

# Public Notice – Administrative Application Posted

These documents have been submitted with respect to an administrative aquaculture licence / lease application. The information in these documents is provided as part of the routine disclosure of information by the Department of Fisheries and Aquaculture (the “Department”). Some information may be redacted as business confidential information or personal information.

These documents were provided to the Department by the applicant (with the exception of the attached Schedule “A” which was generated by the Department). The Department is not responsible for the content of these documents, including, but not limited to, the accuracy, reliability, or currency of the information contained within.

<b>Applicant:</b> ProNova Marine Products Limited	<b>Type of Application:</b> Amendment to Land-based licence
<b>Application File Number:</b> AQ#1234	<b>Species:</b> Atlantic halibut, Atlantic cod, Haddock, Cunner, Lumpfish, Rainbow trout, American oyster, Green sea urchin, Irish moss, Dulse
<b>Location:</b> Woods Harbour, Shelburne County	<b>Method of Cultivation:</b> Hatchery, Nursery, Grow-Out
<b>Amendment:</b> Add Additional Species - Atlantic salmon and American lobster	
<b>Application Received On:</b> October 24, 2023 (Atlantic salmon) and April 29, 2024 (American lobster)	

To learn more about the aquaculture lease and license application process, please:

visit <https://novascotia.ca/fish/aquaculture/licensing-leasing/Aqua-Licensing-and-Leasing-Overview.pdf>

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# Aquaculture Amendment Application

Licence/Lease No: 1234

## Applicant Information:

Applicant: PRONOVA MARINE PRODUCTS LIMITED Contact Person: CARA ATKINSON

Nova Scotia Registry of Joint Stocks Number: 3311055

Revenue Canada Business Number: [REDACTED]

Telephone No. (Work): \_\_\_\_\_ (Home): \_\_\_\_\_ (Cell): [REDACTED]

Fax No.: \_\_\_\_\_ E-mail: INFO@PRONOVAMARINE.CA

Mailing Address: 6435 HIGHWAY 3, LOWER WOODS HARBOUR, NS

Postal Code: B0W2E0

Civic Address: SAME AS ABOVE

Postal Code: \_\_\_\_\_

## Amendment Request:

The amendment is requested for: (Check all appropriate boxes)

- Land-based  Marine
- Marine Plants  Finfish  Shellfish  Other species
- Change or addition of species
- Change of culture method
- Change of site boundaries (for marine applications)
- Other change

Submit completed applications to:

Nova Scotia Department of Fisheries and Aquaculture, Aquaculture Division  
1575 Lake Road, Shelburne, NS B0T 1W0  
E-mail: [aquaculture@novascotia.ca](mailto:aquaculture@novascotia.ca)



Provide explanation of change requested. Add additional pages, as required.

ProNova Marine Products Limited is requesting the addition of Atlantic Salmon to Licences 1233 (25 Kenney Street, Clarks Harbour) and 1234 (6435 Highway 3, Lower Woods Harbour). This addition request is further detailed in our attached Development Plan.

### Application Materials

A complete application includes the following:

- Amendment application fee (payable to Minister of Finance) according to Section 77 of the Aquaculture Licence and Lease Regulations for Nova Scotia made under Section 64, Chapter 25 of the Acts of 1996, *the Fisheries and Coastal Resources Act*
- Application Form
- Development Plan according to application
- Report on Public Engagement during Scoping (for adjudicative amendment applications and for other applications as applicable)
- Copy of up-to-date Shareholder's Register which sets out the shareholdings of the company (if applicable)

### Public Notice and Disclosure

As part of the process for deciding on an aquaculture application, the Nova Scotia Department of Fisheries and Aquaculture ("Fisheries and Aquaculture") will disclose application information to other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application.

Submit completed applications

Nova Scotia Department of Fisheries and Aquaculture, Aquaculture Division  
1575 Lake Road, Shelburne, NS B0T 1W0  
E-mail: [aquaculture@novascotia.ca](mailto:aquaculture@novascotia.ca)

to: Ver. 170723-1

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In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture may disclose application information – not including, however, personal or business confidential information – on the departmental website.

**Privacy Statement**

The personal and business confidential information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

By signing and submitting this form, I acknowledge that I have read, understand, and accept the above statements regarding the collection, use, and disclosure of the information provided on this form.

Signature of Applicant

[Redacted Signature]

Date

[Redacted Signature]

August 28/23

Signature of Nova Scotia Department of Fisheries and Aquaculture Designate

Date

[Redacted Signature]

September 13, 2023

Submit completed applications to:

Nova Scotia Department of Fisheries and Aquaculture, Aquaculture Division  
1575 Lake Road, Shelburne, NS B0T 1W0  
E-mail: [aquaculture@novascotia.ca](mailto:aquaculture@novascotia.ca)

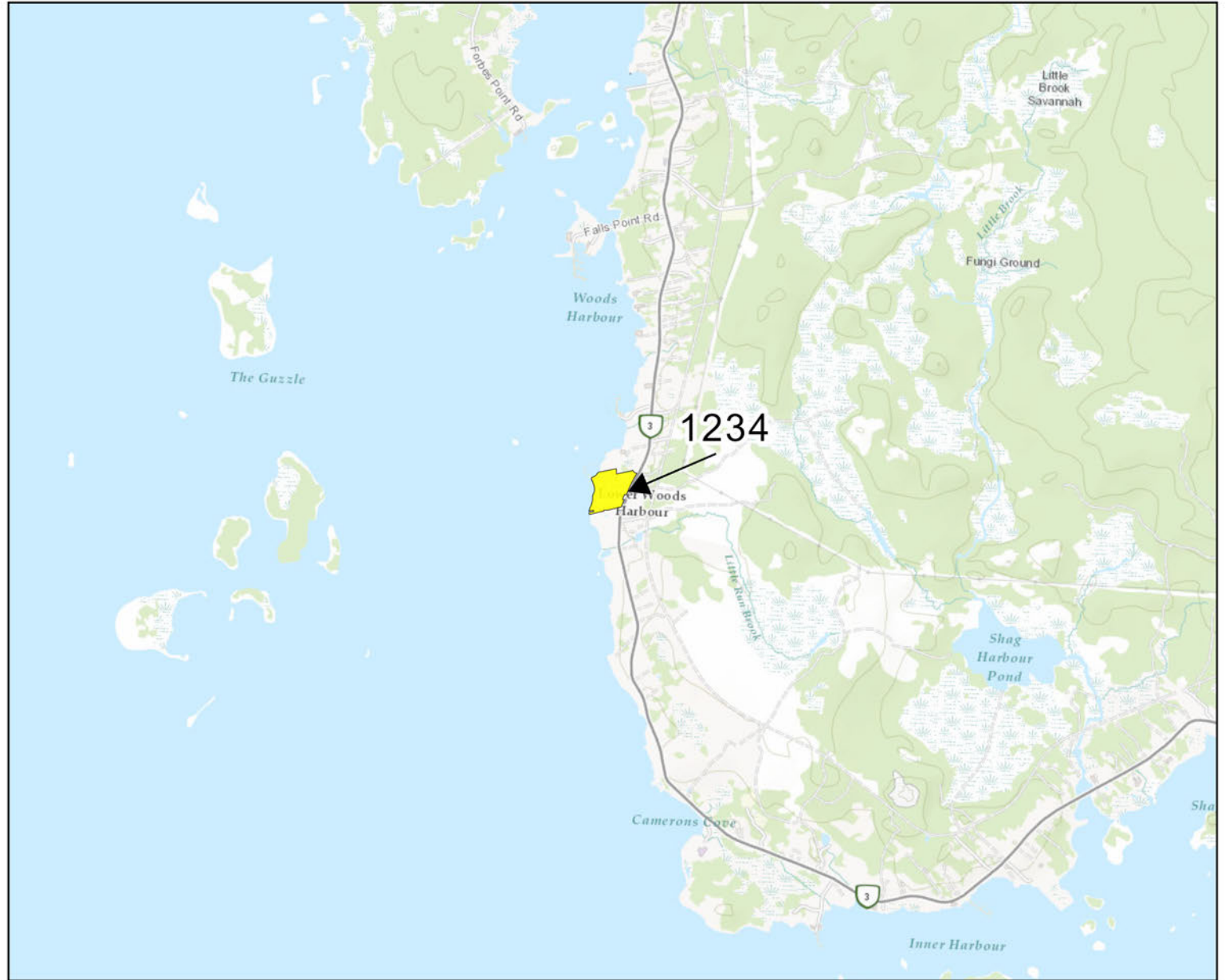
# SCHEDULE A



## Aquaculture Site 1234

Latitude	Longitude
43° 31' 2.399"	-65° 44' 16.199"

DATUM NAD 83 CSRS UTM Zone 20  
The above coordinates are not from a legal survey



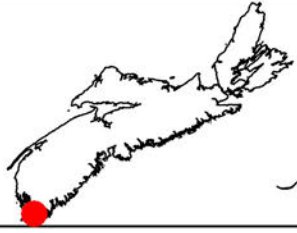
Licence Holder	County	Species Type
Pronova Marine Products Ltd.	Shelburne	Finfish; Shellfish; Other

 Proposed Species Amendment



**Disclaimer**  
This map should not be used for navigation or legal purposes. It is intended for general reference only.  
Date: 2023-09-19  
Created By: MK

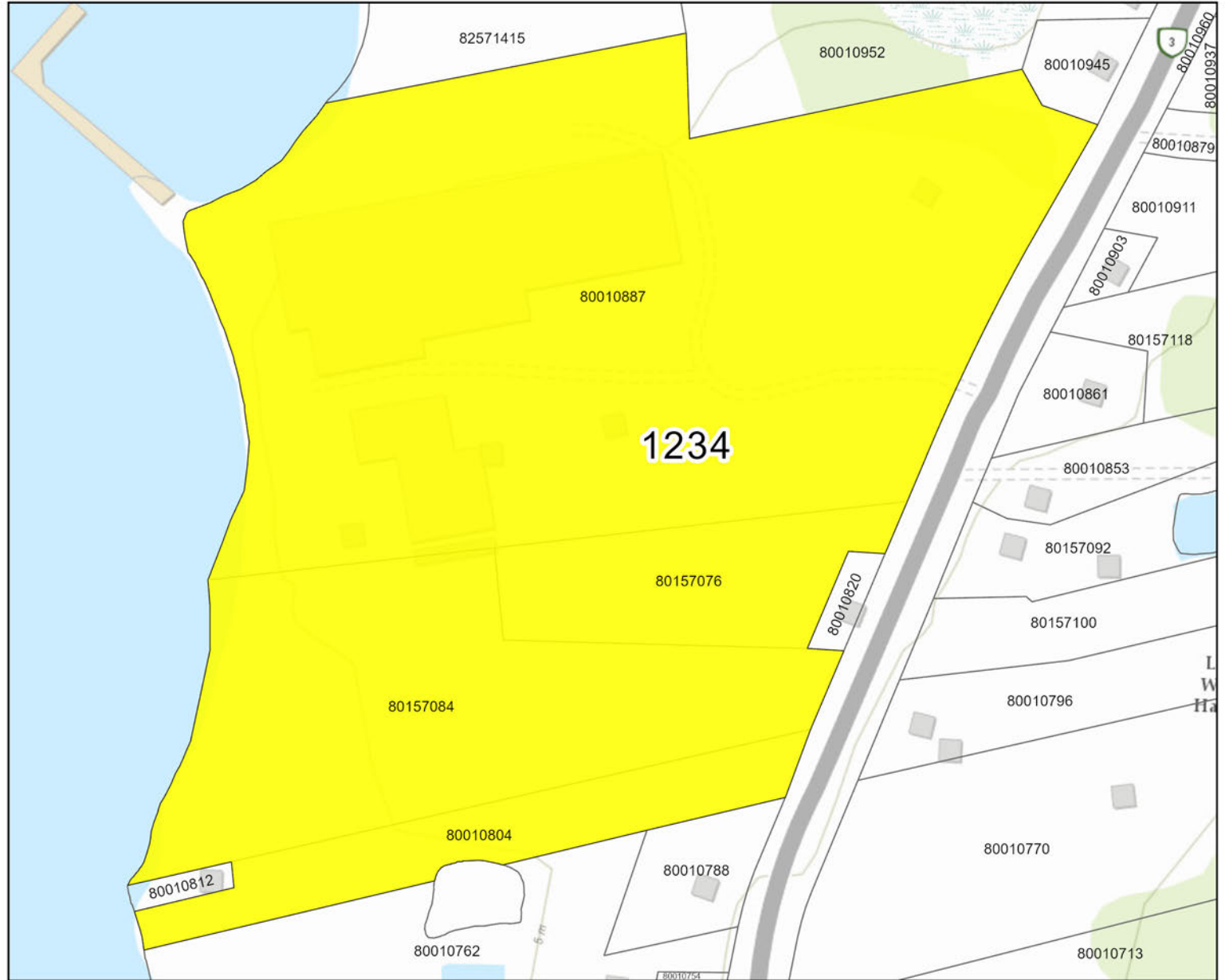
# SCHEDULE A



## Aquaculture Site 1234

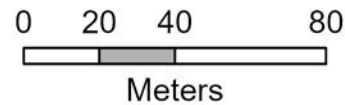
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Licence Holder	County	Species Type
Pronova Marine Products Ltd.	Shelburne	Finfish; Shellfish; Other

- Proposed Species Amendment
- Property Boundary



**Disclaimer**  
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Date: 2023-09-19  
Created By: MK



## Development Plan – ProNova Marine Products

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### Section 1: Project Overview

ProNova Marine Products ( PMP ) holds licences AQ#1233 and AQ#1234. Both had been held by Scotian Halibut Ltd since March 1, 2001, and on Feb 23, 2017 these licences were assigned to ProNova Marine Products.

AQ#1234 is a land based marine facility whose species include Atlantic halibut, Atlantic cod, haddock, cunner, lumpfish and American Oyster.

ProNova has been approached by two different salmon farming companies looking for a source of post-smolt salmon. ProNova has a partnership with a Nova Scotia freshwater hatchery to provide salmon fry. ProNova has the tank space, the freshwater supply and the seawater supply to grow these fry to large, post-smolt size, to supply these two salmon companies. All parties are looking at this as a long term, sustainable opportunity to grow the aquaculture industry within Nova Scotia.

ProNova Marine Products is seeking an amendment to AQ#1234 to add **Atlantic Salmon** and **American Lobster** as species for development.

PMP has 20 years of technical expertise in caring for broodstock, producing live feed (artemia and rotifers), fertilizing egg and rearing juveniles with Lumpfish, Cunner, Trout, Atlantic halibut and Atlantic cod.



## Development Plan – ProNova Marine Products

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### Section 2: Technical Viability

#### 2.1: Production Plan

The first stage of this project is to bring in salmon fry in the fall of 2024. The number of fry is to be determined by the two interested companies once ProNova’s licences have been amended for salmon.

Species	Atlantic Salmon
Stock Source	Old Mill Stream Aqua Farm Sunnybrook, Nova Scotia
Maximum Site Biomass ( kg )	150,000
Maximum Fish Number	600,000
Annual Maximum Feed ( kgs )	150,000
Maximum Tank Density ( kg/m <sup>3</sup> )	60
Maximum Total Tank Volume ( m <sup>3</sup> )	1,000 (Module F & G see table on next page)
Intended Initial Stocking Date	Fall, 2024
Expected FCR	1.2 to 1.5
Expected Production Period	9 months
Expected Time to achieve maximum production	3 years (2026)





## Development Plan – ProNova Marine Products

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The first stage of this project is to bring or buy the smallest legal size of lobsters (typically called "small chix" or "canners") as seedstock in the fall of 2024. We will not be sourcing anything smaller or producing anything smaller at this time. The number of lobster is to be determined by the interested company once ProNova’s licence has been amended for lobster. It is expected to start small and increase upon demonstration of on-growing success.

Species	American Lobster
Stock Source	TBD either a Licenced lobster buyer or form a collaboration with a fisherman or licenced lobster buyer where ProNova is contracted to provide husbandry services and facilities to grow the other party’s lobster.
Maximum Site Biomass ( kg )	9,080
Maximum Fish Number	15,000
Annual Maximum Feed ( kgs )	13,620
Maximum Tank Density ( kg/m3 )	41
Maximum Total Tank Volume ( m3 )	223 (in Module A & B and see table on next page)
Intended Initial Stocking Date	December, 2024
Expected FCR	1.2 to 1.5
Expected Production Period	4-6 months
Expected Time to achieve maximum production	3 years (2026)

Literature indicates that a feed with a protein content above 40%, and possibly as high as 50% is desired. We are still attempting to secure a source of a suitable feed. We do not intend to use medicated feed.

FCR estimates were taken from published literature such as those below, however, they are only estimates until we decide on which feed we will be using.

- I. Growth and Conversion Efficiency of Juvenile American Lobsters (*Homarus americanus*) in Relation to Temperature and Feeding Level  
 Author(s): Devin M. Bartley, James M. Carlburg, Jon C. Van Olst and Richard F. Ford  
 Source: Journal of the World Aquaculture Society, Vol. 11 (1-4) (March, 1980), 355-368
- II. Enhancement of Lobster Growth  
 Author(s): John T. Hughes, John J. Sullivan and Robert Shleser  
 Source: Science, New Series, Vol. 177, No. 4054 (Sep. 22, 1972), pp. 1110-1111  
 Published by: American Association for the Advancement of Science



## Development Plan – ProNova Marine Products

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Data from the previously referenced literature include growth rates at various temperatures that indicate that at 20°C and at the fish sizes we are indicating, a 2x size can be achieved in 4-6 months.

The goal of 2x growth was chosen following research into reported growth rates of lobster and extensive discussions with people in the lobster industry. [REDACTED], P.Eng., one of ProNova's owners, is heavily involved in the lobster industry and has 15 years of experience building profitable lobster tank systems. His experience and connections have indicated that Fish Buyers often lose money on the small chix and especially the canners selling them to processing companies. Our goal is to buy these lobster during mid May and early December (historically the time that lobster wharf pricing is lowest), and grow them into select and market select sizes by late September and early April (historically when lobster wharf pricing peaks). These sizes typically yield the highest margins to Fish Buyers and have an insatiable market demand.



## Development Plan – ProNova Marine Products

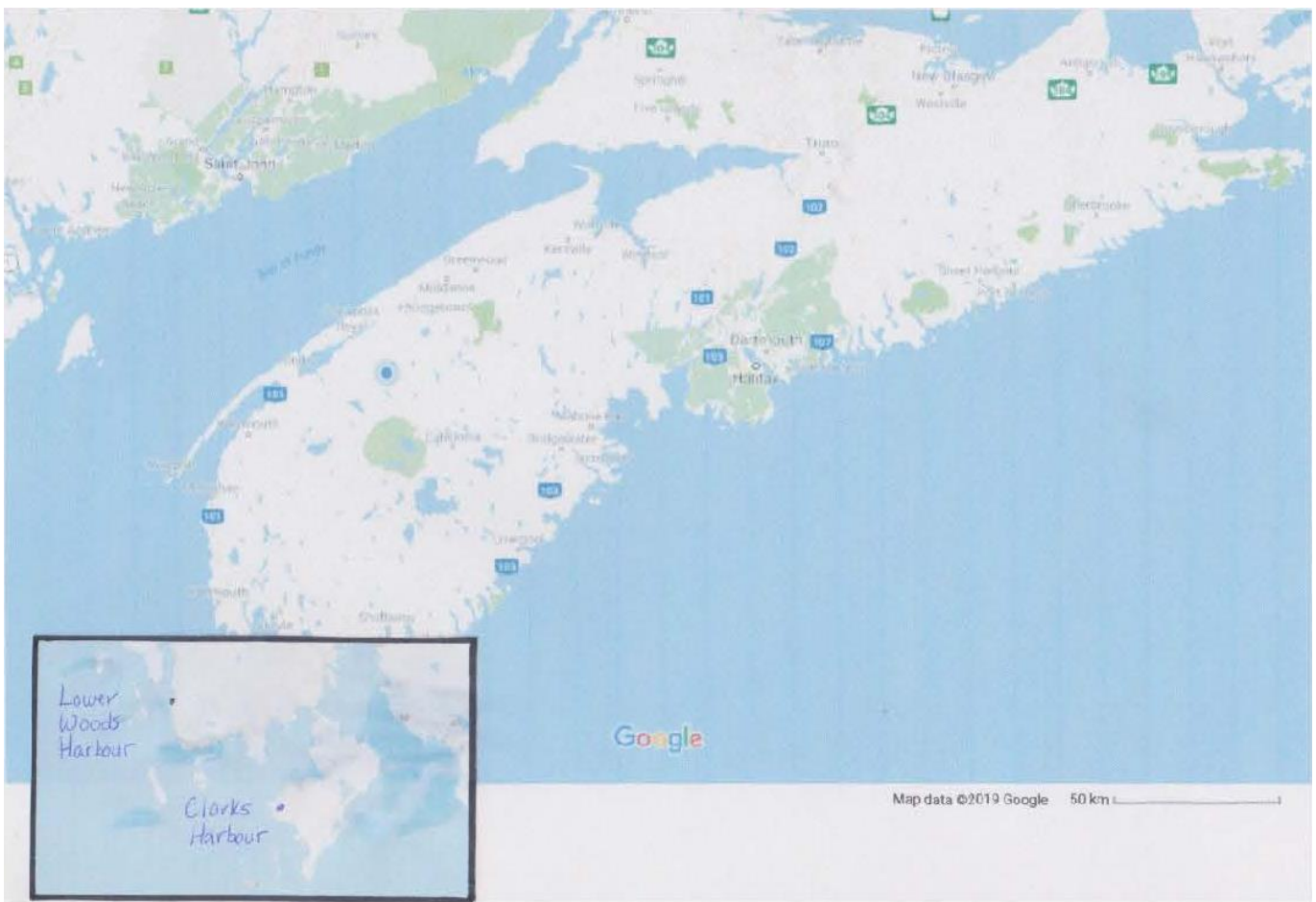
SYSTEM	# TANKS	# SCHEME	VOLUME (L)	STYLE	HEIGHT (in)	WATER DEPTH (in)	WIDTH (in)	MAX. BIOMASS PER TANK at 60kg/m <sup>3</sup> (kg)
BOILER ROOM	14	BR1-BR14	8,250	Round	50	47	118	495
HATCHERY	4	H1-H4	7,000	Round	41	37	120	420
HATCHERY	3	TBD	2,500	Square	20	17	96	150
HATCHERY	15	TBD	250	Round	25	22	30	15
MODULE A	5	A0, AA, AB, AC, AD	7,000	Round	41	37	120	420
MODULE A	18	A1-A18	4,750	Square	30	20	120	285
MODULE B	11	B1-B11	5,500	Square	30	23	120	330
MODULE B	6	B12-B17	7,000	Round	41	37	120	420
MODULE C	6	C1-C6	48,000	Square	60	46	288	2,880
MODULE D	6	D1-D6	48,000	Square	60	46	288	2,880
MODULE E	6	E1-E6	48,000	Square	60	46	288	2,880
MODULE F	6	F1-F9	83,500	Octagon	74	60	306	5,010
MODULE G	6	G1-G9	103,000	Octagon	88	74	306	6,180

## Development Plan – ProNova Marine Products

### 2.2: Location

There will be no change in the location of the site. All proposed activities will occur within existing facilities.

Map of Nova Scotia. Inset area highlights AQ#1233 Clarks Harbour, and AQ#1234 Woods Harbour





## Development Plan – ProNova Marine Products

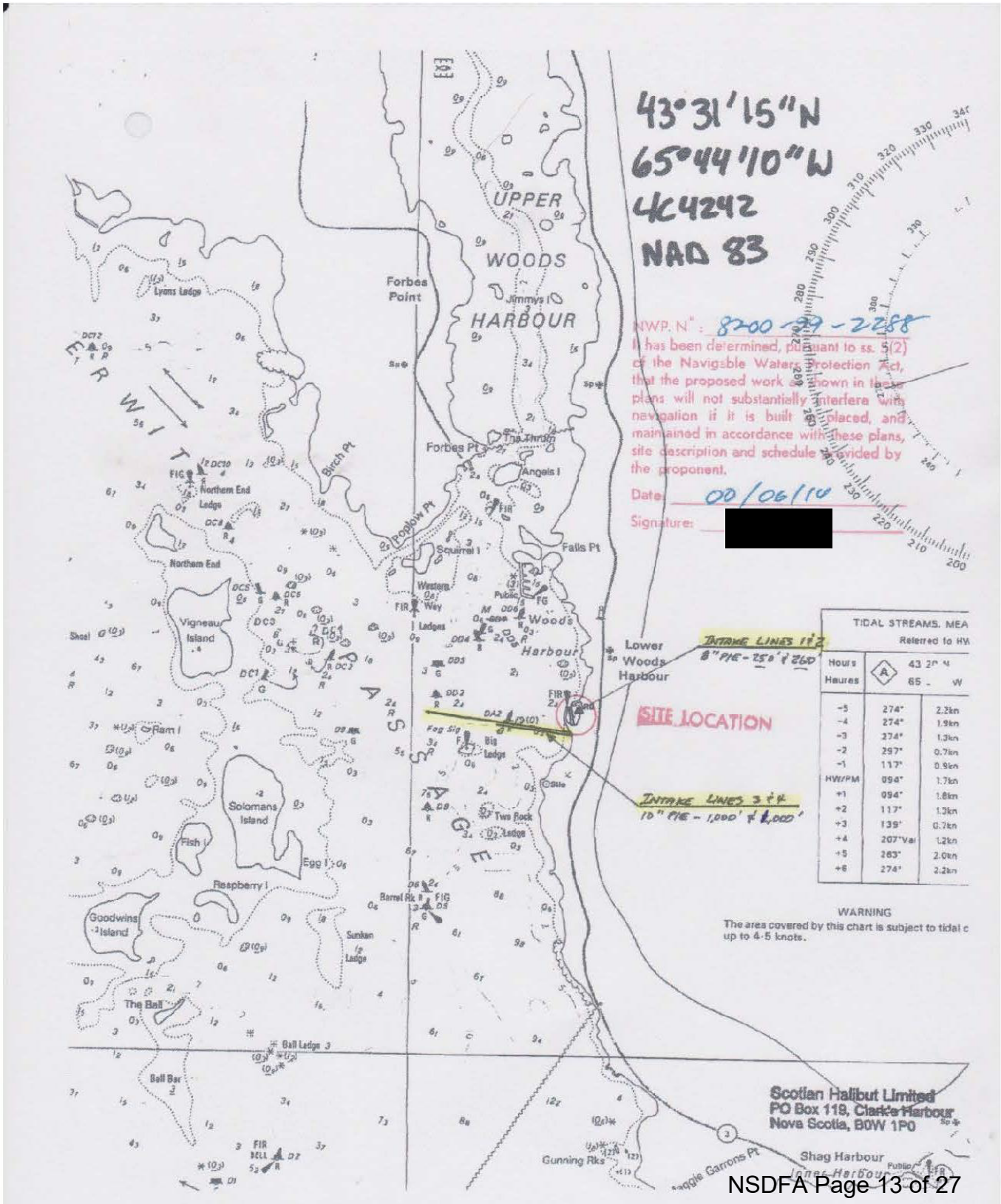
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### *2.3: Water Source*

The fresh water source at our Woods Harbour site is a dug well, drilled well and we also have the option of our fresh water reservoir. The water will be treated with a sediment filter, UV filter, and then ozonation.

# Development Plan – ProNova Marine Products

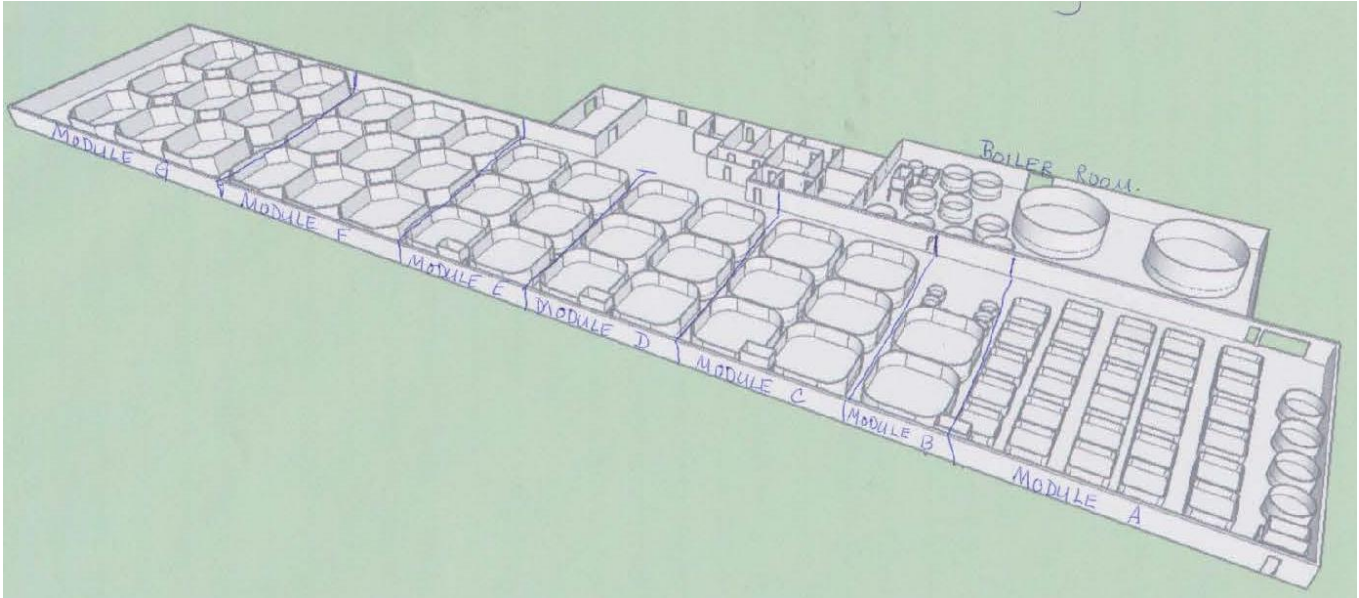
## AQ#1234 Pipelines



## Development Plan – ProNova Marine Products

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### *AQ#1234 Floor Plan*





## Development Plan – ProNova Marine Products

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### *2.4: Water Discharge*

#### **AQ#1234**

Woods Harbour, NS, There will be no change to the water discharge system.





## Development Plan – ProNova Marine Products

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### *2.5: Infrastructure*

#### **AQ#1234**

Woods Harbour, NS, There will be no additional infrastructure required.



## Development Plan – ProNova Marine Products

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### *2.6: System*

#### **AQ#1234**

##### **ATLANTIC SALMON**

In Woods Harbour juveniles can be held in either Module F or G ( see Facility Diagram ) using existing water systems.

##### **AMERICAN LOBSTER**

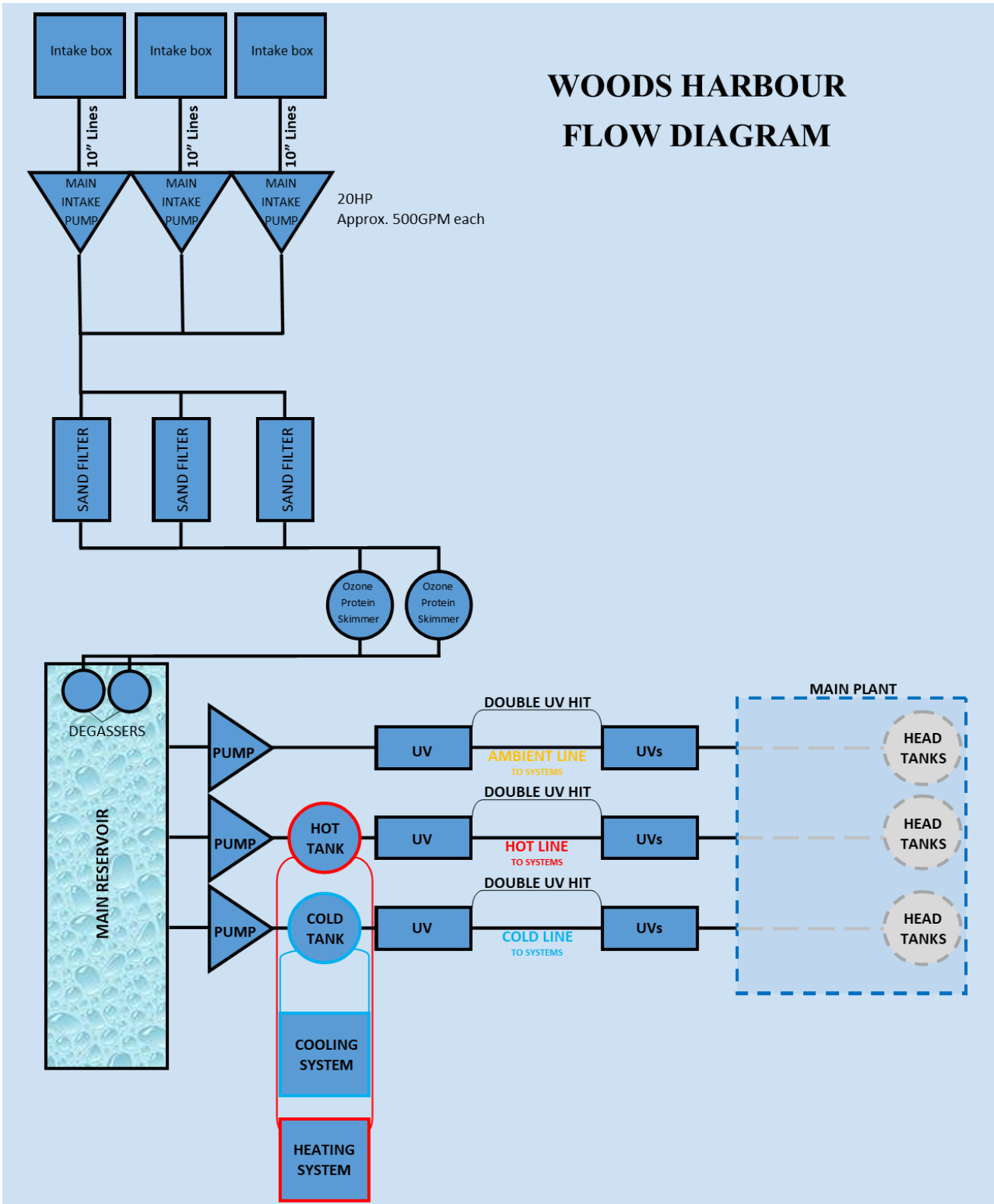
In Woods Harbour juveniles can be held in Modules A and B (see Facility Diagram) using existing water systems.

ProNova has over 40 shallow tanks with flat bottoms (3m by 3m) that can be easily divided into compartments that will each hold a number of lobster. Our projected numbers reflect the use of these tanks. Our preliminary research shows that there is a proper feeding level where the lobster (although territorial and cannibalistic) will not harm each other. This is presumably because it is easier to eat the readily available food than to 'attack' another healthy lobster of equivalent size. We believe that there is an exception to this which is the requirement to segregate the lobster individually while they molt so they do not feel in danger. Once they harden up adequately (research shows this to be less than 1 week) they can be banded and returned to the common tanks.

All Modules at the Woods harbour site are closed contained systems, consisting of either 6 or 9 tanks, with separate incoming water supply and waste water removal.

## Development Plan – ProNova Marine Products

### AQ#1234 Flow Diagram





## Development Plan – ProNova Marine Products

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### *2.7: Containment*

#### **AQ#1234**

The nursery/grow-out is a land based aquaculture site. All tanks holding fish will have appropriately sized jump skirts to prevent fish from jumping out, and screens on their outlets to enclose the animals. Drain screens are maintained in good repair and ensured to have appropriate mesh opening for the size of fish to be contained. Appropriate mesh size is verified for each tank prior to stocking. This may involve actual test of ability of smallest fish in population to pass through a mesh before moving to new tank. Visual verification of drain integrity can be accomplished for most tanks, depending on number of fish in the tank, clarity of the water, and water depth. 7 m tanks are monitored for escapes each time the tank is purged (plunged). This activity occurs daily. 8 m tanks contain fish that are simply incapable of escaping from the tanks. Drain screens can be monitored visually for major failure.



## Development Plan – ProNova Marine Products

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### *2.8: Site History*

#### **AQ#1234**

The facility at Woods Harbour was primarily used as a nursery/grow-out for halibut from 1998 – 2017. Trout, lumpfish and cunners were also grown intermittently throughout this period. From 2017 to 2022 this facility acted as a nursery for juvenile lumpfish and juvenile cunners. From 2021-2022 the facility was partially used as a hatchery for lumpfish. Currently Woods Harbour is a nursery for trout.



## Development Plan – ProNova Marine Products

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### *2.9: Technical Ability*

ProNova Marine Products ( formerly Scotian Halibut Ltd ) has been a recognized leader in developing the halibut industry in Canada. ProNova owners are dedicated, hard working individuals who have a strong passion for the aquaculture industry. Both owners are former employees of Scotian Halibut, and each brings valuable respected skills to the company.

Many of the applications involved in rearing salmon are similar to that of trout, technology that ProNova has developed and mastered throughout its 20 year employment period. PMP looks forward to utilizing these skills to further develop a new aquaculture species in NS

#### ProNova Owners

██████████ – B.Eng    Owner of Aqua Production Systems and ProNova Marine Products  
Technical Manager of Scotian Halibut Ltd May 2003 – Aug 2016

██████████                      President/Owner of ProNova Marine Products  
Electrician/Maintenance for Scotian Halibut Ltd 2000 – 2017

ProNova Marine Products also employs 2 technicians, 1 engineer, and 1 maintenance staff who are long-term employees of ProNova. These employees are fully trained and are accomplished laborers with broodstock, early developmental larvae/ fry, and juveniles.



## Development Plan – ProNova Marine Products

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### *2.10: Compliance History*

#### **AQ#1234**

There have been no compliance issues in the past.



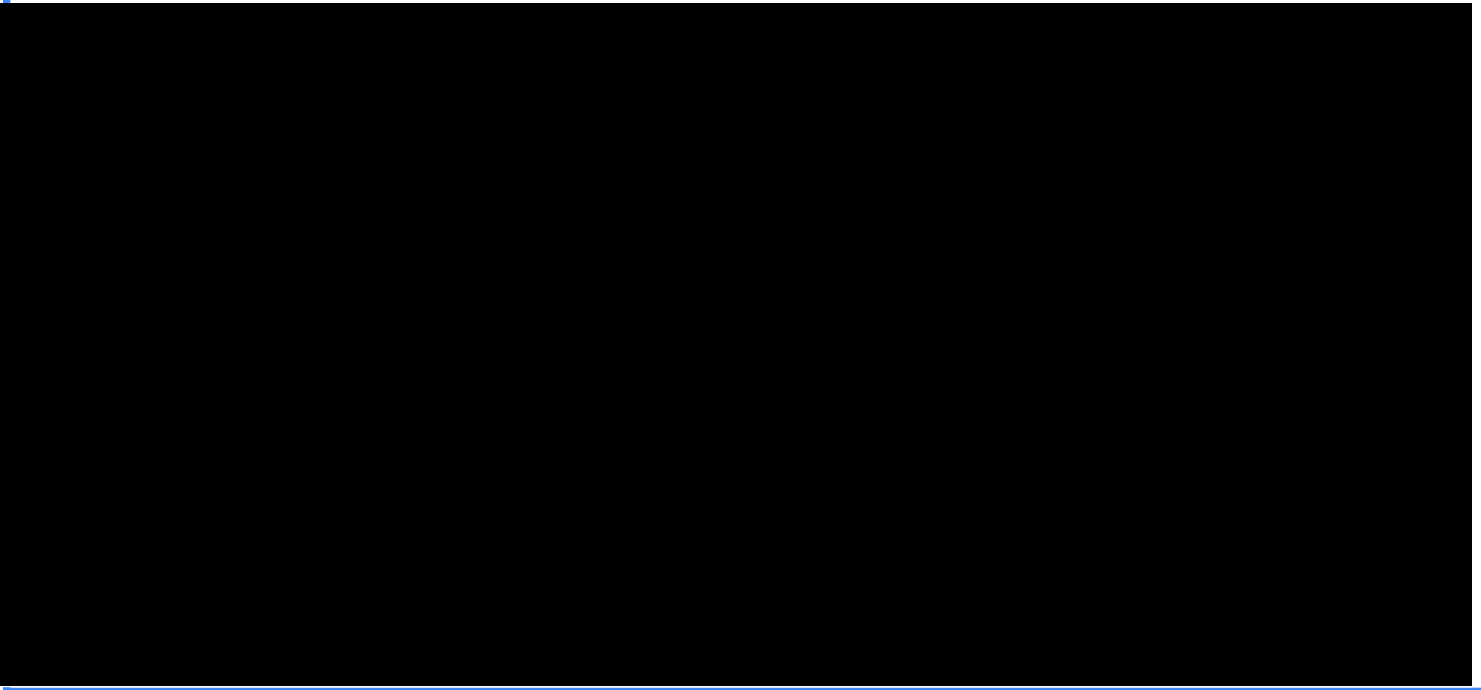
## Development Plan – ProNova Marine Products

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### Section 3: Financial Viability

Atlantic Salmon rearing and American Lobster on-growing are opportunities for ProNova to diversify its production and take advantage of the infrastructure and technical expertise already in place. For the activities regarding salmon and lobster at ProNova we anticipate being paid a down payment for our services, then on a monthly basis. We intend for expenses accrued to be reimbursed. Expected expenses are being assembled at this time. At this point no historical or information relative to Atlantic Salmon rearing or American Lobster on-growing can be provided.

### **BUSINESS MODEL FOR ATLANTIC SALMON**



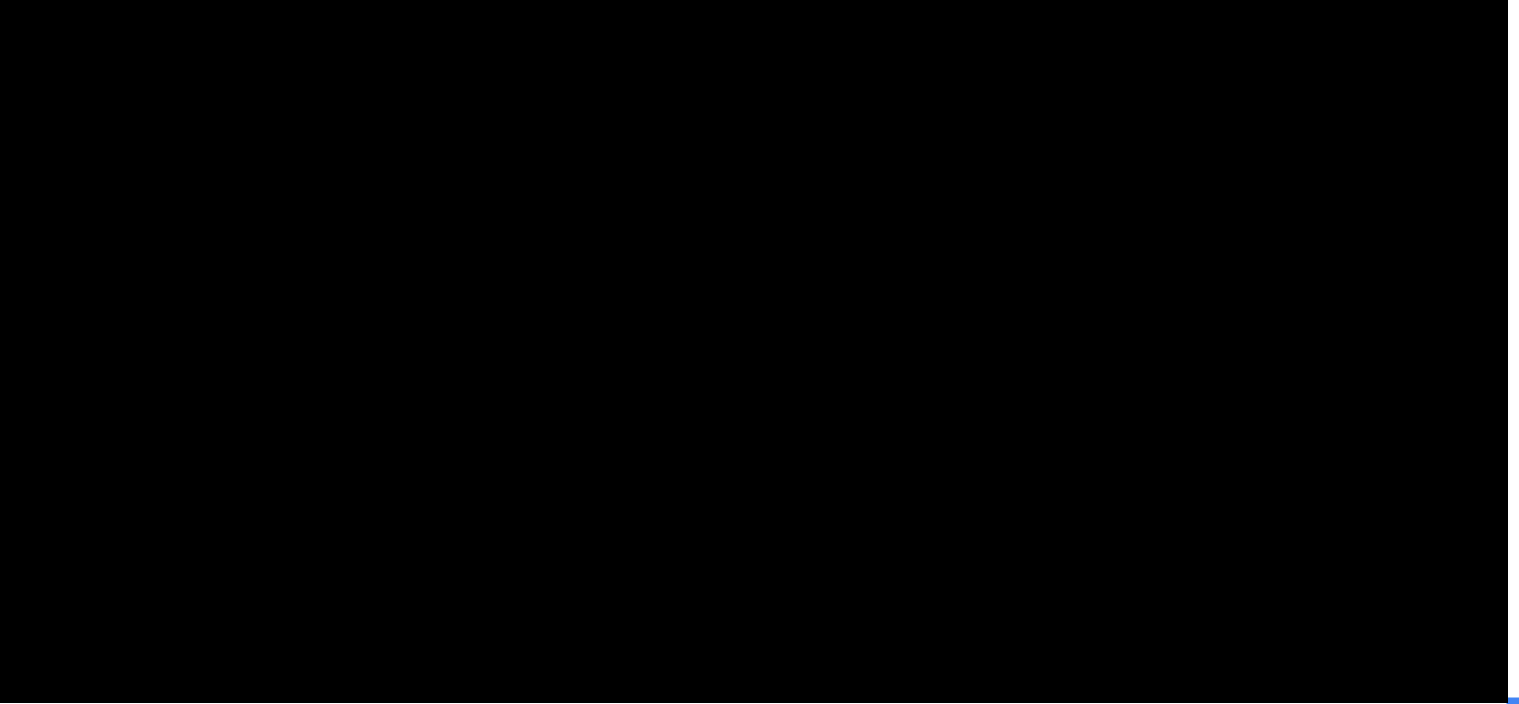




## Development Plan – ProNova Marine Products

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### BUSINESS MODEL FOR AMERICAN LOBSTER





## Development Plan – ProNova Marine Products

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### Section 4: Other Users of Area Surrounding the Proposed Aquacultural Operation

#### *4.1: Impacts on Other Users, Including Wildlife*

##### **AQ#1234**

ProNova Marine will be utilizing areas of operation that are currently in use; there will be no change or impact to surrounding areas for sites.



## Development Plan – ProNova Marine Products

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### *4.2: Impacts by Other Users, Including Wildlife*

#### **AQ#1234**

ProNova Marine will be utilizing areas of operation that are currently in use; there will be no change or impact to surrounding areas for sites.



## Development Plan – ProNova Marine Products

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### *4.3 Navigation Protection Act (NPA) Approval*

#### **AQ#1234**

No changes required.