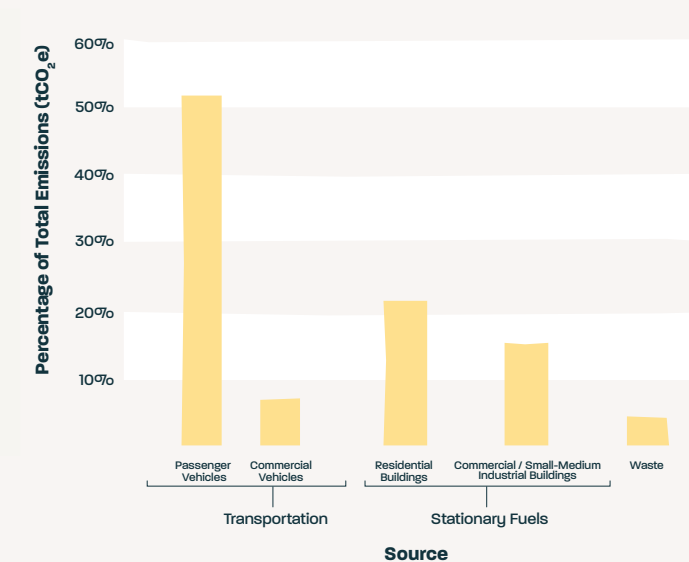
Nelson's GHG emissions are steadily increasing and off track to meet previously set targets. Since 2007, with spikes in passenger vehicle fuel and natural gas consumption, they have risen by 10.8%, and are on a trajectory to be 16.4% higher by 2040 if we continue a 'business as usual' state of affairs.

In 2018, Nelson's community emissions totalled 79,102 tonnes of CO₂e, primarily derived from vehicle use (59% of total emissions), and building heating and cooling (37%).

Historic, Projected and Targeted GHG Emissions (2018)



Nelson's GHG Emissions & Energy Consumption by Source (2018)



Our Climate Future

Nelson Next is a policy document and a dynamic guide for collaborative action. It contains a comprehensive set of solutions with high impact potential, guided by evidence and what we know our city and community can achieve.

Nelson Next includes 7 Aspirations, 23 Strategies, and a wide range of Priority, Medium and Long-Term Tactics. The *Aspirations* describe the future reality that we plan to achieve through sustained climate action, while the *Strategies* and *Tactics* focus on the shorter-term, strategic outcomes we will pursue to make our aspirational future a reality. All of Nelson's priority climate risks and emissions sources were used as inputs to define Nelson Next's direction, alongside continued feedback from the interconnected people, systems and services that define our city.

Nelson Next is guided by the following targets:

- ▶ **To ensure resilience:**
 - Address priority climate risks
 - Protect vulnerable groups from climate impacts
 - Integrate climate data and risk assessments into City planning and operations
- ▶ **To accelerate emissions reduction and limit global warming to 1.50C:**
 - A 75% reduction in community-wide GHGs by 2030 and net zero GHGs by 2040
 - Net zero municipal operations by 2030

The Roadmap

To see the specific Tactics associated with these Aspirations and Strategies, please go to nelson.ca/climatechange

Aspiration One

Nelson's residents and tourists conveniently navigate the city and region using the highest per capita rates of public, active, or electric transportation in the country.

Strategies:

- ▶ Passenger and public transport is clean, active, and shared.
- ▶ Our active and public transportation infrastructure is accessible, connected, and maintained.
- ▶ Nelson is congestion and pollution-free.

Aspiration Two

Infrastructure and buildings in Nelson are zero carbon and resilient.

Strategies:

- ▶ New buildings are net zero ready, have low embodied carbon, and are resilient against a changing climate.
- ▶ Existing buildings are retrofitted to achieve deep energy savings, reduced emissions, and climate resilience.
- ▶ Our building sector and academic institutions are leaders in green building research, innovation, and construction.
- ▶ Financial barriers to energy efficient and resilient buildings are reduced through a range of support mechanisms.

Aspiration Three

Nelson is a connected community, where all residents are prepared to work collaboratively to prevent or reduce climate change impacts.

Strategies:

- ▶ Climate change impacts are integrated into the key planning, operational, and infrastructure-related decisions made in and for our city.
- ▶ We work on innovative, creative, and localized climate solutions as a community.
- ▶ Nelson contributes to a regenerative, viable, and resilient regional food system.
- ▶ Nelson's highest priority climate risks are widely understood and collaboratively addressed.
- ▶ All residents—especially those most at risk—have high quality access to information, capacity-building opportunities, and support to better prepare for and respond to climate change.

Aspiration Four

Nelson's natural ecosystems and the services they provide us are healthy, abundant and diverse.

Strategies:

- ▶ Essential ecosystem services—such as clean air, clean water, and biodiversity—are accounted for and protected.
- ▶ Our water supply is safe, secure, and responsibly used by residents and businesses.
- ▶ Our carbon footprint is continually reduced through a range of carbon sequestration and green infrastructure innovations.

Aspiration Five

Nelson is a sustainable economy and renewable energy leader.

Strategies:

- ▶ Renewable and low-emission energy is generated locally and consumed responsibly.
- ▶ Our local economy is low carbon and prepared to adapt and thrive as the climate changes.
- ▶ Our local students and workforce are consistently engaged in capacity building and creative endeavors with positive climate outcomes.

Aspiration Six

Nelson has a thriving circular economy and generates the lowest waste per capita in Canada.

Strategies:

- ▶ Our community is committed to the zero-waste hierarchy—prioritizing waste avoidance, reduction, and reuse.
- ▶ The circular economy in Nelson is continually growing and evolving through cross-sectoral partnerships and innovation.

Aspiration Seven

We are a model city for integrated climate action and leadership, ensuring all municipal operations are low carbon and resilient, and our priority climate change actions are funded and monitored.

Strategies:

- ▶ Progress on Nelson Next is continually monitored and shared in a transparent and accessible way.
- ▶ Low carbon resilience principles and requirements are fully integrated into organizational operations and culture.
- ▶ Internal capacity development for integrated and sustained climate action and leadership is dynamic and ongoing.

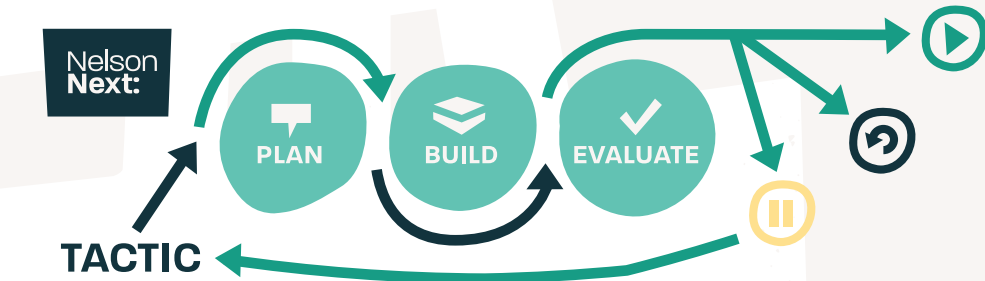
Let's Get Started!

The City of Nelson already knows how to mobilize to achieve ambitious sustainability goals. Nelson Next continues the environmental leadership our city was built on, and acknowledges the new and emerging opportunities we plan to take advantage of.

This is a new and uniquely dynamic policy direction for Nelson. As momentum is built through the delivery of priority tactics, we will monitor the Plan's impact regularly - pivoting to reflect results, and to incorporate new research and emerging technology.

Nelson Next will - and should - evolve over time. This shows we are responding to shifting conditions and changing landscapes.

Our Implementation Framework



Through Nelson Next, we aim to create new jobs, stimulate innovation, and contribute to a stronger, more inclusive, and vibrant city. Implementing this Plan will lead to a win-win scenario for the environment and the community.

Of course, the collective success of Nelson Next will require unprecedented collaboration and action from every resident, organization, business and sector. A healthier and safer Nelson is ours to build and enjoy!

Now is the time to move forward - together. Now is the time to increase our pace of action and embrace the transition required of us. Now is the time to both protect and enhance our beautiful and exciting city.

We are Nelson Now—
and we are Nelson **Next**.