




Net-Zero Strategy

2022-25



Since Science North opened in Sudbury, Ontario in 1984 it has been integral to the region's history of forward-thinking renewal, regreening and healing of landscapes and environmental sustainability knowledge growth.

As Canada's 2nd largest science centre, and Northern Ontario's most popular tourism attraction, Science North has made a commitment to visioning and implementing sustainable environmental practices across all its operations and creating experiences that increase awareness and inspire changemakers to protect our planet.

Our first Green Team was established over 20 years ago, influencing important institutional work such as reclaiming the Science North's Ramsey Lake shoreline, growing produce onsite to support in feeding our Animal Ambassadors, installing energy producing solar panels, upgrading heating, cooling, ventilation and lighting systems, offering water bottle refilling stations and implementing three stream waste management and compostable serving ware across attractions.

The Green Team consists of staff across the organization that work together to implement projects, grow knowledge and promote environmental sustainability to all staff and visitors.

Through innovative exhibits, multimedia experiences, travelling exhibitions and our IMAX films, such as the original Climate Change Show object theatre and travelling exhibition (2003) and its sequel, the Changing Climate Show (2010), Wildlife Rescue travelling exhibition (2011), the Our Climate Quest...small steps to Big Change travelling exhibition (2022) and Jane Goodall Reasons for Hope IMAX film (2023), Science North has engaged audiences across Canada and the US, Scotland, Singapore and China in climate change science.

These experiences have been celebrated for their strong science communication, creativity and educational impact through prestigious industry awards such as the Thea Award for Outstanding Achievement, the Canadian Environment Award, the American Pixel Academy, the Jackson Wild Media Award and the Canadian Association of Science Centres CASCADE awards.

Building on a strong foundation of environmental leadership, and aligning with the plans, policies and networks of the communities in which we live and work, Science North's **Net-Zero Strategy** supports the actions needed to join businesses, cities and countries across the world in achieving net-zero greenhouse gas emissions by 2050 to avert the impacts of climate change and preserve our planet.

To achieve this target, Science North will take small and big steps across all operations that will be actioned, measured and reported on annually. Each year will see the organization complete assessments, environmental scans to identify new strategies and opportunities to activate our actions, and Business and Action Plans to identify goals and set targets each year.

Building on each year's success Science North will incrementally, and sustainably, achieve net-zero targets, leading all of Northern Ontario towards a greener future.

LOCAL

City of Greater Sudbury's
Community Energy and
Emissions Plan

Sault Ste. Marie's
Greenhouse Gas
Reduction Plan

City of Thunder Bay's
EarthCare Sustainability
Plan

Kenora's Sustainability
Action Plan



REGIONAL

Green Economy North

Ontario Environmental
Bill of Rights

Ministry of Tourism,
Culture and Sport's
Statement of
Environmental Values



NATIONAL

Canada's
Net-Zero
Challenge



NET-ZERO PRIORITIES

STEWARDING
OUR SURROUNDINGS

1

2

3

4

CULTIVATING
CIRCULARITY

ACHIEVING
CARBON
NEUTRALITY

INSPIRING
MEANING





1

STEWARDED OUR **SURROUNDINGS**

PRESERVE THE BIODIVERSITY AND
HABITATS ON OUR LANDS AND IN
OUR WATERS

PARTNER WITH COMMUNITY GROUPS
ON NATURE-BASED SOLUTIONS

ALIGN APPROACHES WITH
INDIGENOUS WAYS OF KNOWING

NET-ZERO INITIATIVES

STEWARDING OUR SURROUNDINGS

- ▶ The Northern Forest on the grounds of Science North is a two-decade long effort to re-naturalize our outdoors and showcase the diversity of native plants and habitats found in Northern Ontario.
- ▶ The food garden for our Animal Ambassadors supports biodiversity, works as a carbon sink and provides fresh, local produce.
- ▶ Science North's waterfront on Ramsey Lake consists of a wide variety of native aquatic plants, terrestrial plants and snags that all help support a healthy shoreline habitat and a healthy lake.
- ▶ Science North's outdoor grounds and greenspaces are maintained using a pesticide and herbicide-free pest control system.
- ▶ Science North partners with local environmental groups and Indigenous communities to preserve and enhance our outdoor spaces, promoting the importance of planting of native species and offering the potential to increase community food security.
- ▶ In 2019-20, Science North established Northeast and Northwest Indigenous Advisory Committees to support expanded and deepened ongoing engagement with First Nations. The committees, including members of regional elementary and secondary school boards, post-secondary program managers and researchers, small business owners, tourism owners and operators, artists and educators, help guide the planning of projects through an Indigenous Seven Generations lens.

A top-down view of several children sitting around a large sheet of paper on the floor, drawing with colored pencils. The paper is covered with various sketches including a bicycle, a bear, a fish, a heart, and a globe. A green circle with the number '2' is overlaid on the paper.

2

INSPIRING MEANING

SUPPORT AN ORGANIZATIONAL
CULTURE OF INNOVATIVE THINKING FOR
CONNECTION WITH THE ENVIRONMENT

INSPIRE OUR AUDIENCES TO GROW
THEIR KNOWLEDGE AND TAKE ACTION IN
THEIR EVERYDAY LIVES

ENCOURAGE AND PARTICIPATE IN OPEN
AND ACCOUNTABLE COMMUNICATION
AND PUBLIC DISCUSSIONS

NET-ZERO INITIATIVES

INSPIRING MEANING

- ▶ Science North's first Green Team was established over 20 years ago and has spearheaded countless green initiatives. The Green Team has members representing units across the organization, including operations in Sudbury, Sault Ste Marie and Thunder Bay.
- ▶ The science centres and outreach experiences feature workshops, programs and exhibits that regularly change to engage and inspire visitors to deepen their knowledge and skills to take climate action in their everyday lives.
- ▶ Through the Climate Action Show, an onsite object theatre, Science North engages audiences with a multimedia experience that features up-to-date climate change research and inspirational stories. Beyond the science centre, the Change Agent Network provides visitors with curated, regionally relevant content related to climate actions that they have shown an interest in.
- ▶ Science North's Summer Science Camps are in Northern Ontario communities with camps focused on inspiring youth to climate action.
- ▶ The Northern Ontario Youth Climate Action Summits engage youth with current climate science and Indigenous traditional knowledge to empower youth to take climate action in their communities.
- ▶ Science North is accountable through its Annual Report and Business Plan, which highlight environmental sustainability achievements, and include a Net-Zero annual report that outlines achievement of targets.



3

CULTIVATING **CIRCULARITY**

STRIVE FOR ZERO WASTE
THROUGH THOUGHTFUL RESOURCE
MANAGEMENT

CONSERVE WATER RESOURCES WITH
EFFICIENT SYSTEMS

INVEST IN SUSTAINABLE MATERIALS
AND SUPPLIERS TO REDUCE VALUE
CHAIN (SCOPE 3) EMISSIONS

NET-ZERO INITIATIVES

CULTIVATING CIRCULARITY

- ▶ To transition travelling exhibitions to net-zero emissions by 2050, Science North has prioritized sustainable material selections, reduced travel and deliveries and is ensuring that exhibition components have continued life after decommissioning.
- ▶ With three-stream waste bins, Science North diverts a third of the waste produced at Science North sites from the landfill.
- ▶ Science North offers on site water bottle refill stations and has discontinued the sale of plastic water bottles, preventing thousands of water bottles annually from ending up as waste.
- ▶ Serving ware and take away containers at Science North's food services are 100% compostable and Science North supports local retailers and food sources in its retail shops and food services, including products that are made from recycled materials.



4

ACHIEVING CARBON NEUTRALITY

MANAGE ELECTRICITY, WATER AND GAS
RELATED EMISSIONS (SCOPE 1 & 2)
TO IMPROVE PERFORMANCE

INCREASE SELF-SUSTAINING ENERGY
SYSTEMS TO SUPPORT OUR OPERATIONS

CREATE LOW EMISSION AND
ACTIVE TRANSPORTATION
OPPORTUNITIES FOR BUSINESS,
PERSONAL AND COMMUNITY TRAVEL

NET-ZERO INITIATIVES

ACHIEVING CARBON NEUTRALITY

- ▶ Science North replaced the Heating, Ventilation, and Air Conditioning (HVAC) system in 2021 with new, high-efficiency units. The upgrade has reduced annual energy use by 8%.
- ▶ Science North produces renewable energy using the solar photovoltaic arrays (solar panels) at both Science North and Dynamic Earth. The solar power generated accounts for 10% of energy consumption at Science North and 25% consumption at Dynamic Earth.
- ▶ Science North installed two free-to-use level 2 electric vehicle charging (EV) stations in the parking lot and revitalized the existing bike shelter. These initiatives encourage more staff, visitors, and the public to drive low-carbon vehicles and consider active modes of transportation.
- ▶ Science North formally joined Canada's Net-Zero Challenge in 2022 as the first science centre in Canada to join businesses across the nation in developing and implementing effective plans to transition their facilities and operations to net-zero greenhouse gas emissions by 2050.
- ▶ Science North's commitment to achieving net-zero emissions by 2050 is supported by Green Economy Canada, a national non-profit supporting businesses, not-for-profits and the broader public sector to reduce carbon emissions each year. Membership to reThink Green's Green Economy North provides insight and support for locally relevant and impactful actions that Science North activates.

SCOPE

1

**Direct emissions
from our facilities
and operations.**

ex. natural gas
usage, fleet vehicles,
refrigerants

SCOPE

2

**Indirect
emissions from
our operations.**

ex. purchased
electricity

SCOPE

3

**Other indirect
emissions from our
value chain.**

ex. employee business
travel, employee
commuting, waste
generated, water usage,
product transport,
purchased goods
and services



1

**STEWARDED OUR
SURROUNDINGS**



2

**INSPIRING
MEANING**



3

**CULTIVATING
CIRCULARITY**



4

**ACHIEVING
CARBON
NEUTRALITY**