

# Sustainable Prosperity in Nova Scotia

Progress Report on the Environmental Goals  
and Climate Change Reduction Act

2022

# Contents

Minister’s Message..... 1

The Journey We’re On.....2

*The Environmental Goals and Climate Change*

**Reduction Act: The Journey Before Us** ..... 4

Sustainable Prosperity in Nova Scotia..... 5

**Goals** .....7

Climate Action ..... 7

Clean Air and Water..... 15

Modernizing Environmental Assessments .....16

Food and Aquaculture .....16

Circular Economy and Waste .....18

Supporting Business.....19

Supporting Youth.....22

Education and Training..... 23

Diversity, Equity and Inclusion.....25

**Onwards** ..... 26

# Minister's Message

I am pleased to file the 2022 Progress Report on the *Environmental Goals and Climate Change Reduction Act* (EGCCRA). This inaugural annual report outlines the work that has been done on the goals since the legislation was passed with all-party support in the fall of 2021.



The legislation is the province's roadmap for driving the province towards a healthy, clean and sustainable future. The 28 goals are designed to address the climate emergency by reducing greenhouse gas emissions, growing the green and circular economies, improving the health and sustainability of Nova Scotia's environment, and moving to clean, renewable energy.

EGCCRA sets a broad and ambitious agenda for responding to climate change and achieving our environmental targets by weaving together all the pieces of sustainability – environment, well-being, equity and the economy. This is an all-hands-on-deck task that my Department is leading, but all Departments across government and all Nova Scotians have a role to play. Sustainability is a shared responsibility.

I am particularly pleased with the [stories](#) included in this report of how Nova Scotians are making a difference in their communities in responding to climate change and protecting the environment.

Annual progress reports will continue each July on EGCCRA's 28 goals, which includes the strongest 2030 greenhouse gas emission reduction target in Canada – at least 53 per cent below the levels that were emitted in 2005 and achieve net zero by 2050.

This report demonstrates that great things can be achieved by working together.

Honourable Timothy Halman  
Minister of Environment and Climate Change

# The Journey We're On

Nova Scotia is a province rich in history, culture, community, rugged coastlines and bountiful landscapes. The ocean and land sustain us. Its beauty inspires artists and fuels the creativity of innovators. The social fabric of our communities is vibrant, strong and resilient.

Sense of belonging to one's community is **above average** in Nova Scotia.

But Nova Scotia is changing. The realities of climate change mean that it's getting warmer. We're experiencing more intense rain in shorter periods of time and increasing flood risks that can impact everything from homes and businesses to roads and farmland. Our communities and homes are being impacted by more erosion and flooding. Our oceans are getting warmer and more acidic.

We are seeing more blue-green algae in our lakes, and we are contending with deer ticks.

Climate change is already impacting Nova Scotia and it is important to recognize that it impacts individuals, communities and industries differently.

85 per cent of Nova Scotians are concerned about **climate change**, and **81 per cent** feel urgent action is needed.

Systemic inequities and racism profoundly affect the well-being of Mi'kmaq, African Nova Scotians, racialized peoples, immigrants, individuals living on low incomes, individuals living with disabilities, older adults, youth, 2SLGBTQ+, and women. These people are and will continue to be disproportionately impacted by climate change.

Climate change will test the strength of Nova Scotia's social fabric in new ways.

Nova Scotia has **13,000 kilometers** of coastline.

Climate impacts are detrimental to our personal health and well-being, to public health, ecosystems, food systems, our infrastructure, transportation networks and more. ***We are living in a climate crisis and addressing this requires not only climate mitigation and adaptation, but large systemic changes that shift us increasingly towards sustainability.***

Today's storm surge is **tomorrow's high tide.**

Responding to the climate crisis and shifting increasingly towards sustainability also offers us opportunities to build more climate-resilient infrastructure, improve access to clean air and water, protect the natural environment, leverage the opportunities of the clean economy, make our homes more comfortable and energy efficient, and improve our health. Together, we can seize this opportunity to drive prosperity, create jobs, support the well-being of our communities and build the clean energy economy of tomorrow.

On April 11, 2022 the Honourable Tory Rushton, Nova Scotia's Minister of Natural Resources and Renewables and the Honourable Jonathan Wilkinson, Canada's Minister of Natural Resources, jointly announced their intention to facilitate the transition to a clean economy and create sustainable jobs by refreshing and expanding the mandate of the Canada-Nova Scotia offshore energy regime. Both governments also committed to further collaborate on establishing a competitive, world-class offshore renewables sector, positioning Nova Scotia to become a world leader in offshore wind and clean hydrogen production.

“There are significant opportunities ahead for Nova Scotia as we move toward a carbon-neutral future. Recent research shows that both offshore wind and clean hydrogen hold significant potential for the province and could become important new sources of renewable energy as well as economic engines, creating jobs and influencing growth. Expanding the Canada-Nova Scotia Offshore Energy Board's mandate to include offshore renewable energy development is an important step in advancing a sustainable and inclusive energy transition in Nova Scotia. We're looking forward to supporting continued progress in increasing the production of renewable energy and reducing carbon emissions.”

Alisdair McLean  
Executive Director, NetZero Atlantic

“ In May 2022, [Sustainable Marine](#) achieved a first in Canadian tidal energy history, delivering power from a floating platform in Grand Passage to Nova Scotia's electricity grid. “This project and others are positioning Nova Scotia as a global player in the tidal energy sector and are creating green technologies, green jobs, a cleaner environment and a predictable, renewable source of electricity for Nova Scotians.

– Premier Tim Houston

# *The Environmental Goals and Climate Change Reduction Act: The Journey Before Us*

In October 2021, the *Environmental Goals and Climate Change Reduction Act* was passed in the legislature with unanimous support. It builds on a decade and a half of goal setting and sustainability work that was done under the *Environmental Goals and Sustainable Prosperity Act*. It also contributes to global efforts to improve sustainability and address the climate crisis, like the *Paris Agreement* and the *United Nations Sustainable Development Goals*. Nova Scotia is doing its part.

The new *Environmental Goals and Climate Change Reduction Act* recognizes that the health and well-being of our people and communities and competitiveness of our economy requires quick and bold action to build a more sustainable, resilient future. It recognizes that we must all work together to ensure that Nova Scotians have equitable access to a healthy, safe, and sustainable environment, as well as equal protection from environmental harm.

It is about protecting where, and how, we live today, while passing on a **safe, healthy and sustainable province** to our children and grandchildren.

The *Environmental Goals and Climate Change Reduction Act* is a road map that will guide Nova Scotia on a path of sustainable prosperity to the year 2030 and beyond. It sets the course so all Nova Scotians can enjoy a better quality of life and the benefits of being leaders in sustainability and the clean economy. It will help us seize opportunities to drive prosperity, create jobs, preserve our environment and build the clean economy of tomorrow.

Through a legislated set of principles and goals, the *Environmental Goals and Climate Change Reduction Act* aims to bring people to the table, to generate action, to work towards addressing some of the most challenging problems of our time, and to propel us towards a future of sustainable prosperity.

The *Environmental Goals and Climate Change Reduction Act* legislates Government to report annually on progress made toward the long-term objective of sustainable prosperity, including progress towards legislated goals.

This is the inaugural annual *Environmental Goals and Climate Change Reduction Act* report. It aims to shine a spotlight on the work and accomplishments driving sustainable prosperity across the province and sectors. It is an opportunity to report on the status and progress of the goals in the Act. This first report also sets some baselines and provides additional information on plans to meet the goals outlined in the Act.

## Sustainable Prosperity in Nova Scotia

In the Nova Scotia context, sustainable prosperity means acting on the principles of Netukulimk, sustainable development, circular economy, and equity. It also means taking action to address the climate emergency and recognizing that sustainable prosperity is a shared responsibility. We must move forward on this journey, together.

Sustainability is built on **relationships**.

Sustainability refers to **prosperity where economic growth, environmental stewardship and social responsibility** are integrated and recognized as being interconnected.

Making progress **together** means:

- taking action on the principles listed above and using them to guide our actions
- raising awareness of the importance of sustainable prosperity, the climate change emergency and what contributes to them both
- encouraging the growth of the clean economy and supporting all Nova Scotians to benefit from its growth, and
- supporting the well-being and quality of life of all Nova Scotians.

Making progress on sustainable prosperity is a shared responsibility. The stories featured [here](#) demonstrate the many efforts across the province that are moving the needle on sustainable prosperity. It is evident that sectors are leaning into this work, developing relationships with one another and making progress in their respective areas. Together they are making progress on the principles of the *Environmental Goals and Climate Change Reduction Act*.

The principles of the *Environmental Goals and Climate Change Reduction Act* are as follows:



## Netukulimk

As defined by the Mi'kmaq, it is the use of the natural bounty provided by the Creator for the self-support and well-being of the individual and the community by achieving adequate standards of community nutrition and economic well-being without jeopardizing the integrity, diversity or productivity of the environment.



## Sustainable Development

Sustainable development is ensuring the needs of the present generation are met without compromising the ability of future generations to meet their own needs.



## Circular Economy

Circular economy means keeping resources and products in use for as long as possible, with the maximum value being extracted while in use and, at the end of their service life, are made into other resources and products.



## Equity

Equity means recognizing people's differences and attempting to counteract unequal opportunities by considering fairness and justice.



## Shared Responsibility

Sustainable prosperity is a shared responsibility among all levels of government, the private sector and all Nova Scotians.



## Climate Action

Climate action is urgently responding to the global climate emergency. It includes both climate mitigation, which focuses on reducing greenhouse gas emissions, and climate adaptation, which focuses on resilience and responding to the impacts of climate change.

Nova Scotia has momentum that we must build on. This includes continuing to reach across sectors in partnership, building on one another's successes and learning from one another.

The Department of Environment and Climate Change has started to seek out ways to measure progress on the principles that guide sustainable prosperity in Nova Scotia. Establishing more metrics that capture societal shifts towards sustainable prosperity will involve working with partners across sectors to determine metrics that capture changes in our province.



# Goals

The *Environmental Goals and Climate Change Reduction Act* (EGCCRA) legislates goals that cover 10 topics and a broad range of issues for the Government to work towards and achieve. The legislated goals align with areas that require action in order to address many of the interconnected issues facing Nova Scotia today and to shift the path before us to one of deeper sustainable prosperity.

The *Environmental Goals and Climate Change Reduction Act* (EGCCRA) was passed less than a year ago. In the past 9 months collective action has begun to lay the foundations for progress on all topic areas through a variety of initiatives, programs and funding opportunities.

This year's report illustrates where we're at, some key accomplishments so far and where we're going over the next year.

A full list of the 28 legislated goals can be found [here](#).

*By 2030, greenhouse gas emissions in Nova Scotia will be at least **53 per cent below the levels that were emitted in 2005.** This is the most ambitious 2030 target in Canada!*

## Climate Action

Nova Scotians are already being impacted by climate change. Taking action on the climate emergency means:

1. continuing to address the causes of climate change,
2. responding to climate impacts that are already happening,
3. planning for the changes to come, and
4. identifying and leveraging opportunities in the transition to a clean and sustainable economy.

Taking action on climate change is not easy, but the benefits of action taken far outweigh the costs of inaction.

Communities are **first responders** to climate change.

In Nova Scotia there is a foundation of climate action to continue building on. Did you know that in 2021:

- 1.6 per cent of vehicles sold in Nova Scotia were electric vehicles
- 459 electric vehicle and 1600 electric bike sales received the electric vehicle incentive.
- 30.4 per cent of electricity came from renewable energy sources.

*All EV is the largest dealer of pre-owned electric vehicles in Canada. They take an educational approach to finding the right electric vehicle for customers' lifestyles and needs. They are driven by education and innovation and also work with manufacturers/educational institutions on electric vehicle programming and curriculum development to help raise awareness and break down misconceptions about EVs, help companies to transition their fleets to electric and solve unique challenges like EV supply and long wait times with innovative short-term leases*

- 26 communities in Nova Scotia have active transportation plans. Among other things, these help to identify and leverage opportunities that improve the lives of Nova Scotians in the transition to a clean and sustainable economy.
- The [What We Heard Report](#) on the *Coastal Protection Act* Regulations public consultation was published. The regulations are currently in development and are anticipated to take effect in 2023.
- Nova Scotia was ranked 3<sup>rd</sup> nationally in the [Efficiency Canada's Provincial Energy Scorecard](#).

- The Department of Natural Resources and Renewables invested \$57 million in expanding energy efficiency programming for homes and businesses across the province. \$50 million is focused on energy efficiency programs to address energy poverty and equity and \$7 million is for energy efficiency programming for businesses.
- The Departments of Agriculture, Natural Resources and Renewables, Environment and Climate Change, Communities, Culture, Tourism and Heritage are participating in the Department of Environment and Climate Change's Climate Adaptation Leadership Program
- The archeology, coastal parks, freshwater resources, electricity, Christmas tree and greenery industry, horticulture industry and cattle/sheep industry sectors are doing climate adaptation planning through the Department of Environment and Climate Change's Climate Adaptation Leadership Program.

Through the Environmental Goals and Climate Change Reduction Act departments are building on the progress that has been made. This includes, but is not limited to, the following:

Interested in learning more about electric vehicles and rebates? [EV Assist](#) can help!

Find electric vehicle charging stations across Nova Scotia here: [Electric Vehicle Charging Station Map](#)

## Investing in Climate Action

Revenue from Nova Scotia's cap-and-trade program is dispersed through the Green Fund. Since its inception, the Green Fund has dispersed over \$73 million to projects and programs that accelerate climate action.

Most energy efficiency programs that received funding in 2021 are multi year and ongoing but Nova Scotians are already seeing reductions in energy use (31,890 GJ) and greenhouse gas emissions (1,859 tonnes). With the measures installed (upgraded insulation, heat pumps, windows, doors, etc), Efficiency One expects the 785 participants and households that used these programs in 2021-22 to realize \$15.5 million in lifetime energy bill savings.

In 2021-22, the Green Fund invested an additional \$21.5 million in programs delivered by Efficiency One under the Province's Efficiency Nova Scotia franchise, including:

- \$8 million for the SolarHomes program
- \$1.5 million to expand SolarHomes to Not-for-profits
- \$8 million for the Home Energy Assessment Program
- \$1.5 million for Industrial Onsite Energy Managers
- \$1.5 million for the Off-oil residential incentive pilot
- \$1 million for Apartment and condo EV charging

Other key investments include:

- \$2 million for three years to extend the Energy Training Pilot, which was launched in 2021 and trains people from under-represented groups and racially diverse communities to become energy advisors and clean energy tradespeople
- \$1 million for flood line mapping to provide communities with coastal and inland floodplain maps that incorporate climate change.

More information about these program is available at <https://climatechange.novascotia.ca>

In 2021-22, the Green Fund also invested \$15 million to establish the Sustainable Communities Challenge Fund. The Sustainable Communities Challenge Fund is a goal in the Environmental Goals and Climate Change Reduction Act to create competitive opportunities for communities to undertake climate change mitigation and adaptation initiatives.

In April 2022, the Province announced that the Nova Scotia Federation of Municipalities was selected through a request for proposals to develop and administer the Fund. Work is ongoing and this exciting opportunity for communities to access funding for their climate change mitigation and adaptation projects will be available for years to come.

### ***Climate adaptation planning helps Departments and sectors to understand that:***

*the indirect impacts of climate change can be as challenging as the direct impacts. For example, climate change makes decision making and governance more challenging. Common agreement and clarity on roles and outcomes are very important to effectively act in a coordinated response to climate change.*

*The **Mi'kmaq Climate Monitoring Initiative** is enhancing community capacity to monitor indicators of climate change by utilizing western knowledge techniques such as weather monitoring equipment and citizen science alongside Mi'kmaq traditional knowledge, providing a two-eyed seeing/Etuaptmumk approach.*

Through the *Environmental Goals and Climate Change Reduction Act* departments are building on the progress that has been made. This includes, but is not limited to, the following:

**The Department of Environment and Climate Change** is working on a climate risk assessment and a climate change plan. The risk assessment will help us to better understand how the climate will likely change in Nova Scotia and the potential for harmful impacts on our society, environment, and economy. Building on this information and the goals in the *Environmental Goals and Climate Change Reduction Act*, the climate change plan will dive further into actions that departments across government will undertake to address climate change. These will include actions related to renewable energy, energy efficiency, community resiliency and adaptation, transportation and more.

#### Climate Action Goals

- Reducing greenhouse gas emissions
- Creating a Climate Change Plan
- Increasing zero-emission vehicles
- Increasing electricity generation with renewables to 80% by 2030
- Supporting and strengthening energy efficiency while prioritizing equitable access and benefits for low-income and marginalized Nova Scotians
- Completing a climate change risk assessment
- Phasing-out coal-fired electricity by 2030
- Adopting the 2020 National Energy Code
- Increasing active transportation
- Transitioning government buildings and government-leased spaces to net-zero energy ready and reducing greenhouse gas emissions
- Working with Nova Scotian municipalities, First Nations and African Nova Scotian communities on climate action
- Building climate change adaptive capacity and resilience in every department

***More than 370** local businesses work on Efficiency Nova Scotia projects, and they employ about 2,500 Nova Scotians.*

**The Department of Natural Resources and Renewables** is working with the **Department of Environment and Climate Change** on many issues meant to address the climate emergency. This will include actions under the climate change plan. A pivotal part of this work is transforming how electricity is generated in this province with wind, solar, tidal and other renewables. For example, a request for proposals was launched this year to add 10% more renewables to our grid through low-cost, innovative wind and solar solutions. Work is underway to explore opportunities in green hydrogen production and offshore wind, and a wide variety of programs continue to support Nova Scotians with energy efficiency at home, at work and in their communities. We're investing in clean transportation through electric vehicles, charging stations and active transportation networks that are accessible for all ages and abilities in Nova Scotian communities. This involves working with key partners such as other departments, [Nova Scotia Federation of Municipalities](#), [Municipal Energy Learning Group](#), [Bicycle Nova Scotia](#), [Ecology Action Centre](#), [Clean Foundation](#).

Developed by the Ecology Action Centre, the [Nova Scotia's Active Transportation Future](#), is an ArcGIS web app that presents the state of active transportation planning across the province at-a-glance. Quarterly updates to its dataset will allow the app to serve as a tool for monitoring progress towards achieving the province's active transportation infrastructure goal. The map can be viewed here: [https://bit.ly/NS Future Maps](https://bit.ly/NS_Future_Maps)

**Government owns about 2400 structures including:**

*52 office buildings  
(built mostly between 1950-1970)  
250+ museum buildings, justice centres, fish hatcheries, community college campuses etc.*

*Department of Public Works has over 250 leases in 54 communities across Nova Scotia with an annual rent of more than \$50 million.*

**The Department of Public Works** is progressing climate action through work related to buildings and active transportation. Over the next two years, the Department will work on completing energy audits on all government-owned buildings so they can chart next steps in transitioning them to be more energy efficiency and net-zero energy ready and measure their progress.

The Department of Public Works is also working on improving active transportation in Nova Scotia by continuing to collaborate with other government departments to develop the Provincial Active Transportation Strategy. Upon completion of a draft strategy, it is the Department of Public Work's intent to engage external stakeholders to gain their ideas and input. The strategy will be completed by 2023.

**Core active transportation networks** are central and connected networks of active transportation facilities for walking, biking, or rolling to and from key community destinations.

Government is exploring opportunities to become a leader in green hydrogen production. Green hydrogen is hydrogen that is produced using renewable energy sources. Green hydrogen has potential to help with our transition to clean and renewable energy in circumstances where fossil fuels cannot quickly and easily be replaced by renewables. We are exploring all scenarios where hydrogen can advance development of our renewable resources, supply the demand for clean energy (domestic and export) and help build our green economy.

The Department of Municipal Affairs and Housing is improving energy efficiency in buildings by working to review the **2020 National Energy Code for Buildings**, published by the Government of Canada on March 28, 2022, to gain a full understanding of the changes and their application, and the potential impacts to the province (including industry, contractors, municipal building officials, designers etc.)<sup>1</sup>. The Energy Code for Buildings helps define the minimum energy efficiency requirements for the construction of new buildings.

*The **2020 National Energy Code for Buildings** is a tiered energy code, which takes an incremental approach to achieving more energy-efficient buildings. This novel approach raises the minimum standard while pulling ambitious builders and designers towards higher performance building practices.*

**60 km of vulnerable dykes are currently being upgraded** to protect tens of thousands of residents, businesses, historical and world heritage sites, Mi'kmaw communities, and more than 20,000 hectares of farmland.

<sup>1</sup>The National Energy Code for Buildings, National Building Code, National Plumbing Code and National Fire Code work together and need to be adopted together.

## Protecting Land and Sustainable Forestry

### Lands and Forestry Goals

- 20 per cent land and water protection
- Release a collaborative protected areas strategy
- Implement an ecological forestry approach for Crown lands
- Identify the per centage allocation of Crown land dedicated to each pillar of the triad model of forest management

*Nova Scotia is home to the **Tobeatic Wilderness Area** – the largest protected area in the Maritimes.*

Protected land and water and the sustainability of our forests are important to Nova Scotians. They give us places to connect with nature, offer opportunities for recreation, research, economic development, and supports our mental and physical health. They play a role in supporting natural climate solutions, reversing biodiversity decline, and sustaining clean air and water – things that we sometimes take for granted.

*The Province has designated **Owls Head** as a provincial park. The new park is made up of Crown lands totalling 266 hectares and includes three islands. Some survey work and administrative steps are necessary before the designation is complete.*

In Nova Scotia **12.8 per cent of land is protected**. The Province is working closely with Mi'kmaq in Nova Scotia, land trusts, and other partners to advance land and water protection with the support of the Canada Nature Fund. Recent accomplishments include advancing discussions on Indigenous Protected and Conserved Areas, acquiring about 1,500 hectares of private lands important for wildlife and biodiversity, and working with municipal partners to recognize the protection of ecologically important municipal lands.

***“Ecological Forestry”** is described at length by [Lahey \(2018\)](#), but fundamentally it means that management of the forests is based on maintaining, enhancing or restoring the ecological functions in an ecosystem in which biodiversity is one of the most important considerations.*

In Nova Scotia, sustainable forestry is supported through the [Silvicultural Guide for the Ecological Matrix](#), which was developed in response to recommendations in the [Lahey Report](#). It establishes an ecological forestry approach to forest management through a triad model.

*The **triad model of ecological forestry** being adopted on Crown land consists of three legs that work together: conservation zones, high production forestry zones and mixed use or matrix zones.*

**The Departments of Natural Resources and Renewables and Environment and Climate Change** are working collaboratively to increase the amount of land protected in Nova Scotia by designating the remaining sites from the [2013 Parks and Protected Areas Plan](#) and developing a Protected Areas Strategy. By December 31, 2023, the strategy will be complete.

They are also continuing to work towards fully implementing an ecological forestry approach on Crown lands by supporting contractor training for the forest industry and working to define how and where high production forestry (one leg of the triad) can take place on Crown lands.

### **The Earth Keeper Network**

The Nuji Kelo'toqatijik Earth Keeper Network consists of Mi'kmaw community members, called Earth Keepers or Nuji Kelo'toqatijik, who take a leading role in protecting the natural world through environmental monitoring and reporting, the education on Mi'kmaw rights and responsibilities, and the revitalization and intergenerational sharing of Mi'kmaw Knowledge. Additionally, Earth Keepers play a central role in upholding and educating about Mi'kmaw environmental laws, concepts, and principles, such as Netukulimk, Ms~t No'kmaq and Etuaptmumk.

### **The Mi'kmaq Forestry Initiative**

*is restoring and promoting the concept of Netukulimk when harvesting forest products on large land tenures across the province that are managed by the Assembly of Nova Scotia Mi'kmaq Chiefs*



## Clean Air and Water

Nova Scotians want a healthy and clean environment. The quality of the air we breathe and the water we drink impacts our health. Having cleaner air and water are proactive steps we can take to improve the health of Nova Scotians and reduce the burden on our health care system. It also helps us support the health of our ecosystems and species and our resilience to climate change.

### Clean Air and Water Goals

- Managing Nova Scotia's air zones
- Reviewing and updating Nova Scotia's air emission targets and ambient air standards
- Developing water quality objectives
- Addressing barriers Nova Scotians face to testing and treatment of rural wells

The most recent data (from 2020<sup>2</sup>) indicates that all air zones in Nova Scotia meet the **Canadian Ambient Air Quality Standards**. Through the Canadian Ambient Air Quality Standards and principles of air zone management, the province strives to continuously improve air quality. In June 2022, the Department of Environment and Climate Change launched **external engagement** on revised ambient air standards, which will support air quality.

*Read Nova Scotia's Air Zone Reports [here!](#)*

*Learn more about Blue-Green Algae [here!](#)*

Nova Scotia is working to develop clear targets for water quality in lakes and aquifers that will be used as a basis for regulatory and planning decisions that affect water. The Department of Environment and Climate Change will be conducting literature, technical and jurisdictional reviews over the coming year to establish science-based water quality targets for Nova Scotia lakes and groundwater quality. They will also develop policy recommendations for how to implement the targets.

*Find more information on testing your well water [here!](#)*

Finally, among Canadian provinces, Nova Scotia has the second highest reliance on household wells (42 per cent), but lowest rate of testing (18.8 per cent). Nova Scotia has some of the highest concentrations of contaminants in private well water in Canada, including naturally occurring arsenic, uranium, fluoride and manganese. This is why testing of household wells is important. **The Department of Environment and Climate Change** is using a behavioural insights approach to explore how household well testing rates can be improved. Understanding behaviour and decision-making around well-water testing allows the department to explore recommendations that will best support Nova Scotians in testing their well-water and in turn support their health.

<sup>2</sup> Nova Scotia Air Zone Reports | Air

## Modernizing Environmental Assessments

Environment assessments support planning for large projects. They ensure that companies identify and mitigate potential impacts to the environment of their proposed projects prior to projects being constructed. This allows sustainable development to occur while the environment is protected.

### Modernizing Environmental Assessments Goal

- Modernize the environmental assessment process

The Environmental Assessment Regulations were developed in 1995. The last substantial update was in 2008. An external review in 2013 identified gaps and opportunities.

The **Department of Environment and Climate Change** is working to create a modern regulatory environment that balances economic opportunities with environmental protection, and considers Netukulimk, diversity, equity and inclusion and climate change.

In 2022/2023 the Government added an additional staff person to the Department of Environment and Climate Change to support this work and also to enhance the ability of the Department to advance new renewable energy projects as they develop sustainably and proceed through the environmental assessment process.

By July 2023, the Department plans to be preparing to get public feedback on proposed changes to the environmental assessment process.

## Food and Aquaculture

The food we eat supports our health and financially supports the farmers, fishers and the entire food value chain who work to produce it. Sustainability of our agriculture and aquaculture are essential to the health of our people and our planet.

*The **Amu Esmit project** is working towards building agriculture and apiculture capacity in communities by being guided by Netukulimk to utilize the gifts given from the earth, while sustaining our future generations.*

In an effort to support increased primary production and processing capacity, improved access to locally produced food, food security and economic growth in our rural communities the **Department of Agriculture** is:

- creating a clear, replicable process for measuring local food consumption.
  - This involves discussions on data tracking and increased production with agricultural partners, including producers, processors, farmers markets, Taste of Nova Scotia and retailers. It also includes fostering and adopting procurement initiatives in public institutions.
- leading and developing a Nova Scotia Food and Beverage Strategy with increased local production as a pillar. This involves designing an annual strategy progress report.

***Nova Scotia has the most farmers' markets per capita in the country!***

*Nova Scotia's farmers' markets are the birthplace of Nova Scotia's buy local movement. They're small business incubators, job creators, and social and economic hubs in their respective communities. They play an incredibly important role in providing healthy local food and essential goods to Nova Scotians and are poised to strategically launch the Province's new Nova Scotia Loyal program.*

*Find a [Farmers' Market](#) near you!*

The Farmers' Markets of Nova Scotia Cooperative advances growth and prosperity for Nova Scotian member farmers' markets and their vendors through training, resources, advocacy, promotion, and community. Their [Nourishing Communities program](#) gives participants an anonymous alternative currency—or “food bucks”—that can be redeemed at any vendor stall at their local farmers' market. Last year 27 farmers' markets participated and over \$260,000 worth of food coupons were distributed to over 550 low-income households. This program helps to address food insecurity, build community and support small, local businesses.

*In 2020, **235 aquaculture sites** were issued*

In an effort to support sustainable aquaculture, the **Department of Fisheries and Aquaculture** is conducting a regulatory review of Nova Scotia's aquaculture regulations. The goal of this review is to identify ways to improve the regulations, so they support the low-impact, sustainable growth of the aquaculture industry. Through the Nova Scotia Aquaculture Regulatory Advisory Committee, government will engage with stakeholders and the public to collect their input on the regulations. Recommendations from the review are expected to be ready this year. Changes to legislation and regulations are expected to be finished in 2023 or 2024. You can learn more about the regulatory review here: [Aquaculture regulatory review – Government of Nova Scotia, Canada](#).

## Circular Economy and Waste

We live on a planet with finite resources. We must live within its limits. To do this, we must move away from our linear habits of using resources, making products, using them and then disposing of them. We must shift towards a more circular economy. In a circular economy, nothing is assumed to be waste. It's about using and reusing resources wisely, thinking about waste as a resource instead of a cost, and finding innovative ways to better the environment and economy. A circular economy fights climate change and expands our green economy.

Growing our circular economy will help Nova Scotia businesses compete and succeed.

### Circular Economy and Waste Goal

Encourage the growth of the circular economy, including expanding extended-producer responsibility, reducing single-use plastics, and reducing solid waste disposal rates to no more than 300 kilograms per person per year by 2030. A plan will be developed by 2023 to meet this solid waste goal, including specific actions and interim targets.

**Extended Producer Responsibility** (EPR) requires brand owners to manage their products at the end of their life.

*Similar to extended producer responsibility, **stewardship programs** are another model for managing materials and diverting waste.*

Did you know that:

- Currently Nova Scotia produces 402 kg of waste, per person, per year.
- There are over 4000 jobs in the solid waste sector and many more in the broader circular economy in Nova Scotia.
- There are Extended Producer Responsibility programs in Nova Scotia for paint, electronics, used oil and glycol
- Consultation on adding printed paper and packaging (blue bag materials) and batteries, lighting and additional electronics to extended producer responsibility programs happened in the winter of 2022.
- Nova Scotia has stewardship programs for used beverage containers and tires.
- Single use plastic retail bags are banned from distribution at checkout counters in Nova Scotia.

The Government of Nova Scotia invested \$2.5 million in the Verschuren Centre for Sustainability in Energy and the Environment in Sydney to expand into a national biomanufacturing centre. The Verschuren Centre helps clean-tech companies develop and commercialize innovative and sustainable technologies. Biomanufacturing is the process of using living systems, including plant and animal cells, to produce commercial materials. The Verschuren Centre is already home to a bioreactor – one of only three in Canada – but its expansion into a national bioprocessing centre will increase its bioreactor capacity by more than 10 times. The new facility will be a first of its kind in Canada and result in an initial 40 jobs with an aim to attract 10 new companies per year.

In an effort to continue reducing waste and creating momentum towards a circular economy the **Department of Environment and Climate Change** is developing a plan to reduce waste in Nova Scotia to 300 kg/ person/ year. It will include milestones. The plan is due by December 2023.

The Department will also continue to track the number of new items added to extended producer responsibility and stewardship programs over the coming year.

## Supporting Business

Nova Scotia has many innovative and clean businesses contributing to the local economy and demonstrating sustainability practices. There are also so many opportunities on the horizon for businesses in Nova Scotia related to sustainability, circular economy, climate action, innovation and diversity and equity. Government is able to support businesses through procurement, as well as programs, initiatives and funding opportunities. Businesses play a key role in driving sustainable prosperity in Nova Scotia.

[Upswing Solutions](#), headquartered in Halifax, Nova Scotia, is a consulting company that helps organizations thrive in the clean economy. They work with executives to integrate environmental, social and governance (ESG) into business strategy, and deliver critical research to inform public policy on the transition to net-zero. Some of their clients in Nova Scotia include [Bend Beauty](#), [Oberland Agriscience](#) and [Ulnooweg Development Group](#).

**The Department of Service Nova Scotia and Internal Services** is working to support sustainable procurement by:

- Strengthening Policy Language and Clarifying the Rules
  - Expanding existing Sustainable Procurement Policy language to include diversity suppliers
  - Identifying opportunities to re-emphasize sustainability in evaluation of procurement applications
- Removing Barriers and Creating New On-ramps for Diversity Suppliers
  - Exploring the creation of simplified processes to remove barriers for small-to mid size-enterprises, diversity business and social enterprises in certain types of purchasing.
  - Increasing awareness of opportunities of all sizes by working collaboratively with existing diversity supplier networks to forge a greater connection between public sector purchasers and diversity suppliers
- Identifying Opportunities for Matching Diversity Suppliers with Purchasers
  - Developing a self-registration, searchable directory of goods and services offered by diversity suppliers and social enterprises to raise purchaser awareness of local suppliers.

*Did you know that Government's procurement system, **Flextrack**, currently has six social enterprise companies and 374 Aboriginal, minority or women owned companies as vendors in its system?*

### Supporting Business Goals

- Increasing innovation, sustainability, diversity and inclusion in government procurement and considering community benefits attached to procurements.
- Encouraging innovative, sustainable and green businesses to establish or relocate to the province
- Promoting an environment to enable innovative, sustainable and green business start ups
- Working with small businesses across the province and in all sectors to get their feedback on potential ways to further enable them in taking action to reduce emissions

***A social enterprise** is operated for the purpose of addressing social, cultural, environmental, or economic challenges. The majority of profits or surpluses are reinvested to support that purpose.*

**The Department of Economic Development** is taking a regional approach and engaging with businesses to learn more about their challenges and opportunities related to sustainability.

Key activities include:

- Implementing the Innovation Rebate Program through Nova Scotia Business Inc.
- Building an inventory of programs to align with this goal
- Establishing a plan for tracking

This approach is focusing on encouraging innovative sustainable and green businesses to relocate to the province and promoting an environment that enables sustainable and green start ups.

The Department of Economic Development will continue to track stakeholder meetings as well as the number of environmentally conscious partnerships established with the Department. Finally, they are reviewing programs and tools available that could be improved to support small businesses in reducing their emissions.

***Did you know that in 2021:***

*1149 businesses/ entrepreneurs/ start-ups participated in start-up or scale-up programming*

*59 per cent of businesses/ entrepreneurs/start-ups who participated in available programming were identified as being green or sustainable.*

**The Department of Environment and Climate Change** is also supporting sustainable development by taking a client-service and education-oriented approach with businesses who are regulated under environmental approvals. The Department established two new Business Relationships Managers to support this. They provide information, make connections with staff, guide businesses through the environmental regulatory approval process, and provide status updates and next steps. This saves businesses time and makes the process clearer and more efficient. The Department is also supporting industry and businesses and sustainable development by modernizing and streamlining regulatory pathways, providing client service training to its management team, and updating its website with user-friendly infographics explaining the environmental regulatory process. The Department of Environment and Climate Change recognizes the jobs and economic opportunities that industry and the natural resources sector contribute to the province and is committed to working with these companies to ensure sustainable development that benefits the well-being of Nova Scotians, the environment and the economy.

## Supporting Youth

Our youth are experiencing “climate anxiety” and they feel as though the social contract, that older generations leave things better for the next generation, is broken. The Environmental Goals and Climate Change Reduction Act aims to address this, to mend this social contract, by making changes now and to ensuring that youth are positioned as leaders in the clean economy.

### Supporting Youth Goal

Support youth in Nova Scotia in engaging in the clean economy through sustainability-based youth employment leadership programs in Nova Scotia.

*‘Climate anxiety’ is a sense of fear, worry or tension linked to climate change.*

In an effort to support this, the **Department of Environment and Climate Change** has dedicated \$750 k for the **Clean Leadership Program** over five years (2020-2025). In addition to this, in 2021, the Department of Environment and Climate Change announced that \$2 million from the Green Fund would be dedicated for the Clean Leadership Program Climate Cohort. These programs provide paid hands-on experience, mentorship and professional development training in the clean economy.

**The Green Fund supports climate action in Nova Scotia.**  
**Learn more about the Green Fund at <https://climatechange.novascotia.ca/nova-scotias-cap-trade-program>**

Currently, through the Clean Leadership Program, 121 Clean Leaders are placed in a combination of in-person and virtual internships across the Province of Nova Scotia. The program includes professional development training. During training, Elder Albert Marshall attended to do an in-depth information session on Two-Eyed Seeing. All the 15-week interns are participating in a mentorship program where they are matched with an individual who meets similar demographic characteristics and career paths. All the interns who self-identified as an individual of African descent were given the option of matching with a mentor who also identifies as the same. There was also some cross matching to increase diverse relationships and learning.

**Interns that identify as:**  
**Indigenous: 30**  
**A person of African descent: 12**  
**Having a disability: 12**  
**2SLGBTQIA+: 27**  
**A Visible Minority: 18**



Last year, the Department of Environment and Climate Change also supported youth by providing \$15k to the Rural Communities Foundation of Nova Scotia, for three schoolyard outdoor education infrastructure projects for community empowerment on climate change. They also provided \$4900 for the Thinkers Lodge Youth High School Retreat for Climate Action.

The **Department of Environment and Climate Change** will continue to fund sustainability-based youth employment leadership programs in Nova Scotia, as well as supporting initiatives designed by and for youth related to the clean economy.

## Education and Training

Education and training are fundamental to making progress on sustainable prosperity. They empower people with the knowledge and skills they need to make decisions that align evolving information on climate impacts and the principles of sustainability.

### Education and Training Goals

- Promote and support climate change education
- Modernize apprenticeship programs in Nova Scotia so the province has the trades people needed to meet the demands of the clean economy.

*The Clean Foundation offers education opportunities for teachers and their students. From superhero puppets to home efficiency, and from watershed action projects to work-place lunch and learns, there's something for everyone.*

*Divert Nova Scotia is supporting environmental changemakers by offering activities and lesson plans on a variety of topics for a variety of ages!*

**The Department of Education and Early Childhood Development** is working to support climate change education and sustainability by updating resources in the Science 10 course for environmental stewardship & climate change. Work to date has included:

- Consultation with African Canadian Services and Mi'kmaq Services Branches to review potential resources
- Agreements have been secured with Learning for a Sustainable Future, The Discovery Centre, and the Department of Natural Resources and Renewables to create a series of interactive learning resources
- Established new resources for the course

A new elective course, Environmental Studies 12, is also being developed. Materials to pilot this course are expected to be available in the 2023-2024 school year.

*Etuaptmumk is the Mi'kmaq word for Two-Eyed Seeing*

Over the coming year, professional development opportunities will also be designed in collaboration with Regional Centres for Education (RCEs)/Conseil scolaire acadien provincial (CSAP), Nova Scotia Teachers' Union (NSTU) and other government departments as new/updated curriculum and resources are implemented.

**The Nova Scotia Apprenticeship Agency** is also working to support training and education related to sustainability and the clean economy through modernization of apprenticeship programs. This is important because it will help ensure Nova Scotia has the trades people needed as the province transitions to a clean economy. The Nova Scotia Apprenticeship Agency is developing a plan to ensure the trades training and certification system responds to the goals around reducing greenhouse gasses, zero-emission vehicles, and transitions to clean energy. This plan will include technical training curricula being developed or upgraded to include climate basics and best practices of low carbon building construction and electric vehicle maintenance.

Currently, students enrolled in the 75+ programs in the College's schools of Technology and the Environment and Trades and Transportation (the two largest of Nova Scotia Community College's five academic schools) must prove knowledge and skill in the area of sustainability in order to graduate. This is particularly impactful as an annual survey of NSCC graduates shows that alumni overwhelmingly choose to live and work in Nova Scotia (in the field they were trained for). This ensures that thousands of skilled graduates who have been specifically trained in the area of sustainability are entering the workforce year after year – helping to positively influence Nova Scotia's future.

## Diversity, Equity and Inclusion

We know that climate change impacts people differently. We know that equity is key in sustainability and addressing climate change. Equity begins by recognizing an imbalance in fairness and justice, and then coming to the table to listen and build genuine relationships.

All Nova Scotians deserve to be protected from environmental harm and to benefit from the work we do together to improve sustainability and address climate change. To ensure this is true, work must be done to address inequity and environmental racism.

Equity is a principle of the *Environmental Goals and Climate Change Reduction Act* because **sustainability is impossible without equity**. All actions and initiatives under the Act must be done through an equity lens.

### Diversity, Equity, and Inclusion Goals

- In 2022, initiate work with racialized and marginalized communities to create a sustained funding opportunity for climate change action, and support community-based solutions and policy engagement.
- Create a panel to address environmental racism by the end of 2022 with recommendations for redress coming to the Province by the end of 2023.

*After significant community engagement, the Dismantling Racism and Hate Act which was developed in the Office of Equity and Anti-Racism Initiatives, passed unanimously. This act mandates the development of an equity and anti-racism strategy by June 2023.*

Addressing environmental racism requires working with community in relationship, building trust and listening to their recommendations. The **Office of Equity and Anti-Racism** and the **Department of Environment and Climate Change** are working together to create a panel by the end of 2022, which will address environmental racism.

The work legislated in the *Environmental Goals and Climate Change Reduction Act* aims to address a broad range of issues facing Nova Scotia. The principles of Netukulimk, sustainable development, equity, circular economy, climate action, and a shared responsibility responsibility are lenses for the work that must be undertaken. Without these principles, the work will fall short in supporting the health of Nova Scotians, the resiliency of our communities, the strength of the clean economy and the biodiversity and well-being of our ecosystems.

# Onwards

Every year, we will report on the progress of the principles and goals legislated by the *Environmental Goals and Climate Change Reduction Act*. We will tell the **stories** of the change makers across sectors, and across the province who are contributing to sustainable prosperity in our province.

In addition to the work mentioned in this report, departments will continue to establish ways of measuring progress and the Department of Environment and Climate Change will continue to establish ways of measuring initiatives that further Netukulimk, sustainable development, equity, circular economy, climate action, and shared responsibility in Nova Scotia.

The work legislated by the *Environmental Goals and Climate Change Reduction Act* is ambitious, and it needs to be. Climate change means that change is here, and more is coming. Aligning our actions with the *Environmental Goals and Climate Change Reduction Act* is our opportunity to write our future. Together.

While action is underway, there is much work to be done. The momentum has begun and now we must build on it together.

Onwards.



