



Accountability Report 2020–21

Fisheries and Aquaculture



© Crown copyright, Province of Nova Scotia, September 2021

Accountability Report 2020–2021

ISBN: 978-1-77448-233-9

Contents

Accountability Statement	1
Message from Minister	2
Financial Results	3
Measuring Our Performance	4
Promotion and Development of Sustainable Aquaculture	4
Building Tomorrow Fund	4
Atlantic Fisheries Fund	5
Canadian Fish and Seafood Opportunities Fund	5
Seafood Export Marketing Program	5
International Fish and Seafood Exports Data.....	7
Lobster Quality Training	8
Sportfishing Development Strategy.....	9
Strategy for Acid Precipitation Mitigation on Trout Rivers.....	10
Nova Scotia Fisheries and Aquaculture Loan Board.....	10
Labour Initiatives and Developments	10
Minister’s Conference Outcomes.....	11
Review of Fish Buyer and Processor Licensing Framework	12
Get Your Hands on Local.....	12
Key Core Functions	13
Administered Licences and Leases for Fish Buyers and Processors, Aquaculture and Rockweed	13
Marine Services Division and Coastal Unit Initiatives	13
Growing a Competitive Seafood Sector	14
Perennia Partnership	16
Aquaculture Division Initiatives	16
Inland Fisheries Division Initiatives.....	17
Projects Supported Under the Sportfish Habitat Fund.....	18
Annual Report under Section 18 of the <i>Public Interest and Wrongdoing Act</i>	19

Accountability Statement

The Accountability Report of the Department of Fisheries and Aquaculture for the year ended March 31, 2021, is prepared pursuant to the *Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against the Department of Fisheries and Aquaculture Business Plan for the fiscal year just ended. The reporting of the Department's outcomes necessarily includes estimates, judgments and opinions by Department of Fisheries and Aquaculture management.

We acknowledge that this Accountability Report is the responsibility of Department of Fisheries and Aquaculture management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the Department of Fisheries and Aquaculture 2020-2021 Business Plan.

Honourable Steve Craig
Minister of Fisheries and Aquaculture

April Howe
Deputy Minister

Message from Minister

I am pleased to present the Department of Fisheries and Aquaculture accountability report for 2020-21.

Nova Scotia is known around the world for its quality seafood products, and our government is committed to continue supporting the seafood industry. We know that Nova Scotians want a clean and strong economic recovery building on our existing strengths in this important sector. Our fishing and aquaculture industries employ about 18,000 people with thousands more in supporting industries.

Nova Scotia remains Canada's top exporter of seafood and demand is very high for our products despite the challenges of COVID-19. Our government will continue working to help the fishing and aquaculture industries see greater prosperity, expanded markets, and improved operations as we move forward.

Nova Scotians re-discovered fishing when COVID-19 restrictions were eased, leading to the highest sportfishing participation since 1985. A new electronic licensing system was offered for those who could not get to stores, and the response was overwhelmingly positive.

I am excited and look forward to working with Nova Scotians to promote and develop our fishing, aquaculture, processing and sportfishing sectors.

Sincerely,

The Honourable Steve Craig
Minister of Fisheries and Aquaculture

Financial Results

	2020-2021 Estimate	2020-2021 Actuals	2020-2021 Variance
Program & Service Area	(\$ thousands)		
Departmental Expenses:			
Administration	666	478	(188)
Aquaculture	2,761	2,886	125
Inland Fisheries	2,527	2,656	129
Marine Fisheries	11,838	11,276	(562)
Total Departmental Expenses	17,792	17,296	(496)
Additional Information:			
Revenues	794	870	76
Fees and Other Charges	1,001	1,075	74
Ordinary Recoveries	500	483	(17)
Total: Fees and Recoveries	2,295	2,428	133
TCA Purchase Requirements	0	34	34
Provincial Funded Staff (FTEs)	70.7	66.9	(3.8)
Departmental Expenses Variance Explanations:			
Miscellaneous cumulative variances across the Department. The majority of which relate to operational savings due to COVID-19.			
Revenue, Fees and Recoveries Variance Explanation:			
Miscellaneous increases across the Department. The majority of which relate to increased participation in sportfishing due to COVID-19.			
TCA Purchase Requirements Variance Explanation:			
Approval to purchase forklift for hatcheries.			
Provincial Funded Staff (FTEs) Variance Explanation:			
Unfilled positions mainly related to Marine Division.			

Measuring Our Performance

Department priorities that develop our aquaculture, fisheries, and seafood industries:

Promotion and Development of Sustainable Aquaculture

The Nova Scotia Department of Fisheries and Aquaculture (Department) has been successful in continuing to promote and develop a sustainable and inclusive aquacultural industry across the Province, with the Aquaculture Growth Strategy instrumental in laying the foundation for the success of the industry. In 2020, aquaculture production was valued at approximately \$90M, representing an increase of over 10% from 2019 production values. The industry has witnessed growth, employing over 800 people in Nova Scotia, with this number expected to grow as the Department continues to build partnerships with municipalities and band councils.

Aquaculture is an inclusive industry that operates almost exclusively in rural Nova Scotia and includes strong participation from Mi'kmaw communities. Six of the thirteen Mi'kmaw Bands are actively engaged in aquaculture with interest continuing to grow.

The Department continues to be a leader in Canada when it comes to aquaculture development. The Aquaculture Development Areas (ADA) have been recognized by other provinces as a valuable tool in advancing new sites with a collaborative community focus. The Department has continued this progress with a signed Memorandum of Understanding (MOU) in 2020 with the Municipality of Argyle. The MOU supports the establishment of an ADA to encourage the economic growth of the municipality through aquaculture development. Additional municipalities have expressed interest in pursuing the possibility of aquaculture to drive rural economies.

Aquaculture will continue to be a strategic focus for the Department, driving economic growth in rural and coastal areas of the Province. With world class scientists, government, industry and community partnerships, and the use of innovative practices, Nova Scotia is well positioned to grow this inclusive industry further and meet the increasing demand for quality and sustainable seafood.

Building Tomorrow Fund

The Province's investment into the Building Tomorrow Fund ended in 2020-2021. This fund committed \$9 million over three years, split equally between agriculture, fisheries, and aquaculture projects.

In 2020-2021, this fund supported new and continued Departmental initiatives to grow the fisheries and aquaculture industries through the included initiatives:

- The Lobster Quality Research & Innovation Centre (LQRIC), at Université Sainte-Anne was launched in February 2020 to support innovation for the Nova Scotia

lobster industry. LQRIC will specialize in applied research, development, and analytical testing to support the commercial lobster industry concerning issues impacting the quality of live lobsters.

- An investment of \$510 thousand was committed for the promotion of Nova Scotia Seafood.
- The continuation of the development of the recreational sportfishing sector by connecting visitors with high quality guided fishing opportunities.

Atlantic Fisheries Fund

The Atlantic Fisheries Fund (AFF) is a seven-year, cost-shared partnership with Fisheries and Oceans Canada and the Atlantic Provinces, to develop a culture of innovation in the fish and seafood industries. The \$421 million fund was announced in 2017 and will operate until March 2024. The federal government has committed to providing 70% of the funding, with 30% coming from participating provinces. To date, 270 Nova Scotian projects, with a total value of \$130 million have been approved. Over the duration of the AFF, the Province will invest approximately \$38 million, with \$7.49 million allotted for 2020-2021. This will support continued innovation in the fish and seafood sectors to increase productivity, competitiveness, quality, and sustainability.

Canadian Fish and Seafood Opportunities Fund

To date, Nova Scotia has provided funding for six projects under the Canadian Fish and Seafood Opportunities Fund, with total project costs exceeding \$13 million, including contributions of over \$700 thousand from the Province of Nova Scotia. These projects include regional, national, and international initiatives that provide market research, support for the development and implementation of marketing strategies, and market diversification initiatives for Nova Scotia and Canada's fish and seafood products.

Seafood Export Marketing Program

As part of the Department's continued commitment to grow the seafood industry, the Province invested \$510 thousand in 2020-2021 to develop new seafood export markets with Building Tomorrow Funding.

This funding supported the Department's ability to work closely with the Nova Scotia seafood industry to conduct research on under-marketed seafood products in international markets including Europe, Asia, and North America. These efforts included work partnering with industry through the Nova Scotia Seafood Alliance on opportunities in the European Union (EU) for Nova Scotia seafood species including Jonah crab, hake, snow crab, and value-added lobster products. Recognizing the continued importance of markets in Asian, the Department planned and delivered two comprehensive live lobster e-commerce and retail promotions in China in 2020-2021. The intent of these promotions was to increase sales and support Nova Scotia

companies at a time when many other international food service channels had faced drastic decreases in demand. These promotions resulted in sales of over two million pounds of live lobster over the two campaigns. Nova Scotia Seafood branding and product education extended to 125 million consumers.

Working to promote domestic and international exposure of our seafood products and the Nova Scotia Seafood Brand, the Department also developed a series of consumer-focused recipes, videos, and recipe cards highlighting local seafood products. The Department collaborated with local chefs to create signature recipes and videos to show home consumers how to prepare and cook Nova Scotia seafood products.

The Department initiated the Nova Scotia Seafood Quality Program (NSSQP), a certification program initiated under the Nova Scotia Seafood brand, with the Université Sainte-Anne for live lobster and Perennia Food and Agriculture Inc. (Perennia) for all other species. This program promotes high-quality standards within the Nova Scotia seafood supply chain and enhances Nova Scotia's international reputation for premium quality seafood.

- Over 25 key industry members were consulted on the development of NSSQP for Nova Scotia's top exported species.
- NSSQP captures strict product and processing requirements, includes extension support to assist companies in achieving certification and aligns with other Global Food Safety initiative (GFSI) programs.
- Obtaining certification under the Nova Scotia Seafood Quality Program will provide exporters with guidance and extension support to improve the quality of their seafood products.
- All certified companies will have access to the Nova Scotia Seafood brand creative and trademarked logo for use in their own marketing and companies will be featured prominently in Nova Scotia Seafood brand promotional materials, marketing campaigns and all trade related events.
- The Bill and Stanley Oyster Company has become the first Nova Scotia supplier to successfully complete the process and receive NSSQP certification from Nova Scotia Seafood Brand to use its quality trademark, adding credibility to the company's existing brand.

In partnership with Nova Scotia Business Inc., Nova Scotia Seafood launched a digital campaign, targeting seafood buyers in two key target export markets, Spain, and South Korea. The campaign generated strong site traffic and awareness for both Regions.

- 80 potential opportunities were generated, greatly surpassing the goal of 10-15.
- Nova Scotia Seafood's website saw a 564% increase in site users, and 512% increase in sessions over the previous 42 days. Of that, Spanish customers accounted for 54% of site users, while South Korea accounted for 24%.

- Over 1.2 million reaches on social media channels which resulted in an increase in followers and engagements.

COVID-19 had a significant impact on the Nova Scotia seafood sector and will continue to affect seafood market demand into 2022 for some international markets.

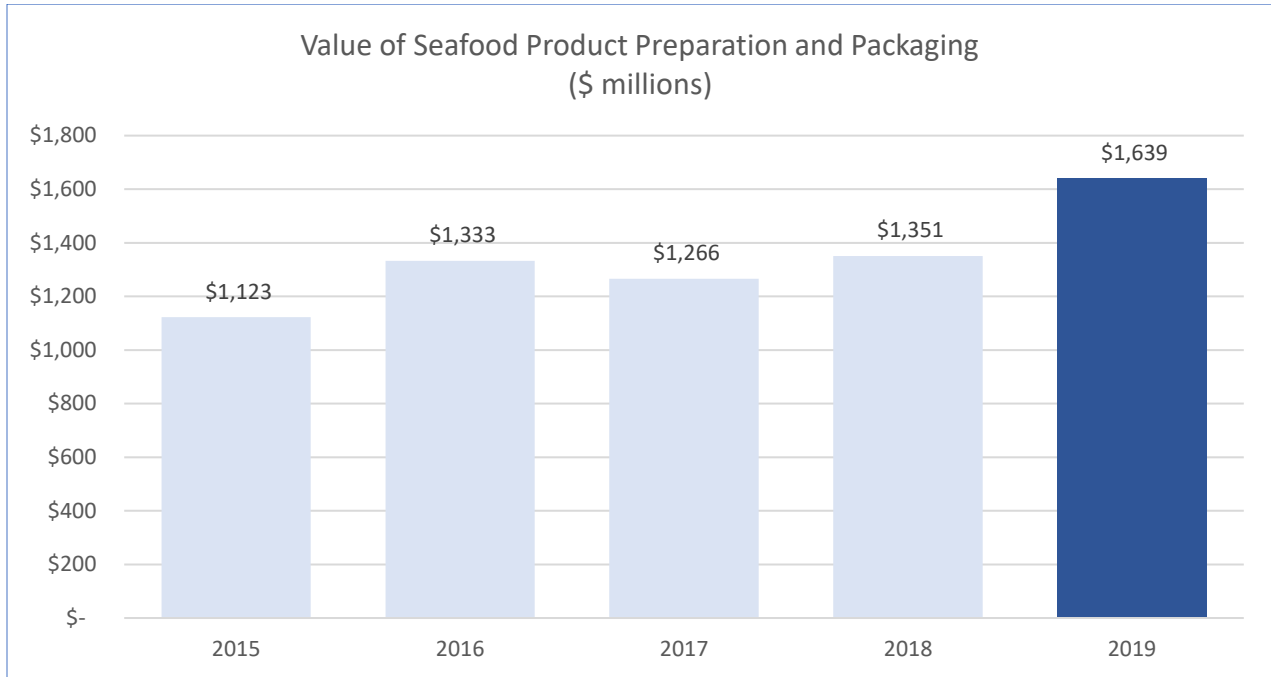
- Most international seafood trade shows were cancelled or postponed until travel restrictions allow for in-person participation and direct industry involvement. Departmental marketing efforts over this year rapidly shifted to supporting virtual events and strategic market intelligence gathering and research.
- With COVID-19 and reduced international travel, Nova Scotia Seafood embraced new ways of connecting with target markets. In person marketing activities were replaced with digital focused marketing efforts such as a seafood buyer targeted digital campaign and advertising in trade publications such as Seafood Source.
- The Department worked closely with industry and government to diversify market distribution channels and develop new market opportunities in retail and e-commerce for Nova Scotia seafood products including undermarketed species.

International Fish and Seafood Exports Data

Nova Scotia exported \$2.0 billion in 2020, down 13% from 2019. Our main seafood export destinations in 2020 were the United States (47%), China (29%) and the EU (12%). Our largest seafood export species by value was lobster at 52%, followed by crab, scallop, shrimp and halibut.



The Department continues to be committed to supporting the Province’s fish and seafood processing sector. This sector creates employment opportunities and adds value to our fisheries resource. The value of seafood product preparation and packaging expresses the combined output of all seafood processing operations in Nova Scotia. In 2019, the sector saw a 21% increase in seafood manufacturing from 2018. Data for 2020 are not yet available.



Lobster Quality Training

Promoting proper handling practices in the Nova Scotia lobster industry for exports continued to be a priority for the Department in 2020-2021. Three versions of the Lobster Quality and Handling Courses are now available, focusing on basic lobster biology and handling, best handling practices for harvesters, and best handling practices for shore-based facilities.

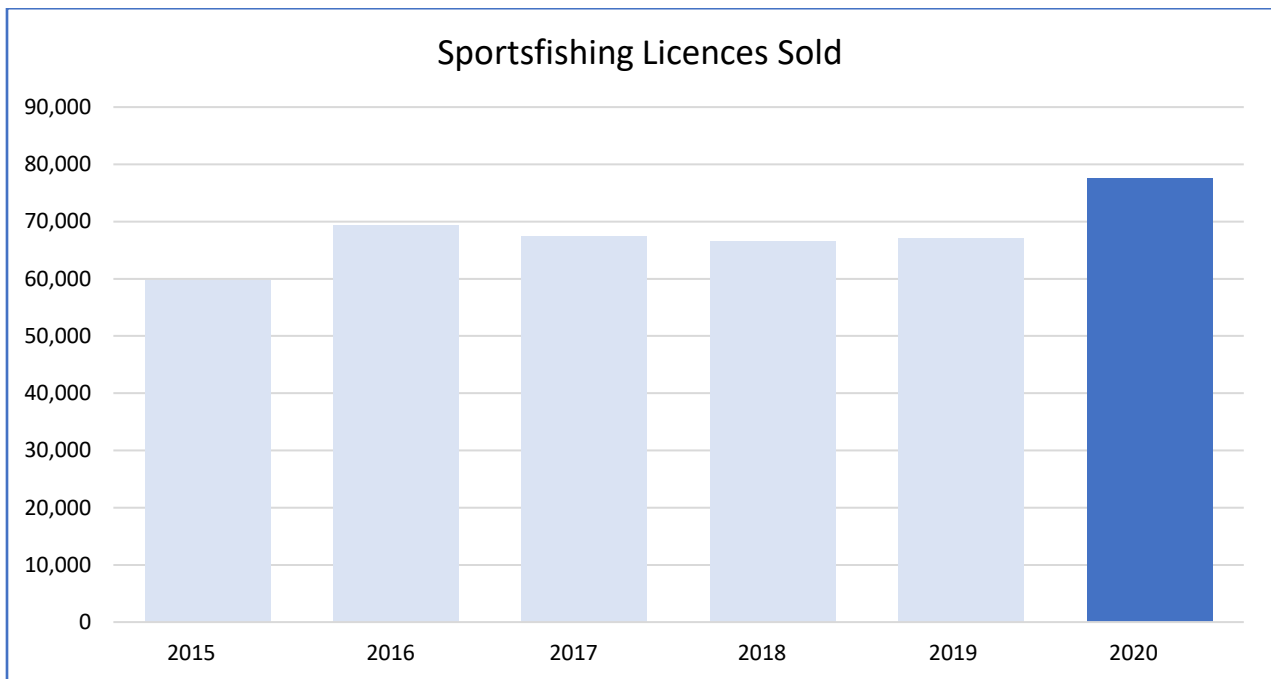
The latest lobster handling course was launched during the 2020 Minister’s Conference, centering on the quality and economic impacts of proper lobster handling practices once the lobster lands on our shores, including transport, grading, live storage, and packaging for export. The Department has developed partnerships with both the Nova Scotia Community College and Université Saint-Anne for delivery of the course to industry participants.

There were challenges in delivering the Lobster Quality and Handling Courses in 2020-2021 due to the COVID-19 pandemic and as a result, a virtual on-line training option was developed by Université Sainte-Anne and facilitated by the course’s regular instructor. As of June 2021, there have been a combined total 3,668,660 handling course completed by industry participants since the course was launched in 2016.

Sportfishing Development Strategy

Sportfishing in Nova Scotia contributes more than \$66 million to the Nova Scotia economy annually. Last year, licence sales increased by 13.4% to almost 78,000 anglers, the highest participation rate since 1985, as Nova Scotians rediscovered the joy of outdoor recreation. In response to reduced availability of sportfishing licences during the first wave of the COVID-19 pandemic, the Department, in collaboration with Communications Nova Scotia, Internal Services, and Service Nova Scotia launched an online licencing system. It was released in July 2020, ensuring licences were accessible and will continue to be an integral aspect of the Fish Nova Scotia initiative.

Approximately 28% of licences have been purchased online as of April 2021. While COVID-19 travel restrictions did not allow for any growth in the number of non-resident licences, the Department is ready to fully roll out online licencing when international travel resumes.



The Department completed a brand and marketing strategy for the sportfishing industry and launched the Fish Nova Scotia brand on social media platforms. The marketing strategy, developed in the first year of the Growing the Sportfish Industry Project (funded by Building Tomorrow), identified the importance of a consistent presence on social media platforms to spotlight, promote and market sportfishing opportunities in Nova Scotia. Fish Nova Scotia launched on Instagram and Facebook in 2020 and both platforms have gained momentum. Sharing authentic Nova Scotia angling experiences across the Fish Nova Scotia platform solidifies the brand within the sportfishing community. The website will feature professional guides, fishing friendly accommodations, Nova Scotia sportfishing opportunities and will encourage travelers to choose Nova Scotia as their next sportfishing destination.

To further build on the brand and marketing strategy, the Department held professionalization workshops, where more than 60 licenced fishing guides participated and became part of the Fish Nova Scotia initiative. Many of these guides will be promoted on the Fish Nova Scotia website along with accommodations and other tourism providers. A marketing plan is in development as part of a strategic marketing initiative in 2021-2022 and promote Nova Scotia as a sportfishing destination.

Strategy for Acid Precipitation Mitigation on Trout Rivers

The Department continues to partner with the Nova Scotia Salmon Association and Perennia to support ongoing research, habitat improvement and recovery efforts for trout and salmon populations in areas impacted by acid precipitation. The Department's annual support for this program has facilitated the leveraging of additional funds and work on the initial stages of expanding to other watersheds throughout Nova Scotia.

Nova Scotia Fisheries and Aquaculture Loan Board

The Nova Scotia Fisheries and Aquaculture Loan Board (FALB) invested over \$59.7 million into growing the rural and coastal economy throughout the province through flexible long-term lending programs. The FALB has a total investment of \$231.3 million, an 18% increase in the size of their loan portfolio over the past year.

- New entrants support continues to be a priority for the FALB, with over 20% of new loans issued to applicants entering the sector.
- Staff resources were added to support the processing sector with a new employee hired as Senior Further Processing Specialist to work with clients who are growing their business and/or implementing innovative technologies to improve quality and efficiency in their operations. This will provide increased client service to these industries, while not compromising the current level of service to the Harvesting Sector. This front-line position will assist in reducing turnaround times for loan approvals.
- Initiatives were continued to raise awareness of the FALB, through title sponsorship for the Minister's Conference, and with the launch of several promotional videos and client success stories published on the FALB website.
- FALB conducted 650 inspections for vessels with loans above \$50 K.

Labour Initiatives and Developments

The Department continued to champion labour issues in 2020-2021 by working with other provincial departments, the seafood processing industry, and the federal government to address persistent workforce challenges facing our provincial seafood industry. Addressing labour issues and increasing quality and traceability through innovation was the main focus of one of the 2021 Minister's Conference digital series,

where industry led the planning and delivery of an expert panel addressing current technology gaps and possible solutions.

The onset of COVID-19 caused significant delays in the arrival of Temporary Foreign Workers (TFW) who support the seafood processing sectors. Through a partnership with the Department of Agriculture and Perennia, seafood processors were supported in successfully managing their TFWs throughout the isolation process.

The Department launched and promoted initiatives to promote the fisheries and seafood sectors as an exciting and viable career choice.

- In collaboration with industry and the Department of Education and Early Childhood Development, the Department initiated the creation of a Marine Education Strategy. This strategy aims to raise awareness to school age children of the fisheries and seafood sectors as exciting and viable career choices for Nova Scotian students.
- The Department launched the Fisheries and Aquaculture Student Bursary Program in 2020-2021. Aiming to address short-term labour needs by incentivizing student employment while also promoting the seafood sector as a career choice, high school and post-secondary educational institution students who worked 250 or 500 hours for licenced aquaculture operators and seafood processors and buyers during the summer to early-winter of 2020 were eligible for bursaries of \$500 and \$1000, respectively. A total of 26 students, working for 26 separate seafood companies, were successful applicants, amounting to bursaries totaling \$24 thousand paid to further their academic endeavours.

Minister's Conference Outcomes

The Department hosted the 23rd Nova Scotia Department of Fisheries and Aquaculture Minister's Conference in partnership with the Aquaculture Association of Nova Scotia. Due to the impacts of COVID-19 health restrictions, this originally planned two-day event was re-imaged as a digital series comprised of six webinars, with 26 local and international speakers. Webinar attendance ranged from 57 to 131 per webinar, also attracting many corporate sponsors.

With the assistance of Perennia, the series drew upon regional and international perspectives to advance the latest thinking in market development, environmental stewardship and climate change, and business readiness in the wake of COVID-19. With the over-arching theme of safe, reliable, superior seafood, these webinars were a collaborative effort by provincial government, academia and industry representatives to foster sector growth.

Review of Fish Buyer and Processor Licensing Framework

The Department continued to engage industry in the review of the Fish Buying and Processing regulatory framework in Nova Scotia. Due to COVID-19 restrictions, consultations occurred virtually, in writing and by phone.

Get Your Hands on Local

The Get Your Hands on Local Program launched in February 2020 in partnership with Taste of Nova Scotia. A significant in store point of sale program including over 800 products across Nova Scotia was implemented. Nova Scotia grown and produced agri-food, seafood and beverages were highlighted in major grocery chains, including Sobeys, Atlantic Superstore, and Walmart. Also included were independent and farmers markets. Nova Scotia products were highlighted in over 180 retail locations throughout the province.

In March of 2020, the program made a substantial pivot for the COVID-19 initial lockdown. Local producers were supported by the program with a quick creation of a directory where consumers could go to find Nova Scotia products to order directly from businesses. This change in program was supported by a media campaign where Nova Scotians were asked to Get Your Hands on Local at Home. The program also supported local restaurant's takeout model. There were 26,060 visits to this directory during the campaigns.

During the end of 2020 and early 2021, the Get Your Hands on Local program conducted four seasonal media campaigns to highlight the abundance of Nova Scotia agri-food, seafood and beverages available in every season of the year. These media campaigns further promoted the Get Your Hands on Local brand in retail. These campaigns received over 16 million digital impressions and 850,000 completed commercial views.

Also, during early 2021, the program expanded outside the Taste of Nova Scotia membership to provide promotional support to the whole industry. The brand was modified to Get Your Hands on Nova Scotia (GYHONS) to represent this transition. The more local product identified with one cohesive brand, the easier it will be for Nova Scotians to identify local products for purchase. A promotional calendar was created to support digital promotions. All commodity groups can be promoted digitally through the GYHONS platforms. The analytics and data derived from the digital platforms and consumer surveys will help demonstrate the progress of the buy local team's promotions.

Key core functions

Primary Departmental functions advanced in 2020-2021 that supported the Departments mandate, strategic themes and overall government priorities included:

Administered Licences and Leases for Fish Buyers and Processors, Aquaculture and Rockweed

In 2020-2021, there were:

- 236 active aquaculture sites representing \$207 thousand in licensing and leasing revenues.
- 22 rockweed leases generating royalties of \$456 thousand and \$15 thousand in lease fees.
- 321 licenced fish buyers and 210 licenced fish processing facilities. Licensing revenue from fish buyers and processors was \$222 thousand and \$66 thousand, respectively.
- 1544 licences issued to designated buyers totaling \$51 thousand in licence sales revenues.

Marine Services Division and Coastal Unit Initiatives

In 2020-2021, the Marine Division:

- Continue to represent provincial fisheries interest at numerous federal and international fisheries management advisory committees where key decisions are made about the management and execution of the commercial fisheries at the local, regional, and international levels. Decisions impact the economic benefits that Nova Scotia realizes from its commercial fishing and seafood processing industries, which are the backbone of rural coastal communities.
- Represented provincial fisheries interests on numerous federal initiatives, including Marine Protected Areas and the Blue Economy. The division's goal is to ensure the Nova Scotia seafood industry is recognized as a pillar of rural coastal communities, and that marine conservation takes a balanced approach that maintains economic benefits to Nova Scotia.
- Worked with industry clients to identify strategic opportunities and/or overcome barriers to industry growth through initiative including access to resources, identification of underutilized/developing species, attracting and maintaining skilled labour, and industry financing through the FALB.
- Staff provided ongoing regional and extension services to a variety of agencies and partners relating to commercial seafood activities, aquaculture development, sportfishing, and boatbuilding.
- Coastal Resource Coordinators (CRCs):

- Continued to provide promotion of the Atlantic Fisheries Fund and frontline service and guidance to applicants.
- On behalf of the FALB, CRCs conducted 121 vessel inspections for vessel loans under \$50 thousand, with the Fisheries and Aquaculture Loan Board conducting inspections for vessels above \$50 thousand.
- Played a key industry liaison role to both gather critical regional industry intelligence related to COVID-19 impacts and to inform and educate industry on public health measures and requirements. Took an active outreach role to support Public Health messaging by posting COVID-19 entry requirements signage at commercial and community wharves around the province.
- In partnership with other government departments, agencies and the fishing industry, staff continue to participate in and promote the Fishing Safety Now by promoting safety at sea, on the wharf, and in processing facilities. The Department partnered with the Fishing Safety Association of Nova Scotia and contributed financial support to create an industry-specific manual for the processing sector. The manual was designed to provide a framework on how to develop and implement an Occupational Health and Safety program and will be made available to all processing facilities.
 - WCB registered 713 accident claims reflecting the fish products industry (processing), saltwater fishing industry (commercial fisheries), inland fishing industry (recreational fishing), aquaculture, and services incidental to fishing.
 - WCB saltwater harvesting rates for 2021 are established at \$4.03 per \$100 in payroll. This represents a 6% decrease over 2020 rates or \$800 thousand in savings to industry. Rates for the processing sector in 2021 has been established at \$3.52 per \$100 in payroll. This represents a 3% increase over 2020 rates or \$150 thousand in additional costs.
- Overall Divisional industry development activities and planning had to be modified due to COVID-19 to account for the complete cancellation of out of - province travel. Operations shifted to virtual participation which, while cost effective, limited relationship building and knowledge transfer activities. Increased limitations on in-province travel and COVID-19 requirements around in-person meetings and interactions also limited the information gathering and relationship building activities of the team.

Growing a Competitive Seafood Sector

The Department administers the *Fish Harvesters Organizations Support Act* (FHOSA) that strengthens the collective voice and capacity of fish harvesters in areas where they

have voted in participation in the Act by enabling the collection of mandatory dues for fish harvester organizations that allows them to carry-out their work and advocacy on behalf of their membership. The FHOSA Registry processed 1,551 memberships totaling \$402 thousand for 16 accredited fish harvester organizations in Nova Scotia.

Oversight of the Fish Harvester Registration and Certification Board Act enables legislation to support the formation of a board, to register and certify fish harvesters based on established certification criteria, with an end goal of promoting the sustainability and economic viability of the fishing industry. Federal regulations were completed in 2020 to support the optional re-allocation of professional fish harvester registration fees to the new board, the Board is actively pursuing its implementation plan.

The Department is working to protect the future of the fisheries and aquaculture industries continues to participate in climate change initiatives:

- The Department contributed \$153 thousand to clean technology projects under the federal Fisheries and Aquaculture Clean Technology Adoption program to assist Canada's fisheries and aquaculture industries in improving their environmental performance. Projects included the hybridization of a fishing vessel, solar panels on seafood facilities, advanced ice-making technology for fishing vessels, and water contaminant filtration technology for fishing vessels.
- The Department continues to work towards the development of a Climate Change Readiness Framework to guide actions related to climate-driven environmental changes that impact the socio-economic interests of Nova Scotia's seafood sector. Impacts of COVID-19 caused the delay of both the framework development due to restrictions on the Department's ability to conduct outreach and engagement.
- In collaboration with the Centre for Marine Applied Research (CMAR), the Department drafted a summary report in 2020-2021 on potential climate change impacts and opportunities for Nova Scotia's seafood industry. The Department also collaborated with CMAR to launch a project that will help the seafood industry to identify and adapt to climate-driven risks.
- The Department entered into an agreement with EfficiencyNS for the hiring of an Onsite Energy Manager to conduct energy audits for fish and seafood facilities and help the industry conduct projects and access funding to reduce greenhouse gas emissions and energy costs.
- The Marine Debris Clean-Up Program was launched in 2020-2021 to help support industry and public contributions to keeping our shorelines and marine waters clean. One clean-up was supported by the program in 2020-2021 prior to COVID-19 restrictions on public gatherings.

Perennia Partnership

The Department continued to partner with Perennia in 2020-2021 to develop the aquaculture, fisheries, and seafood sectors by funding:

- \$1.95 million to support advanced planning for aquaculture development in Nova Scotia through the Centre for Marine Applied Research. This partnership will focus on enhancing public trust, filling extensive gaps in coastal biophysical data, providing the science needed to support submissions to the Nova Scotia Aquaculture Review Board, the revision of environmental regulatory thresholds, research to support Aquaculture Development Areas, and climate change adaptation of Nova Scotia fisheries and aquaculture.
- Research and development of new seafood export markets, overcome obstacles for value added seafood-based products, and pilot research for turning waste into products.
- \$150 thousand for the ongoing development of Nova Scotia's seal industry with a focus on research and development into the commercialization of value-added seal products.
- For the ongoing development of Nova Scotia's seal industry focusing on humane harvesting practices, quality handling practices and full utilization through development of product streams for all or part of the harvested seals.
- The development of land-based aquaculture mapping tool enabling the assessment of essential infrastructure requirements that can support aquaculture activities (land-based and marine) in Nova Scotia.

Aquaculture Division Initiatives

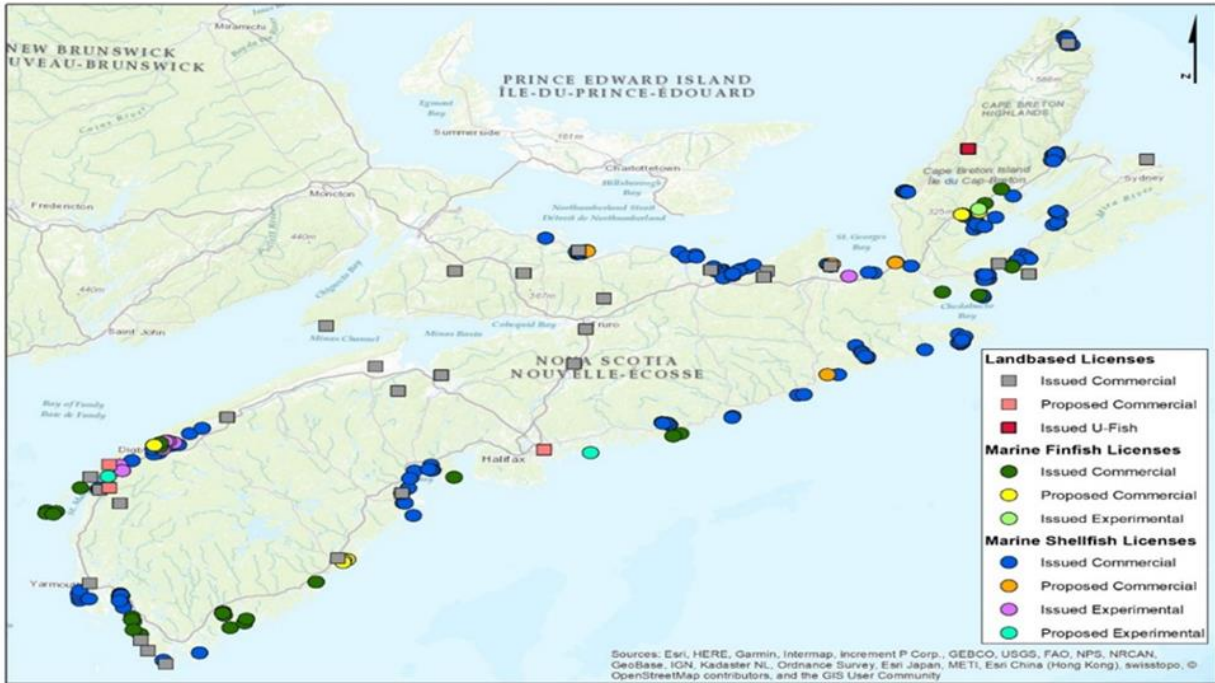
Currently there are 236 aquaculture licenses across the province and this number is expected to grow as the Department continues to build partnerships with municipalities and Mi'kmaw Band councils.

In 2020, the Department approved:

- Six new licences and leases;
- Seven amendments to licences and leases;
- 19 renewals;
- One option granted; and
- One new land-based site.

The Department has been actively enhancing its Farm Management Plans to incorporate not only industries ideas and concerns, but also those from the public, to gain public trust and grow the industry. Understanding the importance of public engagement and transparency, the Department has employed tools for public access. The Site Mapping Tool is a geographic information system that displays information relating to all aquaculture and rockweed licences and leases in the Province. It shows

site specific information such as the lease holder, site size, location, species farmed and whether a site is proposed, approved or experimental. The Department will continue to opportunities for public participation in its decision making through the independent Aquaculture Review Board and administrative decision-making processes.



Through its collaboration with the Science Advisory Committee, the Centre for Marine Applied Research, Centre for Ocean Ventures & Entrepreneurship (COVE), academic institutions, and other provincial and federal departments, the Department continues to monitor the performance of aquacultural operations for environmental and animal health and make science-based decisions. These collaborations support science-based decisions making by actively engaging in research to better understand the interaction between the environment and aquacultural operations.

Inland Fisheries Division Initiatives

In 2020-2021, the Department pivoted its licencing system to online in response to reduced availability of sportfishing licences during the first wave of COVID-19. The Department was pleased to assist the public’s ability to participate in sportfishing by making it easier for anglers to purchase a fishing licence from home during uncertain times. Delivery of all in-person programs were cancelled or delayed due to the COVID-19 restrictions.

While COVID-19 resulted in the cancellation of some hatchery programs such as Learn-to-Fish and Trout Derbies, the stocking program continued to be one of the Department’s most important and popular activities. Nearly 300 lakes were enhanced with brook, rainbow, and brown trout in 2020 through the Urban Stocking and Wild

Replenishment Program. Additionally, the Margaree, Middle and Baddeck rivers in Cape Breton and West River Antigonish were stocked with wild Atlantic salmon.

As part of our ongoing response to aquatic invasive species, the Department also successfully eradicated an illegally introduced population of smallmouth bass in the St. Mary's River, ensuring the trout and salmon populations in this iconic river can recover and flourish in the absence of invasive species.

Projects Supported Under the Sportfish Habitat Fund

In 2020, the Nova Scotia Sportfish Habitat Fund raised \$289 thousand through a \$5.91 levy on fishing licences. A total of \$230 thousand was provided to the Nova Scotia Salmon Association's Adopt-A-Stream Program which funded fish habitat restoration projects undertaken by 17 community and First Nation groups throughout the province. These projects resulted in the restoration of approximately 121,000 square meters of spawning, rearing, over-wintering, and cool water summer refugia habitat for salmon and trout. Habitat connectivity was an important component of several projects and passage was improved to 75 km for migrating fish. Other work focused on bank stabilization to reduce sedimentation and protecting and restoring riparian habitat by planting trees along rivers and streams.

In addition to these projects, the Department supported the Nova Scotia Salmon Association for a liming project on the West River Sheet Harbour and catchment liming by helicopter in the same watershed. The Port Morien Wildlife Association received \$13 thousand to develop a barrier free sportfishing site at Bernard Croak Memorial Park in Cape Breton County and Bass Barn Charters and Tours received \$11 thousand to install a boat launch in Five Islands, Colchester County.

Annual Report under Section 18 of the *Public Interest and Wrongdoing Act*

The *Public Interest Disclosure of Wrongdoing Act* was proclaimed into law on December 20, 2011.

The Act provides for government employees to be able to come forward if they reasonably believe that a wrongdoing has been committed or is about to be committed and they are acting in good faith.

The Act also protects employees who do disclose from reprisals, by enabling them to lay a complaint of reprisal with the Labour Board.

A Wrongdoing for the purpose of the Act is:

- a) a contravention of provincial or federal laws or regulations
- b) a misuse or gross mismanagement of public funds or assets
- c) an act or omission that creates an imminent risk of a substantial and specific danger to the life, health or safety of persons or the environment, or
- d) directing or counseling someone to commit a wrongdoing.

The following is a summary of disclosures received by the Department of Agriculture:

Information Required under Section 18 of the Act	Fiscal Year 2020-2021
The number of disclosures received	0
The number of findings of wrongdoing	0
Details of each wrongdoing	Not applicable
Recommendations and actions taken on each wrongdoing	Not applicable