



*Environment, Energy, and Climate Action*

# ANNUAL REPORT

2022-2023



# **Annual Report**

For the Fiscal Year April 1, 2022 to March 31, 2023

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## Message from the Minister



The Honourable Antoinette Perry  
Lieutenant Governor of Prince Edward Island

May It Please Your Honour:

It is my privilege to present the Annual Report of the Ministry of Environment, Energy and Climate Action for the fiscal year ending March 31, 2023.

Respectfully submitted,

Steven Myers,  
Minister of Environment, Energy, and Climate Action

## Deputy Minister's Overview



The Honourable Antoinette Perry  
Lieutenant Governor of Prince Edward Island

May It Please Your Honour:

It is my privilege to present the Annual Report of the Ministry of Environment, Energy and Climate Action for the fiscal year ending March 31, 2023.

The report contains highlights and a general description of the work carried out by the department.

Respectfully submitted,

Norbert Carpenter  
Deputy Minister of Environment, Energy, and Climate Action

## Department Overview

### **Mandate**

Environment, Energy, and Climate Action has a mandate to promote the protection of public health and safety of Islanders and is responsible for the stewardship of our environment and natural resources. This includes responsibility for the quality of our air, water, land and natural habitat, and assessing the impact of undertakings on human health, wildlife and the environment, including climate change. Activities which help promote public acceptance of responsibility for the environment, and sustainability of our natural resources, are included in this mandate.

### **Mission**

Our mission is to build an adaptive and strong society through the integrated priorities of people, prosperity, engagement and environmental protection.

### **Vision**

To enhance our quality of life, advance our economic growth, and build healthy, vibrant, and safe communities throughout Prince Edward Island.

### **Organization**

The operating and capital budgets are presented in Appendix 1 and an organization chart in Appendix 2.

## Strategic Direction

Particular priority has been given to:

- Work with the UPEI School of Climate Change and Adaptation to create a 25-year coastal management plan;
- Increase setback requirements in sensitive areas, including shorelines;
- Launch a Community Energy Initiative by working with local non-profit and community organizations to have local ownership of renewable energy initiatives such as wind turbines, solar projects, and biomass, whereby profits go directly back to local communities;
- Implement all recommendations from the Emergency Forestry Task Force, and work with the newly formed Forestry Commission to help them review and make recommendations for Provincial forestry policy, programs and legislation;
- Continue to develop an Energy Blueprint for our province;
- Work with utility providers, ensure proper preventative measures are in place to reduce power outages, and build capacity to increase restoration efforts when power outages do occur;
- Increase nursery tree production, by 30 per cent to 1,300,000 trees per year;



- Become Canada's most EV-friendly province in Canada by expanding the charging network across the province, especially in rural communities;
- Increase funding to expand the PEI Watershed Alliance to ensure in-shore fisheries are protected; waterways are kept clean; and trees are planted;
- Stabilize funding to The PEI Wildlife Conservation Fund to ensure they can continue to work with grant applicants to educate, protect wildlife and their habitats, and facilitate complementary research efforts;
- Build electrical grid resilience, in partnership with the federal government, through on-Island generation and storage, and assess the viability of burying power lines to protect the power supply during weather events;
- Create a pilot for a green on-Island generation project;
- Establish a generator power network to ensure essential services and critical infrastructure can continue during significant disruption periods;
- Expand the Free Heat Pump program to include household incomes up to \$100,000 by 2024;
- Work with the Minister of Transportation and Infrastructure and the Minister of Education and Early Years to introduce 'Solar for Schools', increase renewable energy, and provide an opportunity for learning about renewable energy and clean technologies;
- Continue to develop the Clean Tech Park in Georgetown as a state-of-the art facility to foster innovation, learning and economic prosperity;
- Work collaboratively with stakeholders and the PEI Bio Alliance to establish the Clean Tech sector on Prince Edward Island as an emerging industry; and
- Work with the Minister of Economic Development, Innovation and Trade, and lead business attraction efforts to build the Clean Tech sector on Prince Edward Island.

## Divisions

### Environment

#### *Environmental Land Management*

The Environmental Land Management (ELM) Section oversees a variety of environmental legislation that provides protection to water, soil, and wildlife. The legislation includes section 9 of the *Environmental Protection Act*; administration of the Waste Resource Management Regulations; the Excavation Pits Regulations; and the Watercourse and the Wetland Protection Regulations.

The Section is also responsible for overseeing contamination prevention and compliance, especially with regard to petroleum products. These responsibilities include the enforcement of the Materials Stewardship Recycling Regulations; Contaminated Sites Registry Regulations; Environmental Records Review Regulations; and the Petroleum Hydrocarbon Remediation Regulations under the *Environmental Protection Act*.

## Progress in 2022-2023

The Section is working to update regulations under the *Environmental Protection Act* to ensure the continued enforcement of best practices for the protection of water, soil, and wildlife.

The ELM Section processed several permitting requests, environmental records reviews, and enforcement violations. The Section is currently working to update regulations under the *Environmental Protection Act* to ensure the continued enforcement of best practices for the protection of water, soil, and wildlife.

### Environmental Assessment

The Environmental Impact Assessment (EIA) Section has an established review process to identify development projects that may have a negative impact on the environment. These projects include smaller residential developments as well as larger commercial and industrial ones.

The EIA review process ensures that a project applicant, the federal and provincial regulatory agencies, and the public are all able to identify and address environmental issues that may arise as a consequence of development proposals. Proposals for commercial and industrial projects are brought forward to the EIA Section via Development Permit Applications, or directly through an application by a project proponent. Design changes, or relevant mitigation measures to reduce or avoid any unacceptable environmental impact are a requirement of the approval process.

During the report period two projects were approved and no projects were rejected. The approved projects were for a change of ownership at Amar Seafoods (formerly Halibut PEI), and renovations at the PEI Energy Systems Waste to Energy facility. Overall, fewer EIA documents were submitted during the report period. The EIA Section is continuing to develop new EIA legislation in the coming year.

### Environmental Emergency Responders

The ELM Section has a dedicated Environmental Emergency Response Team (EERT) which attends all environmental emergencies. The five-member response team is on call 24 hours a day and is notified of an emergency by the National Environmental Emergency Centre (NEEC), or by the Department of Environment, Energy and Climate Action. The team responds to petroleum, pesticide and chemical spills, air quality problems, or fish kills.

During the report period the EERT responded to 47 hazardous materials events; 24 wastewater bypass events; 13 air quality concerns; and 17 other incidents identified by the NEEC. During Hurricane Fiona ELM staff completed damage assessments to identify environmentally impacted areas of concern. ELM staff responded to 99 hazardous material events as captured by the information management and compliance database.

In recent years the number of petroleum related spills has decreased as residential and commercial properties transition to electric heat. However, petroleum related events still comprised 77 per cent of all hazardous material incidents reported.



The ELM Pollution Prevention and Compliance group continues to update its Petroleum Hydrocarbon Remediation Regulations in concert with the other Atlantic provinces.

### **Environmental Record Reviews**

ELM staff regularly receive and respond to environmental records review requests. In most cases, confirmation is sought regarding the existence of any environmental risks associated with properties. Environmental records review requests involve the examination of departmental files and electronic databases, including the Contaminated Site Registry.

During the report period staff processed 160 environmental record review requests. ELM staff continue to work to ensure the Contaminated Site Registry is updated. During the report period two petroleum impacted properties were added to the Contaminated Site Registry.

### **Inspection and Permitting Responsibilities (Waste Management Facilities, C&D sites, Recycling Facilities, and Excavation Pits)**

The ELM Section inspects and provides permits for waste-management and recycling facilities, construction and demolition disposal sites, and excavation pits. Ensuring these facilities are operating in compliance with their respective legislation is important for the protection of those managing environmental waste material.

During the report period 1 composting facility; 1 landfill facility; 4 construction and demolition debris sites; 111 licensed excavation pits; and 53 recycling facilities were permitted to operate. In the aftermath of Hurricane Fiona, 16 excavation pit sites were identified for woody debris drop-off sites to help manage the debris as a result of downed trees. Additional staff continue to be cross-trained to maintain regular inspection and compliance enforcement of these sites.

### **Special Waste**

The ELM Section issues Special Waste Permits for the disposal of hazardous materials in Prince Edward Island. The permits are issued for the disposal of hazardous material at the East Prince Waste Management Facility, or for incineration at PEI Energy Systems.

During the report period, 172 Special Waste Permits were issued. The majority of these dealt with the tracking and transportation of petroleum contaminated soil to the East Prince Waste Management Facility. Other permits were issued for the disposal of biomedical waste; asbestos insulation and siding; creosote treated timbers; pharmaceutical drugs; and dead birds impacted by Avian Flu, etc.

### **Watercourse/Wetland and Buffer Zone Activity Permitting Program**

The purpose of the program is to ensure that aquatic habitat and riparian zones are protected from major disturbance and destruction by authorized development projects. Permit applications are carefully evaluated to ensure that any potentially harmful environmental effects of proposed projects, are considered during the design stage. Permits issued for work in and around watercourses or wetland areas will contain environmental protection requirements which the applicant must follow.

In the past two years, this program has seen an increase in application requests; investigations; inquiries related to land purchases; and related complaints. During the Hurricane Fiona response ELM staff allowed for the removal of dead or uprooted trees in the buffer zone, without an Activity Permit. This resulted in fewer Activity Permits being issued compared to the last report period. During the current report period staff issued approximately 373 Watercourse, Wetland and Buffer Zone Activity Permits, and 141 contractor license registrations.

## *Water and Air Monitoring*

The **Water and Air Monitoring (WAM) Section** is responsible for the management of groundwater, inland surface waters, and coastal estuaries. The specific program areas for the Section include:

- Groundwater quantity assessments and issuance of permits;
- Water quality and quantity programs;
- Publication of groundwater and surface water quality and quantity information;
- Development of educational materials;
- Ground water and surface water pesticide monitoring; and
- Public education and information sessions.

The Section administers programs, legislation and activities to preserve, control, or enhance outdoor air quality. Key program areas include:

- Air Quality Health Index Management; and
- National Air Pollution Surveillance

## Progress in 2022-2023

### **Groundwater Quantity Assessments and Permit Issuance**

The Section provides water quantity and quality assessment for potential and existing water supply projects and groundwater management.

During the report period, 30 Groundwater Exploration Permits and 4 Water Withdrawal Permits were issued. Amendments were made to the Water Withdrawal Regulations, replacing the moratorium on new high capacity wells for agricultural irrigation with an Irrigation Strategy. As a result, Groundwater Exploration Permits were again issued for agricultural irrigation.

Water usage information was collected from permitted wells on a quarterly basis. Quality control was conducted on well records from well drillers.

### **Water quality and quantity programs**

The Section manages 17 long-term ground water level, 9 surface water flow, and 11 long-term freshwater quality monitoring stations. Additional freshwater and estuarine water quality stations

are being maintained to meet the data requirements for nutrient loading in streams, and the occurrence of hypoxia and anoxia in estuaries.

During the report period, the WAM Section continued to monitor dissolved oxygen in nine estuaries across the province. Data from this program (2015 – 2022) is now available on the PEI Water Registry at <https://water.princeedwardisland.ca/>. Five automated sediment monitoring sites were maintained across the province. Provisional data from this monitoring is also available on the PEI Water Registry.

Eleven long-term freshwater monitoring sites were sampled up to 10 times each during the report period, and long-term nitrate trends were updated for Prince Edward Island freshwater. Data was also added to the Environment and Climate Change Canada's (ECCC) Canadian Environmental Sustainability Indicators Series for water quality, for the period of 2019 to 2021. Other monitoring efforts, including the PEI Estuaries Survey, were carried out as prescribed, and data made available for download on the open data portal.

Several investigations were carried out regarding water quality issues, including complaints about discoloration, odor, and anoxic events. Bacteriological monitoring in shellfish growing/harvest areas was carried out on behalf of ECCC with more than 3700 samples collected from 51 sub-sectors across the province.

### **Publication of Groundwater and Surface Water Quality and Quantity Information**

A new PEI Water Registry was created to provide data, science, and status reports on Island water. The data is presented in an easy-to-use dashboard type format with interactive maps and graphs. It includes new information on water usage, displays of watershed groundwater parameters, real-time suspended sediment in streams, and assessments of annual watershed groundwater usage. It also includes updates to reports such as the watershed water quality report cards, high capacity well locations, seasonal stream flow, water quality results, pesticide monitoring programs and others.

### **Ground Water and Surface Water Pesticide Monitoring**

Both drinking and surface water pesticide monitoring programs are operated annually by the WAM Section. Pesticide sampling during the 2022-23 season included 107 total samples, from residences (45), schools (33), seniors facilities (6), and municipal facilities (23).

Surface water monitoring for pesticides was continued at three streams throughout the report year and is made available on the PEI Water Registry. Monitoring for the federal Pesticide Management Review Agency was expanded from 3 stream sites to 6 stream sites and 4 schools in the 2022-23 season. The data for this program is available to the public through the federal government open data site.

### **Air Quality Health Index**

The Air Quality Health Index (AQHI) is a Health Canada, and Environment and Climate Change Canada public information tool that helps Canadians protect themselves from the negative effects

of air pollution. The AQHI measures air quality as it affects human health, and is scored on a scale from 1 to 10. It also produces regular health advisories. Most of the time, Prince Edward Island falls within the “Low Risk” category (1-3).

The Section manages the monitoring equipment (ground-level ozone, particulate matter, and nitrogen dioxide) that provides the data used to calculate the AQHI. The AQHI for Prince Edward Island can be found at: [https://weather.gc.ca/airquality/pages/provincial\\_summary/pe\\_e.html](https://weather.gc.ca/airquality/pages/provincial_summary/pe_e.html)

### **Air Pollution Surveillance**

Through the National Air Pollution Surveillance (NAPS) Program, the Section operates an ambient air monitoring network consisting of three stations located at Wellington, Southampton and Charlottetown respectively. As part of the NAPS program, these stations monitor ambient air parameters including particulate matter (PM<sub>2.5</sub>); ground level ozone (O<sub>3</sub>); sulfur dioxide (SO<sub>2</sub>); and nitrous oxides (NO<sub>x</sub>). In addition, the Section also monitors Mercury (Hg) and acid precipitation at the Southampton station.

The 2020 Air Quality Report covering the years 2018-2020 is now published. This and previous reports can be found at: <https://air.princeedwardisland.ca/pages/air-quality-reports>

## ***Drinking Water/Wastewater***

The main responsibility of the **Drinking Water/Wastewater Management** Section is to ensure the sustainable management, protection and enhancement of drinking water and wastewater systems. The key program areas include:

- Drinking water quality monitoring programs and advice/assistance to municipal water utilities operators and private well owners;
- Central water and wastewater management systems;
- Licensing programs for contractors or system operators;
- Municipal wastewater effluent strategies;
- Advice or recommendations to planners regarding water-sewer servicing options and feasibility; and
- Provide technical assistance to government, municipalities, industry, and developers on the design and operation of water and wastewater systems.

## **Progress in 2022-2023**

### **Approvals for Water and Wastewater Projects**

The Section issued approvals for the modifications and expansion of water and wastewater systems, with a total value of just over \$32.5 million. This figure included:

- \$17.5 million for water distribution projects;
- \$8.9 million for wastewater collection projects; and

- \$6.1 million for wastewater treatment projects.

A total of 31 Permits to Construct were issued, including upgrades to several major lift stations in Charlottetown; the Summerside sewer and water system; the North River lagoon liner; Cornwall's water system; the Georgetown business park; RWL's wastewater treatment system; and the Kensington water and sewer system. Approximately \$7.6 million was also spent on extending water and wastewater collection systems to service new residential subdivision developments.

### **Operator Certification**

One of the most important components of environmental and public health protection is ensuring that water and wastewater system operators are properly trained to manage the infrastructure for which they are responsible. During the report period, 47 candidates applied for operator certification. A total of 18 applicants passed the examination. A further 12 operators renewed their certification.

### **Field Activities**

#### *i) Study assessing risk protozoan occurrence in municipal wells from adjacent surface watercourses:*

The Section initiated the second field season of a two-year investigation, examining whether municipal wells were likely to be vulnerable to contamination with pathogenic protozoan organisms often associated with surface watercourses. These pathogens are more resistant to conventional disinfection processes, and their presence would require the need for costly additional disinfection steps.

#### *ii) Per- and polyfluoroalkyl concentrations in Canadian drinking water*

The Federal-Provincial-Territorial Committee on Drinking Water (CDW) establishes the Guidelines for Canadian Drinking Water Quality. The Drinking Water/Wastewater Management Section recommends these guidelines to provincial municipal water utilities. The current guidelines for drinking water for two types of per- and polyfluoroalkyl substances (PFAS) compounds, namely perfluorooctanoic acid (PFOA) and perfluorooctane-sulfonic acid (PFOS), are 0.2 ug/L and 0.6 ug/L, respectively. These compounds are considered 'forever chemicals' as they do not easily breakdown in the environment.

Health Canada is presently reviewing the guidelines and screening values for PFAS in drinking water. A draft technical document was available for public consultation from February 11, 2023 to April 12, 2023. Health Canada's objective is to reduce the sum total per- and polyfluoroalkyl substances (PFAS) in drinking water to 30 ng/L.

#### *iii) Sampling assessing the current state of PFAS in biosolids*

The Drinking Water/Wastewater Management Section has developed a new sampling methodology, and has begun sampling municipal biosolids from facilities across Prince Edward Island to determine the concentrations of PFAS compounds present. The Canadian Food Inspection Agency is also looking to impose limits on PFAS concentrations for biosolids imported or sold across Canada. It is expected provincial jurisdictions will also establish limits.

## *Prince Edward Island Analytical Laboratories*

The Prince Edward Island Analytical Laboratories (PEIAL) provides chemical and microbiological analysis for water; soil; dairy; animal feed; seed; plant tissue; manure; and compost samples, as well as a disease identification service for crops. The laboratory is accredited by the Standards Council of Canada (SCC) to the international standard for the general requirements for competence of testing and calibration laboratories, ISO/IEC 17025:2017. The PEIAL provides services to researchers, farmers, municipalities, corporations, other government departments, and the general public.

## Progress in 2022-2023

With the implementation of free bacterial and general chemistry drinking water testing in January 2022, the demand for drinking water testing remained high during the report period. Bacteria testing increased by approximately 25 per cent, while chemical testing increased by approximately 45 per cent.

PEIAL received confirmation of reaccreditation following an external accreditation assessment conducted by the Standards Council of Canada (SCC) in March 2022.

The environmental accreditation program areas include:

- Drinking water quality analysis;
- General water quality analyses for ground and surface waters to determine the health of water for interest, including aquatic habitat; the fishery; recreation; and aesthetics;
- Dialysate water analysis; and
- Wastewater programs.

PEIAL continued to collaborate with local educational institutes by hosting OJT and co-op students. Students placed on a work term at PEIAL gain valuable experience by working alongside senior laboratory technicians conducting accredited testing methods in a through-put laboratory environment.

A summary of the number of samples and sample types analyzed during the report period is provided in Table 1.



**Table 1. Sample type and volume processed in 2022-2023**

Water Samples Analyzed in 2022-23	
Sample Type	Sample Number
Drinking Water	22,948
Surface Water	1,104
Wastewater	1,102
<b>Total</b>	<b>25,154</b>

### *Pesticides Management Program and Agriculture Outreach*

Pesticide management and agricultural outreach is provided by the Agricultural Environment Unit (AEU). This Section works collaboratively with the agriculture community to ensure the proper use and safe handling of pesticides; improve regulatory compliance; and protect public health and safety. The new strategy involves a more proactive approach that incorporates compliance coaching/support as a first step. Feedback from the agricultural community has been positive. Agriculture environmental enforcement officers are unarmed. Compliance is achieved in a collaborative manner.

### **Progress in 2022-2023**

The Agriculture Environment Officer (AEO) Unit assesses and promotes compliance with environmental legislation, regulations, protocols and policies, by inspecting, monitoring, and conducting field or technical inquiries. These can include assessments of air, water and land pollution with a focus on agriculture and agriculture-related operations. Negotiated compliance through abatement programs are preferred, and enforcement tools (written warning letters or tickets) are only used as a last resort.

Good collaborative and communicative efforts between the Departments of Justice and Public Safety; Agriculture and Land; and Environment, Energy and Climate Action were key to maintaining the success of this modern, full compliance program.

Recent changes were made to modernize the regulatory compliance approach with the agricultural community. The use of so-called voluntary approaches has supplemented or replaced formal environmental regulation. Current approaches fall into two general categories: (1) industry-initiated codes of good practice focusing on environmental management systems or performance goals, and (2) negotiation between government and individuals (or industry sector trade associations) focusing on regulation or compliance.

During the report year, Agriculture Outreach staff responded to over 300 incidents involving complaint related regulatory infractions. This number is up from the last report period. This

increase was likely due to the greater number of staff available to complete inspections. The most common issues investigated related to buffer zone infractions, soil erosion, and pesticide use.

### *Waste Reduction, Recovery and Recycling Programs*

This Section is responsible for the planning and implementation of solid waste recycling and other waste reduction and diversion programs. This is in collaboration with national product stewardship organizations, and the Island Waste Management Corporation (IWMC) and its contractors. Items processed include used paint, oil/glycol products, and electronics, etc.

One role of the Section includes conducting research into the development of new programs for extended producer responsibility (EPR), and establishing relationships with national product stewardship representatives to expand and improve Prince Edward Island's waste diversion goals.

This Section provides financial assistance and management advice for programs that support waste reduction objectives to:

- Reduce the amount of waste generated in communities;
- Reuse materials and products, rather than discard them;
- Recycle materials not already collected through an Island-wide recycling program;
- Reduce waste and prevent pollution from recyclable hazardous waste;
- Increase awareness about the importance of reducing waste; and
- Encourage environmental stewardship of waste resources.

An additional responsibility for this section is the Beverage Containers Program. The purpose of this program is to administer an effective and efficient operation for the recovery and recycling of used beverage containers. The Beverage Containers Program is the primary revenue source for ten privately operated return depots and three smaller satellite container return depots. These depots (including two larger industrial processing depots) employ 40 full time, and 19 part time employees.

From the program, used aluminum cans are recycled back into aluminum sheet stock to produce new cans. Plastic containers are cleaned and pelletized to become raw, new material for the manufacture of various plastic products, including new beverage containers, strapping material and clothing fibers. Glass from used containers is crushed into aggregate to be used in construction projects in place of more expensive gravel. Other container types are sent to market as needed.

### **Progress in 2022-2023**

During the report period Island consumers purchased 89,115,000 single use beverage containers. Through the used container return network and beverage container depots, 69,658,000 containers were recovered, for a return rate of 78 per cent.

This section also completed a province-wide litter survey through the Southeast Environmental Association. Similar surveys have been completed to help gather data on the types and quantities of roadside litter. These surveys help the Department administer programs and strategies to help reduce littering, and ensure waste is properly collected and sorted. An outcome of this survey was the launch of a public campaign to stop littering, with new signage and promotional videos with anti-litter messaging, and a website and social media promotions.

## Forests, Fish and Wildlife

### Division Mandate

The mandate of the Division of Forests, Fish and Wildlife is to contribute to the environmental, social and economic wealth of Prince Edward Island through the conservation, sustainable management and wise use of our forests, fish, and wildlife resources.

### Progress in 2022-2023

#### *Field Services*

The Field Services Section works to manage 38,000 hectares of public land across Prince Edward Island, and provides technical and financial support to private landowners wishing to implement sustainable forest management. This Section also leads the Province's forest fire suppression efforts.

#### *Public Land*

The Field Services Section manages public lands for a range of values including timber, non-timber products, wildlife, recreation, education and research.

In 2022-23, public lands generated revenues of \$141,982 through harvested wood sales and standing timber tenders. Forestry crews commercially thinned 16.7 hectares of plantations and maintained 69 km of trails. All work was done in accordance with the standards of the Division's Forest Management Manual. Pre-harvest management plans are posted online for public comment for a period of not less than 30 days. Most work on public land occurs on properties that require tree thinning, the removal of commercially mature trees, or tree management for safety reasons (e.g. along roads and trails).

Public land and contractor crews planted 43,414 trees on cutovers and other sites, and manually prepared 41,914 planting microsites. There were 50 hectares of plantations that received manual maintenance (chemical maintenance is not used on Prince Edward Island public lands). A total of 150 select trees were pruned to increase their future value. The creation and maintenance of public land roads required 144 m<sup>3</sup> of fill and the manual or mechanical maintenance of 52 km of roads.

#### *Private Land*

The Field Services Section provides forest management advice and financial assistance to private woodlot owners through the Forest Enhancement Program. It also aims to build private sector

capacity for many different forest management services, and supports education efforts directed to private woodlot owners.

The Forest Enhancement Program provides funding to help landowners develop sustainable forest management plans for their properties. Plans are developed based on owners' objectives, the capabilities and limitations of their forests, and in accordance with the Division's Forest Management Manual. Once a plan is approved, the landowner can access funding and technical advice to implement the treatments recommended in the plan. More information on the Forest Enhancement Program may be found here:

<https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/forest-enhancement-program-fep-forestry-services>

In 2022-23, 112 new landowners enrolled in the Forest Enhancement Program. Table 2 summarizes the treatments performed and money spent under the Program.

**Table 2. Summary of Private Land Management Services 2022-23.**

Treatment	Units	Amount	Cost (\$)
Carbon Capture Planting	Hectares	148	310,034
Planting	Hectares	210	171,247
Fill Planting	Hectares	42	20,898
Site Preparation	Hectares	208	170,468
Patch Harvest	Hectares	12	3,900
Commercial Plantation Thinning	Hectares	38	28,713
Hardwood Thinning	Hectares	14	6,388
Precommercial Thinning	Hectares	35	39,417
Manual Maintenance	Hectares	331	227,085
Chemical Maintenance	Hectares	120	50,779
Management Plan	Number	112	40,586
Pruning	Hectares	33	15,052
Hurricane Fiona - Salvage	Hectares	163	138,164
<b>Total</b>			<b>1,222,731</b>

### *Fire Suppression*

During the fire season (March 15 to December 1), the Section provides daily information on burning conditions across Prince Edward Island through the Fire Weather Index website. Staff also undertake continuous education in wildfire suppression, and work with local brigades during wildfire incidents.

In 2022-23, one staff member was released to assist Newfoundland & Labrador wildfire suppression efforts as a safety officer.

Locally, staff responded to four forest fires on Prince Edward Island, which burned a total of less than 1 hectare.

The Section placed into operation two 500-gallon wildland fire trucks. Two more trucks are scheduled to come into operation in the summer of 2023. These new trucks are replacing vehicles that are more than 30 years old. The fire program was also able to purchase a 5<sup>th</sup> wheel trailer to replace a 1988 5<sup>th</sup> wheel trailer. These trailers are used to haul custom 500-gallon tracked machinery used in fighting forest fires.

### *Fish and Wildlife*

The Fish and Wildlife Section provides a suite of services including:

- Licensing anglers, hunters, trappers, and fur buyers;
- Conducting wildlife population research and data collection;
- Assisting communities and individuals with issues related to injured and nuisance wildlife;
- Providing hunter education and firearm safety training to the public;
- Protecting and recovering species at risk on Prince Edward Island;
- Protecting and conserving ecological areas;
- Providing wildlife management advice and assistance for public lands; and
- Overseeing ponds and fishway improvement work in communities across the province.

The Fish and Wildlife Section continued to administer regulations and policies related to the sustainable use of wildlife resources, and to educate the public through its annual hunting and trapping summary booklets that are provided to registered hunters. In the report year, the Section continued a program to provide free hunter safety training and licenses to first-time hunters. In this fifth year of the program, 175 new hunters were trained.

Section staff supervised improvements to fish passage; public access; vegetation management; and general maintenance at several sites across the province, including Clearsprings; Moore's Pond; Cass's Pond; Mooney's on Morell River; MacPherson's on Flat River; MacLean's on Vernon River; Warren's on Hillsborough River; and Gordon's on Huntley River.

This Section continued its partnership with the Abegweit First Nation Biodiversity Enhancement Hatchery (located in Scotchfort) to produce Brook Trout and Atlantic Salmon for restocking efforts across the province. In 2022, fish were stocked in the following rivers:

- **Atlantic Salmon** – 60,000 salmon were released into the Morell River and 30,000 released into the West River;
- **Brook Trout**– 71,000 fingerlings were released into the Morell, Bristol, Brudenell, Montague, Valleyfield, Mill, Trout, Big Pierre Jacques, Dunk, and Wilmot Rivers; and

- **Brook Trout** – 4,400 larger yearlings were released into Rink Pond (Kensington); Ice Pond (Summerside); Harvey Moore Pond (Milltown Cross); Hermitage Creek Pond (Charlottetown); MacKinnons Pond (Bristol) and Andrews Pond (East Royalty).

A collaboration with Canada and partners – namely, the PEI Forested Landscape Priority Place for Species at Risk program – continued in the report year and resulted in the implementation of conservation actions aligned with federal recovery strategies for species at risk. With support from this program the PEI Invasive Species Council continued work to control problematic invasive species; the Atlantic Canada Conservation Data Centre developed and validated habitat models for species at risk in PEI; and the Island Nature Trust worked to foster cooperative relationships with landowners and key industries to mitigate threats to species at risk, their prey, and habitats.

Wildlife monitoring efforts continued, including auditory/visual surveys for great cormorants, upland game birds, marsh birds, forest songbirds and shorebirds. Remote surveillance for amphibians, birds, bats, and other small to medium sized mammals was also conducted throughout the province.

This Section also worked to establish protected areas on public and private lands across the province, including habitat areas deemed important for species at risk, and their prey in breeding and non-breeding areas.

In the report year, a significant investment was made in the Protected and Conserved Areas Program, which resulted in the purchase of 724 hectares of land by the Province with support from Environment and Climate Change Canada. In addition, the Province continued to support conservation partners in land acquisition through the Provincial Protected Areas fund, in the dollar amount of \$750,000. At the end of the report year, Prince Edward Island had 27,710.5 hectares of Protected and Conserved Area, equivalent to 4.89 per cent of the province's land area.

### *Production Development*

The Production Development Section operates the J. Frank Gaudet Tree Nursery and produces high-quality trees and shrubs for many different social, environmental and economic benefits. It also works to improve the genetic traits of Acadian Forest tree species through the development of tree improvement seed orchards.

In the report year the Section produced 1.02 million seedlings for reforestation work across the Island. More information on this Section and its services may be found here:

<https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/j-frank-gaudet-tree-nursery-services>

In addition to the Public and Private Land programs (mentioned above), these trees are also used by the following programs:

#### *Greening Spaces*

The Greening Spaces program provides seedlings and technical advice to schools, communities and watershed groups who want to create environmentally friendly green spaces. In the report year 33,549 trees were planted under this program, supporting the groups listed in Table 3.



### *Hedgerow Planting*

The Hedgerow Planting program provides tree seedlings, planting assistance and technical advice to landowners who want to establish hedgerows and treed buffer zones to prevent soil erosion, and create wind breaks that lower home heating and cooling costs. In the report year 43,381 trees were planted under this program.

### *Carbon Capture Tree Planting Program*

The Carbon Capture Tree Planting Program was launched in 2018-19 with funding from Environment and Climate Change Canada's Low Carbon Economy Fund. This program enables landowners to have native trees planted on priority areas such as highly sloping lands, watersheds with low forest cover, and sites with sensitive soils. In addition to trees, landowners are eligible for a one-time payment of \$650 per hectare. In the report year 357,274 trees on 150.48 hectares were planted under this program.

**Table 3. Groups supported by the Greening Spaces Program in 2022-23**

<b>Watershed Groups</b>	<b>General</b>
Bedeque Bay Environmental Management Association	Abegweit First Nation
Belfast Watershed Group	Agriculture Dept-Prov. Exhibition
Cascumpec Bay Watershed Association	Batesville Tree Planting 4H
Central Queens Branch PEI Wildlife Federation	EECA Planning Day
Cornwall and Area Watershed Group	Farmers Bank of Rustico
Ellen's Creek Watershed Group	First Nations Reconciliation Project
Friends of Covehead-Brackley Bays	International Children's Memorial Place
Harmony and Area Watershed Group	United Way Fund Raiser
Hillsborough & Area Watershed Group	PEI Woodlot Owners Assoc.
Hunter Clyde Watershed Group	PEI Search & Rescue
Kensington North Watershed Association	Mi'kmaq Confederacy
Lot 11 and Area Watershed Management Group	PEI Teachers Conference
Morell River Management Cooperative	
Pisquid River Watershed Group	<b>Churches and Community Groups</b>
Richmond Bay Watershed Association	City of Charlottetown
Roseville/Miminegash Watershed Inc	Dundas United Church Manse
Souris and Area Branch of the PEI Wildlife Federation	Rollo Bay Group
South Shore Watershed Association	St. Andrew's United Church
Stratford Watershed Group	Town of Kensington
Tignish Watershed Group	Town of Rustico
Trout River Environmental Committee	Town of Souris
Trout Unlimited Canada Prince County Chapter	
Watershed Alliance	
West Point and Area Watersheds	
Wheatley River Improvement Group	

Winter River-Tracadie Bay  
Wrights Creek Watershed Group

### **Schools, Kindergartens and Daycares**

Carrefour de Isle St. Jean  
Morell Consolidated School  
Somerset School  
Souris High School

### ***Resource Inventory and Modelling***

The Resource Inventory and Modeling section (RIMS) works to provide mapping data related to a wide range of land use and natural resource topics; updated forest inventory information and carbon budget modelling for Prince Edward Island; and maintenance of Geographic Information Services for a wide range of government & non-government clients.

The continued delivery of photo-interpreted land-use data was a major focus of the section this year. Map sheets from the contractor were checked for errors and inconsistencies, and necessary corrections were made. This process is ongoing and is set to be completed by the first quarter 2023, with the full Corporate Land Use Inventory (CLUI) to be released to the public by the end of 2023.

The State of the Forest report is another major project for RIMS that is completed every 10 years. Thousands of field measurements were analyzed and processed to provide statistical estimates of forest values. These values are calculated in such a way as to be comparable to previous reports along with data from 162 plots, and 6300 trees measured through the Permanent Sample Plot (PSP) program. Trends, changes, and interesting findings will be included in the report, set for delivery before the end of 2023.

In September 2022, a major storm hit the Atlantic provinces. Hurricane Fiona caused widespread damage through heavy rain, high winds, and tidal surges. This Section had an immediate role in emergency response to supply maps and GIS skills, as well as Field Service staff assisting with infrastructure clean up and access. After the initial response, RIMS worked on quantifying the storm's impacts. Acquisition of recent satellite imagery of the province after Hurricane Fiona was completed within weeks. Analyses of these new data is ongoing, but some areas of concern include the:

- scale and severity of coastal flooding recorded at strategically located high-water marks;
- need to map the changes to the coastline; and
- amount of forest area affected by hurricane winds, as identified using automated object detection techniques.

The analysis of the storm's impacts will be used in reporting to the newly appointed Forestry Commission.

Additional work completed by the Section included processing field inventory data into forest-wide metrics; wood supply analyses; carbon modelling for afforestation project Carbon Capture Tree Planting Program (CCTPP); and continued participation in national groups. These include, the climate change working group; the climate sensitive growth and yield, data task team; the National Forest Inventory, the Council of Forest Ministers; the Fire Science Working Team of the North East Compact; and the Canadian Interagency Forest Fire Centre.

Additionally, the Section continued to aid the Climate Change Secretariat with flood modelling and the Department of Agriculture and Land with Alternative Land Use Services (ALUS), and annual Soil Quality Monitoring.

## Energy

### Division Mandate

The Division of Energy is responsible for the promotion, development, production, transmission and distribution of energy and energy systems in Prince Edward Island.

### Progress in 2022-2023

#### *PEI Energy Corporation*

The Prince Edward Island Energy Corporation is a provincial crown corporation whose form and function is dictated by the *Energy Corporation Act*. Reporting to the Minister responsible for energy matters, the Prince Edward Island Energy Corporation is governed by a Board of Directors that consists of between five and seven members.

The legislated objectives of the Prince Edward Island Energy Corporation are to promote the economic and efficient development of energy systems, and the generation, production, transmission and distribution of energy in all its forms. It is also able to provide financial assistance for the development, installation and use of energy systems, and to coordinate all government programs in the establishment and application of energy systems in the province.

As a Crown Corporation reporting to the Minister of Environment, Energy and Climate Action, the Corporation submits a separate Annual Report detailing its activities for the previous year. The Corporation's Annual Report is published each year and may be found here:

<https://www.princeedwardisland.ca/fr/information/environnement-energie-et-action-climatique/about-the-pei-energy-corporation>

In addition, the PEI Energy Corporation, on behalf of the Department of Environment, Energy and Climate Action, has been facilitating the development of a new Provincial Energy Strategy. This strategy will provide both a long-term vision and a short-term implementation plan and will replace the current Provincial Energy Strategy. The new Energy Strategy will be developed through the PEI Energy Blueprint Project and will unfold in the 2023-24 fiscal year following extensive public and stakeholder engagement. The project will review the Island's energy policy, legislative and

regulatory framework, and propose changes where necessary to reflect present-day and future priorities.

## Sustainability

### Division Mandate

In the face of a changing climate, the Sustainability Division will act as a catalyst to drive change toward a more sustainable, resilient and equitable society. It will lead through climate action policy development; progress collaborative efforts with partners; inspire through education, outreach, innovation and strong practices; and provide support through relevant programs, navigation and the sharing of knowledge, information, and data.

### *The Office of Net Zero*

The PEI *Net Zero Carbon Act*<sup>1</sup> enshrines in legislation a commitment to achieve net zero emissions by 2040. ‘Net zero’ is that point where greenhouse gas (GHG) emissions released by humans into the atmosphere are balanced by the emissions removed from the atmosphere through natural and technical methods and other measures. It can be achieved through a combination of emission reduction and emission removal. The Act identifies targets to reduce the province’s GHG by 2030, and for each subsequent calendar year to less than 1.2 megatons of carbon dioxide equivalent. By 2040, and for each subsequent year, the province’s GHG emissions will be at a level where carbon neutrality is achieved. The Act ensures transparency and accountability as the government works to deliver on its targets. The Office of Net Zero oversees the delivery of the province’s emissions reduction and net zero goals, on behalf of and in collaboration with government and all its stakeholders.

In February 2022, the Province released the 2040 Net Zero Framework which set it on the path to achieve its vision to become Canada’s first net zero province and reach Net Zero Energy by 2030 and Net Zero GHG Emissions by 2040. The Framework is comprised of sectoral goals and emissions reduction targets embodied in six distinct ‘pillars’.

Pillar 1 reforms the transportation sector by transforming the way people and goods move. Pillar 2 involves the buildings sector and a transitioning to efficient and cleaner buildings. Pillar 3 focuses on reshaping agriculture for Prince Edward Island’s transition to net zero. Pillar 4 recognizes that we don’t only need to reduce our carbon output but have also to have to increase carbon sequestration by removing carbon through forestry, technologies and new and emerging opportunities. Pillar 5 aims to create a clean industry and waste advantage. Finally, Pillar 6 recognizes that the Province will need to inspire transformational change through leadership and engagement efforts.

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<sup>1</sup> *Net Zero Carbon Act* [https://www.princeedwardisland.ca/sites/default/files/legislation/n-03-01-net-zero\\_carbon\\_act.pdf](https://www.princeedwardisland.ca/sites/default/files/legislation/n-03-01-net-zero_carbon_act.pdf)

## Progress in 2022-2023

### Pillar 1: Transform the way people and goods move

Transportation is the largest source of greenhouse gas emissions in the province, accounting for 41 per cent of total emissions in 2020. A majority (63 per cent) of PEI's transportation emissions come from passenger vehicles. The transportation sector has the greatest potential for significant emissions reduction in the short and medium term.

In 2022, Prince Edward Island gained national recognition for its efforts to transition to a more sustainable transportation sector, scoring third, behind only British Columbia and Québec in the Efficiency Canada Scorecard (transportation energy efficiency policy). This score is due, in part, to 119 public electric vehicle charging stations installed during the report period.

**Spotlight: Swing Vehicles** – The Government of Prince Edward Island has two electric vehicles for staff to use for corporate travel to meetings, events, and conferences. This initiative reduces passenger vehicle transportation related emissions, giving staff an electric alternative to their own gas vehicles, and an opportunity to familiarize themselves with electric vehicles. In the 2022-23 FY there were approximately 325 bookings and over 77,078 kms travelled using the Swing Vehicles.

### Pillar 2: Transition to efficient and cleaner buildings

Residential, commercial and government buildings account for 18 per cent of total emissions in the province. The Government is assisting with the transition away from fossil fuels using programs that promote awareness, facilitate fuel switching, and provide financial incentives and expertise for efficiency upgrades. In the residential buildings sector, the province became a national leader in fuel switching incentive programs by introducing a suite of free programs for income qualified residents. These programs include free heat pumps, electric hot water heaters, and home insulation.

By the end of the fiscal year over 3,500 installations were completed through these programs resulting in 70,000 GJ in energy savings and a reduction in over 6,000 tonnes of GHG emissions<sup>2</sup>.

### Pillar 3: Shape Agriculture for Prince Edward Island's transition to Net Zero

About 24 per cent of the province's GHG emissions are from agricultural production. The three main sources of emissions are from crop production, livestock production, and on-farm fuel use. Management practices and efficiency gains that can be made on-farm will help reduce emissions while boosting productivity.

The Alternative Land Use Service (ALUS) program aims to support and empower farmers and farmland owners to convert marginal/high risk annual cropland into perennial, biodiverse, carbon sequestering landscapes. Over 9,852 acres of marginal annual cropland have been enrolled in the program and converted into biodiverse perennials.

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<sup>2</sup> Based on an estimate that each Heat Pump saves 23GJ of energy and 2.1 tonnes of CO<sub>2</sub>e.

**Pillar 4: Remove Carbon through forestry technologies and emerging opportunities**

Achieving net zero will require harnessing the natural environment’s ability to absorb and store carbon. Forests are one such ‘carbon sink’. The Government of Prince Edward Island has made infrastructure investments to support a 30 per cent increase in capacity at the Provincial Frank J. Gaudet Tree Nursery, with a promise of delivering 1.3 million trees for planting per year.

The Department has also established an Emergency Forestry Taskforce in the wake of Hurricane Fiona to address the immediate needs of private woodlot owners, and the provincial forest. The taskforce made 11 recommendations, aligned with work already underway within the provincial government.

In January 2023, the Government appointed a Forestry Commission to review the province’s forest policy, programs and legislation to better develop a Forest Recovery Plan for Prince Edward Island.

**Pillar 5: Clean industry and waste advantage**

Industry contributes approximately 7 per cent of the province’s total GHG emissions. Developing cleaner industries, businesses, processes, and technologies that will benefit and accelerate the path to net zero will require reducing industrial pollution and waste.

For example, Prince Edward Island's Waste Watch Program was created to reduce landfill waste by composting organics and marketing recyclable materials. The remaining waste is further separated, diverting appropriate materials to incineration plants for conversion to heat energy.

In 2022, the Island Waste Management Corporation diverted 20,654 tonnes of organic waste through the province’s Waste Watch Program. The Central Compost Facility produced 9,591 tonnes of compost, and the East Prince Waste Management Facility processed 44,681 tonnes of waste<sup>3</sup>.

**Pillar 6: Inspire transformational change through leadership and engagement**

Achieving the 2030 and 2040 targets will require active engagement of all sectors of society. Some additional examples of efforts to promote transformational change are highlighted in Table 4.

**Table 4. Examples of efforts to promote transformational change in Prince Edward Island**

GOAL: Create the Right Environment to Drive Change
<p>In February 2023, the Net Zero Office hosted two ‘Energy Positive Island’ events featuring Soren Hermansen, CEO of the Energy Academy in Samso Island, Denmark. Soren shared insights with industry professionals and community members on transitioning to an independent, non-emitting grid, and facilitated discussions on the opportunities and challenges unique to Prince Edward Island.</p> <p>Over 1000 residents participated in discussions on the topic of Net Zero and energy independence through in-person and live-streamed events.</p>

<sup>3</sup> This number includes 9,287 tonnes of bottom ash from PEI Energy Systems, which is used as daily cover material.



The Government of PEI's suite of free programs for income qualified residents have facilitated fuel switching to electric heat-pumps; hot water heaters; and improved home insulation for overall home energy efficiency. Sixteen contractors entered into agreements with the province to install over 3,000 free heat pumps in the homes of Island residents with annual household incomes of \$75,000.00 or less.

#### GOAL: Empower Islanders to Partner in the Path Ahead

Over the last year, significant efforts have been made across Departments to improve access, awareness, and participation in the Province's mitigation programs. Examples include:

- The Net Zero Navigator is a simple online tool that directs users to the programs for which they may be eligible, using a simple questionnaire.
- A new AccessPEI location opened in Royalty Crossing. Strategically located on a popular T3 transit route stop, this location was designed to give people more personalized one-to-one service. Using 'Skip the Waiting Room', individuals can choose to receive live updates about their upcoming appointment.
- A Lean Six Sigma review of the point-of-sale incentive programs was completed in 2022. Lean 6 Sigma is a process improvement approach that eliminates inefficient work practices and improves work processes.
- Island residents and businesses are contributing over 16.3 MW of rooftop solar generating capacity to the grid by participating in Prince Edward Island's Solar Electric Rebate Program. This number is projected to increase annually.
- The Climate Challenge Fund is a \$1 million annual fund that provides up to \$100,000 to support projects that reduce greenhouse gas emissions and help communities and the economy adapt to climate change.

#### GOAL: Lead Through Expertise and Collaboration

The Summerside Solar and Storage Integration project was partially funded by the Province and involved the development of a community microgrid connected to the City's distribution system. The microgrid combines 21 MWac/26 MWdc of solar photovoltaic (PV) generation with a 10 MW/20MWh battery system. The project is expected to generate 33,000 MWh per year in solar PV energy, and reduce the City's reliance on New Brunswick's power grid from 58.2 per cent to 37.4 per cent, thereby allowing Summerside to produce 62 per cent of its electricity needs through green energy production.

The Stratford Community Campus Solar Field Project is a 100-kW solar array at the new community campus. It is a partnership between the Town of Stratford, the Government of Canada (through the Canada Infrastructure Program), and the Government of Prince Edward Island.

The Prince Edward Island Clean Tech Park and Innovation Centre will be a space where academia and government can come together to contribute to a clean growth future. **The preliminary civil work for Phase 1 of the CleanTech Park is underway, while design and planning for the Clean Tech Innovation Centre continues.**

The Office of Net Zero has contracted Navius Research to provide a better understanding of the annual greenhouse gas emissions trends in the province. Up until now, the Province has relied exclusively on the National Inventory Report's provincial GHG data, which is released with a two-year time lag (i.e. 2021 GHG emissions data is released in 2023). Using Navius's proprietary g-tech energy economy modelling software, accurate assumptions about emissions in the most recent calendar year can be made and will allow the province to generate its own provincial projections to compare with federal estimates.

### **Net Zero Action Plan – Looking ahead**

In 2022, a global jurisdictional scan - of over 25 jurisdictions - was completed and identified the best practices matching the priorities and key directions stated in the Province's Net Zero Framework 2040. This scan is another important step in helping the Government of Prince Edward Island to transition from framework to implementation. To advise the Minister on matters respecting climate change, an Advisory Committee was established. The committee is mandated under the *Net Zero Carbon Act* and will consist of ten members appointed by the Minister to serve for a two or three-year term.

### ***efficiencyPEI***

efficiencyPEI provides programs, rebates and information for Islanders who are interested in reducing their day to day energy consumption.

Other program areas, collaborations, and initiatives relate to

- Residential rebates;
- Commercial/Institutional rebates; and
- Special Projects

### ***Residential rebates***

Long-term residential rental building owners are eligible for energy efficiency programs such as home insulation rebates, electric hot water heater rebates, and energy efficient equipment rebates. Winter warming help is also available for low-to-moderate income residents.

Energy efficiency upgrades are designed to make tenants more comfortable, save money for property owners and reduce the environmental impact of rental buildings. Residential rebate plans offered include:

- Energy Efficient Equipment Rebates (EEER) – rebates on energy efficient heating equipment for residences.
- Home Insulation Rebates (HIR) – energy audits and rebates for building envelope upgrades for residences.
- Residential Rental Efficiency Rebates – rebates on upgrades included in EEER and HIR for long term rental buildings.
- Solar Energy Rebates – rebates for the installation of solar PV systems.
- New Home Construction – energy audits and rebates for building energy efficient new homes and row houses.
- Winter Warming – free direct installation of energy efficient measures such as light bulbs, air sealing measures and thermostats for low to moderate income residences.
- Instant Energy Savings – point of sale rebates on smaller energy efficient equipment such as light bulbs, thermostats and weatherstripping materials.

### ***Commercial/Institutional rebates***

Energy efficiency rebates are also provided for commercial and institutional users. Rebate plans offered include:

- Business Energy Rebates - rebates on commercial lighting, heat pumps, controls and other equipment;
- Community Energy Solutions - energy audit services and rebates on energy savings measures identified in audits; and
- Solar Energy Rebates - rebates for the installation of solar PV systems.

### ***Special Projects***

- The First Nations Energy Project implemented energy efficiency upgrades on residential properties on the Abegweit First Nation and Lennox Island First Nation.
- The Better Homes Neighbourhood Energy Project provided free energy audits, Winter Warming Service and one on one energy efficiency consultation for homes within a neighbourhood located within the City of Charlottetown.

## **Progress in 2022-2023**

### ***Energy Efficient Equipment***

The Energy Efficient Equipment Program saw a 30 per cent increase in the number of applications received over the previous report year. This included a 46 per cent increase in the number of mini-split heat pumps rebated (6972 units).

- Total Applications Processed: 6042
- Total Rebates Paid: \$9,978,510
- EE&C<sup>4</sup> Electrical Savings: 3.7 GWh
- Non-EE&C Electrical Savings: 25.18 GWh

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<sup>4</sup> Energy Efficiency & Conservation

- GHG Savings (Tonnes): 17,301 CO<sub>2</sub>e

### ***Home Insulation Program***

The Home Insulation program had a significant increase (120 per cent) in program participation over the report year. During this year over 2000 ENERGY STAR windows/doors were rebated.

- Total Applications Processed: 818
- Total Rebates Paid: \$1,599,716
- EE&C Electrical Savings: 1.31 GWh
- Non-EE&C Electrical Savings: 6.72 GWh
- GHG Savings (Tonnes): 2,346 CO<sub>2</sub>e

### ***New Home Construction***

The New Home Construction Program had a 59 per cent increase in program participation over the previous report year. Ninety-two per cent of applications met ENERGY STAR for New Homes or EnerGuide rating of 20 per cent better than code, while 8 per cent met R2000 or EnerGuide rating of 50 per cent better than code.

- Total Applications Processed: 220
- Total Rebates Paid: \$476,000
- EE&C Electrical Savings: 0.62 GWh
- Non-EE&C Electrical Savings: 0.38 GWh
- GHG Savings (Tonnes): 128 CO<sub>2</sub>e

### ***Winter Warming***

During the report year, the Winter Warming program worked toward moving to a Service Organization model for the 2023-24 fiscal year which resulted in reduced public participation in Q4.

- Total Applications Processed: 518
- EE&C Electrical Savings: 0.36 GWh
- Non-EE&C Electrical Savings: 0.91 GWh
- GHG Savings (Tonnes): 249 CO<sub>2</sub>e

### ***Instant Savings***

With two seasonal promotional campaigns (spring and fall) and a selection of year-round rebate items, there was an increase of 10 per cent in public participation over the previous year. LED lighting remains the most rebated item during the campaign periods.

- Total Units Rebated: 45,577
- EE&C Electrical Savings: 1.8 GWh
- Non-EE&C Electrical Savings: 1.15 GWh
- GHG Savings (Tonnes): 65 CO<sub>2</sub>e

### ***Business Energy Rebates***

The Business Energy Rebates program saw similar participation to the previous report year. Approximately 82 per cent of all applications received were for Air Source Heat Pumps.

- Total Applications Processed: 220
- Total Rebates Paid: \$418,033
- EE&C Electrical Savings: 1.8 GWh
- Non-EE&C Electrical Savings: 1.15 GWh
- GHG Savings (Tonnes): 65 CO2e

### ***Community Energy Solutions***

This program encourages deep retrofits through customized energy audits and feasibility studies, thereby allowing for significant GHG savings. Through increased promotion and awareness, this program has the potential for significant energy savings in the commercial sector.

- Total Applications Processed: 3
- Total Rebates Paid: \$5,160
- EE&C Electrical Savings: 0.02 GWh
- Non-EE&C Electrical Savings: 0
- GHG Savings (Tonnes): 3 CO2e

### ***Solar Rebate Program***

This program offers incentive levels for residential, business and farm building installations. It has seen a 55 per cent increase in the number of applications received over the last report year, with an average kW DC size of 11.58.

- Total Applications Processed: 997
- Total Rebates Paid: \$9,245,042
- EE&C Electrical Savings: 0
- Non-EE&C Electrical Savings: 5.37 GWh
- GHG Savings (Tonnes): 1020 CO2e

### ***Home Comfort Program***

While this program is closed to new applicants, active files continue to be processed until all outstanding files are completed. Clients are now served by the Free Equipment Program.

- Total Applications Processed: 120
- Non-EE&C Electrical Savings: 1.11 GWh
- GHG Savings (Tonnes): 364 CO2e

## efficiencyPEI Portfolio Results Summary

### Residential Programs

Client Rebates Paid: \$22,654,746  
EE&C Electrical Savings: 7.78 GWh  
Non-EE&C Electrical Savings: 40.82 GWh  
GHG Savings (Tonnes): 21,473 CO<sub>2</sub>e

### Commercial Programs

Client Rebates Paid: \$423,193  
EE&C Electrical Savings: 1.41 GWh  
Non-EE&C Electrical Savings: 0.5 GWh  
GHG Savings (Tonnes): 559 CO<sub>2</sub>e

## Climate Action

### *Climate Action Secretariat*

The Climate Action Secretariat provides interdepartmental coordination and leadership to reduce, prepare for and respond to the impacts of climate change. In the report year, the Secretariat maintained responsibility for coordinating adaptation and low carbon resilience activities across government; monitoring compliance with provincial, regional and international commitments; and representing the province on international, national and regional committees.

In the report year, the mandate of the Climate Action Secretariat was underscored by the varied and lasting impacts of Post-Tropical Storm Fiona, which provided further momentum to the implementation of the Provincial Climate Adaptation Plan, particularly in the areas of disaster preparedness and community resilience.

Key program areas, collaborations and initiatives included:

- Initiating of the provincial Climate Change Action Plan;
- Execution of federal/provincial funding agreements (the Low Carbon Economy Leadership Fund<sup>5</sup>; Flood Hazard Identification and Mapping Program; and Research and Knowledge Initiative);
- A climate hazard and risk analysis, including the maintenance of the Coastal Hazards Information Platform (CHIP) that features a tools and resources website with interactive online map, Coastal Hazard Assessment (CHA) service, technical flood hazard resources, and a free online course<sup>6</sup>;
- Backing for the implementation of a climate change policy lens to support all government departments in considering climate impacts while delivering on their priorities;

<sup>5</sup> Low Carbon Economy Fund <https://www.canada.ca/en/environment-climate-change/services/climate-change/low-carbon-economy-fund.html>

<sup>6</sup> The Coastal Hazard Assessment (CHA) is intended to provide guidance for current and prospective property owners who want to be aware of the potential impacts of coastal hazards as they buy, sell, develop, or maintain a given property [www.princeedwardisland.ca/coastalhazards](http://www.princeedwardisland.ca/coastalhazards)

- Leading the provincial climate change coordinators in the development and implementation of interdepartmental, collaborative climate action;
- Funding for local, innovative projects through the Climate Challenge Fund<sup>7</sup>;
- Continued local collaboration with, and support for, CLIMAtlantic, the regional climate services hub; and
- Partnerships with the UPEI Climate Lab<sup>8</sup>; the UPEI School of Climate Change and Adaptation; and the Canadian Centre for Climate Change and Adaptation<sup>9</sup>.

## Progress in 2022-2023

Key highlights from the report year:

- In response to the provincial Climate Change Risk Assessment<sup>10</sup> (2021), the Secretariat began the development of a provincial Climate Adaptation Plan;
- The provincial Climate Adaptation Plan<sup>11</sup> was released in October 2022. The plan outlines a multi-disciplinary series of collaborative government actions to address and minimize the harmful impacts of climate change on people, places and the economy of Prince Edward Island;
- People living on Prince Edward Island can see the ideas they contributed toward building a resilient and sustainable province in the *What We Heard*<sup>12</sup> report;
- Demand for Coastal Hazard Assessments remained high, with 670 assessments completed.
- Co-development of a coastal flood warning system continued;
- New projects received \$1.36 million through the Climate Challenge Fund<sup>13</sup>, focused on reducing and removing emissions, reducing climate risks, and expanding research and knowledge; and
- The Department began work under two federal-provincial partnerships: Infrastructure Canada's Research and Knowledge Initiative (RKI), and Natural Resources Canada's Flood Hazard Identification and Mapping Program (FHIMP).

<sup>7</sup> The Climate Challenge Fund program provides support for projects across the province, including businesses, not-for-profit organizations, municipalities, and academic research institutions.  
<https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/climate-challenge-fund-projects>

<sup>8</sup> UPEI Climate Lab <http://projects.upei.ca/climate/>

<sup>9</sup> Canadian Centre for Climate Change and Adaptation <https://ccc.ca.upei.ca/>

<sup>10</sup> Provincial Climate Change Risk Assessment <https://www.princeedwardisland.ca/en/publication/pei-climate-change-risk-assessment-2021>

<sup>11</sup> Provincial Climate Adaptation Plan <https://www.princeedwardisland.ca/en/publication/building-resilience-climate-adaptation-plan>

<sup>12</sup> Feedback on the Development of the Provincial Climate Adaptation plan  
<https://www.princeedwardisland.ca/en/publication/feedback-on-the-development-of-a-provincial-climate-adaptation-plan>

<sup>13</sup> <https://www.princeedwardisland.ca/en/news/climate-challenge-fund-supports-island-innovation-2>

For the most recent information on programs, accomplishments and scope of work, please refer to the *Minister's Report on Climate Change Risks and Progress Towards Targets*<sup>14</sup>, which details program goals and accomplishments under the purview of the Climate Action Secretariat, and how it complements the efforts of the Net Zero Office on greenhouse gas reduction.

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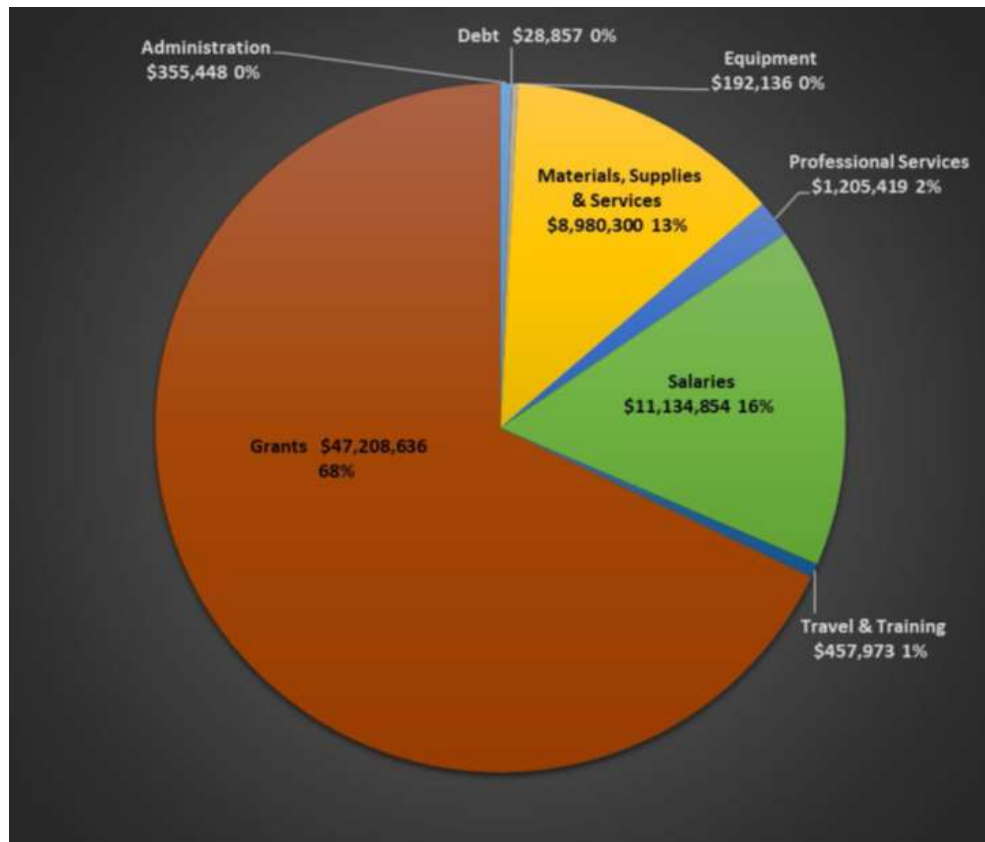
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## APPENDIX 1

### DEPARTMENT OF ENVIRONMENT, ENERGY AND CLIMATE ACTION Fiscal Year 2022-23

	2022-23 Actual \$	2022-23 Actual \$
<b>EXPENDITURE</b>		
CORPORATE SERVICES.....	658,700	715,982
FORESTS, FISH & WILDLIFE.....	12,810,400	13,002,529
CLIMATE ACTION SECRETARIAT.....	2,839,000	2,655,002
ENVIRONMENT AND WATER.....	22,288,300	26,123,158
SUSTAINABILITY.....	47,674,000	67,080,916
TOTAL EXPENDITURE.....	<b>86,270,400</b>	<b>109,577,587</b>
<b>REVENUE</b>		
ENVIRONMENT, ENERGY & CLIMATE ACTION.....	17,955,400	
TOTAL REVENUE.....	<b>17,955,400</b>	

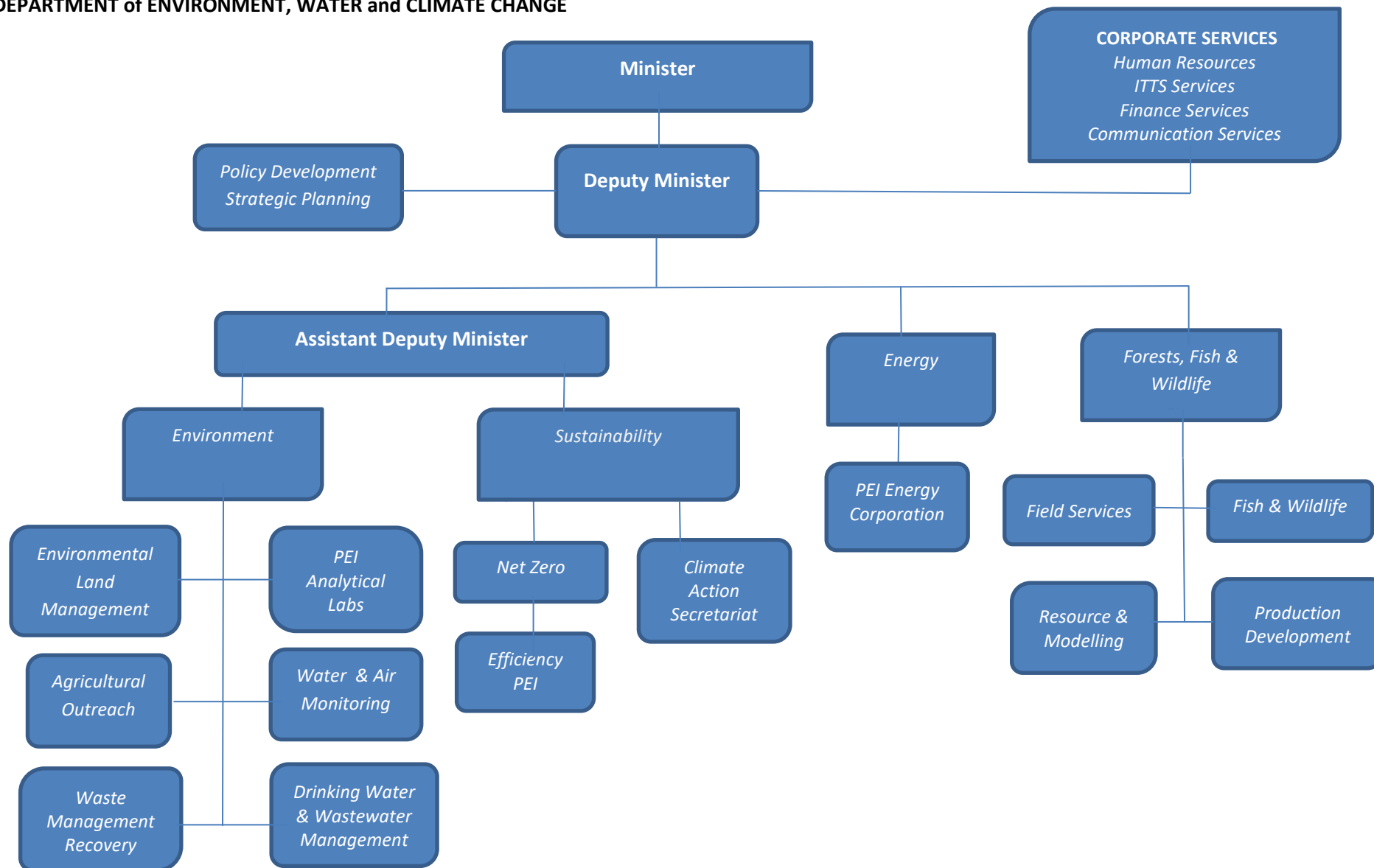


Departmental Financial Summary FY 2022-23		
Expenditure	Estimates	
Summary		
Corporate Services	658,700	715,982
Forests, Fish & Wildlife	12,810,400	13,002,529
Climate Action Secretariat	2,839,000	2,655,002
Environment and Water	22,288,300	26,123,158
Sustainability	47,674,000	67,080,916
Total	86,270,400	109,577,587
Detail		
Corporate Services		
Corporate Services	658,700	715,982
Subtotal	658,700	715,982
Forests, Fish and Wildlife		
Division Management	555,000	395,559
Forest Fire Protection	221,000	212,119
Production Development	1,496,800	1,495,011
Field Services	3,972,000	3,909,467
Resource Inventory and Modelling	611,600	556,265
Fish and Wildlife	5,954,000	6,434,108
Subtotal	12,810,400	13,002,529
Climate Action Secretariat		
Climate Action Secretariat	2,839,000	2,655,002
Subtotal	2,839,000	2,655,002
Environment and Water		
Division Management	10,161,000	11,504,359
Water & Air Monitoring	1,442,500	3,288,640
Drinking Water & Wastewater Management	635,100	541,879
Microbiology and Chemistry Laboratories	1,252,000	1,255,993
Agricultural Outreach	419,300	320,149
Environmental Land Management	1,070,200	1,168,853
Waste Reduction, Recovery and Recycling	7,308,200	8,043,285
Subtotal	22,288,300	26,123,158
Sustainability		
Office of Net Zero	24,707,000	37,338,244
Energy and Efficiency	22,967,000	29,742,672
Subtotal	47,674,000	67,080,916
Total	86,270,400	109,577,587

Departmental Financial Summary FY 2022-23		
Revenue	Estimates	
Summary		
Forests, Fish & Wildlife	3,502,500	3,456,752
Climate Action Secretariat	10,720,100	9,930,401
Environment and Water	1,254,300	1,534,425
Sustainability	2,478,500	2,732,190
Total	17,955,400	17,653,768
Detail		
Forests, Fish and Wildlife		
Federal Revenue	2,751,500	2,723,525
J.F. Gaudet Tree Nursery	108,500	102,423
Forestry Establishment Fees	10,000	16,208
Forestry Checkoff Fees	20,000	36,407
Forestry Sales	145,000	143,983
Fish and Game Licenses	131,000	121,440
Wildlife Conservation Fee	175,000	211,635
Firearm Safety Administration	11,000	10,500
Other Revenue	150,500	90,631
Subtotal	3,502,500	3,456,752
Climate Change Secretariat		
Low Carbon Economy Fund	10,024,100	9,625,933
Federal Revenue - Miscellaneous	696,000	304,468
Subtotal	10,720,100	9,930,401
Environment and Water		
Environmental Attributes	435,000	231,621
Shellfish Monitoring	213,000	234,973
Water Testing Fees	110,000	367,101
Extended Producer Responsibility Program	100,000	65,000
Other Revenue	396,300	635,730
Subtotal	1,254,300	1,534,425
Sustainability		
Zero Emission Vehicle Infrastructure Program	1,077,000	516,621
Electricity Efficiency & Conservation	1,200,000	1,967,595
EV Charging Stations	1,500	39,088
Other Revenue	200,000	208,886
Subtotal	2,478,500	2,732,190
Total	17,955,400	17,653,768

**APPENDIX 2 – Organizational Chart April 2023**

**DEPARTMENT of ENVIRONMENT, WATER and CLIMATE CHANGE**





DPCEC-4456