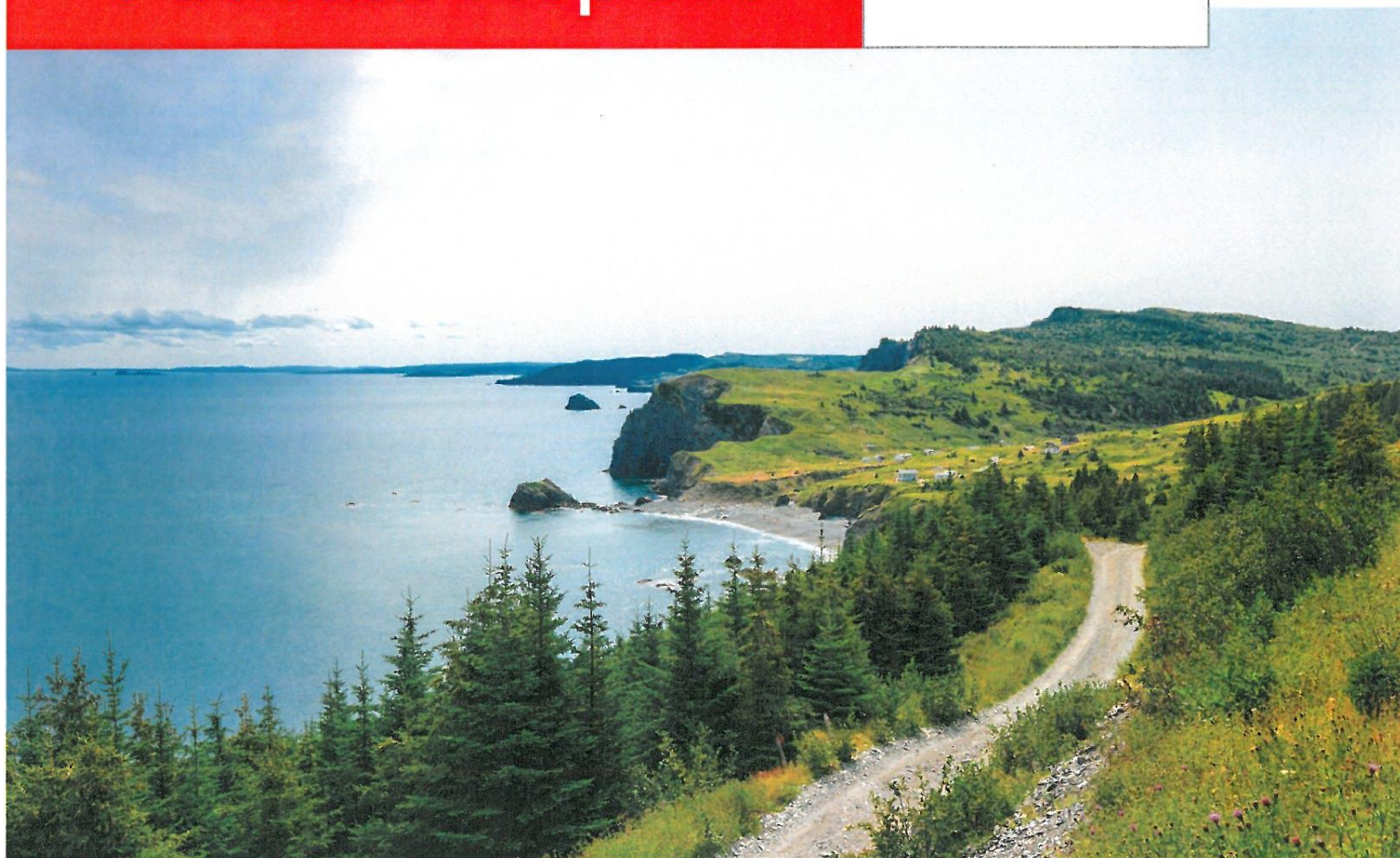


Fisheries and Land Resources

Annual Report

2016-17





MESSAGE FROM THE MINISTER

As Minister, I present the 2016-17 Annual Report for the Department of Fisheries and Land Resources. I am accountable for the results contained in this report, which was prepared in accordance with the **Transparency and Accountability Act**. Over the past three years, the department strived to meet and exceed the goals set out in 2014-17 Strategic Plans. This report is also a summary of the department's achievements toward the final year's objectives from these plans.

I am pleased with the results attained throughout 2014-17, particularly with 2016-17 efforts to achieve the commitments outlined in **The Way Forward**. The Department of Fisheries and Land Resources will continue to maximize the benefits of uniting all aspects of support provided to renewable resource industries, and positioning the Provincial Government to support economic development and growth in these sectors to achieve better outcomes for Newfoundland and Labrador residents.

The department, in partnership with other public sector and industry stakeholders, will continue creating efficient and focused programs and services, and will continue its work to sustain, strengthen, and expand our renewable natural resource sectors for the benefit of the people of Newfoundland and Labrador.

A handwritten signature in blue ink, appearing to be 'Gerry Byrne', with a long horizontal flourish extending to the right.

Honourable Gerry Byrne

Minister of Fisheries and Land Resources

Departmental Overview

Departmental restructuring in August 2016 and February 2017 combined the former Department of Fisheries and Aquaculture with the Forestry and Agrifoods Agency, the Lands Branch from the former Department of Municipal Affairs, the Wildlife Division and the Natural Areas section of Parks and Natural Areas Division from the former Department of Environment and Conservation, and Fish and Wildlife Enforcement from the Department of Justice and Public Safety, resulting in the formation of the new Department of Fisheries and Land Resources (the department).

The department is a Category 1 government entity under the **Transparency and Accountability Act**. Its main responsibilities include the licensing and regulation of the province's fish processing sector; promoting the continued development and diversification of competitive and sustainable agriculture and agrifoods businesses; the effective and sustainable management and development of the province's aquaculture sector; the stewardship of the province's forest environments for the benefit of our citizens; and the conservation and protection of the province's inland fish and wildlife, natural areas, and land resources. In addition, the department is responsible for conservation, marketing, sustainable development, and diversification efforts for sectors under its mandate. Additional information can be found on the department's website at <http://www.flr.gov.nl.ca/>.

As of March 31, 2017, the department had 972 employees, including temporary and seasonal staff. The department is headquartered in St. John's, with regional offices throughout the province to deliver its programs and services. For the 2016-17 fiscal year, the departmental budget was \$83,022,800.

Staff and Budget

The department has four branches, with a staff complement as follows:

Branch	# of Employees	2016-17 Budget
FISHERIES AND AQUACULTURE	87	\$12,431,600
FORESTRY AND WILDLIFE	462	\$36,931,700
AGRIFOODS AND LANDS	232	\$18,075,800
ENFORCEMENT AND RESOURCE SERVICES	177	\$13,548,900
EXECUTIVE AND EXECUTIVE SUPPORT	14	\$2,034,800
Total department	972	\$83,022,800

Highlights and Partnerships

During fiscal year 2016-17, the department made progress in a number of key areas in order to enhance programs and services to ensure that the department and its reporting entities worked together to benefit relevant industries as well as the residents of Newfoundland and Labrador. The details below illustrate some of the key accomplishments of the department in the past year.

Fisheries and Aquaculture

- The department established the Fisheries Advisory Council in November 2016 to meet **The Way Forward** commitment to seek independent advice on matters pertaining to the sustainability and viability of the fishing industry in Newfoundland and Labrador.
- The department led the All-Party Committee (APC) on the Last In, First Out (LIFO) Policy for northern shrimp allocations and advocated for the abolishment of this Federal Government policy. LIFO was eliminated in 2016, which resulted in the inshore harvesting fleet receiving an additional 6,018 tonne shrimp allocation and approximately \$19 million in additional revenue in 2016.
- The department continued to provide financial supports to projects through the Seafood Innovation and Transition Program (SITP). These projects supported fishing industry innovation and its adjustment to the ongoing resource transition to a more groundfish-centric fishing industry, as well as enhancements which contribute to aquaculture sustainability and growth

Agriculture and Forestry

- The department reserved 19 areas of interest for agriculture development (15,509 hectares) and identified an additional 49 areas of interest for agriculture development for potential reservation. The department completed two new forest inventories for Districts 8 and 15 (843,000 hectares) to maintain reliable and current

resource inventory for effective and sustainable resource management to meet the commitment outlined in **The Way Forward**.

- A total of 2,703 hectares of harvested and naturally disturbed forest sites were reforested in addition to reforestation completed by Corner Brook Pulp and Paper Ltd.'s (CBPPL). In total, 3,720 hectares were reforested with seedlings grown at the Wooddale Provincial Tree Nursery in central Newfoundland. Most of the seedlings were genetically improved planting stock that will produce larger trees and greater wood volumes to support the forest industry in future.

Compliance and Enforcement Efforts

- In 2016-17, the department received 1,697 complaints of illegal activity and laid 2,423 charges. The division has seen a dramatic increase in many types of offences, each of which has a detrimental impact on our natural resources. The department continues to enforce its mandate to protect the province's natural resources.
- As part of the ISO 14001 Environmental Management System (EMS) commitment to manage forestry operations from an environmental perspective, a total of 1,837 environmental management compliance inspections were carried out in commercial and domestic harvesting operations, road building and in the Silviculture program. In 2016-17, 29,003 enforcement checks and 2,309 sawmill inspections and crown land referrals were completed. In addition, the department received 2,532 problem wildlife complaints.

These compliance and enforcement activities demonstrate the department's commitment to environmental and natural resource protection.

Lands and Wildlife:

- A Provincial Land Use Atlas project has been developed in partnership with the OCIO to provide the public with online access to up-to-date land use information through a web mapping application. The project meets **The Way Forward** commitments to help improve the application process for Crown lands, enhance access to Crown lands, and to deliver more services online.

- The department completed consultations with municipalities and implemented a new policy to permit municipalities to lease Crown lands for up to a ten-year period, which is a commitment in **The Way Forward**.
- The department reserved 19 areas of interest for agriculture development (15,509 hectares) and identified an additional 49 areas of interest for agriculture development for potential reservation. The department completed two new forest inventories for Districts 8 and 15 (843,000 hectares) to maintain reliable and current resource inventory for effective and sustainable resource management to meet the commitment outlined in **The Way Forward**.
- A total of 2,703 hectares of harvested and naturally disturbed forest sites were reforested in addition to reforestation completed by Corner Brook Pulp and Paper Ltd.f (CBPPL). In total, 3,720 hectares were reforested with seedlings grown at the Wooddale Provincial Tree Nursery in central Newfoundland. Most of the seedlings were genetically improved planting stock that will produce larger trees and greater wood volumes to support the forest industry in future.
- The department continued to monitor Moose Reduction Zones and Moose Management Areas in support of the Moose Management Plan.

Report on Performance

The performance section of this Report is organized by the former departments' commitments in order to clearly demonstrate achievement of the indicators. The results reported below are related to commitments of the former Departments of Fisheries and Aquaculture, Environment and Conservation, and Municipal and Intergovernmental Affairs (Municipal Affairs) as well as from the Forestry and Agrifoods Agency.

Former Department of Fisheries and Aquaculture

Strategic Issue 1 - Fishing Industry Sustainability

The Newfoundland and Labrador fishing industry is a key employer and contributor to the provincial economy. Over the past three years, the department supported initiatives under its Fisheries Technology and New Opportunities Program (FTNOP) during 2014-16 and its SITP in 2016-17 to assist industry in becoming more sustainable. Initiatives such as upgrades to onboard handling in harvesting enterprises and new harvesting technologies such as cod pots have significantly improved the quality and value of landed groundfish. The introduction of new automated processing equipment has resulted in better quality, higher yields, and less worker fatigue and injury. The department also funded initiatives to increase by-product utilization. In addition to support through FTNOP and SITP, the Province undertook its own initiatives to ensure fishing industry sustainability, which included: a submission to the Federal Government to abolish the LIFO policy on northern shrimp, contributing to inshore shrimp enterprise viability; and the establishment of a Fishery Advisory Council which will focus on strategic fisheries and aquaculture issues with the intent to maximize the value of resources to the provincial economy.

Goal: By March 31, 2017, the Department of Fisheries and Aquaculture will have supported the fishing industry in becoming more sustainable and viable.

Indicators:

- Provided programs and policies to support:
 - More viable harvesting operations
 - More viable processing operations
 - Improved utilization of the resource
 - Increased/encouraged utilization of by-products

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former department's 2014-17 Strategic Plan.

Provided programs and policies to support: More viable harvesting operations

Results:

The department provided support for more viable harvesting operations by projects and initiatives from 2014-17. These were mainly supported under FTNOP from 2014-16 and SITP from 2016-17. A sample of these is outlined below.

In 2014-15, the department funded a project which utilized underwater cameras to study northern stone crab interacting with traps at different depths. The study evaluated the effectiveness and design characteristics of two styles of traps to retain stone crab while excluding other species, thereby supporting increased catches while decreasing bycatch.

Projects funded under FTNOP during this period included those which supported the development of new arctic char harvesting technology to maximize harvested quality and the purchase and installation of an automatic net stacking system which would reduce harvester strain and fatigue as well as improve quality.

In 2016-17, funds were provided to seven harvesters for the purchase of automatic jigging reel systems, allowing them to diversify their enterprises and improve quality.

These fully automatic devices allow harvesters to land premium quality fish in an economical and environmentally-friendly manner and receive higher shore prices. Additionally, funds were provided to eight harvesting enterprises to upgrade vessels to improve onboard handling and holding practices. These vessel modifications significantly improve the landed quality and value of harvested groundfish.

The department's new policy on direct sales of fish has supported more viable harvesting operations. In September 2015, regulatory amendments were made to allow harvesters to sell certain fish species from the fish landing station or a harvester's fishing establishment directly to individuals for personal consumption or to licensed food establishments. Previously, product could only be sold to licensed fish buyers. This policy has provided a local outlet for some sale of cod and other species.

Provided programs and policies to support: More viable processing operations

Results:

In 2014-17, the department supported more viable processing operations by funding projects, under FTNOP (2014-16) and SITP (2016-17), which were designed to foster efficiencies and reduce costs in the processing sector and contribute to the overall viability of the Newfoundland and Labrador fishing industry.

These included FTNOP projects for the development of efficient heat pump drying technology to significantly reduce energy consumption in comparison to conventional dryers, and the purchase and installation of 3X frame cutter technology, new to the province, expected to increase the mince value by 400 per cent and improve quality.

Under SITP, funding was provided to a processor to develop, build, and install an automated freezer rack loading system. This innovative technology allows the processor to provide custom orders of pelagic and groundfish species for customers, while reducing the amount of worker fatigue and injury.

In 2014-15, the department reviewed its minimum processing requirement policies for sea urchin and groundfish, particularly cod, in response to changing market requirements to ensure that species-specific exemptions were granted on a case-by-

case basis where doing so made economic sense and supported the viability of processing operations. In 2014-15, an independent review of the sea urchin fishery was undertaken to make recommendations to bring stability to that fishery. This resulted in an amendment to the minimum processing requirement for sea urchin.

Provided programs and policies to support: Improved utilization of the resource

Results:

The department provided support for improved utilization of fisheries resources by funding projects under FTNOP (2014-16), SITP (2016-17), and other programs.

The department's SITP provided funds to assist the fishing industry in improving its utilization of the cod resource as resource availability increasingly shifts from shellfish to groundfish, including a project to develop and test a new cod pot design, which is expected to increase uptake by harvesters and result in higher economic returns. Funds were also provided to complete an experimental whelk fishery to explore the possibility of a commercial fishery around Nain, Labrador. This would increase utilization of the whelk resource while improving the viability of local harvesting operations.

In response to concerns raised by harvesters in fall 2014 over the lack of local markets for cod, the department implemented a new policy which authorized outside buyers for cod harvested from the North Atlantic Fisheries Organization subdivision 3Ps, and invited in-province retail fish processors to participate in a pilot study to market head-on-gutted 3Ps cod outside of the province, as the cod quota in 3Ps was underutilized. No outside buyers elected to participate in this pilot; however, the project achieved its objective as the landings of cod from 3Ps increased.

Provided programs and policies to support: Increased/encouraged utilization of by-products

Results:

In 2014-15, funding was provided for two projects to support increased utilization of by-products. These included market development for crab shell by-product as a natural and organic fertilizer additive and an exploration of chitosan production from shellfish waste using a steam explosion process. Chitosan products are used for various applications

such as in cosmetics and as drug/vaccine carriers. These projects had the added benefit of reducing waste and creating new commercial opportunities.

In terms of policy development, the department's Aquaculture Waste Management Action Plan is a policy document which emphasizes the three R's (reduce, reuse, and recycle) in order to address waste management issues and to maximize the utilization and value of the resource. In addition, Aquaculture licensing policy requires that aquaculture site applicants identify measures to address waste streams, and the diversion of waste to be processed at a meal plant is encouraged where appropriate.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final year's objective during the planning period, as established in the former department's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Department of Fisheries and Aquaculture will have implemented programs to better support the fishing industry to become more sustainable and viable.

Indicators:

- Implemented a development program to support innovation and transition to a more groundfish-centric fishing industry
- Established a fisheries advisory council
- Reviewed and implemented changes to existing departmental programs to support a more sustainable fishing industry

Implemented a development program to support innovation and transition to a more groundfish-centric fishing industry

Results:

In 2016-17, SITP provided \$1.8 million in provincial funding for 46 projects, and leveraged \$4 million. The program supports innovation and the long-term sustainability of the province's fishery and aquaculture sectors with a focus on helping the fishing

industry transition to a more groundfish-based fishery by supporting harvesting enterprises to adopt innovative harvesting, handling, and holding technology to ensure increased utilization, improved quality, and higher returns.

Established a fisheries advisory council

Results:

The Fisheries Advisory Council was established in November 2016 to seek independent advice on matters pertaining to the sustainability and viability of the fishing industry in Newfoundland and Labrador. The Independent Chair, Mr. William Wells, was appointed through the Public Service Commission's merit-based screening process in March 2017. The department worked with the Chair to finalize the structure and terms of reference for the Council. The Council will commence its work in 2017-18.

Reviewed and implemented changes to existing departmental programs to support a more sustainable fishing industry

Results:

In 2016-17, the department made changes to its reporting processes to improve efficiency and consistency of its inspection services. Inspection services falls under the departments Quality Assurance Program and, as the industry transitions from shellfish to groundfish, an efficient and consistent Quality Assurance Program is essential to supporting a more sustainable industry, as quality products command higher prices.

The department also combined all fisheries development activities under one division to streamline services and administer the SITP.

Discussion of Results

During 2014-17, the department supported projects and initiatives focused on sustainability of the fishing industry, including quality yields and maximum utilization of the resource. In 2016-17, the department implemented SITP to support transition to a groundfish-centric fishing industry and established a Fishery Advisory Council to advise on strategic matters related to the sustainability and viability of the fishing industry in the province.

Strategic Issue 2 - Aquaculture Sustainability

The Newfoundland and Labrador aquaculture industry is an increasingly important economic driver for rural regions of the province. During 2014-17, the department supported implementation of the Sustainable Aquaculture Strategy, which included three strategic priorities: sustainable management, support capacity, and research and development. Sustainable management initiatives included further development of Bay Management Areas, which are scientifically defined coastal regions that facilitate the coordination of aquaculture activities to enhance biosecurity and fish health management, revisions to the Aquatic Animal Health Management Policy, and support for industry-led waste management initiatives. Under support capacity, the department worked with other departments and the Newfoundland Aquaculture Industry Association (NAIA) to initiate a Labour Market Analysis. Under Research and Development, the department continued to fund Oceanographic work to inform Bay Management Area development and initiatives which aimed to improve aquaculture sustainability.

The Department also supported industry initiatives under its Aquaculture Capital Equity Program and SITP. This work has fostered sustainability in the aquaculture industry.

Goal: By March 31, 2017, the Department of Fisheries and Aquaculture will have supported improved sustainability of the aquaculture industry.

Indicators:

- Supported the development and implementation of a provincial aquaculture strategy
- Reviewed current regulations and policies to ensure best practices
- Supported industry-led innovation to enhance sustainability of the industry
- Developed initiatives to address key priority areas to foster sustainability

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former department's 2014-17 Strategic Plan.

Supported the development and implementation of a provincial aquaculture strategy

Results:

On December 16, 2014, the department released the Newfoundland and Labrador Sustainable Aquaculture Strategy 2014. The strategy identified three strategic priorities; Aquaculture Sustainable Management, Aquaculture Support Capacity, and Aquaculture Research and Development.

Also during 2014-17, the department supported implementation of the Strategy by prioritizing several priority work items under each of its pillars. For example, under Sustainable Management, the department worked to refine and further develop Bay Management Areas through ongoing oceanographic work, and reviewed and drafted recommendations for revisions to the Aquatic Animal Health Management Policy. Under the Support Capacity pillar, the department focused on human resource planning and worked with the Department of Advanced Skills, Education and Labour and NAIA to initiate a Labour Market Analysis for the provincial aquaculture industry. The department also undertook a review of the Aquaculture Licensing Policy and Procedures Manual. Lastly, under the Aquaculture Research and Development pillar, the department continued to perform site assessment work on potential new sites and supported initiatives which aimed to improve aquaculture sustainability.

Reviewed current regulations and policies to ensure best practices

Results:

In April 2014, an internal review of the current **Aquaculture Regulations** was completed by the Aquaculture Regulatory Review Committee. This internal committee was tasked to oversee the review process and provide input into and feedback on regulation development. The review identified issues with current regulations.

Revision of the Aquaculture Policy and Procedures Manual was identified as a strategic priority in the Newfoundland and Labrador Sustainable Aquaculture Strategy 2014. In summer 2015, an initial review of the Manual was completed by aquaculture staff, and stakeholder feedback from previous consultations was reviewed, to identify areas to be

considered during the amendment process. The department established an Aquaculture Policy and Procedures Manual Review Working Group and work continues on this initiative.

In December 2016, a review was conducted to identify potential mechanisms to promote efficient and sustainable use of marine resources from aquaculture production. The scope of the review included both aquaculture governance structures in other jurisdictions as well as governance structures for other resource sectors in the province.

Supported industry-led innovation to enhance sustainability of the industry

Results:

During the 2014-17 period, the department provided funding to support industry-led innovation to enhance the sustainability of the aquaculture industry. For example, the department's Aquaculture Capital Equity Program provided \$2 million over two years (2014-15 and 2015-16) to establish a land-based net-cleaning facility. This new technology will enhance biosecurity and reduce the potential for environmental impacts from aquaculture net cleaning and repair activities, thus contributing to the sustainable development and management of aquaculture.

The department also provided support for two projects aimed at mitigating sea lice to improve sustainability. Sea lice are abundant and naturally occur in the ocean environment. In 2014-15, funding was provided for an innovative new internet-based fish health monitoring software package, giving industry a greater capacity to monitor and mitigate the impact of sea lice on farmed fish. The department also provided funds to the Ocean Sciences Centre to support research into alternative methods for sea lice management using cleaner fish technology.

LBA Enterprises Ltd. received funds in 2014-15 to purchase and utilize a mussel rope cleaning unit. The new unit decreases the amount of time it takes to clean expensive production ropes, thereby extending its useful life and reducing expenses, which contribute to the sustainability of the operation. The use of this cleaning unit, which is a first for the province's aquaculture industry, will also increase seed collection on the

rope, resulting in increased production. The company also received funds in 2015-16 to construct a through-ice mussel harvesting unit and associated equipment, allowing it to access product year-round. As mussels cannot typically be harvested in the winter, this will help ensure a consistent supply of product to the marketplace, and aid in gaining new customers and maintaining existing clients.

Developed initiatives to address key priority areas to foster sustainability

Results:

During the stakeholder consultation process for the development of the Newfoundland and Labrador Sustainable Aquaculture Strategy 2014, waste management was identified as a key priority for continued sustainability and growth. Over the 2014-17 period, several activities have been undertaken to address waste management planning for the aquaculture industry.

The department engaged with stakeholders from other Provincial Government departments and agencies with an interest in, or responsibility for, environmental and waste management issues, as well as industry (through NAIA) to contribute to a provincial waste management strategy. An Aquaculture Waste Management Action Plan was developed and implemented by staff.

In 2014-15, the department supported the second phase of a collaborative initiative to explore the potential for commercial-scale ensiling operations for the aquaculture industry. In 2016-17, NAIA, with advisory and financial support of nearly \$80,000 from the department, undertook a commercial-scale ensiling demonstration project. Ensiling is the process of turning salmonid by-product into fish silage (acid-preserved fish by-product) to enable preservation and use. Two aquaculture producers and a dairy producer participated in a study to determine if ensiling is a potential option for waste management in the aquaculture industry. The ensiling of salmon is an alternative to freezing by-product. It prevents spoilage, while reducing waste and lowering energy costs associated with other methods of preservation.

The SITP also funds aquaculture projects and, as detailed in the previous indicator, the

department supported a number of industry-led projects to address sustainability issues in the industry. Projects that allowed aquaculture companies to purchase/construct and test new technology foster sustainability in the industry and allow companies to maintain or increase production.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former department's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Department of Fisheries and Aquaculture will have commenced the implementation of initiatives to foster the sustainability of the aquaculture industry.

Indicators:

- Drafted recommendations for aquaculture policy amendments
- Continued to support industry-led initiatives to enhance sustainability of the industry
- Commenced collaborative initiatives that address priority areas to support aquaculture sustainability

Drafted recommendations for aquaculture policy amendments

Results:

Over the 2016-17 fiscal year, the department drafted recommendations for aquaculture policy amendments. Throughout late spring and summer, management and staff met regularly to review draft recommendations for policy amendments.

In December 2016, staff conducted a review to identify potential mechanisms to promote efficient, sustainable use of marine resources from aquaculture production. Governance structures for aquaculture operations in other jurisdictions as well as other resource sectors in the province were included in the scope of the review.

Continued to support industry-led initiatives to enhance sustainability of the industry

Results:

The department continued to support industry-led initiatives to enhance aquaculture sustainability through financial support for a number of projects in 2016-17. These included funding the purchase and use of a deep water Remote Operated Vessel to inspect and retrieve mussel lines on a company's mussel sites. Benefits of this project included the means to examine lines to determine if sufficient floatation/anchors were being used; to monitor lines for entanglement with other lines; to use the Remote Operated Vessel's optional cutting tool to make the retrieval of expensive gear and product a much faster, safer, and more economical process; and, to collect product samples without bringing lines to the surface, which prevents undue stress on the product.

Commenced collaborative initiatives that address priority areas to support aquaculture sustainability

Results:

In 2016-17, the department commenced collaborative initiatives, in priority areas, to support aquaculture sustainability. Through previous consultations conducted for the development of the Newfoundland and Labrador Sustainable Aquaculture Strategy 2014, the aquaculture industry and other stakeholders have identified waste management as a key priority area. The commercial-scale ensiling demonstration project, which involved collaboration between the department, NAIA, and representatives from both the aquaculture and dairy industries, addresses this priority area.

Another priority area was aquaculture governance. Throughout 2016-17, the department worked with federal counterparts to address gaps in the federal **Aquaculture Activity Regulations** (AAR). The department and Fisheries and Oceans Canada (DFO) cooperated to ensure the AAR finfish monitoring program is harmonized with provincial aquaculture licensing processes. The department participated in the Pan Atlantic AAR Monitoring Standard Technical Working Group, which is chaired by DFO

and had its inaugural meeting in February 2017.

As previously noted, the department also worked with the Department of Advanced Skills, Education and Labour and NAIA in 2016-17 to initiate a Labour Market Analysis for the provincial aquaculture industry. The department engaged the Department of Advanced Education, Skills and Labour to discuss funding options for developing a human resource plan. It was determined that the Labour Market Partnership Program under the Federal-Provincial Labour Market Development Agreement could support the development of a human resource plan through industry associations.

Discussion of Results

During 2014-17, the department fostered the sustainability of the aquaculture industry through implementation of the Newfoundland and Labrador Sustainable Aquaculture Strategy 2014. The department developed an Aquaculture Waste Management Plan, continued biosecurity auditing, supported the initiation of a Labour Market Analysis and continued Oceanographic work to refine and inform Bay Management Areas. The department's support of projects through FTNOP, SITP, and other departmental programs will assist industry in becoming more sustainable. Such projects have included land-based net washing which will reduce environmental impacts, new software to monitor sea lice, and a commercial-scale ensiling demonstration project. The department also reviewed and made recommendations on its Aquaculture Policy and Procedures Manual. All of these initiatives have supported the long-term sustainability of aquaculture in the province.

Strategic Issue 3 - Market Development

Newfoundland and Labrador is a significant seafood exporter with over 80 per cent of its seafood products shipped to more than 40 countries around the world. During the 2014-17 period, the department supported several initiatives which included: research and development of new product lines, development of marketing strategies for new products, collaborating with Atlantic provinces on global promotional events and supporting third-party certification of seafood which is becoming increasingly more important in order to maintain markets. In addition, the department worked with the Intergovernmental and Indigenous Affairs Secretariat to monitor and assess several trade negotiations including the Canada-Korea Free Trade Agreement and Canada-European Union Comprehensive Economic and Trade Agreement to ensure real market access is attained for the province's seafood industry.

Goal: By March 31, 2017, the Department of Fisheries and Aquaculture will have supported the fishing and aquaculture industries to capitalize on new market opportunities.

Indicators:

- Fostered industry diversification
- Supported increased access to markets
- Supported market certification
- Researched potential market opportunities
- Supported improved marketing coordination

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former department's 2014-17 Strategic Plan.

Fostered industry diversification

Results:

During 2014-17, the department fostered diversification in the seafood industry by

supporting projects under FTNOP (2014-16) and SITP (2016-17). For example, funds were provided to companies to engage a consultant to assist with the development of a new half-shell frozen scallop product currently not produced in the province and to conduct market analysis to determine detailed customer product specifications for sea cucumber. These consultants investigated equipment costs, markets, weight, cut, and packaging specifications, as well as training requirements to commercialize production of new products.

Beothic Fish Processors Ltd. received funding to purchase and install a new automated high-precision combination feeding and filleting system which produces high-yield butterfly or single herring fillets, allowing the company to diversify its product lines.

The Newfoundland and Labrador Groundfish Industry Council also received startup funding from the department. The planned activities of this industry-led council include the development of an ocean-to-plate strategy to generate the best possible end-products, focusing on maximizing the value of local groundfish products to improve industry's financial viability and long-term sustainability in the province.

Supported increased access to markets

Results:

During 2014-17, the department continued to partner with other departments and industry stakeholders on initiatives to support increased market access.

While the Federal Government has sole jurisdiction over the negotiation of international trade agreements, provinces and territories are now playing a more direct and significant role in these negotiations. The department contributed to the negotiation of the Canada-South Korea Free Trade Agreement, which entered into force on January 1, 2015. By January 1, 2020, nearly 70 per cent of fish and seafood tariff lines will be duty-free and all remaining duties will be eliminated by 2027. This is Canada's first free trade agreement in Asia.

The Canada-EU Comprehensive Economic and Trade Agreement was signed by both parties in October 2016 and is expected to be provisionally implemented in 2017. The

agreement will offer seafood producers unprecedented tariff-free access to the lucrative European Union seafood market and permit them to develop new value-added and branded seafood products for European markets.

In addition, the department continued to work with the Intergovernmental and Indigenous Affairs Secretariat and other stakeholders to monitor and assess other ongoing trade negotiations, including the Canada-Japan Economic Partnership Agreement and the Trans-Pacific Partnership Agreement, to ensure the provincial seafood industry's interests are represented.

During 2014-17, the department, in collaboration with the Federal Government and other industry stakeholders, worked to address market access for seal and seal products and promoted market development of the province's sealing industry. It also supported certification initiatives for various species in recognition that sustainability and certification plays an increasingly important role in gaining and maintaining access to global markets.

All these endeavors have supported increased access to the seafood market for Newfoundland and Labrador producers. Value of exports has increased in this period, from \$827 million in the 2013 calendar year to \$1.016 billion in the 2016 calendar year, an increase of 23 per cent.

Supported market certification

Results:

The department offered support for market certification throughout 2014-17. Recognizing the importance of fishery certification and traceability to consumers and market opportunities as a whole, the department supported efforts to certify, recertify, or implement traceability initiatives for various fisheries. Two processors, Ocean Choice International and Icewater Seafoods, received funding for 60 per cent of the actual costs, up to a maximum of \$87,500, to undertake full assessment of the 3Ps cod fishery and receive the Marine Stewardship Council (MSC) eco-certification standard. Ocean Choice International also received \$25,000 for a MSC reassessment of yellowtail

flounder.

In 2016-17, funds were provided to support a multi-year northern cod Fisheries Improvement Project. This project will help identify the specific improvement measures necessary to move the northern cod fishery towards meeting MSC (or equivalent) eco-certification standards.

Today, over three quarters of the province's wild fisheries, by value, have achieved MSC certifications. In the aquaculture sector, two salmon producers are Best Aquaculture Practices certified. In 2014, blue mussels became the first certified organic mussels in North America. One of the province's mussel processing plants was the first to receive certification.

Researched potential market opportunities

Results:

During 2014-17, the department worked with stakeholders and other partners to research potential market opportunities by providing market research and intelligence for new and emerging species, product types, and markets, and by participating in a number of collaborative projects to identify opportunities to benefit the industry. These included: first-time market research on Atlantic halibut and sea urchin for the benefit of the industry; commissioning and providing industry with independent market intelligence reports from international consultants for a number of species as needed; participation in a multi-sector analysis project with a number of other provincial departments; and, funding Marine Institute participation in PrimeFish.

The multi-sector analysis project assessed the effectiveness of interactions between the province's key industry sectors and China, and the opportunities and challenges for converting recent experience into sustainable progress in China. PrimeFish is a European marketing initiative that will provide the Marine Institute with the ability to develop marketing software to predict and forecast market trends in the European seafood market. The tool will be available to industry, market analysts, and public authorities. The four-year project will provide insight into European consumer markets

and access to a prediction modelling tool that can be used to plan for new product development and investment in new technology.

Supported improved marketing coordination

Results:

During 2014-17, the department supported improved marketing coordination through a partnership with other Atlantic provinces on a food service education and promotion project to support international market development within the food service industry, with a focus on Atlantic Canadian seafood products.

During 2014-17, the department also coordinated with its counterparts in Atlantic Canada and other provinces to organize a number of promotional and matchmaking events around several of the trade shows it attended. In both 2015-16 and 2016-17, prior to the China Fisheries and Seafood Expo, the department co-organized an Atlantic Canada and British Columbia matchmaking and networking session in Seoul, South Korea. Local seafood importers, traders, and foodservice buyers met with companies to discuss potential business opportunities. During the China Fisheries and Seafood Expo, the Atlantic provinces organized a ten-day restaurant promotion with a premium seafood restaurant in Qingdao, China. During other trade shows and events throughout 2014-17, the department also worked with the other Atlantic provinces to jointly advertise under the Atlantic Canada Exports branding and provide meeting space for the use of Atlantic Canadian companies.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former department's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Department of Fisheries and Aquaculture will have continued the development of initiatives to assist industry to pursue new market opportunities.

Indicators:

- Enhanced Pan-Atlantic and/or Pan-Canadian market development initiatives
- Continued to support provincial participation in trade shows and missions
- Commenced collaborative initiatives that address priority areas to support aquaculture sustainability

Enhanced Pan-Atlantic and/or Pan-Canadian market development initiatives**Results:**

During 2016-17, the department worked to enhance Pan-Atlantic and/or Pan-Canadian market development initiatives through. The department worked with the other Atlantic Canadian provinces to translate promotional videos and print material into various languages, including French, Italian, Portuguese, Spanish, Mandarin, Cantonese, Japanese, and Korean.

In collaboration with other Atlantic provinces and the Canadian Trade Commissioner Service, the department also organized promotional and matchmaking events around several international trade shows. The Atlantic provinces hosted a series of seafood Master Classes for foodservice buyers, chefs, food journalists, and bloggers at Canada House in London, UK prior to Seafood Expo Global. In conjunction with Seafood Expo Asia, this group also organized a cooking class at a culinary school in Hong Kong featuring lobster, mussels, and salmon.

In October, the Atlantic provinces organized a retail promotion with DCH Food Mart in Hong Kong. For two weeks, the retailer featured lobster, crab, shrimp, and mussels at their 71 locations. The promotion was supported by in-store posters, print, and digital flyers, a Facebook recipe competition, online cooking videos, and Instagram posts. In addition, the department participated for the first time in Export Café's in Shanghai and Guangzhou, China and in Seoul, South Korea.

Continued to support provincial participation in trade shows and missions**Results:**

In 2016-17, the department attended and supported provincial seafood industry

participation in key international seafood trade shows, including Seafood Expo North America in Boston, Massachusetts; Seafood Expo Global in Brussels, Belgium; Seafood Expo Asia in Hong Kong; and the China Fisheries and Seafood Expo in Qingdao, China.

The department provided \$2,080 to MapleFilets to determine potential for new markets in Asia, attend a seafood buyers' networking event in Seoul, South Korea, and attend the China Fisheries and Seafood Expo in Qingdao China to develop its business. This was the first time MapleFilets participated in a trade show.

The department worked with the other Atlantic provinces and the Mexico Trade Commissioner Service to organize an incoming seafood buyers' mission from Mexico in October 2016. Mexican buyers met with officials and participated in meetings with provincial seafood producers. Also, as detailed in the previous indicator, the department organized and participated in Export Cafés for Atlantic seafood companies in select venues. Companies from Newfoundland and Labrador which attended included Newfound Resources, Whitecap International Seafood Exporters, Labrador Gem Seafoods, Green's Seafoods, Barry Group, and Ocean Choice International.

Expanded targeted promotional activities in emerging markets

Results:

Asia is a large emerging market for Newfoundland and Labrador seafood products. The three activities listed below took place for the first time in 2016-17 and represented an expansion of targeted promotional activities in the emerging Asian market. Through increased partnerships with other Canadian provinces, the department expanded its range of promotional activities in this market. As noted in the first objective indicator, In fall 2016, the Atlantic provinces worked with DCH Food Mart in Hong Kong on a retail promotion and organized a cooking class in Hong Kong.

In partnership with Alberta, Quebec, and Agriculture and Agri-Food Canada, the department also worked to launch a promotion on Cookpad, an online recipe site in Japan similar to allrecipes.com, a popular North America recipe website. The initial

promotion featured recipes using Newfoundland and Labrador seafood, as well as images of the province and its seafood sector. The department will continue to have a “Newfoundland and Labrador Kitchen” page, which will be updated regularly.

Discussion of Results

Throughout 2014-17, the department continued the development of initiatives to assist industry in pursuing new market opportunities. The department supported participation in trade shows and missions in order to support networking opportunities, to allow seafood companies to showcase their products to new and existing markets and to connect with potential buyers and consumers. The department continued its support of market certification and traceability for Newfoundland and Labrador seafood to assist industry’s ability to pursue new market opportunities. The department also supported the development of new product lines and marketing strategies for new products. As well, the department worked with the Intergovernmental and Indigenous Affairs Secretariat to monitor and assess several trade negotiations to ensure real market access is attained, which will provide significant market opportunities for the province’s seafood industry.

Strategic Issue 1 - Ensuring the Longevity of Our Province's Forest and Agriculture Resources

During the 2014-17 period the department implemented programs and services to ensure the province's forest and agricultural resources were healthy, sustainable and viable. The department advanced forest protection measures to monitor insect populations, developed sustainable forest management plans, supported research and development into agriculture including wheat varieties, potato varieties and canola trials and provided emergency veterinary care to livestock producers to ensure animal health and food safety.

Departmental staff worked throughout the 2014-17 period to support enhanced utilization, sustainability and public awareness of the forestry, agriculture and agrifoods sectors.

Goal: By March 31, 2017, the Forestry and Agrifoods Agency will have advanced programs and initiatives to enhance the sustainability of the province's forestry and agriculture resources.

Indicators:

- Advanced forest resource protection
- Supported resource research and development
- Supported sustainable forest management planning
- Provided farm animal health services
- Supported agriculture land management programs/activities

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former agency's 2014-17 Strategic Plan.

Advanced forest resource protection

Results:

Outbreaks of major forest pests, disease, and fire can have adverse effects on our forest resources, which can also have impacts on wildlife habitat, ecosystem processes, recreational use, and tourism. From 2014-17, the department advanced forest resource protection through the following three initiatives; installation of a Remote Automated Weather Station System for improved weather monitoring for both forest insect control (spruce budworm, hemlock looper) and for fire suppression programs; use of pheromone traps and reduction of non-priority area survey work to improve the forest insect monitoring program; and, creation of a new insect laboratory to support the insect control program. These initiatives assisted program managers in determining appropriate insect control program requirements by increasing the amount and quality of information about forest insect populations.

In addition to insect control, a comprehensive review of the forest fire management and coordination program in 2016-17 produced a series of short and long-term recommendations, which have all been implemented or are in progress. One such recommendation was that the department should consider centralizing the management of its weather station network and expanding its use of automatic weather stations. The installation of the Remote Automated Weather Station System for improved weather monitoring is responsive to this recommendation and has improved the overall effectiveness of the program, advancing forest fire management activities in Newfoundland and Labrador.

Supported resource research and development

Results:

During the reporting period, the department supported agricultural research and development under the Provincial Agriculture Research and Development Program (PARDP). The PARDP is a provincially-funded program totaling \$1 million annually. This program has taken a proactive, strategic approach to agriculture research and development through its support of applied research projects. Funding was provided to Provincial Government scientists to support agriculture research that enhances

sustainability and diversification in the agriculture sector.

Research focus over the past three years has included: expansion of the wine grape varietal trial in efforts to create a wine grape industry; agronomic research on winter wheat, spring wheat, barley, canola, and silage soybean, which has led to advancements in livestock feed production; and, continued assessment and production of nuclear and elite class seed potato to support potato producers by ensuring that potato varieties remain disease-free and resistant to pests.

The Centre for Forest Science and Innovation is responsible for the development of forest-related research programs and science capacity in the province consistent with themes of the Provincial Sustainable Forest Management Strategy and other guiding documents. Priority areas include climate change, innovation, and partnerships. These are encouraged with academia, industry and other research agencies. The department is also engaged in developing and implementing program areas and conducting applied research. These efforts include a multi-year project entitled “Towards Enhancement of NL Soils Database with Emphasis on Forest Soils” funded in 2015-16 and 2016-17. The purpose of this study was to investigate the possibility of a soil sampling and data collection program in the province to help monitor change. Incorporating existing soil data and the collection of more recent data such as soil carbon represents a very valuable contribution to sustainable forest management.

Also, in both 2014-15 and 2015-16, funding was provided to Memorial University for years one and two of a project called “Regeneration, growth, and survival success of eastern white pine along a climatic gradient in western Newfoundland”, which studied the performance of this key tree species under a variety of environmental conditions.

Supported sustainable forest management planning

Results:

During the 2014-17 period, the department supported sustainable forest management planning through the following policies and initiatives, as well as through innovative technology.

Over the past three years, a total of eight new five-year sustainable forest management plans have been developed, approved through environmental assessment processes, and implemented. Secondly, the Wood Supply Analysis completed in 2016 partitioned the softwood Annual Allowable Cut into spruce and fir components, providing the opportunity to evaluate spruce sustainability independently and determine the spruce Annual Allowable Cut for each District throughout the province.

New geodatabase forest inventories were also completed for three Forest Management Districts representing approximately 1,105,000 hectares. These inventories captured all resource changes in terms of forest depletions (harvesting, insect mortality), and all forest additions (silviculture and natural forest growth), since the last forest inventories were done approximately a decade ago. The creation of new forest inventories will be an ongoing initiative, as the maintenance of a reliable and current resource inventory is key to effective and sustainable resource management planning.

Environmental Protection Guidelines were updated in 2015 to be reflective of current industry standards such as EMS and certification criteria, as well as the integration of new operational standards, and the Large Intact Landscapes policy identified 3,993,431 hectares that will be managed with the primary objective of protecting the inherent ecological values of landscapes by delaying commercial harvest until 2024.

Provided farm animal health services

Results:

For the reporting period, the department's Animal Health Division has provided veterinary clinical and diagnostic services, including emergency care, to livestock producers throughout the province to help ensure animal health and food safety. Veterinarians visited farms and made herd visits regularly, as well as other activities associated with routine veterinary care, to help ensure optimal production, to address disease outbreaks, and to provide preventative medicine advice on a fee for service basis. In the last three years, revenue generated by the Animal Health Division's services to livestock farmers has increased from \$785,528 in 2014-15 to \$1,155,472 in 2016-17.

Supported agriculture land management programs/activities

Results:

Land resources are the foundation of all agricultural enterprises and are influenced by environmental factors and management practices. The department supported agriculture land management programs and activities during the reporting period, including the Environmental Farm Plan Program and the Agricultural Limestone Program. Activities included soil surveys and land use planning. In addition, the department increased drainage advisory services and cranberry field inspections provided to the cranberry Industry.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former agency's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Forestry and Agrifoods Agency will have improved programs and initiatives to ensure the sustainability of the forestry and agriculture resources.

Indicators:

- Continued to conduct internal audits and external surveillance audits to identify continuous improvement opportunities. Completed the required reporting requirements to maintain EMS certification to the 14001:2004 standards.
- Improved collection of weather related information through the installation of automated weather stations to be used in the management of forest insects and forest fires.
- Improved the crop research program through the introduction of canola trials for livestock sustainability.

Continued to conduct internal audits and external surveillance audits to identify continuous improvement opportunities. Completed the required reporting requirements to maintain EMS certification to the 14001:2004 standard.

Results:

In 2016-17, the department continued to conduct internal audits and external surveillance audits in all Forest Management District offices in the province in order to maintain EMS certification to the 14001:2004 standard.

Twenty three internal audits were completed. In total there were zero non-conformances; and 16 opportunities for improvement identified. Although opportunities for improvement are considerations and not officially required to meet the standard, action plans were developed to promote and implement improvements. One such action plan involved the implementation of an electronic tracking system to track partial inspections as well as completed inspections. This ensures that all monitoring is captured in an electronic database and environmental progress is tracked.

The department also met the requirements of external surveillance audits to the ISO 14001:2004 standard. There are ten essential elements which have to be met annually. In October 2016 two external auditors visited four district offices and headquarters and found no major non-conformances, five minor non-conformances and four positive points to the department's EMS under the ISO 14001:2004 standard. The five minor non-conformances resulted in the development of action plans, which will be fully implemented in forestry operations in 2017-18.

Improved collection of weather related information through the installation of automated weather stations to be used in the management of forest insects and forest fires.

Results:

The collection of weather-related information was improved through the installation of automated weather stations use in the management of forest insects and forest fires. The weather stations are a series of physical installations that, when connected, form a remote automated weather information system. The information is sent to a satellite, which sends it back to a terminal in Corner Brook for hourly collection and storage.

Weather information is now being collected around the clock and throughout the year to be used for forest protection decision support; meanwhile, the department used the weather information in computer models to predict forest insect morphology (development). The remote automated weather station system was designed to consider geography, terrain and weather patterns. It produces much more accurate weather information, which could enable managers to more accurately predict forest fire occurrence, severity, and duration in order to make more informed decisions to protect forests from insects and fire.

Improved the crop research program through the introduction of canola trials for livestock sustainability.

Results:

Thirty acres of canola was planted in spring 2016 and proved to be a tremendous success, demonstrating that canola can be grown and harvested successfully in the province. The canola meal nutritional value was within national averages and the oil was also suitable for livestock feed. Further work is planned to establish protocols for producing food-grade canola oil.

Through the initiation and establishment of canola trials, the PARDP grain research program was expanded to include agronomic research on oilseeds. This crop had never before been grown in this province and, due to its proven success, will have a tremendous impact on improving livestock farms feed self-sufficiency. This crop not only provides local feed for livestock farmers, reducing the need to import feed from the mainland, but also provides an opportunity for our farms to diversify and generate local canola oil that may be used for human consumption.

Discussion of Results

During the 2014-17 period, the department undertook several initiatives and implemented programs and services to ensure the longevity of the province's forest and agricultural resources. The department installed a Remote Automated Weather Station System to monitor insect control and fire suppression and developed eight new five-year sustainable forest management plans. In 2016-17, the department maintained the

EMS certification to the ISO 14001:2004 standard. The ISO 14001:2004 certification is an environmental management standard used in all industry sectors to demonstrate commitment to environmental protection and to assure public confidence in management activities.

The department also continued support for agricultural research and development into winter wheat, spring wheat, barley, canola and silage soybean, wine grape varieties, half-high blueberries and partridgeberries and new potato varieties; provided emergency veterinary care to livestock producers in the province to help ensure animal health and food safety; and delivered agricultural land management programs.

Strategic Issue 2 - Creating a Climate for Industry Sustainability, Growth and Diversification

The department, through intensive planning, advanced research activities and funding, worked to ensure the sustainability, growth and diversification of the province's forestry, agriculture and agrifoods industries. The department provided advisory services and assistance to the forestry industry through programs and extensions services and liaised with research organizations, associations and companies in support of sustaining and improving economic returns from the province's forest resources. Its extension services have provided the province's primary and secondary producers with knowledge on new and innovative agronomic practices, farm-specific production methods and codes of practice. The department continued delivery of Growing Forward 2 (GF2) and the Provincial Agrifoods Assistance Program, which supported projects to enhance the sustainability, growth and diversification of the province's agricultural sector. These initiatives played an important role in creating a climate for optimum usage of the province's resources for industry growth.

Goal: By March 31, 2017, the Forestry and Agrifoods Agency will have advanced programs and services for the sustainability, expansion and diversification of the forestry and agriculture industries.

Indicators:

- Provided assistance through programs and extension services for forestry and agriculture based businesses
- Supported advancement of sectors through research initiatives
- Supported agricultural land development and soil improvement

Provided assistance through programs and extension services for forestry and agriculture based businesses

Results:

During 2014-17, the department provided assistance for agriculture-based businesses through extension services which included the provision of consultative and advisory

support to the province's primary and secondary producers in a variety of agricultural sectors, including livestock, dairy, poultry, apiculture, field crops, vegetable, organic, berry, and greenhouse. Staff educated the industry on innovative agronomic practices, crop disease management, crop rotation, soil and organic resource management, farm-specific production methods, risk management, herd management, and adherence to the codes of practice. In addition to these services, the department also continued to offer fur farm inspections, production management training, and regulatory support.

The department also supported the development of a provincial cranberry industry through financial assistance to cranberry producers. The Cranberry Industry Development Program is a collaborative five-year (2014-19) program between the department, the Department of Tourism, Culture, Industry and Innovation, the Atlantic Canada Opportunities Agency, and the Cranberry Association of Newfoundland and Labrador. The goal of the program is to expand cranberry production in the province. Support was provided through the administration of the provincial portion of the funding to producers, propagation and supply of cranberry plugs, and advice on production practices. Over the period from 2014-17, this program has contributed approximately \$1.25 million to cranberry producers and supported the development of approximately 137 additional cranberry-producing acres, bringing the total cranberry-producing acres in the province up to approximately 367 acres in various stages of development.

GF2 is a federal-provincial-territorial cost-shared program which provides funding to support innovation, competitiveness, and sustainability in the province's agriculture industry. GF2 is a five-year program, of which 2016-17 was the fourth year, with a budget of \$37 million for Newfoundland and Labrador. In 2016-17, GF2 invested nearly \$6.7 million in 193 projects including agriculture awareness, business development, environmental sustainability, innovation, food safety, and land development.

From a forest industry development perspective, the department provides technical advisory services, market reconnaissance, access, and opportunity development; promotes improved fiber and processing efficiencies; and liaises with research organizations, associations, individuals, and companies in support of sustaining and

expanding economic returns from the province's forest resources. During 2014-17, the department provided assistance through programs and extension services for forestry-based businesses. The department provided financial and logistical support to five sawmills to assist with kiln drying training, sawmill diagnostics and assessment efforts throughout 2014-17. The department developed and published a Newfoundland and Labrador Wood Products Directory in 2015-16 to assist the wood products sector with promotion and marketing initiatives. The department also conducted mill and efficiency studies throughout 2014-17 to support improved fiber processing efficiencies, leading to improved processing costs.

Additionally, the Centre for Forest Science and Innovation funded a project in 2016-17 to improve the efficiency and sustainability of large harvesting contractors and small trucking contractors in the province. This project was designed to raise the level of proficiency and professionalism of smaller operators that provide timber harvesting and delivery services to provincial sawmills.

Supported advancement of sectors through research initiatives

Results:

Agriculture sector advancements made over the last three years through research initiatives under the PARDP included continued research into the commercialization potential of various berries, expansion of the wine grape varietal trial, and advancements in livestock feed production, as previously outlined in Strategic Issue 1. The department also supported diversification of the livestock industry with the establishment of the Beef Genetic Enhancement Demonstration trial. A complete production assessment will be undertaken to determine if Hereford beef cows are a suitable breed to expand the beef industry in Newfoundland and Labrador.

Forestry sector advancements during this period supported by research initiatives through the Centre for Forest Science and Innovation included a workshop for experts and stakeholders with an interest in developing a bio-based economy in the province, and a project exploring the process and factors affecting non-pressure treatment of lumber. This work has the potential to develop a new industry within the province.

Supported agricultural land development and soil improvement

Results:

During 2014-17, the department identified 62 areas of interest for agriculture land development to move forward with sustainable expansion of the agriculture industry. Nineteen of these areas were reserved in 2016-17 and it is expected that the majority will be made available for agricultural development, thereby increasing the amount of Crown land available to industry for expansion. The Land Consolidation Program also supports industry expansion by purchasing privately-owned land and allowing it to be issued as 50-year agricultural leases to producers.

Additionally, in March 2017 the department finalized a new five-year limestone tender document for 2017-22 for bulk limestone delivery for soil improvement. Due to our province's naturally acidic soils, limestone is required to enhance soil productivity and to improve the efficiency of fertilizers, reducing the amount of fertilizer required and increasing production.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former agency's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Forestry and Agrifoods Agency will have improved programs and services to support the sustainability, growth and diversification of the forestry, agriculture and agrifoods industries.

Indicators:

- Developed and submitted for Environmental Assessment new five-year operating plans for:
 - Forest Management Districts 21 and 22 in Labrador;
 - Districts 1 (zone 1);
 - Districts 2, 3 (zone 2);
 - Districts 4,5,6, 8 (zone 3) and

- Districts 16, 17 (zone 7). These new plans will continue to provide sustainable fibre flow for existing and future forestry operations.
- Continued delivery of GF2 and Provincial Agrifoods Assistance Program.
- Improved timelines and more efficient nutrient management and limestone advisory services through the Soil Fertility Specialist.
- Decreased soil drying time with improvements to equipment in the Soil, Plant and Feed Laboratory for efficient operations to the agriculture industry.

Developed and submitted for Environmental Assessment new five-year operating plans for:

- Forest Management Districts 21 and 22 in Labrador;
- Districts 1 (zone 1);
- Districts 2, 3 (zone 2);
- Districts 4,5,6, 8 (zone 3) and
- Districts 16, 17 (zone 7). These new plans will continue to provide sustainable fibre flow for existing and future forestry operations.

Results:

In November 2016, the department developed and submitted for Environmental Assessment new five-year operating plans for Forest Management Districts 21 and 22 located in Labrador, as well as for all Forest Management Districts in Zones 1, 2, 3 and 7. These operating plans were also released from Environmental Assessment during 2016-17. For more information about five-year operating plans and other forest management information, visit <http://www.faa.gov.nl.ca/forestry/managing/index.html>.

Continued delivery of Growing Forward 2 and Provincial Agrifoods Assistance Program.

Results:

During 2016-17, the department continued delivery of GF2 and Provincial Agrifoods Assistance Program. GF2 is intended to achieve a profitable, sustainable, competitive and innovative agriculture and agrifoods industry. In 2016-17, GF2 invested \$6.67 million for over 190 projects in the province, including market development, land development, food safety, innovation and environmental sustainability. Investments were provided to agricultural organizations, farmers, and agriculture processors to grow and strengthen the Newfoundland and Labrador agriculture and agrifoods industry. The

Provincial Agrifoods Assistance Program provided over \$2.78 million to 93 projects in 2016-17 that enhanced on-farm diversification and commercialization, technology adoption, environmental stewardship, secondary processing and land development. Farmers received funding for on-farm infrastructure and equipment that enhanced the competitive capability of the sector and promoted commercialization and growth.

Improved timelines and more efficient nutrient management and limestone advisory services through the Soil Fertility Specialist.

Results:

In 2016-17, improved timelines and more efficient nutrient management and limestone advisory services were provided by the department through the Soil Fertility Specialist. The Soil Fertility Specialist provided advisory services to producer clients throughout the province, which included making recommendations on soil amendments, limestone, and crop nutrient requirements. The specialist maintained and updated the nutrient recommendation database system, thus facilitating more efficient and accurate recommendations. Through this database, timelines in reporting have also improved, since not all soil reports will require manual calculations.

Soils throughout the province benefited from improved soil health and productivity potential through limestone advisory services which raised soil pH and increased soil organic matter. The Soil Fertility Specialist also developed a more efficient nutrient management strategy in collaboration with the other Atlantic province's Soil Fertility Specialists to increase fertilizer efficiency and reduce potential environmental issues and collaborated with MUN-Grenfell to develop a new method of improving soil health using amended wood ash and biochar.

Decreased soil drying time with improvements to equipment in the Soil, Plant and Feed Laboratory for efficient operations to the agriculture industry.

Results:

During 2016-17, a new soil drying oven was installed in the Soil, Plant and Feed Laboratory which has led to soil analysis efficiencies. This new equipment has significantly reduced the time it takes to complete soil analysis, allowing the department's clients to receive more timely soil reports. Ensuring that soil is analyzed

and reports are sent to clients in a timely manner supports nutrient use efficiency and environmental sustainability on farms. In addition to this, nutrient recommendations for greenhouse production were quickly determined and implemented, thus permitting more accurate nutrient recommendations for crops grown in that setting and improving nutrient use efficiency in greenhouse production. Both these advancements positively impact sustainability in the agriculture industry by allowing farmers to purchase custom blends of fertilizer based on soil report and crop needs, apply the nutrients when the crop needs them, reduce nutrient losses to the environment. This has potential to increase crop yield and reduce costs.

Discussion of Results

During 2014-17, the department continued delivery of GF2, the Cranberry Industry Development Program, and the PAAP, which supported optimum usage of the province's resources for industry growth. The department's extension services have provided consultative and advisory support to the province's primary and secondary producers in a variety of agricultural sectors including livestock, dairy, poultry, apiculture, field crops, vegetable, organic, berry and greenhouse. Departmental staff provided knowledge on new and innovative agronomic practices, farm-specific production methods and codes of practice, supported projects to enhance the sustainability, growth and diversification of the province's agricultural and agrifoods sector.

In November 2016, the department developed and submitted new five-year operating plans for Environmental Assessment for Forest Management Districts 21 and 22 in Labrador and FMDs in Zones 1, 2, 3 and 7. These plans will provide sustainable fibre flow for existing and future forestry operations. Research continued on non-pressure chemical treatment, which has the potential for above ground use and for less durable species. All of these initiatives have contributed to the sustainability, growth and diversification of the forestry industry.

Strategic Issue 3 - Building a Greater Awareness of the Forestry, and Agriculture Sectors

Opening Discussion

Building greater awareness of the forestry and agriculture sectors is an important role for the department. Knowledge, awareness and understanding of both sectors are important to ensure continued support and sustainability. These primary resource sectors are important elements for the well-being of the entire province. Through community involvement, staff have provided education and awareness to residents with a strong focus on youth engagement.

Goal: By March 31, 2017, the Forestry and Agrifoods Agency will have supported initiatives to build greater awareness and education of our forestry and agriculture sectors.

Indicators:

- Enhanced public awareness of the forestry and agriculture sectors
- Increased forestry and agricultural education initiatives for school aged children

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former agency's 2014-17 Strategic Plan.

Enhanced public awareness of the forestry and agriculture sectors

Results:

During 2014-17, the department offered programs and events to enhance public awareness of the forestry and agriculture sectors.

Forestry Sector

National Forest Week (NFW) is supported each year and includes public events such as open houses, tree plantings, school visits and trade show/festival appearances. A NFW Calendar Contest is held and Explore Forestry Day is offered in Corner Brook.

In 2014-15, marketing was expanded for the annual Calendar Contest, which resulted in a 23 per cent increase in the number of student submissions. In 2015-16, a public relations plan was initiated that focused on increasing awareness and understanding of the Forest Service and educating audiences on the importance of effective forest management in maintaining our forest ecosystem. In addition, a NFW webpage was also expanded and an online marketing plan was initiated.

In 2016-17, the Explore Forestry Day event had its biggest turnout ever, with approximately 250 students in attendance. Marketing for the annual NFW Poster Contest was again expanded, and a new NFW teacher curriculum was developed. The NFW letter of awareness was distributed to all forest sector businesses.

Agriculture Sector

In 2014-15, the department supported agriculture awareness initiatives, including Agriculture in the Classroom (AIRC), agriculture fairs including the 2014 Agrifoods and Garden Show. GF2 invested \$157,662 in the 2014 Agrifoods and Garden Show to increase agriculture awareness in the province and promote local agriculture products. The department also participated in various agriculture fairs across the province in 2014-15 to enhance agriculture awareness to the public including the Trinity Conception Agriculture and Home Crafts Fair and the Humber Valley Agricultural Fall Fair.

In 2015-16, the department continued to build agriculture awareness to various agriculture audiences including young farmers, school-aged children and the public. GF2 provided \$128,811 to the NLFA to deliver the Newfoundland and Labrador Young Farmers' Forum to promote awareness of the agriculture and agrifoods industry. This project has developed a membership base of approximately 90 members, compiled a training needs assessment, designed and delivered workshops and hosted a Young Farmers Leadership Summit in November 2015.

In 2016-17, GF2 invested in Open Farm Day 2016 that enhanced agricultural awareness, and encouraged the general public to visit farms and learn how local food is

produced. The department invested \$33,946 that enabled the NLFA to organize and deliver Canadian Agriculture Day activities in February 2017 and completed an updated version of the Farm Guide. The department also participated in Food/Culinary Events and fall festivals and events, such as Food Day Canada, Roots, Rants and Roars, Agrifoods and Garden Show, Humber Valley Home and Handicraft Fall Fair, and Port au Port Agricultural Fall Fair.

Increased forestry and agricultural education initiatives for school aged children

Results:

The department offered programs and events to increase forestry and agricultural education initiatives for school aged children from 2014 to 2017.

Forestry Sector

In 2014-15 and 2015-16, the department continued to support NFW initiatives, including visits to schools to promote awareness. As noted in the previous indicator, marketing for the annual Calendar Contest was expanded and the number of student submissions increased significantly. In 2015-16, an initiative to promote forest fire prevention in conjunction with Smokey Bear's 70th Birthday was undertaken and numerous public appearances occurred throughout the province. Then, in 2016-17, a strategic shift towards educating educators was initiated to increase awareness among students. This saw the department, in partnership with CBPPL, sponsor two teachers to attend the Atlantic Canada Teacher's Tour in New Brunswick.

Agriculture Sector

In 2014-17, agriculture awareness initiatives, including AITC and agriculture fairs, were supported. GF2 invested \$335,955 in the AITC initiative in 2014-15 and \$292,253 in 2015-16 to promote agriculture and delivered educational resources to over 12,000 school-aged children in Newfoundland and Labrador. As part of the AITC Initiative, students participated in Agriculture Literacy Week, Rooting for Health events, as well as learning to grow crops in their classrooms and studying the importance of local food production through Little Green Thumbs. In 2015-16, the Little Green Thumbs (LGT) Program initiated 102 classroom gardens in 55 schools and was supported by 147

participant teachers and 35 industry mentors. In 2015-16, GF2 provided \$132,978 to NLFA to host the province's largest agriculture show in Corner Brook in October 2015.

In 2016-17, GF2 provided investments through the Market Development Initiative to increase agricultural awareness in Newfoundland and Labrador. GF2 partnered with the NLFA and invested \$271,570 in the AITC and LGT projects to encourage school children to learn about agriculture and how to grow vegetables in their classroom gardens. Meanwhile, LGT was delivered in 128 classroom gardens in 65 schools across the province and AITC engaged 16,000 students through various events.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former agency's 2015-16 Annual Report.

Objective 3: By March 31, 2017, the Forestry and Agrifoods Agency will have advanced initiatives to build awareness of our sectors.

Indicators:

- Supported National Forest Week Activities.
- Continued forestry and agriculture awareness initiatives throughout the province.

Supported National Forest Week Activities

Results:

In 2016-17, the department supported many NFW activities including: various public events across the province such as open houses, tree plantings, and school visits; expansion of the NFW webpage and increased communication regarding the events; Explore Forestry Day in Corner Brook; expanded marketing for the annual NFW Poster Contest; and, the development of a new NFW teacher curriculum. The NFW letter of awareness was distributed to all forest sector businesses encouraging stakeholders to get involved and to mark the week-long event. This encouragement saw participation from and events hosted by CBPPL, Resource Innovations Ltd., the Canadian Institute of

Forestry - Newfoundland and Labrador Section, and the Association of Registered Professional Foresters Ltd.

Continued forestry and agriculture awareness initiatives throughout the province.

Results:

During 2016-17 the department continued forestry and agriculture awareness initiatives throughout the province. Some of these initiatives have already been detailed in the corresponding goal indicators under this issue.

Agriculture Sector

GF2 provided funds to increase agricultural awareness in Newfoundland and Labrador. GF2 partnered with the NLFA for AITC and LGT. In 2016-17, LGT was delivered in 128 classroom gardens in 65 schools across the province AITC engaged 16,000 students through various events. GF2 invested in Open Farm Day 2016 and invested \$135,443 in the 2016 Agrifoods and Garden Show in Corner Brook. It also invested \$33,946 that allowed the NLFA to organize and deliver Canadian Agriculture Day activities.

Forestry Sector

The 2016-17 fiscal year marked refinements in the department's Public Relations Plan with activities focused on increasing awareness and education of the importance of effective forest management in maintaining our forest ecosystems. Conservation Officers continued to participate in various events around the province in 2016-17 to promote forestry awareness.

A strategic shift towards educating educators was initiated. The department partnered with CBPPL to sponsor two teachers to attend the Atlantic Canada Teachers Tour in New Brunswick. Forestry related programming and activities were provided to educators, online and social media plans were developed, and the website was enhanced. The enhancement of website content included new information on wildfire prevention, expanded communication for the public consultation process, and the introduction of the domestic woodcutting online renewal application.

Discussion of Results

During 2014-17, many programs and events to enhance public awareness of the importance of the forestry and agriculture sectors to the province were offered. Throughout this period, the department supported the NFW each year with tree plantings, school visits and trade show/festival appearances. In 2015, activities around NFW were enhanced to promote forestry awareness, including Smokey Bear's participation in the annual Teddy Bear convoy and hosting local tree plantings with Scouts Canada groups in Labrador. The department supported agricultural awareness through agricultural fairs including the Agrifoods and Garden show and Open Farm Day which encouraged the public to visit farms and learn how local food is produced. School-aged children were able to participate in many events as part of the AITC initiative, including Agriculture Literacy and LGT. These events show children how to grow crops and learn the importance of local food production.

Strategic Issue 1 - Natural Heritage

The natural heritage of Newfoundland and Labrador is of great importance to the people of the province and its conservation is an essential component of the department's mandate. Our natural heritage represents the province's wildlife, plants, ecosystems and landscapes. During 2014-17, work continued on improving scientific knowledge of big game populations and developing and reviewing proposals for protected areas.

Goal: By March 31, 2017, the Department of Environment and Conservation will have enhanced management of natural heritage in Newfoundland and Labrador.

Indicators:

- Improved scientific knowledge and management of big game populations and their status
- Worked with the Wilderness and Ecological Reserves Advisory Council (WERAC) to develop and assess proposals for protected areas.

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former department's 2014-17 Strategic Plan, which are relevant to the department's current mandate.

Improved scientific knowledge and management of big game populations and their status

Results:

In 2014-15, Phase II of the Labrador Caribou Initiative was initiated. The Labrador Caribou Initiative began in 2011 in response to concerns surrounding the decline of the George River Caribou Herd (GRCH) and its purpose was to generate the rigorous scientific findings required to support management decisions. The intention was to monitor population trends and demographics, assess the impacts of harvesting and

other mortality sources, investigate herd health condition, and engage with indigenous groups and other stakeholders to share findings and work towards collaborative development of a management plan for the herd.

Labrador Caribou Initiative Phase II objectives included continued monitoring and data collection; working in partnership with Quebec and the Ungava Peninsula Caribou Aboriginal Round Table to develop an inter-jurisdictional GRCH Management Plan; assessing and reporting the effects of the first two years of the hunting ban initiated in 2013; and continuing work with the above-noted stakeholders on studies focused on the potential significance of wolf and black bear predation on GRCH.

The main findings of Phase II included a continued trend of population decline. In March 2016, the department announced that it was necessary to continue the hunting ban until the following year to support recovery of the herd. The department also mapped calving grounds, migration routes, and population ranges during this phase in order to add to scientific knowledge of the herd to inform the GRCH population projection in 2017-18.

The 2015-20 Moose Management Plan, released in spring 2015, was designed for greater collaboration between government departments and to draw upon scientific research and moose-vehicle collision statistics to create a long-term, coordinated approach to moose management in the province. It had objectives designed to improve scientific knowledge and management of the moose population. These included the implementation of a revised regional approach, monitoring moose populations to manage risk of disease, minimizing land use conflicts associated with moose, and managing moose populations to minimize the effects of over-browsing.

The department also implemented two Moose Reduction Zones in 2015-16 to provide greater opportunity for the removal of roadside moose through hunting as well as provide the Provincial Government with the ability to monitor and assess the effectiveness of this approach to reducing collision rates.

Worked with the Wilderness and Ecological Reserves Advisory Council (WERAC) to develop and assess proposals for protected areas.

Results:

The department, through its Natural Areas section (Land Management Division) works closely with the WERAC to develop and assess proposals for protected areas. Natural Areas provides Secretariat support to the Council; arranging all the meetings, providing information and analysis for the Council to consider, organizing public consultation sessions and all the associated public information about the Council and the areas being considered by the Council. The WERAC met seven times during this period, including two conference calls.

In 2015-16, the department organized public consultation sessions in Milltown-Head of Bay d'Espoir as part of the legislated process to assess the addition of 45 square kilometres to the Bay du Nord Wilderness Reserve, as well as remove a small area to accommodate a new Newfoundland and Labrador Hydro transmission line through the reserve. In 2016-17, the department organized public information and consultation sessions on additional changes to the Bay du Nord Wilderness Reserve associated with the Newfoundland and Labrador Hydro project, and as part of the process to assess establishment of an ecological reserve in the Indian Arm Brook area. The department also worked with the WERAC to complete an initial assessment on a public proposal received for an ecological reserve on the Avalon Peninsula.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former agency's 2015-16 Annual Report, which are relevant to the department's current mandate.

Objective 3: By March 31, 2017 the Department of Environment and Climate Change will have continued to implement improvements to enhance the protection of the province's natural heritage.

Indicators:

- Continued implementation and monitoring efforts to support the Moose Management Plan;
- Initiated development of a provincial wetlands strategy; and
- Investigated new methods for big game population monitoring.

Continued implementation and monitoring efforts to support the Moose Management Plan;**Results:**

To support the Moose management Plan in 2016-17, the department continued to monitor Moose Reduction Zones and Moose Management Areas via aerial survey and game cameras, with five aerial surveys completed in 2016-17. The result of these monitoring efforts was a tracking of moose populations to produce survey estimates, which were incorporated into moose management planning.

Initiated development of a provincial wetlands strategy;**Results:**

In 2016-17, the department initiated development of a provincial wetlands strategy through research and consideration of the types of policies and actions which could support the initiative. The department consulted with stakeholders, including other Provincial Government departments, the Federal Government, academia and wetlands conservation organizations, and drew language from national policies around wetland conservation to identify potential guiding principles, goals, and objectives of wetland conservation in Newfoundland and Labrador.

Investigated new methods for big game population monitoring.**Results:**

The Wildlife Division has been working on new methods for big game population monitoring. Work conducted in 2016-17 included a jurisdictional review of monitoring and assessment programs across Canada and exploring the potential of using computer-based habitat models to replace or reduce some field sampling activities. It is expected that new methods will be utilized in preparation for the 2017-18 fall caribou

classification program.

Finalized and publicly released a Natural Areas System Plan.

Results:

In 2016-17, the department worked internally with other departments and the WERAC to resolve some outstanding issues with the planning process, with a view to reduce potential land use conflicts and improve the ability of a natural area systems plan to meet both area and representation targets. Restructuring in February 2017, which relocated the Natural Areas program to the department, is expected to assist with resolution of land use priorities.

Discussion of Results

Throughout 2014-17, the department improved its scientific knowledge and status of the GRCH. In 2014-15, Phase II of the Labrador Caribou Initiative was initiated and its objectives included working in partnership with the Quebec and the Ungava Peninsula Caribou Aboriginal Round Table to develop an inter-jurisdictional GRCH management Plan. In spring 2015, the 2015-20 Moose Management Plan was released which draws upon scientific knowledge to create a long-term coordinated approach to moose management in the province.

The department worked closely with WERAC to develop and assess proposals for protected areas including the addition of 45 square kilometres to the Bay du Nord Wilderness Reserve and the process to assess establishment of an ecological reserve in the Indian Arm Brook area. In January 2017, the department initiated the development of a provincial wetlands policy.

Strategic Issue 1 - Municipal Capacity Building

Municipal capacity refers to the efforts and activities that improve and enhance a municipality's ability to govern and sustain it over time. In 2015-16, the department initiated activities toward strengthening municipal capacity. For example, Budget 2015 enhanced funding to communities, provided training opportunities, increased the availability of Crown lands for economic development, and funded three regional service boards to hire regional water/wastewater operators. Details of these and other initiatives are provided below.

Goal: By March 31, 2017, the Department of Municipal and Intergovernmental Affairs will have strengthened municipal capacity to enable healthy, safe and sustainable communities.

Indicators:

- Advanced regional land use planning initiatives

Goal Results

This section outlines the planned versus the actual results for the goal indicators set out in the former department's 2014-17 Strategic Plan, which are relevant to the department's current mandate.

Advanced regional land use planning initiatives

Results:

In April 2015, the Government of Newfoundland and Labrador announced the Community Sustainability Partnership (CSP) between the Province and municipalities. Under the CSP municipalities can request a Crown lands reserve which they can then purchase parcels of land from at market value over a five-year term, as demand and finances warrant. Regional land use planning is typically the responsibility of the Land Use Planning Section of Municipal Affairs and Environment; however, the department's Land Management Division was responsible for the partnership noted.

Objective Results

This section outlines the planned versus the actual results for the indicators under the final yearly objective during the planning period, as established in the former Department of Municipal Affairs' 2015-16 Annual Report, which are relevant to the department's current mandate.

Objective 3: By March 31, 2017 the Department of Municipal Affairs will have undertaken further activities to strengthen municipal capacity to enable healthy, safe and sustainable communities.

Indicators:

Reviewed land transfer options for municipalities.

Reviewed land transfer options for municipalities.

Results:

In 2016-17, the department, in cooperation with Municipal Affairs and Environment, completed consultations with many municipalities and reviewed land transfer options for municipalities. These included a specific market value pricing policy for municipalities for lease to own arrangements, setting term lease to own arrangements at a reduced rate for the purchase of Crown lands, and utilizing section 8 of the **Lands Act** to create five-year reserves under the CSP with no lease to own option.

The approval of a new policy that allows municipalities to lease Crown lands for up to a ten-year period means that this indicator has been completed. The lease-to-own arrangements will allow lease options for economic development purposes such as local residential development, industrial parks or other commercial development. This commitment to launch a new municipal leasing program was also outlined in **The Way Forward**.

Discussion of Results

During 2014-17, the department implemented initiatives to advance regional land use planning. In April 2015, the CPS between the Province and municipalities was announced, which will allow municipalities the ability to request Crown land reserves. In 2016-17, in consultation with Municipal Affairs and Environment, the department reviewed land transfer options for municipalities and subsequently a new policy was approved allowing municipalities to lease Crown lands for up to a ten-year period.

Opportunities and Challenges

The fisheries and land resources of Newfoundland and Labrador are important economic drivers that employ people from all across this province. The role of the Department of Fisheries and Land Resources is to ensure the sustainability of our resources and facilitate growth within our industries.

Opportunities

The industries and people that are represented by the Department of Fisheries and Land Resources have an array of opportunities to pursue. These include sustainably growing the fishing, aquaculture, agriculture and forestry industries, and improving regulations that protect the natural environment and wildlife which benefit the people of this province. This department supports fisheries and land resources through policies and programs aimed at helping these industries adapt and succeed, encouraging innovation, and supporting new opportunities that improve efficiency and product quality, while mitigating environmental impact and promoting sustainability.

New trade agreements, eco-certification, and product traceability initiatives provide opportunities for industries to expand through increased market access and the development of high quality and value-added products. The creation of a Fisheries Advisory Council will provide industry stakeholders an opportunity to collaborate on initiatives to increase the overall viability and competitiveness of the fishing industry.

For land resources, there is opportunity to build on the accomplishments to date on issues relating to natural heritage and wildlife and to generate strong solutions for sustainability. Also, with the recommendations from the **Lands Act** review, there is an opportunity to improve business processes for the benefit of the residents of the province.

Challenges

The province's fisheries and land resources also face several challenges. These sectors all face an aging workforce as well as attraction and retention issues, particularly in industries that are largely based in rural areas of the province. International trade is challenged by market price fluctuations, exchange rate volatility, and competition from producers in other provinces and countries.

The province's fishing industry is facing a regime shift. It has been focused on shellfish for much of the last two decades; however, it appears to be shifting back towards a groundfish-dominated industry. This shift will present challenges such as resource uncertainty, overcapacity in both the harvesting and processing sectors, seasonality of the industry, and aging infrastructure.

The aquaculture industry faces the need for improved marine infrastructure, increased biosecurity, a flexible and efficient regulatory environment, increased aquatic animal health management services, waste management and public misinformation regarding aquaculture risks.

The agriculture industry faces challenges in increasing local agriculture production in an economically and sustainable manner to ensure the optimal benefits to the agricultural community. Generally, our cool wet climate and rocky soils make agriculture in this province challenging, which drives up the cost of production for most of the producers and makes them vulnerable to price-based competition from elsewhere.

Departmental Expenditures and Revenues

Department of Fisheries and Land Resources Statement (Unaudited) of Expenditures and Related Revenue *

Summary for the Year Ended March 31, 2017*	ESTIMATES		
	Original	Amended	Actual
	\$	\$	\$
EXECUTIVE AND SUPPORT SERVICES			
Minister's Office			
Minister's Office	272,500	274,500	242,120
General Administration			
Executive Support	1,606,000	1,893,600	1,863,074
Capital	1,762,300	2,049,900	2,011,374
Executive and Support Services Subtotal	2,034,800	2,324,400	2,253,494
FISHERIES AND AQUACULTURE			
Regional Services			
Administration and Support Services	2,661,600	2,527,100	2,477,876
Revenue - Provincial	(10,000)	(10,000)	(5,079)
Fisheries Programs			
Seafood Marketing and Support Services	847,900	792,900	708,157
Licensing and Quality Assurance	377,800	381,300	363,209
Fisheries Innovation and Development	2,488,100	2,593,100	2,368,332
Seal Product Inventory Financing	(825,300)	(825,300)	(64,547)
Revenue - Provincial	(825,300)	(825,300)	(64,547)
Aquaculture Development			
Aquaculture Development and Management	1,775,500	1,777,500	1,705,968
Aquaculture Capital Equity Investment	3,210,000	3,210,000	(367,358)
Aquaculture Licensing			

Aquaculture Licensing	170,100	170,100	157,238
Aquatic Animal Health			
Aquatic Animal Health	1,735,900	1,772,600	1,712,513
Fisheries and Aquaculture Subtotal	12,431,600	12,389,300	9,056,309
FORESTRY AND WILDLIFE			
FOREST MANAGEMENT			
Administration and Program Planning	7,132,100	6,762,900	5,796,265
Operations and Implementation	10,974,700	11,522,000	11,099,038
Silviculture Development	7,061,300	6,992,700	6,405,211
Revenue - Provincial	(1,000)	(1,000)	(7,937)
FOREST PROTECTION			
Insect Control	1,543,600	1,543,600	1,348,820
Fire Suppression and Communications	3,768,800	3,768,800	3,409,518
WILDLIFE			
Administration, Licensing and Operations	1,444,200	1,595,900	1,571,432
Endangered Species and Biodiversity	419,200	404,100	386,694
Stewardship and Education	1,171,600	1,040,700	1,018,115
Habitat, Game and Fur Management	1,684,000	1,638,800	1,566,643
Research	1,524,900	1,540,300	1,458,882
Cooperative Wildlife Projects	374,200	374,200	234,092
Revenue - Federal	(165,900)	(165,900)	(171,285)
Forestry and Wildlife Subtotal	36,931,700	37,017,100	34,115,488
AGRIFOODS AND LANDS			
LAND RESOURCE STEWARDSHIP			
Land Resource Stewardship - Administration	3,012,100	2,936,100	2,828,491
Revenue - Provincial	(8,000)	(8,000)	(18,803)
Limestone Sales	411,800	411,800	320,418
Revenue - Provincial	(140,000)	(140,000)	(103,768)
Land Development	1,305,000	1,285,500	1,054,756

PRODUCTION AND MARKET DEVELOPMENT			
Production and Market Development -	3,207,100	3,269,900	2,969,137
Revenue - Provincial	(10,000)	(10,000)	(1,788)
Marketing Board	135,600	120,900	105,644
AGRICULTURAL BUSINESS DEVELOPMENT			
Agricultural Business Development -	2,127,700	2,090,700	2,019,761
Agriinsurance and Livestock Insurance	441,000	441,000	370,017
Revenue - Federal	(210,000)	(210,000)	(243,201)
Agricultural Initiatives	3,750,000	3,750,000	3,659,648
Revenue - Federal	-	-	(21,301)
Growing Forward 2 Framework	7,810,900	7,810,900	7,388,453
Revenue - Federal	(4,209,500)	(4,209,500)	(6,053,256)
Revenue - Provincial	(10,000)	(10,000)	-
ANIMAL HEALTH			
Administration and Support Services	3,528,000	3,451,791	3,451,791
Revenue - Provincial	(830,000)	(830,000)	(1,155,472)
AGRIFOODS RESEARCH AND DEVELOPMENT			
Research and Development	955,800	845,700	837,176
Revenue - Provincial	-	-	(12,500)
LANDS			
Crown Land	3,921,300	3,856,200	3,349,571
Revenue - Provincial	(150,000)	(150,000)	(34,444)
Land Management and Development	1,658,500	1,676,500	1,434,639
-Revenue - Provincial	(8,621,500)	(8,621,500)	(8,988,041)
Agrifoods and Lands Subtotal	18,075,800	17,817,100	13,156,928
ENFORCEMENT AND RESOURCES SERVICES			
POLICY AND PLANNING SERVICES			
Policy, Planning and Administration	2,350,000	2,182,300	2,110,290
Revenue - Provincial	(2,000)	(2,000)	(19,262)

Sustainable Fisheries Resources and Oceans	2,331,500	2,281,500	2,262,662
Coordination and Support Services	762,000	762,000	621,366
ENFORCEMENT			
Compliance and Enforcement	1,125,300	1,148,300	1,025,781
Fish and Wildlife Enforcement	6,982,100	6,649,100	6,632,434
Enforcement and Resource Services Subtotal	13,548,900	13,021,200	12,633,271
Department Total	83,022,800	82,569,100	71,215,490

*Expenditure and revenue figures included in this document are based on public information provided in the Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund for Fiscal Year Ended 31 March 2017.