

Exhibit 05

NSARB-2022-001 (AQ#1442)

APPLICATION PACKAGE

AQ#1442

Submission to the Nova Scotia Aquaculture Review Board

Nova Scotia Department of Fisheries and Aquaculture

Executive Summary

The enclosed represents a submission to the Nova Scotia Aquaculture Review Board by the Department of Fisheries and Aquaculture (DFA) pursuant to section 47 of the *Fisheries and Coastal Resources Act*.

An option to lease (AQ#1424) was granted to Town Point Consulting Inc., on March 28th, 2019, for a period of six months. Per section 8 of the Aquaculture Licence and Lease Regulations, the option to lease was extended for an additional six months, expiring on March 28, 2020. In accordance with section 11 of the Aquaculture Licence and Lease Regulations, the application was received by DFA on January 27, 2020, prior to the expiry of the option to lease.

Town Point Consulting Inc., is applying for three marine aquaculture licences and leases for the suspended cultivation of American oyster (*Crassostrea virginica*) in Antigonish Harbour, Antigonish County:

AQ#1442 Antigonish Harbour, Antigonish County (3.2 ha)

AQ#1443 Antigonish Harbour, Antigonish County (20.21 ha)

AQ#1444 Antigonish Harbour, Antigonish County (13.38 ha)

TABLE OF CONTENTS – AQ#1442

DOCUMENT	TAB	PAGE #
1.0 APPLICATION FORM	1	5-10
2.0 DEVELOPMENT PLAN	2	11-72
Appendix B of Applicant's Development Plan	3	73-125
Addendum 1 - Additional Information Request	4	127-128
A1.1 Additional Information Requested by NSDFA	5	129-131
A1.2 Additional Information Received from Applicant	6	133-136
A1.3 Additional Information – Gear Photos	7	137-141
A1.4 Additional Information - Baseline	8	143-144
Addendum 2 - Additional Information Request	9	145-146
A2.1 Additional Information Requested by NSDFA	10	147-149
A2.2 Additional Information Received from Applicant	11	151-173
3.0 SCOPING REPORT	12	175-316
Appendix A - Public Engagement Record	13	317-322
1-Open House Attendance & Feedback	14	323-343
2-Engagement with Town Point Residents	15	345-408
3-Engagement with Area Residents	16	409-515
4-Engagement with First Nations	17	517-525
5-Engagement with Oyster Harvesters	18	527-540
6-Engagement with Government	19	541-592
7-Engagement with Anglican Church	20	593-614
8-Engagement with Lobster Fishers	21	615-629
9-Engagement with St.FX	22	631-646
10-Engagement through Local Newspaper	23	647-653
Beaches Act	24	655-661

1.0 APPLICATION FORM

Aquaculture Licence/Lease Application

Applicant Information:

Applicant: Town Point Consulting Inc Contact Person: Ernie Porter
Nova Scotia Registry of Joint Stocks Number: 3278455
Revenue Canada Business Number: 819077439RT0001
Telephone No. (Work): 902-471-3696 (Home): [REDACTED] (Cell): 902-471-3696
Fax No.: 902-832-6667 E-mail: ernieporter77@gmail.com
Mailing Address: [REDACTED] Halifax, NS
Postal Code: [REDACTED]
Civic Address: Same as above.

Postal Code: _____

Proposed Site Information:

Location of Site: 370 Seabright Road County: Antigonish Site Size (Ha): 36.63
Site Dimensions: See drawings
Hydrographic Chart No.: 4446
Approximate Center Coordinates: Latitude: 45.68
Longitude: -61.89

Type of Licence Application

(Check appropriate boxes):

- ☒ Commercial licence/lease
☐ Experimental licence/lease
☐ Marine Plants ☐ Finfish ☒ Shellfish ☐ Other

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



Office Use Only

- | | |
|---|---|
| <input type="checkbox"/> Land-based <ul style="list-style-type: none"> <input type="checkbox"/> Freshwater <input type="checkbox"/> Saltwater
 <input type="checkbox"/> U-Fish <input type="checkbox"/> Hatchery <input type="checkbox"/> Nursery Facility <input type="checkbox"/> Growout | <input checked="" type="checkbox"/> Marine <ul style="list-style-type: none"> <input type="checkbox"/> Cage culture <input checked="" type="checkbox"/> Suspended shellfish or marine plants <input type="checkbox"/> Bottom shellfish with gear <input type="checkbox"/> Bottom shellfish without gear |
|---|---|

Application Materials

A complete application includes the following:

- 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 all Marine 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, and if not already provided during the Option to Lease application process).

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.

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.

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



Office Use Only

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

Date

Jan. 27, 2020

Signature of Nova Scotia Department of Fisheries and
Aquaculture Designate

Date

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

SCHEDULE A

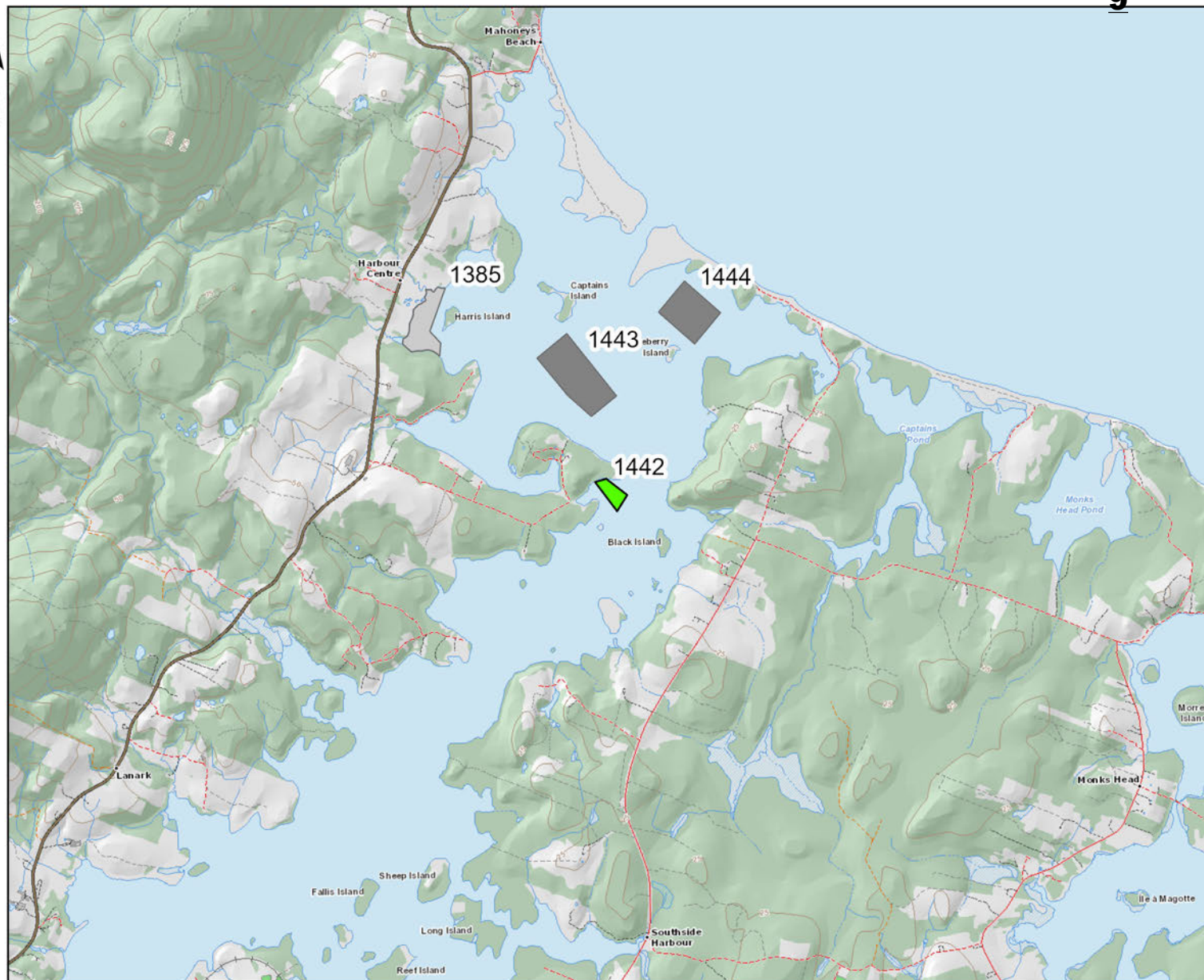


Aquaculture Site

1442

Corner	Latitude	Longitude
1	45° 40' 12.360"	-61° 53' 34.800"
2	45° 40' 16.680"	-61° 53' 30.840"
3	45° 40' 21.104"	-61° 53' 38.809"
4	45° 40' 20.280"	-61° 53' 43.080"
Centre	45° 40' 17.456"	-61° 53' 36.442"

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



License/Lease Holder	County	Waterbody	Hectares	Species Type	Culture Type	Chart
Town Point Consulting Inc.	Antigonish	Antigonish Harbour	3.2	Shellfish	Suspended Culture	4446



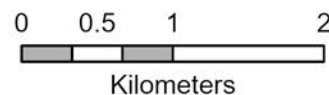
Proposed Application



Other Proposed Lease



Other Issued Lease



Disclaimer
This map should not be used for navigation or legal purposes. It is intended for general reference use only.
Date: 2020-04-08 Created By: MK

SCHEDULE A

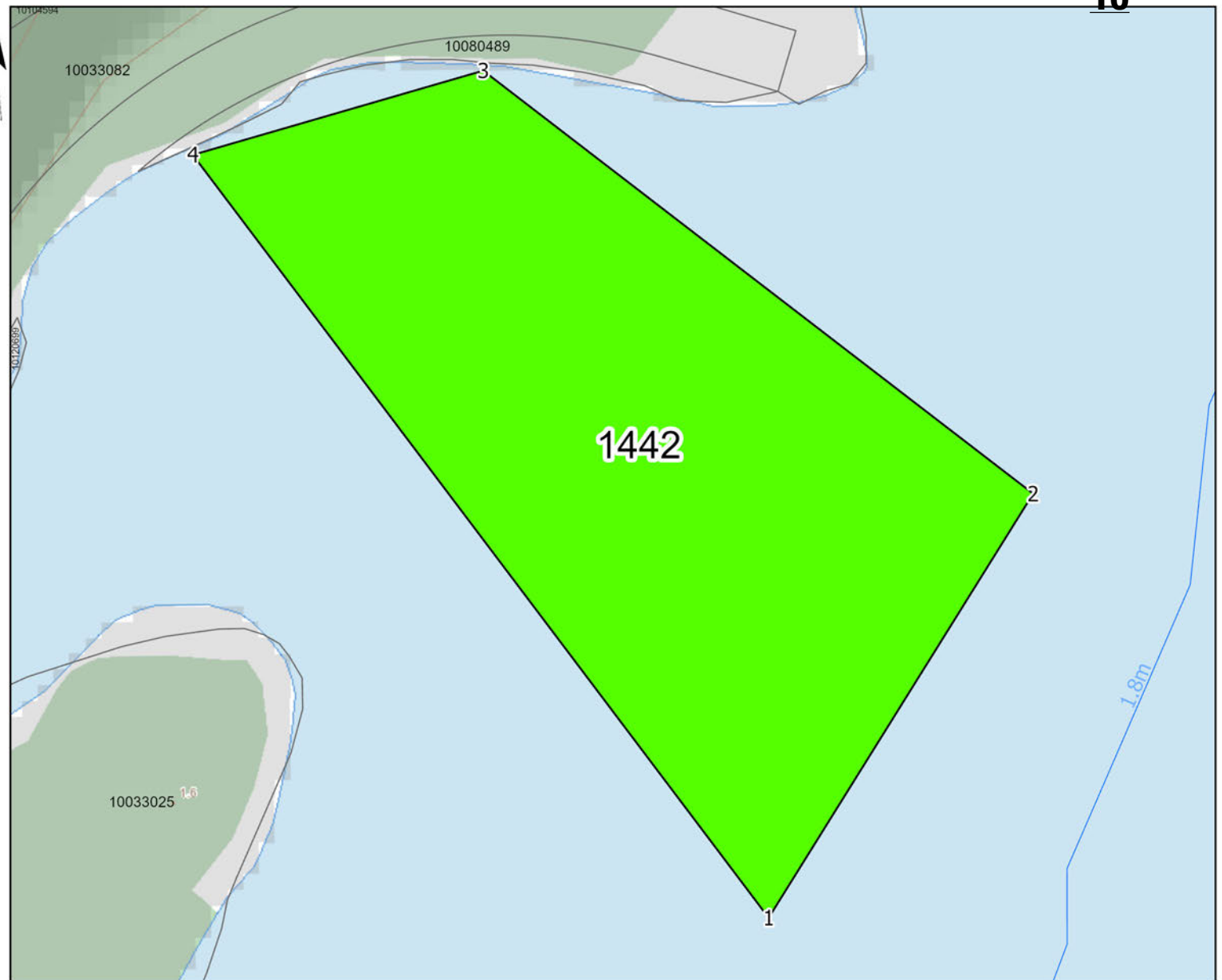


Aquaculture Site

1442

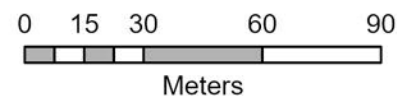
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License/Lease Holder	County	Waterbody	Hectares	Species Type	Culture Type	Chart
Town Point Consulting Inc.	Antigonish	Antigonish Harbour	3.2	Shellfish	Suspended Culture	4446

Proposed Application	Other Proposed Lease
Other Issued Lease	NS PIDs



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Date: 2020-04-08

Created By: MK

2.0 DEVELOPMENT PLAN

AQ#1424 applies to an application for a new oyster aquaculture operation in Antigonish Harbour utilizing suspended method. The following will demonstrate how the proposed development will address the eight factors considered in decisions related to marine aquaculture sites.

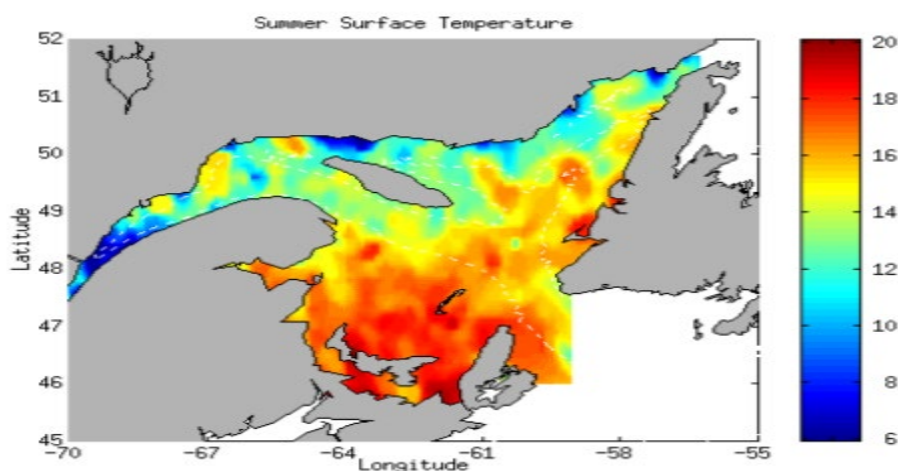
SECTION 1: THE OPTIMUM USE OF MARINE RESOURCES

Antigonish Harbour is a well protected tidal estuary that flows into St. Georges Bay, part of the southern Gulf of St. Lawrence. Our application proposes the development of an oyster aquaculture operation in the outer harbour adjacent to the harbour entrance. This operation would use suspended culture techniques.

In many ways the proposed location, lease sites, species, gear type and farm scale are ideal and should result in a productive and successful operation.

Oyster growth rate is directly related to water temperature. The warmer the water the greater the rate of growth. The following temperature chart is an excerpt from a study commissioned by the Canadian Government;

Jacques Whitford Environment Limited 2001. Atlas of Ecologically and Commercially Important Areas in the Southern Gulf of St. Lawrence. Environmental Studies Research Funds report ESRF 140, Calgary. 76 p



This chart indicates St Georges Bay has the warmest water temperature within the Gulf of St. Lawrence. It is well known that the Gulf has warmer water than the remainder of Nova Scotia coast, so we contend St Georges Bay Has the warmest seawater temperatures in Atlantic Canada. Since Antigonish Harbour mixes with St Georges Bay then this harbour should also be among the warmest in the province. Water temperature is a factor that significantly influences oyster growth rate so productivity of an oyster operation in Antigonish Harbour will tend to be superior to other regions in the province.

Stantec produced a study for NSDFA titled *Road Map for Aquaculture Investment in Nova Scotia* the following is an excerpt from page 4.24 and a chart from Appendix D;

“There is excellent biophysical potential for new shellfish aquaculture development in the Gulf Shore. American oyster and blue mussel are native to the area and generally do well in the temperature regime in these waters. The

area is particularly attractive for American oyster due to the high summer temperatures (Aiken 1984) and this species is also able to withstand the colder winter temperatures.”

American Oyster - Siting Criteria Thresholds

Criteria	Value	Units	Consensus Value	Comments	Source
Optimal Temperature	8 - 25	°C	10 - 20 °C		Gardner Pinfold, 1998
	10 - 20	°C		optimal range for growth	MacLeod, 1992
	10 - 20	°C			Muise & Associates, 1993
	4 - 28	°C			Interview
	8 - 25	°C			Rosenthal et al, 1995
	-1.5 - 25	°C			Workshop
	15	°C		highest temperature for good growth	Workshop
	10 - 20	°C		optimal range for growth	Gardner Pinfold, 1998
Minimum Temperature	4	°C	- 1 °C	species will not feed below this temperature	Interview
	5	°C		species hibernates at or below this temperature	MacLeod, 1992
	4 - 5	°C		species will not feed below this temperature	Workshop
	-1.5	°C			Muise & Associates, 1993
	-2	°C			Rosenthal et al, 1995
	-1	°C			Workshop
	-2	°C			Gardner Pinfold, 1998
Maximum Temperature	40	°C	30 °C		Gardner Pinfold, 1998
	24	°C			Workshop
	40	°C			Rosenthal et al, 1995
	30	°C			MacLeod, 1992
	>20	°C			Workshop
Optimal Salinity	15 - 25	ppt	20 - 30 ppt	optimal range for growth	Gardner Pinfold, 1998
	30 - 32	ppt			Interview
	20 - 22	ppt			Interview
	20 - 30	ppt			Muise & Associates, 1993
	23	ppt			Rosenthal et al, 1995
	10 - 25	ppt			Workshop
	20 - 30	ppt			MacLeod, 1992
Minimum Salinity	5	ppt	18 ppt		Gardner Pinfold, 1998
	18	ppt			Rosenthal et al, 1995
Maximum Salinity	20	ppt	35 ppt	produce a less "salty" taste below this level	MacLeod, 1992
	35	ppt			Rosenthal et al, 1995
Optimal Depth	35	ppt	1 - 6 m		Gardner Pinfold, 1998
	1 - 6	m		depth must be below 6 m if there is ice cover	Workshop
	6	m			MacLeod, 1992
Minimum Depth	1 - 6	m		bottom culture	Muise & Associates, 1993
	2	m		longlines	Muise & Associates, 1993
Optimal Current Velocity	10	m			Gardner Pinfold, 1998
	156 - 260	cm/s			Workshop
Minimum Current Velocity	< 50	cm/s			Muise & Associates, 1993
	1	cm/s			Workshop
Maximum Current Velocity	100	cm/s			Workshop
Dissolved Oxygen	< 4	mg/L	4 mg/L		Workshop
Maximum Wave Height	1	m	1 m		Muise & Associates, 1993
Tidal Amplitude	0 - 10	m	0-10 m		Muise & Associates, 1993

The proposed lease sites have physical characteristics that fall within the favorable range indicated in the above Stantec chart.

Wild oysters grow prolifically in Antigonish Harbour and the licenced harvesters active in the harbour contend they are superior to oysters they harvest from other estuaries. Obviously, existing conditions in the harbour are suitable for oyster growth. The proposed lease sites were selected in part to position the farm so that they may most benefit from the natural food source and tidal flow in the harbour.

Fresh water flow from three rivers that enter Antigonish Harbour causes a positive flow through the harbour generally from south to north toward the harbour entrance. This flow tends to move food sources through the harbour toward the harbour entrance. Close proximity of the farm to the harbour entrance provides high tidal flow through the proposed sites. These sites experience flow rates of 19-22cm/s through them which both carries the food supply to the farm and flushes the sites to prevent possible negative impacts from excess bio-deposition.

The proposed scale is appropriate for the situation. According to Hydrographic Survey Canada the harbour area is 4400 acres while the proposed farm is 90.5 acres. This means the farm would occupy only 2% of the harbour. Scientists we have consulted contend such a farm will not have negative impact on the ecosystem if it occupies less than 10% of the estuary. Local residents who have considered the impact of the farm from a disinterested point of view (several of whom live within view of the sites) also feel it is appropriate in scale, location and use. Copies of this correspondence is available if requested.

The productivity of the proposed farm is planned to be between 2 and 3 million oysters per year. Presently, the licenced harvesters and one lease holder collect oysters from Antigonish Harbour. Our farm would represent a significant increase in production from this harbour without negative impact on existing production. There may even be benefit to the harvesters and other leaseholder following development of a depuration facility associated with the farm and from increased spat production some of which may result in greater abundance of naturally occurring oysters available for harvest.

Presently, the proposed lease sites are unused by people for any purpose other than occasional summertime recreational uses. Engaging these areas in production of a valuable, eco-friendly, sustainable and healthy food source is a more beneficial use of this natural resource. The economic activity, employment in a rural community, spin-off to local suppliers and contribution to provincial GDP we believe outweigh the value of occasional recreational use of this small portion of the harbour.

Farm gate value of the product after the farm reaches full production is expected to be \$1.0-1.5 million at wholesale prices annually. We plan to work with our marketing partner, Afashionado Fish Mongers, to develop markets in larger centres outside of Nova Scotia and in the process realize a portion of the marketing value of our product. At this point, the unit price should increase from about \$0.50 to about \$0.75 which would increase the farm gate value of farm production to be between \$1.5 and \$2.25 million annually. This represents a significant increase in economic output from this marine resource than is presently realized from collection of natural production alone.

Our production plan is achievable and leaves room for future growth. Our farm will use proprietary gear, BOBR growth units and the Oyster-Matic machine, developed by the applicant in partnership with the owner of ShanDaph Oyster Farm. This gear is presently on the ShanDaph farm and has been in service since August 2019. If this application is approved, we will be an early adopter of BOBR and Oyster-Matic. Our farm will be involved in any refinements/improvements and in demonstrating the system to other farmers. The potential economic benefit of this other business venture is also significant but only relevant to this application as an incidental and concurrent effect.

Regarding infrastructure, our property includes 550m of shoreline, 10 acres of land, a suitable wharf, a 500sm building that will provide useful space for farm support activities, a well-developed power distribution system, and direct access to a public road. The existing building could provide space for equipment storage, indoor work space during bad weather days, office space, etc.

Local businesses are keenly interested in being involved with development and operation of the proposed farm. Construction of the proposed depuration facility is the largest construction component of the project and would be a welcome addition to the project list for Bio-Novations, Kells Enterprises, Quality Concrete, Highland Building Supplies, and many other local companies. In total, this building project would represent an injection of about \$1.5 million into the local economy.

Construction of the marine portion of the farm would represent a further expenditure of about \$780k for materials and equipment excluding labour and HST. This investment would be distributed over the first three years of farm operation.

One of the most significant and beneficial aspects of the development of this farm is employment. We estimate during the development of the farm in the first three years there will be direct wages paid of about \$370,000.00 in addition to our own sweat equity. This does not include wages to employees of contractors who may be hired to

work on the land-based nursery and depuration facility. Then, after the farm settles into the routine of managing the fully developed operation, wages will be about \$350k annually.

The proposed development does not impact the existing lobster fishers operating out of Antigonish Harbour, but it may provide benefits to the commercial oyster harvesters through possible processing of their catch, direct purchase of their harvest and production of more spat in the harbour which may lead to greater abundance of oysters for their harvest. These synergistic and cumulative effects have the potential to provide greater benefit of the resource than just the direct production of the proposed farm.

The oceanographic and biophysical characteristics of the public waters are in many ways ideally suited to the proposed use. The only disadvantages the sites provide in this regard are limited water depth and closed status. While the shallow water depths in portions of the proposed lease sites do tend to correlate with the presence of eelgrass, there has been no indication the density or prevalence of eelgrass is a significant concern. Instead, the scientific opinion we have received indicates that the farm would have a net beneficial effect on eelgrass in the harbour.

All the important biological and oceanographic factors of water temperature, flow rate, feed supply, salinity and exposure are well suited to the proposed use. Furthermore, the proposed sites lend themselves to efficient and effective layout whereby the growth units may be oriented to maximize flow through them without requiring an inefficient use of space. Close proximity to our property enables a compact farm footprint that minimizes travel time, reduces carbon input and enables efficient farm management.

We believe the selected sites are well chosen to integrate suitably with the other users of Antigonish Harbour. The proposed sites are out of normal travel routes, distant from views, devoid of anchorages and moorings and there are no processing plants or campgrounds in the vicinity. The only immediately adjacent private property not owned by the applicant is not developable due to non compliance with vertical setback requirements.

There are no active tourism or recreational operations, private or government wharves or First Nations reserves adjacent to the proposed sites. There are no known potential projects or activities that could be impacted by the proposed development.

As for important habitats and conservation areas we consulted Dr. Tony Miller who is an authority on birds common to Antigonish Harbour and in his opinion, there is no reason the project should not proceed. We however did alter the farm plan to reduce the area adjacent Dunn's Beach in response to NSDNR concerns related to Piping Plovers. Consultation with NSDNR officials responsible for parks and protected areas lead to the Dunn's Beach/Gooseberry Island site being reduced from 60 acres to 32.6 acres and oriented to provide 230m setback from the beach.

Subsequent to discussions with NSDNR officials we met with Laura Bartlett who is the local representative for an organization called Bird Studies Canada and had meaningful discussions related to the protection of Plover habitat and any concerns related to other shore birds that may use Dunn's Beach. Ms. Bartlett provided the following relevant studies and letter.

Noise related articles

Inbox



Laura Bartlett <lbartlett@birdscanada.org>

Wed, Jan 15, 12:14 PM (7 days ago)

to me

Hi Ernie,

As promised, here are a few documents that may or may not be of use to you. I reached out to colleagues in Canada and the USA and this is what was provided to me. None of them are specific to Piping Plovers and Aquaculture noise unfortunately. Due to the limited scope of these projects it is difficult to generalize across all plovers or all aquaculture sites but this is also the information we have available to us right now. I don't know of anyone doing that kind of research and without the science backing it up it is very difficult to make recommendations. Given the endangered status of Piping Plovers and with limited research many of us in this field tend to defer to the precautionary principle which boils down to if we don't know the impacts and effects we don't do it. But that principle has it's own issues too!

This link is to a study on Red Knot, a different kind of threatened shorebird but often found in similar areas to plovers, and an aquaculture project in Delaware Bay (a great bird hot spot!). Obviously we are dealing with a different bird species here but at least it is with an aquaculture project: https://www.fws.gov/northeast/njfieldoffice/pdf/AquaculturePBO_20160401.pdf (it's a long document so I would check for the most relevant sections like "effects of the action" pg. 93)

The attached articles are about Piping Plovers but in relation to a bridge replacement project. This might be a better source for how these plovers deal with noise more generally, even though it's not an aquaculture project. Perhaps some comparisons can be drawn from overall decibel levels and distance to the source of noise?

Hopefully there are some lessons that can be learned from these articles to help make the best decision possible for both you and the birds!??

Good luck,

Laura

Laura Bartlett
Nova Scotia Program Coordinator
Birds Canada/Oiseaux Canada
lbartlett@birdscanada.org <mailto:rfriendshipkeller@birdscanada.org> * birdscanada.org
Tel * 902-426-4055

Your Voice For Birds/ Votre voix pour les oiseaux

<<https://mail.bsc-eoc.org/ecp/Customize/www.facebook.com/ploverconservation>>

2 Attachments – contained in Appendix B

Laura Bartlett

Mon, Jan 20, 3:10 PM (2 days ago)

to me

Hi Ernie,

Please find my letter attached. Good luck with the application!

Cheers,
Laura



To whom it may concern,

Birds Canada is a national charity for bird research, citizen science, education, and conservation. Since 2006 Birds Canada has run the Nova Scotia Piping Plover Conservation Program which aims to conserve beach ecosystems, reduce threats to plovers, and support recovery in Nova Scotia through monitoring, protection, and stewardship. Piping Plovers are federally and provincially listed as an endangered species which breed on many of Nova Scotia's beaches, including beaches surrounding Antigonish Harbour, from April to August.

I was contact by Ernie and Jane Porter and met with them on December 12th, 2019 to discuss their proposed oyster farm for Antigonish Harbour. They had become aware that a beach near the proposed site is identified as critical habitat for Piping Plovers under the federal Recovery Strategy and wanted to learn more about the birds and how their project might affect the plovers.

I had a chance to learn more about the proposed project and made them aware of my concerns for the plovers including:

- attracting predators like gulls
- changes to the natural processes and dynamics of the beach, such as storms creating washouts that create suitable habitat but might impact the flow of water to the oysters
- changes to the food systems that might impact the abundance and availability of food for the plovers
- direct disturbances to birds through the construction and maintenance of the proposed sites

Mr. and Mrs. Porter were very receptive to my comments and explained how they are working to address those concerns if the project did not already account for them. I appreciated their pro-active approach to trying to mitigate the unforeseen consequences of the project. Should the project move forward we look forward to working with Mr. and Mrs. Porter to ensure they are good plover stewards for Antigonish Harbour.

Sincerely,

Laura Bartlett
Nova Program Coordinator
lbartlett@birdscanada.org
1-902-426-4055

45 Alderney Drive, 7th floor, Dartmouth, NS Canada B2Y 2N6 Phone/Tél 902-426-4066 www.birdscanada.org

We have also discussed this concern with the following scientists who are recognized ornithological authorities – Randy Lauff StFX Dept of Biology Ornathologist, Clarence Stevens Ornithological Consultant, Simon Ryder-Burbridge Marine Conservation Officer with Ecology Action Centre, and Chris Kennedy at Dillon Consulting. Each of these professionals agree that our proposed operation with its revised setback from Dunn's Beach should not negatively impact plovers on Dunn's Beach. The following report prepared by Dillon Consulting provides detailed analysis of the situation.

TOWN POINT CONSULTING INC.

Piping Plovers and Marine Shellfish Aquaculture

An assessment of potential impacts to nesting Piping Plovers as a result of a proposed marine shellfish aquaculture lease site in Antigonish Harbour, Nova Scotia.

137 Chain Lake Drive
Suite 100
Halifax, Nova Scotia
Canada
B3S 1B3
Telephone
902.450.4000
Fax
902.450.2008
Dillon Consulting
Limited

January 16, 2020

Town Point Consulting Inc.
370 Seabright Road
Antigonish, Nova Scotia
B2G 2L2

Attention: Mr. Ernie Porter
President, Town Point Consulting Inc.

Assessment of Potential Impacts to Nesting Piping Plovers as a Result of a Proposed Marine Shellfish Aquaculture Lease Site in Antigonish Harbour, Nova Scotia.

Based on discussions held in December 2019, Dillon Consulting Limited (Dillon) was retained by Town Point Consulting Incorporated (Town Point Inc.) on January 3, 2020 to prepare and deliver an assessment of potential impacts to piping plover (*Charadrius melodus melodus*) as a result of oyster aquaculture operations proposed by Town Point Inc. The following is a technical report detailing the findings of that assessment.

Sincerely,

DILLON CONSULTING LIMITED

Christopher J. Kennedy, M.Sc.

Biologist

CJK:jes

Our file: 20-2069-1000

1

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture
January 2020

1. Introduction

Town Point Consulting Inc. (TPC) proposes to construct and operate a marine shellfish aquaculture operation on three potential lease areas near the mouth of the Antigonish Harbour. One proposed lease area (Site 3) falls within the protected beach area of Dunn's and Monks Head, whose boundaries extend into open water (see Figure 1), and is protected pursuant the *Beaches Act* (R.S. 1989, c. 32, s.1.). Dunn's Beach is also designated as critical habitat for the Piping Plover (*Charadrius melodus melodus*) (EC 2012), which is listed as 'Endangered' both provincially pursuant the *Nova Scotia Endangered Species Act* (S.N.S. 1998, c. 11) and federally pursuant the *Species at Risk Act* (S.C. 2002, c. 2). However, unlike the protected beach area mentioned above, the critical habitat for the Piping Plover is limited to

the portion of Dunn's Beach suitable for nesting, feeding and cover which includes the terrestrial area of beach from the low water mark to the upper beach and dune crest (EC 2012). That said, there have been no observations of Piping Plover at Dunn's Beach reported to eBird (2020) for the past 10 years (see Figure 2). eBird is collaborative database, with over 100 million bird sightings contributed annually and represents the world's largest citizen science project.

The following technical report will present an assessment of possible impacts that could result from the proposed marine shellfish aquaculture operation to Piping Plovers that may use the protected beach area of Dunn's and Monks Head to breed and raise their young. Additionally, similar nearby marine shellfish aquaculture operations are examined to provide context for the current proposed works. Lastly, current and possible future activities, including the proposed shellfish aquaculture operation, that occur on or around Dunn's and Monks Head Beach are discussed in terms of threats to breeding Piping Plovers and compliance with the *Beaches Act*.

2. Known Threats and Limiting Factors to Piping Plover Recovery with Respect to Marine Shellfish Aquaculture

Current estimates suggest that hatching success for Piping Plover pairs in eastern Canada is less than 55% and that predation, along with habitat loss and degradation, are the primary factors limiting Piping Plover populations across their North American breeding range (EC 2012).

There are many predators of Piping Plover adults, chicks, and eggs, including avian predators such as the American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*) and many species of gull (*Larus* spp.), as well as mammalian predators including Raccoon (*Procyon lotor*), Red Fox (*Vulpes vulpes*), American Mink (*Neovison vison*), domestic dogs, and even feral cats. Anthropogenic activities and associated land use practices can result in artificially high predator populations and that these predators may opportunistically prey on adult Piping Plovers, chicks, or eggs. However, the species most commonly associated with congregating at marine shellfish aquaculture facilities in eastern Canada is

2

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

the double-crested cormorant (*Phalacrocorax auritus*) (Comeau et al. 2009), a piscivorous bird not considered to be a predator of Piping Plovers.

Piping Plover habitat loss and degradation are primarily related to direct human disturbance and coastal development, but also natural processes such as sea-level rise, coastal erosion, vegetation encroachment, etc. According to Environment Canada (2012), any anthropogenic activity which alters or disturbs critical habitat is likely to result in the destruction of that critical habitat. EC identifies a number of activities likely to result in the destruction of critical habitat:

- Off-road, all-terrain, or motorized vehicle use;
- Coastal development occurring in plover habitat or in other habitats closely associated with plover habitat, including the construction of cottages, homes, or tourist accommodations, boardwalks, and trails;
- Beach nourishment;
- Beach stabilization;
- Sand mining and extraction;
- Beach cleaning or raking activities that remove elements of natural habitat; and
- Deliberate or accidental discharge of oil and toxic chemicals.

Many recreational activities can also result in disturbance to Piping Plovers which can cause changes in normal nesting or feeding behaviour and may lead to lowered hatching success rates. These human related disturbance factors generally include all recreational uses of a beach, such as pedestrian traffic; unleashed pets; camping and campfires; sunbathing; collection of driftwood, shells or wrack; horseback riding; fishing; kite flying; and motorized vehicle traffic on the beach (EC 2012).

While an operational marine shellfish aquaculture lease may be considered "coastal development...in habitats closely associated with plover habitat", it should be noted that unlike the examples given by Environment Canada (2012), a marine shellfish aquaculture lease has no terrestrial footprint and

therefore cannot overlap with critical habitat for Piping Plover, which by definition is terrestrial (EC 2012). Although no direct destruction of Piping Plover habitat will occur as a result of the proposed project, it is important to assess whether or not the operations of an active marine shellfish aquaculture operation will result in disturbance to nesting Piping Plovers on Dunn's and Monks Head Beach?

3. Environment and Climate Change Canada (ECCC) Guidance, Setback Distances and Buffer Zones for Piping Plover

Environment and Climate Change Canada (ECCC) offers guidance on establishing buffer zones and setback distances for migratory bird nests, including the Piping Plover, which are intended to ensure the successful fledging of young birds from the nest. According to ECCC (2019), buffer zones are determined by a setback distance which can vary according to the:

3

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

- i) degree of tolerance of the species;
- ii) previous exposure of birds to disturbance;
- iii) level of disturbance; and
- iv) landscape context.

Appropriate 'setback distances' are determined on a case-by-case basis based on the distance at which nesting birds react to human disturbance (flight initiation distance or FID) along with expert opinion. A higher minimum 'setback distance' is often required for natural habitats (compared to urban areas), most waterfowl nests (as compared to songbirds) and the presence of a sensitive species or species at risk (ECCC 2019).

With respect to the 'degree of tolerance' of Piping Plovers and 'previous exposure of birds to disturbance', it should be noted that Piping Plovers regularly nest in areas impacted by human activities, such as recreational (beach use) or industrial settings (aggregate mining) and that recent research (Jorgensen et al. 2016) suggests that Piping Plovers do appear capable of becoming habituated to stimuli associated with human activity over time.

Along the Atlantic Coast of the United States, the U.S. Fish and Wildlife Service (USFWS 1994; 1996) recommends 50 m diameter buffer zones be placed around active Piping Plover nests, but also suggests the buffer zone should be increased when 50 m is found to be inadequate. This recommended 50 m buffer zone was based on studies in which Piping Plover 'Flight Initiation Distance' (FID) in response to human disturbances were quite variable, ranging from less than 5 m to 210 m (Flemming et al. 1990, Cross 1990, Loegering 1992, Hoopes 1993, Cross and Terwilliger 1993, all cited in USFWS 1994) depending on the context of the interaction. This variability in FID exhibited by Piping Plover in these different studies suggests a number of variables affect these birds' responses to human activity (Jorgensen et al. 2016).

It has been demonstrated that nesting Piping Plovers respond differently to different types of stimuli, flushing more readily to passing pedestrians and dogs than to motorized vehicles (Jorgensen et al. 2016; McLeod et al., 2013). In a recent study using a 100 m buffer zone, nesting Piping Plovers flushed most readily to off-leash dog(s) (75% of the time) or a human(s) with a dog (70%) compared to only human pedestrian(s) (35%) and motorized vehicles (5.9%) (Jorgensen et al. 2016). Return times to the nest by flushed plovers was also greatest for off-leash dog(s) and a human(s) with a dog compared to only human pedestrian(s), and lowest for passing motorized vehicles.

In Canada, the only published literature available on recommended Piping Plover setback distances comes from the Alberta Ministry of Environment and Parks (AMEP 2011) and Environment Canada (EC 2009) and are primarily intended for use by the petroleum industry in the Prairie and Northern regions of Canada. In apparent recognition of the variability in response distances exhibited by Piping Plovers in previous studies, both documents recommend a range of setback distances for Piping Plover depending

4

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

on time of year and level of anticipated disturbance. Both documents recommend a lower limit setback distance of 50 m for 'low impact' activities, such as surveying, monitoring, or vehicular drive-by. However, for 'high impact' activities, such as pipeline construction, operating oil or gas wells or pump stations, the AMEP 2011 document recommends an upper limit setback distance of 200 m, while the EC 2009 document recommends an upper limit of 250 m.

If we assume that the 'level of disturbance' caused by the routine operations of a marine shellfish aquaculture operation is similar to 'high impact' activities of the petroleum industry, than by the most stringent guideline available in Canada (EC 2009) an appropriate setback from Piping Plover critical habitat would be 250 m.

The proposed lease site (Site 3) is setback approximately 230 m from its nearest point to Dunn's Beach. However, as the routine operation of a marine shellfish aquaculture site would most appropriately be classified as having a lower overall impact than that of 'high impact' activities of the petroleum industry, the current setback of ~230 m is very likely to be sufficient to prevent the disturbance of any nesting Piping Plovers that may breed on Dunn's Beach.

Given that recent research indicates that nesting Piping Plovers respond to and are more readily disturbed from their nest by off-leash pets and humans' on-foot, than they are by passing terrestrial motorized vehicles, the disturbance impact to nesting Piping Plovers resulting from the routine operations of a neighbouring 'on-water' shellfish aquaculture lease are likely to be negligible.

4. Reference Marine Shellfish Aquaculture Sites in Nova Scotia

There are currently a number of marine shellfish aquaculture sites in operation (NSDFA 2019) that are located immediately adjacent Provincial Parks or other important ecological areas in Nova Scotia, including critical habitat for Piping Plover. While Provincial Parks and Protected Beaches are not the same, they do share some important similarities with respect to their stated purpose. The Acts governing both Provincial Parks (*Provincial Parks Act* R.S., 1989, c. 367, s. 1.) and Protected Beaches (*Beaches Act*) broadly state their purpose is to provide opportunities for outdoor recreation and to preserve significant and sensitive elements of the natural environment of Nova Scotia. In fact, Dunn's Beach (see Figure 3) is currently listed as a site for designation as a Provincial Park by the Province of Nova Scotia (NS 2013), however, the designation has not yet been made official.

Listed below are examples of marine shellfish aquaculture operations currently co-existing with neighbouring Provincial Parks and other important ecological areas in Nova Scotia:

i) Melmerby Beach Provincial Park

- a. Commercial Marine Shellfish Licence No.: #0177, #1224 and #1112
- b. Size of leased area: ~83.35 hectares
- c. Species: American Oyster, Bay Quahaug, Surf Clam and Bay Scallop
- d. Significant Habitat for Piping Plover?: Yes

5

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

ii) Powell's Point Provincial Park

- a. Commercial Marine Shellfish Licence No. #1350
- b. Size of leased area: ~17.33 hectares
- c. Species: American Oyster and Bay Quahaug
- d. Significant Habitat for Piping Plover?: No

iii) Caribou-Munroes Island Provincial Park

- a. Commercial Marine Shellfish Licence No. #1347 and #1380
- b. Size of leased area: ~12.77 hectares
- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: No

iv) Waterside Beach Provincial Park

- a. Commercial Marine Shellfish Licence No. #1347 and #1380
- b. Size of leased area: ~17.26 hectares

- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: Yes
- v) Wallace Bay National Wildlife Area
- a. Commercial Marine Shellfish Licence No.: #0331
- b. Size of leased area: ~2.17 hectares
- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: No

Although not within Nova Scotia, another comparable shellfish aquaculture arrangement occurs in a neighbouring jurisdiction, within the Darnley Basin of Malpeque Bay, Prince Edward Island. The Darnley Basin is approximately 536.3 hectares and is occupied by 39 marine shellfish aquaculture leases totalling approximately 229.0 hectares, or about 42.7% of the total area of the basin (see Figure 4). Similar to the mouth of the Antigonish Harbour, the mouth of Darnley Basin is protected by sandspits, one of which forms part of Cabot Beach Provincial Park. Both sandspits are known to be breeding beaches for Piping Plover (see Figure 5). Similar to Antigonish Harbour, there is a commercial fishing wharf within the Darnley Basin that supports lobster boats, among other vessels, that must traverse the narrow channel alongside the sandspit beaches daily. Despite the density of aquaculture-related activities within the basin and the numerous passing fishing vessels, Piping Plovers continue to show site fidelity and a pair of Piping Plovers were recorded to have successfully hatched three young at these beaches in 2019 (Kelly 2019).

6

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

5. Proposed Shellfish Aquaculture Lease Area and Site-specific Context

There currently exists a commercial fishing wharf within the boundaries of the Protected Beach Area of Dunn's and Monks Head located at the northern end of Southside Harbour Road, immediately northwest from the mouth to Captain's Pond (see Figure 1). Vessels from this wharf must currently pass the proposed location of the proposed 'Site 3' lease area and navigate the channel into St. George's Bay. These vessels are predominantly powered by inboard or outboard motors (hundreds of horsepower (HP)) and the noise generated by their passing would be considerable. In contrast, the vessels proposed for the routine operations of the marine shellfish aquaculture lease would be powered by a 12 HP inboard motor with an additional muffling device installed to further mitigate any noise generated. Since the boundaries of the protected beach area extend between 800 and 1,700 m into St. George's Bay, it is probable that lobster pots are deployed and retrieved regularly within this protected area. This suggests that the noise disturbance caused by passing lobster vessels would not be limited to their departure and return to the harbour, but would be more persistent throughout the day. This is also in contrast to the proposed 'Site 3' aquaculture lease area, which is proposed to be located ~230 m behind the dune crest of Dunn's Beach.

Although lobster fishing occurs in near-shore coastal waters across much of the Maritime Provinces, there has been no suggestion or research that implicates passing lobster vessels with disturbing nesting Piping Plovers. Therefore, it would seem highly unlikely that the operation of a slower, quieter vessel behind the dune crest of Dunn's Beach would be considered a significant disturbance to nesting Piping Plovers.

6. Conclusions

Based on the research and associated assessment presented in this report, Dillon has concluded that the operation of a marine shellfish aquaculture lease in proximity to critical habitat for Piping Plover, located on Dunn's Beach, is highly unlikely to cause destruction of that habitat or cause a significant disturbance to any Piping Plovers that may breed at Dunn's Beach in the future. Furthermore, since there are many marine shellfish aquaculture leases currently in operation in proximity to Provincial Parks and other important ecological sites in Nova Scotia, the proposed lease site (Site 3) within the boundaries of the Protected Beach Area of Dunn's and Monks Head does not appear to be in conflict with the *Beaches Act*.

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Figure 1. Overview of the Protected Beach Area and the Proposed Site 3 Lease Area

~1,750 m ~1,000 m

~230 m

Commercial Wharf

*All locations are approximate

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Piping Plovers and Marine Shellfish Aquaculture
January 2020

Figure 2. Observations of Piping Plover, as reported to eBird, in the Vicinity of the Protected Beach Area of Dunn's and Monks Head over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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Piping Plovers and Marine Shellfish Aquaculture
January 2020

Figure 3. Overview of Dunn's Beach Indicating the Area in Consideration for Development as a Provincial Park

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January 2020

Figure 4. Overview of the Darnley Basin, Malpeque, PEI, Illustrating the Density of Marine Shellfish Aquaculture Operations

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January 2020

Figure 5. Observations of Piping Plover, as Reported to eBird, in the Vicinity of the Darnley Basin Over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

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Town Point Consulting Inc.

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January 2020

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Scientists have confirmed that no impact is expected on local salmon populations as they do not linger in the areas proposed for development. We will comply with well established environmental regulations and protocols related to use of fuel, lubricants and hydraulic fluid to ensure no related negative environmental impacts result from farm operations.

The owner of the other aquaculture operation in Antigonish Harbour supports this application and sees possible synergies that may be mutually beneficial, and he supports our application as confirmed in his letter below;

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re; Aquaculture Lease Application AQ#1424

Dear Mr. Porter;


Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley



We believe this lease application aligns well with the broad objectives of engaging natural resources available in the proposed portion of the public waters by optimizing the use of these marine resources. It increases the productivity of Antigonish Harbour while providing significant and much needed employment, economic activity and a healthy, eco-friendly sustainable product.

Presently, other than basic oyster harvest operations, Antigonish Harbour provides no commercial output. It is used mainly for recreational purposes and even this is done only in an infrequent and low intensity manner. Engaging only 2% of the harbour area to produce a high value product that is in high demand is perfectly aligned with the objectives stated in the Ivany Report. Economic activity and employment in a coastal, rural community is one of the fundamental strategies Ivany has implored Nova Scotians to embrace. We are both willing and able to manage the risk and technical challenges related to this venture and look forward to embarking on a journey that leads to broad ranging benefits to individuals, community, province, industry and environment.

The public right to navigation is preserved through thoughtful positioning of the proposed lease areas and adjustment of the layout in response to feedback through public engagement. We moved the lease areas away from Captain's Island to permit navigation and to avoid known oyster harvest areas. The position of the proposed grow sites does not interfere with navigation through the harbour channel or the transit routes of local commercial fishers.

The farm layout does not impede recreational fishing common in the harbour channel and entrance to St. Georges Bay. Our farm plan has been carefully adjusted to ensure there is no overlap with existing oyster harvesting operations and the owner of the only other aquaculture operation supports our application in part due to potential beneficial synergies that may result.

SECTION 2: THE CONTRIBUTION OF THE PROPOSED OPERATION TO COMMUNITY AND PROVINCIAL ECONOMIC DEVELOPMENT

2.1 Production Plan

- **Species;** American Oyster
- **Gear unit type;** We plan to use oyster aquaculture gear developed by DockPort Ltd. The growth units are called BOBR (Benefit of Being Round). These units are cylindrical in shape and measure 36cm in diameter and 106cm in length. They are deployed on parallel static lines using snoods of about .5m in length. The units are spaced about 1m apart and the static lines are spaced about 10 m apart. This growth unit is part of a mechanized system that will enable this farm to be much more productive than those farms using manual systems like Oyster Gro. Also, it is important to note BOBR has other benefits particularly its much lower visual profile (5cm vs 20 – 40cm) and it is far less attractive to seabirds. Observation of our growth units in place at ShanDaph Oyster Farm confirm zero sightings of cormorants on the BOBR units while only meters away cormorants are frequently roosting on Oyster Gro units.
We plan to use Chinese lantern style collectors for spat collection.
- **Maximum number of gear units;** Up to 23,100 growth units.
The proposed farm grow-site area is 33.4ha. A study of oyster aquaculture operations in eastern Canada by Luc A. Comeau titled “Suspended versus bottom oyster culture in eastern Canada: Comparing stocking densities and clearing rates” looks at the density of off bottom oyster aquaculture density compared to the density of on bottom and natural oyster reefs. This study indicates a bag density of 2000/ha is significantly lower than current density of some bottom culture operations and lower than historic density levels prior to depletion of healthy oyster reefs. If we apply this metric to the proposed farm there could be as many as 71,420 bags (BOBR) while remaining within accepted density limits. We propose a lower density of 23,100 BOBR units on the farm. We expect to also use about 500 spat collectors.
- **The maximum number and lengths of lines;** Number of lines is 220. Maximum line length is 130m.
- **Maximum shellfish introduced;** We plan to collect spat from the harbour, grow the seed to optimum size in a land-based nurseery then put the seed on the grow sites at a size of about 25mm. As the farm is developed over the first three years, we plan to stock growth units with about 3 million seed per year. After year three there would be about 9 million shellfish on site.
- **Seed source;** Spat collection from the harbour.
- **Expected time to reach maximum production;** Three years for production of about 2.5 million oysters per year.

Depuration is intended as the method of cleansing the product. We plan to construct a purpose-built facility to house the depuration, sorting, packaging, cold storage and shipping functions. This facility would not be required until year 3 when the first cohort of juveniles have matured to market size. Consequently, we have not yet designed this facility, nor have we sought approval from CFIA for the depuration protocol. However, we have consulted with Susan Shaw, former head of CFIA for Atlantic Canada to confirm the potential sites, adjacent uses, and water source are appropriate. Her CV is as follows;

Short Bio

Inbox



Susan Shaw [REDACTED]@icloud.com>

Fri, Jul 26, 8:57 AM

to me

Good morning Ernie - following is a really short bio. I can't find any of the more formal or official ones that I used to have. That's what working only from an iPhone at the cottage does to a person! Is the following okay? Please feel free to comment or revise.

During a 30 year career, Susan Shaw held various positions within the federal Department of Fisheries and Oceans and the Canadian Food Inspection Agency (CFIA). She was Director of the CFIA Dartmouth Laboratory, later Executive Director of the CFIA Atlantic Laboratory Network and, finally, Chief Redress Officer, nationally, of the CFIA's Integrity and Redress Secretariat. Within these roles, Susan was responsible for issues related to the safety of the Canadian food supply. She has extensive knowledge of food safety related to fish and seafood, in particular shellfish and their handling and processing, including depuration and relaying.

Susan holds a Bachelor of Science (Honours) in Biology from Acadia University and a Masters of Science in Food Microbiology from Virginia Tech.

Sent from my iPhone

Susan visited our proposed lease sites and various possible locations for the depuration facility to confirm suitability with regard to water source and adjacent property uses. We will pursue a formal CFIA approval with Susan's assistance should this application be approved. If CFIA approval is denied, then we will resort to relay rather than depuration as our cleansing method. We have an agreement in place to relay to leases held by ShanDaph Oyster Farm in Merigomish Harbour should the need to do relay arise.

2.2 Infrastructure;

We envision a farm with a compact footprint that minimizes transportation cost and resulting carbon inputs. The proposed grow sites are within 1.5 km of our property. The land-based nursery would be on our property and we hope to construct the farm support building near or on our property. We have canvassed the local area in search of suitable sites for this building and have found a few that could work. No site is ideal, each has issues that could be overcome. The greatest concern from neighbors seems to be potential traffic to and from this building. Given that this is the case then no matter where it would be constructed this concern would likely apply to any of the potential sites. We will continue to consider locations for this building other than on our property, but factors related to cost of construction and efficiency of operation will also play into the final decision of location.

We have a suitable dock and a 500sm building constructed to meet national building code standards that would be suitable for occupancy by various farm related uses including storage, office space, indoor work space, etc. It will be very useful during development of the farm, but it is our preference to construct a purpose-built facility to house the depuration, sorting, packaging, cold storage and shipping activities. See photos of the existing dock and building below;







We have both a tractor and a backhoe suitable for handling and moving on site materials and equipment. We would probably acquire a forklift in year four of operation.

2.3 Services and suppliers;

During construction of the farm there would be a broader range of services required than after the farm is fully developed.

Year 1:

a) Construction of Land-Based Nursery while not part of this application it is a crucial component of the farm. The breakdown of these costs by region is as follows;

Antigonish County:	\$57,600.00
Nova Scotia:	\$4,200.00
Canada:	\$11,600.00
Imported:	<u>\$41,900.00</u>
Total for nursery:	\$115,300.00

b) Construction of Grow Site Phase 1 including service boat, marker buoys, helical anchors, static lines, line floats, snoods, torpedo floats, Vexar bags and BOBR growth units for first phase of farm Site #3, excluding labour and HST.

Antigonish County:	\$53,050.00
Nova Scotia:	\$62,865.00
New Brunswick:	<u>\$30,000.00</u>
Total for Phase 1	\$145,115.00

Year 2:

a) Construction of Grow Site Phase 2 including helical anchors, static lines, line floats, snoods, torpedo floats, Vexar bags and BOBR, excluding labour and HST.

Antigonish County:	\$105,700.00
Nova Scotia:	\$15,140.00
New Brunswick:	<u>\$60,000.00</u>
Total for Phase 2	\$179,640.00

b) Operation of Phase 1 plus Land-Based nursery including electricity, fuel, supplies, excluding labour and HST;

Antigonish: \$36,900.00

Year 3:

a) Construction of Grow Site Phase 3 including helical anchors, static lines, line floats snoods, torpedo floats, Vexar bags and BOBR, excluding labour and HST;

Antigonish County: \$211,000.00

Nova Scotia: \$40,280.00

New Brunswick: \$120,000.00

Total for Phase 3 \$361,280.00

b) Operation of Phases 1 & 2 plus Land-Based nursery including electricity, fuel, supplies but excluding labour and HST;

Antigonish: \$50,000.00

Year 4:

a) Construction of farm support building including land purchase, road, services, Labour, Material, trade contractors, equipment, furnishings, design fees, insurance and permits;

Antigonish: \$1,000,000.00

Nova Scotia \$500,000.00

b) Operation of whole farm and land-based nursery including electricity, fuel, supplies but excluding labour and HST;

Antigonish: \$50,000.00

Nova Scotia: \$25,000.00

Year 5 onward:

Operation of whole farm including land-based nursery, grow site, farm support building. Costs include electricity, fuel, boats, vehicles, maintenance, supplies, property taxes but excluding labour.

Antigonish: \$100,000.00

Nova Scotia: \$25,000.0

2.4 Employment

Jobs: The portion of the farm related to this application, if approved as submitted, would be developed over three or four years. This is simply because the anticipated growth rate of the product is three years from seed to market size. The farm support building would be constructed in year 3.

Year	Seasonal staff	Full-time staff	Total # Jobs	Technical	Administrative	Managerial
1	2	2	4	4	0*	0*
2	3	3	6	6	0*	0*
3	4	4	8	6	1	1
4	5	6	11	9	1	1

*Self performed by applicant without pay.

These numbers do not include workers involved in construction of the farm support building or Land-Based Nursery.

2.5 Other economic contributions to the local community and Province

We have met with local restaurant owners who are keenly interested in having local oysters with a local brand available to their establishments. We have had preliminary discussions related to working together to explore possible eco-tourism opportunities that would connect our product to their restaurants and to the town of Antigonish. This model has been successful in other locations.

- 1) **Farm Model:** The development and improvement of our farm model as a very sustainable and highly productive operation is intended to benefit our farm and be marketed to the industry along with our proprietary technology (BOBR, Oyster-Matic and our novel Land-Based Nursery design). Our farm is in part intended to showcase this farm model and our mechanized system. We believe our innovations will lead to significant improvement in farm productivity, reduction in farm labour challenges, improvement in working conditions for farm hands and significant reduction in carbon inputs per unit of production. The adoption of our technology by other farmers will directly benefit the industry and the local/provincial economy.
Each sale of BOBR and Oyster-Matic for an operation capable of producing 1 million oysters per year would generate about \$350,000.00 in sales of Canadian made products. We plan to market this technology first in Atlantic Canada, then North America and ultimately internationally. Our farm will be a key player in establishing the viability and performance comparison of our technology relative to competing systems. We cannot accurately predict the economic activity resulting from this cooperation but expect it to be greater than the farm itself.
- 2) **Oyster Seed:** If the land-based nursery and this application are approved we will bring to the industry both a new supply of high-quality oyster seed and an innovative way to produce this seed. Our nursery design is novel and will have the capability to both operate at a lower cost and with the addition of solar power production be carbon neutral. We will share this technology with the aquaculture industry to aid in improved efficiency and the sustainable development of oyster aquaculture.
- 3) **Taxes:** There will be both property and business taxes that would be paid to the benefit of both Antigonish County and our province. We expect the property taxes to be a few thousand dollars per year and hope to be in a profit position by year 5 when business taxes may commence.
- 4) **Tourism:** We have discussed with some local business owners the possibility of creating a tourism opportunity related to our farm. If we work collaboratively to develop the branding of our product so that it attracts tourists to Antigonish there could be spin off benefit to the town through increased visits, stays, meals, etc. This idea comes from our visit to Whitstable in England. This small town has built a thriving tourist industry partly based on oysters...the town sign reads "Welcome to Whitstable, Famous for Oysters".

2.6 Financial viability

No change to the financial information submitted for the Request for an Aquaculture Option to Lease.

2.7 Adverse economic impacts

We anticipate no adverse impacts from the proposed operation on the economic development of the community and the province. Our opponents have suggested there will be adverse impacts on the livelihood of the existing oyster harvesters but their support for our application would suggest the opposite is true. They have also suggested a negative impact on property values, but we see no indication this has occurred associated with previous lease approvals in other regions.

SECTION 3: FISHERIES ACTIVITIES IN THE PUBLIC WATERS SURROUNDING THE PROPOSED AQUACULTURAL OPERATION

3.1 Status of fisheries activities

There are four licenced commercial oyster harvesters each with a licenced helper who are active within Antigonish Harbour. There is one existing oyster lease within the harbour that is licensed for bottom harvest. It is lease number 1385 and is 10.27 ha in size. There are five commercial lobster fishers and one crab fisher who transit through but do not fish within Antigonish Harbour.

If established, this farm will add activity in the harbour which itself would provide a dynamism and sense of purposeful activity heretofore not present in recent memory, although in earlier times this was a working harbour. The concept of working waterfronts is resurgent and gaining acceptance in North America because of the understanding that we must increase sustainable ocean related production of food.

During our door-to-door public engagement meetings several area residents stated that they like a working harbour because the activity is more interesting.

There are about 15 recreational fishers who fish within Antigonish Harbour by boat. Others who fish occasionally from land.

There is one known commercial bait fisher who has a licence to operate in Antigonish Harbour but is currently inactive.

We are not aware of any food, social or ceremonial fishing activities within Antigonish Harbour other than those mentioned above.

3.2 Impacts on fisheries activities

We expect no negative impacts on existing fisheries activities resulting from the proposed oyster aquaculture operation. The oyster harvesters support our application and have mentioned possible beneficial impacts related to increased seed and greater options for cleansing their product should we incorporate depuration capability into our farm. Initially this stakeholder group were concerned the lease areas would occupy locations that are useful to their operation but after careful examination and discussion this issue was resolved. After meeting with the group, each of the harvesters agreed to terms we set forth in writing, see document below;

Current Lease Application By Town Point Consultants For Antigonish Harbour

In Person Meeting record regarding AQ#1424

WITH COMMERCIAL OYSTER
HARVESTERS.

Date of meeting: Aug 7/19 Time: 1:00-2:00 Location: New Glasgow

Persons in attendance: KEN FRASER JAMIE DAVISON
MIKE MACINTOSH STEPHEN TOPOINTOSH

Address: Full time Resident: EDUARD FORBES

Seasonal Resident: JOHN FORBES

Project Outline reviewed: Yes

Questions:

Concerns: WHEREAS THROUGH DIRECT CONSULTATION
WITH ALL 4 HARVESTERS TPC HAS AGREED TO
STAY OFF SHORE MINIMUM 50' AND AVOID ALL

Response: AREAS IDENTIFIED AS POST HARVEST AREAS.

Date of response: GENERALLY ANY AREA OF GREATER LOW TIDE DEPTH
OF 3' WILL BE ACCEPTABLE.

Residents own words:

Stephen MacIntosh Aug 7/19
Jamie Davison Aug 7/19
Kenny Fraser
Michael MacIntosh Aug 7/19

There is one existing oyster lease within Antigonish Harbour. The owner is Mr. Sam McKinley. We have spoken with Mr. McKinley to inform him of our plans and he supports our application. He provided a letter expressing his support a copy is below;

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re: Aquaculture Lease Application AQ#1424

Dear Mr. Porter;

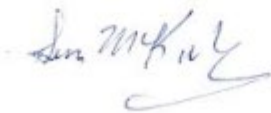
Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley



The lobster fishers do not fish within the harbour and the locations we have chosen are not within their normal transit route to and from their fishing grounds. We have provided each lobster fisher with a map of the proposed lease areas and asked for comment, but none has been received. One fisher prior to receiving the map told us he has no issue with our plans provided it doesn't impede his travel route. Our farm layout does not impede this travel route. Kingsley Brown's email below points out this fact, see paragraph 4.

From: Kingsley Brown [REDACTED]@gmail.com>

Subject: Re: Oyster Farm

Date: July 21, 2019 at 5:10:32 PM ADT

To: Sheilagh Hudon [REDACTED]@gmail.com>, Lorraine Beaton
<[REDACTED]@hotmail.com>, [REDACTED]@hotmail.com

Dear neighbours:

I'm on the side of the public interest in these matters: what people would choose if they saw clearly, thought rationally and acted disinterestedly. I knew nothing of the project at this time last week. Then the scary rumours and stories of Ernie Porter's interests diminishing the public interest.

Appears to me that the first part of the application comes under a private category not requiring mandatory public information sessions, which I believe Ernie Porter is willing to do anyway, Dr. Garbary's leadership was mentioned to me.

The big public information round is Fisheries and Oceans, which I believe FAO expects the community to run. I'll be a willing witness to Ernie's explanation and documentation to me yesterday of two intended growing areas using innovative low-visibility rollers in the water compared to current boxes/cages.

I surveyed these areas from the air yesterday, and would have a hard time finding other harbour locations as inconspicuous to publics, as unvisited for recreation, as removed from navigation, commercial and recreational, as far from our Southside properties as the two Ernie has chosen. They meet my standards of scale and proportionality until shown otherwise.


Reminds me of [REDACTED] and his airboat, dozens of calls asking me to do something about it. I told them, "He's your neighbour, for Christ sake, talk to him about it." [REDACTED] and I investigated, found the problem mostly propellor tips at supersonic speeds. [REDACTED] didn't want further abuse of the community, gave it up.

I'd like to see this handled harmoniously and productively for all interests. Would publicizing Ernie's formal proposals to Halifax and Ottawa mitigate misinformation and unwarranted anxiety of harbour residents? Criticism of my observations are welcomed. You've heard my story. What about yours?

Kind regards, King

The commercial bait fisher is currently inactive but supports our application his comments are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: May 30 2019 Time: 6:30 Location: 

Persons in attendance:

Archie MacKenzie
Ernie Porter

Project Outline Provided and reviewed: Yes

Questions:

No

Concerns:

No - Absolutely No Concerns, Really
Good To See This Goin' Ahead

Response:

Date of response: May 30 2019

to whom it May concern. I am in favor of this
oyster fishery, as it will clean up ant. harbour waters,
it will not impede any boat traffic, and will create
jobs in this area. I am a commercial fisherman &
hold Licences in Ant. harbour. I have been fishing
commercially for over 50 years, and I hold an oyster
Licence + this system will create an opportunity to
use this licence and sell product to this Enterprise

A-G. MacKenzie

The recreational fishers normally fish in the channel or further south of the proposed lease sites and those we have spoken with are either in support or neutral. One such fisher spoke about negative impact on oyster beds in Pomquet Harbour during the StFX public meeting but the connection to our lease application is unclear. The recreational fisher most often seen in the area provided the following feedback;

Acid Recreational Filter - on Tide
HARBOR Trust deep in summer.

In Person Meeting record regarding AQ#1424

Date of meeting: OCT 27/19 Time: 12AM Location: Home

Persons in attendance:

JASON STEWART

Address:

[REDACTED]

Home Resident:

yes

LANARK, NS

Seasonal Resident:

[REDACTED]

Project Outline reviewed: yes

Questions: asked many.

Concerns: cleared concerns

Response: Have Had a few positive chats

Date of response: OCT 28/19

Residents own words:

still Learning and looks
exciting! Would very much
like & Hope for employment
in the company!

[Signature]

SECTION 4: OCEANOGRAPHIC AND BIOPHYSICAL CHARACTERISTICS OF THE PUBLIC WATERS

4.1 Oceanographic environment

Site #1

- Annual maximum wind speed (km/hr) 96 Environment Canada
- Maximum wave height (m) .7 Planetcalc online calculator, & observation
- Direction of maximum wave from the south
- Annual minimum tide (m) 0.37m Tide Forecast.com
- Annual maximum tide (m) 1.37m Tide Forecast.com
- Current speed range 0-25cm/s measured on site
- Current speed average 12.5 cm/s measured on site
- Annual minimum salinity (ppt) 3.9 Dr. Aaron Spares 12.5 measured on site
- Annual maximum salinity (ppt) 32.8 Dr. Aaron Spares 26.4 measured on site
- Annual minimum temperature (C) -0.8 Dr. Aaron Spares
- Annual maximum temperature (C) 26.4 measured on site
- Depth of water each corner of site (m)

Point	Depth at low tide (m)
0	0 (on shore at OHW)
1	1.6
2	1.5
3	0 (on shore at OHW)
- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification Closed, Restricted

Site #2

- Annual maximum wind speed (km/hr) 96 Environment Canada
- Maximum wave height (m) .7 Planetcalc online calculator & observation
- Direction of maximum wave from the south
- Annual minimum tide (m) 0.37m Tide Forecast.com
- Annual maximum tide (m) 1.37m Tide Forecast.com
- Current speed range 0-22.2cm/s measured on site
- Current speed average 11.1 cm/s measured on site
- Annual minimum salinity (ppt) 4.0 Dr. Aaron Spares, 7.08 measured on site
- Annual maximum salinity (ppt) 32.8 Dr. Aaron Spares 26.8 measured on site
- Annual minimum temperature (C) -0.8 Dr. Aaron Spares
- Annual maximum temperature (C) 25.7 measured on site
- Depth of water each corner of site (m)

Point	Depth at low tide (m)
4	1.1
5	2.1
6	2.0
7	1.8
8	1.2
- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification Closed, Restricted

Site #3

- Annual maximum wind speed (km/hr) 96 Environment Canada
- Maximum wave height (m) .7 Planetcalc online calculator & observation
- Direction of maximum wave from the south
- Annual minimum tide (m) 0.37m Tide Forecast.com
- Annual maximum tide (m) 1.37m Tide Forecast.com
- Current speed range 0-20.6cm/s measured on site
- Current speed average 10.3 cm/s measured on site
- Annual minimum salinity (ppt) 4.0 Dr. Aaron Spares, 7.08 measured on site
- Annual maximum salinity (ppt) 32.8 Dr. Aaron Spares 26.8 measured on site
- Annual minimum temperature (C) -0.8 Dr. Aaron Spares
- Annual maximum temperature (C) 25.7 measured on site
- Depth of water each corner of site (m)

Point	Depth at low tide (m)
9	2.4
10	2.1
11	1.0
12	2.0
- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification Closed, Restricted

4.2 Baseline environmental monitoring

Not applicable... not a finfish operation.

4.3 Site design

The oceanographic and biophysical characteristics of the waters of the locations addressed in this application have been accounted for as follows;

a) Site location;

We have selected the proposed grow sites in part to take advantage of superior flow conditions. Flow rates through these two locations are far higher than other areas in the harbour because of close proximity to the harbour mouth. This high flow rate provides two important benefits – high feed supply and high flushing rate.

The report titled “Canadian Technical Report of Hydrography and Ocean Sciences No. 143” states on page 15 that Antigonish Harbour has a flushing time of 18.3 hr and a Tidal/Freshwater volume ratio of 28.96.

ANTIGONISH HARBOUR		Zone	4Tg	Chart 4462 Bay ID..CU
Area (CD)	11.4 km ²	Area (HW)		17.5 km ²
Perimeter	46.1 km	Volume (CD)		15.0 10 ⁶ m ³
Axis Length	11.8 km	Maximum Depth		8.2 m
Section Width	0.2 km	Section Area		233.3 m ²
Tidal Range		Tidal Volume		Tidal Current
Mean	Large	Mean tide		Mean Peak
1.00 m	1.60 m	14.5 10 ⁶ m ³		2.78 m/s 4.37 m/s
Flushing time		18.3 hr		
Tidal/Freshwater volume ratio		28.96		
Watershed Area		721.9 km ²		
Freshwater Discharge		m ³ /s (Standard Deviation)		
Jan	28.4 (51%)	May	27.9 (65%)	Sept 10.6 (78%)
Feb	21.8 (72%)	June	10.1 (73%)	Oct 17.9 (63%)
Mar	31.9 (44%)	July	7.0 (100%)	Nov 28.4 (52%)
Apr	44.1 (40%)	Aug	8.6 (118%)	Dec 32.2 (39%)

These factors indicate the harbour both flushes readily and has a significant input of fresh water from the three tributary rivers that drain the 721.9 km² watershed. The importance of this is to indicate that the feed supply produced in the three rivers and upper harbour is readily transported to the outer harbour where it will tend to pass through the proposed grow sites. Also, with a flushing time of less than a day, the harbour and the proposed sites in particular are not stagnant but rather very dynamic and will not be prone to excessive bio-deposition from farm operations.

A natural barrier of mud flats and mussel shoals separates the proposed grow sites from boat traffic in the harbour entrance channel. These shallows also protect the sites from occasional drift ice that may enter the harbour from St Georges bay.

These proposed sites are low energy areas with maximum wave heights of .7m, fetch of only about 2km and are protected from ocean surf by Dunn's and Mahoney's beaches. The proposed sites are not near private land that could be developed and are distant from views.

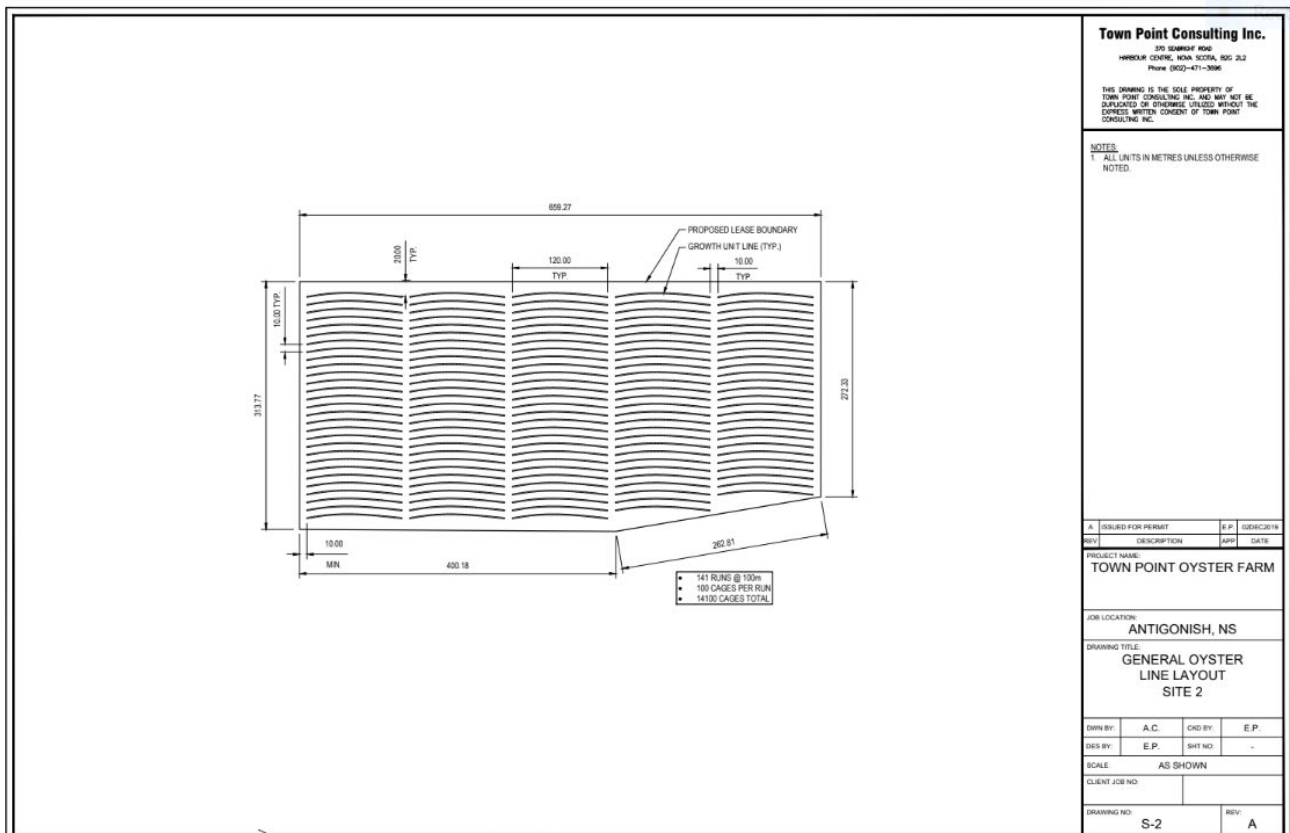
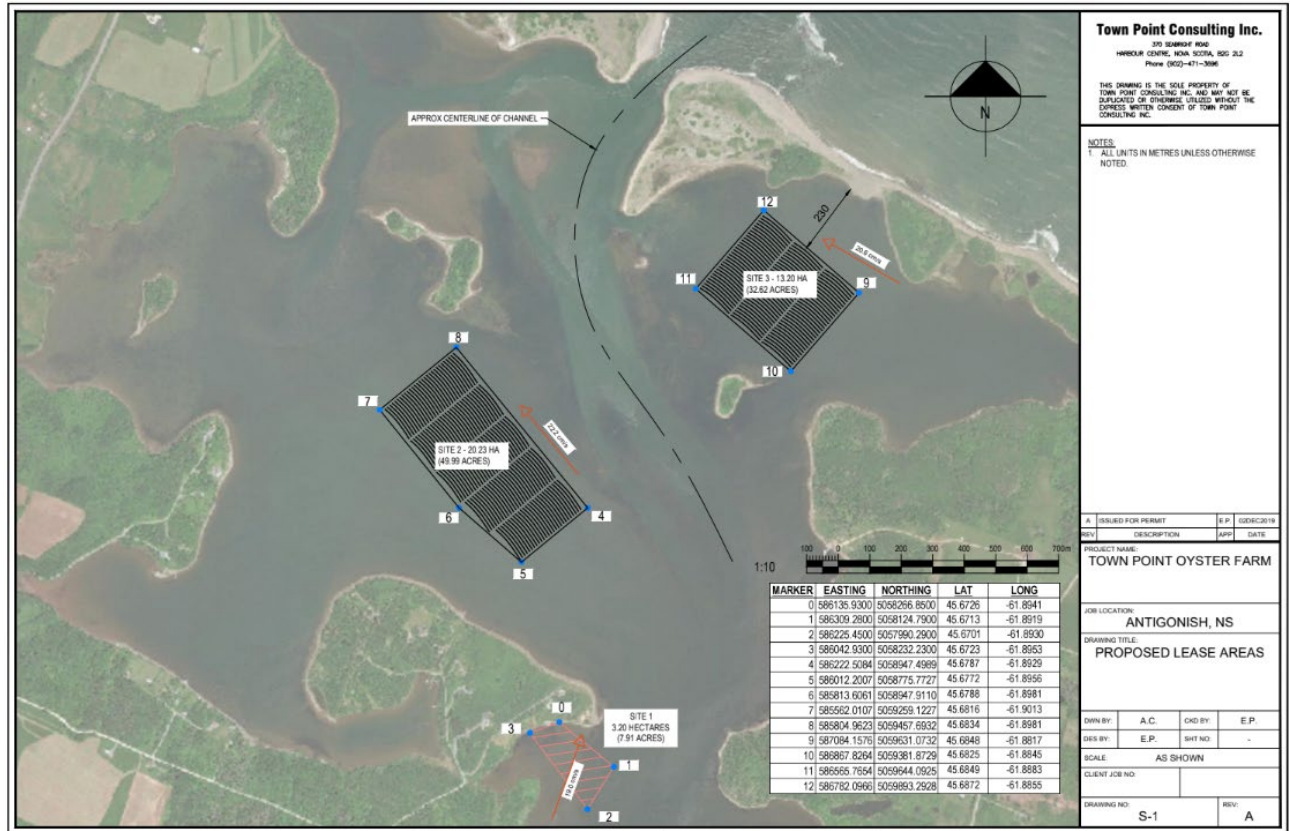
The grow sites occupy areas in the harbour last to freeze in winter. Consequently, ice thickness is minimal and certainly unsafe for travel. In order to allow safe access to marketable oysters during winter months we plan each fall to transfer a portion of the lines to Site #1 which is intended only for on bottom storage of both mature oysters and excess seed. Lines will be secured to the existing wharf and may be drawn in safely without risking workers on thin ice.

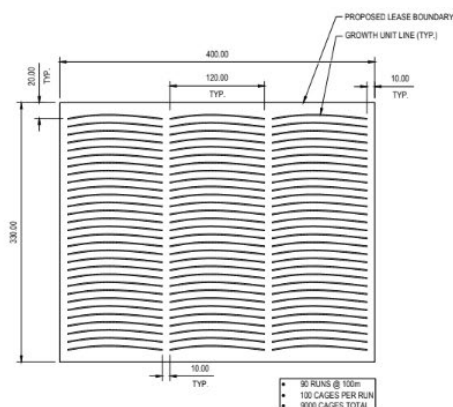
b) Site Design;

The sites will have parallel rows of BOBR growth units with the static lines running generally parallel to current flow direction. This means each growth unit will be perpendicular to the usual flow direction which ensures maximum flow through each BOBR and thereby maximum feed supply to the oysters within. See drawings below.

Our BOBR growth units are part of a system that includes a machine, Oyster-Matic, that performs many of the animal husbandry tasks. Sinking, Re-floating, de-fouling, tumble, sort and harvest are all done on the water using Oyster-Matic and its associated work platform. This system significantly improves farm efficiency and productivity. The machine requires space to engage the static lines holding the BOBR units. This space will be 15m at each end of each run of growth units. The 100m

remaining on each line will have BOBRs spaced at 1m. The moorings between runs will be 4m apart and lines spaced at 10m to permit boat passage between both lines and sections. Lines will be spaced 20m from parallel lease margins to ensure lines do not drift outside the lease boundary.

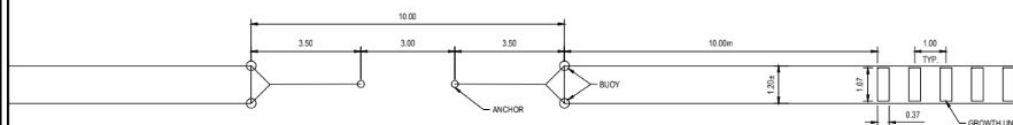




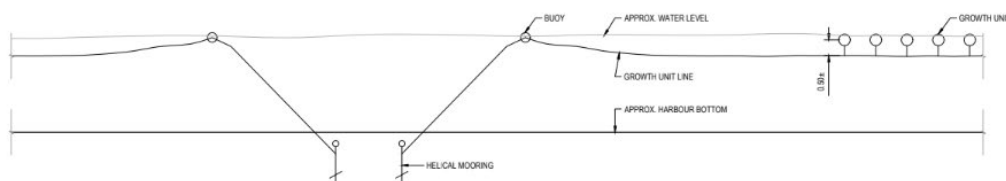
A	ISSUED FOR PERMIT	E.P.	GEORGE 2017
REV	DESCRIPTION	APPR	DATE
PROJECT NAME:			
TOWN POINT OYSTER FARM			
JOB LOCATION:			
ANTIGONISH, NS			
DRAWING TITLE:			
GENERAL OYSTER LINE LAYOUT SITE 3			
DRAWN BY:		C.D.B.Y.	
A.C.		E.P.	
DES BY:		SHT NO.	
E.P.		-	
SCALE			
AS SHOWN			
CLIENT JOB NO.			
DRAWING NO:			REV:
S-3			A



PLAN VIEW - TYPICAL GROWTH UNITS



PARTIAL PLAN - TYPICAL GROWTH UNITS



PARTIAL ELEVATION - TYPICAL GROWTH UNITS

Town Point Consulting Inc. 250 DUNDAS RD HAMILTON, ONTARIO, CANA L2M 3G5, TEL: 312 Phone (905)-471-3096			
THIS DRAWING IS THE SOLE PROPERTY OF TOWN POINT CONSULTING INC. AND MAY NOT BE DUPLICATED OR OTHERWISE UTILIZED WITHOUT THE EXPRESS WRITTEN CONSENT OF TOWN POINT CONSULTING INC.			
NOTES: 1. ALL UNITS IN METRES UNLESS OTHERWISE NOTED.			
A. ISSUED FOR PERMIT		E.P. DESIGNER	
REV.	DESCRIPTION	APP.	DATE
PROJECT NAME: TOWN POINT OYSTER FARM			
JOB LOCATION: ANTIGONISH, NS			
DRAWING TITLE: GROWTH UNIT LINE DETAILS			
DRAWN BY:	A.C.	CHKD BY:	E.P.
DESIGN BY:	E.P.	SHT NO.	-
SCALE: AS SHOWN			
CLIENT JOB NO.			
DRAWING NO.: S-4		REV.: A	

c) Production Plan;

We plan to develop the farm in thirds simply because we expect it will take three years for our product to mature from seed to market size. Each year for the first three years will see another phase of the farm installed and stocked with seed. In year four harvest will commence.

The stocking density of BOBR growth units for the various year classes will be as follows;

Year Class 1 (seed) 1000/BOBR

Year Class 2 500/BOBR

Year Class 3 250/BOBR

For an annual harvest of up to 2.5 million oysters using the above stocking density, the following are the farm development phases.

	Seed	2 nd Year Class	3 rd Year Class
Year 1	2500 BOBR on 25 lines	0	0
Year 2	0	5000 BOBR on 50 lines	0
Year 3	0	0	10,000 BOBR on 100 lines

We plan to also build the Land-Based nursery in year 1 to supply seed to the farm and sell any excess to other farms. Seed for the nursery will be collected from Antigonish Harbour and placed in the nursery under ideal conditions to enable fast and well shaped growth. We hope to be able to produce sufficient quantities of large seed (>25mm) to stock the farm each year that may reduce time on the grow site by one season. This is of course dependant on both the abundance of natural set and the effectiveness of the nursery.

d) Harvest method;

This is an off bottom suspended culture operation so harvest will be from the BOBR growth units. Our Oyster-Matic machine easily accommodates the harvest function without excessive manual labour. Market size oysters will be collected from the cages and brought to shore. Then they will either be transported to Merigomish Harbour for relay cleansing or placed into our farm support building for cleaning, grading, depuration, packaging and storage in the cooler.

During winter months we plan to harvest from lines of cages transported each fall to Site #1 where they will be stored on bottom. The lines will extend to the dock and may be drawn out safely through a bubbler opening in the ice adjacent to the dock.

SECTION 5: THE OTHER USERS OF THE PUBLIC WATERS SURROUNDING THE PROPOSED AQUACULTURAL OPERATION

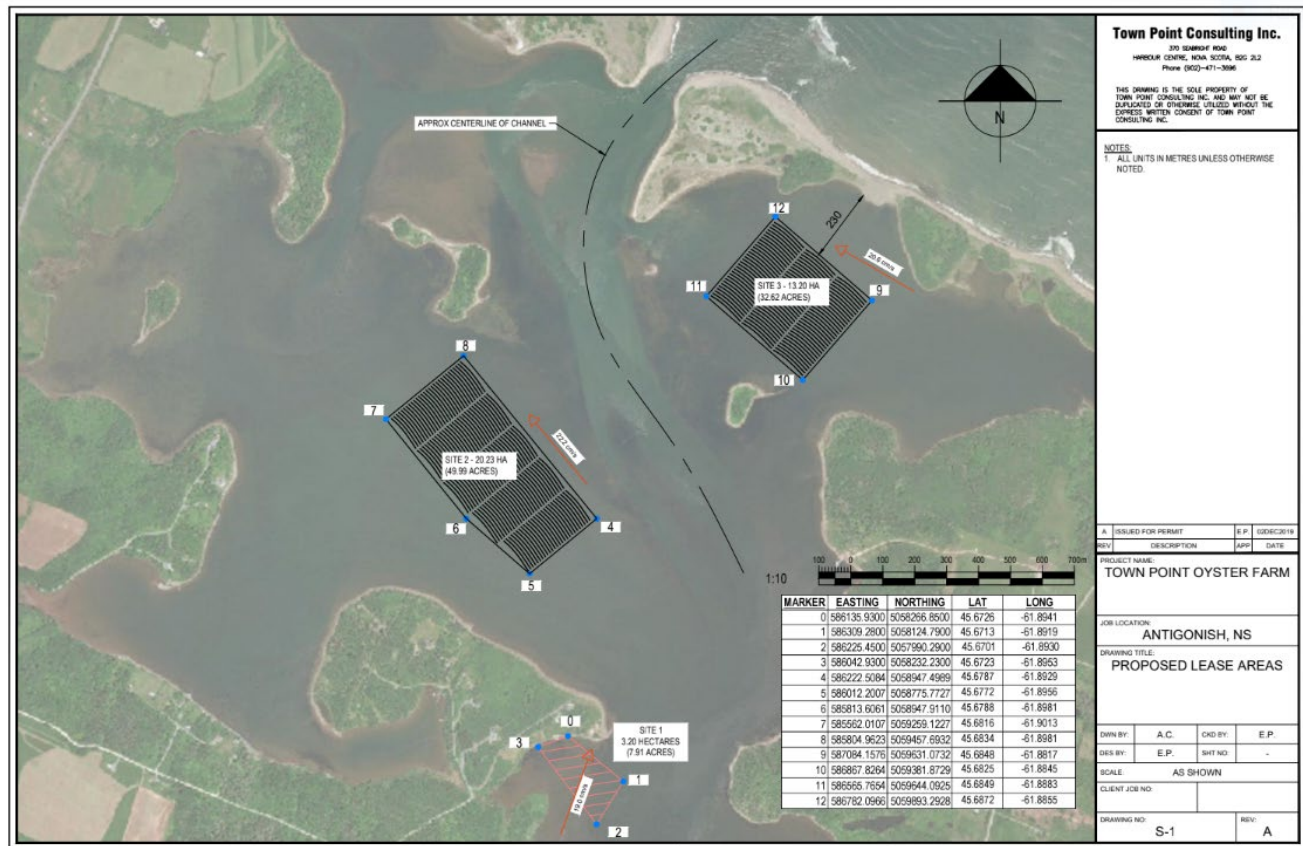
5.1 Description of other users

- **Adjacent property owners;**

The following map identifies the various adjacent properties and associated owners;



The selected lease sites are generally well separated from private property owners.



Site # 1 is immediately adjacent to our own property and does come within 100m of a neighbouring property. However, this land is undeveloped and the portion within 300m is very low, does not meet vertical setback from OHW provisions and is unlikely to be developed. This adjacent property owner, Peter Bowler, opposes our lease application. This owner does use the outer harbour occasionally by kayak but resides in Dallas and is at Town Point only for a few months during the summer each year. Other nearby property owners are the Anglican Church and Sean Day/Chris Galea. The church property contains a small historic cemetery but is otherwise undeveloped. The church representatives are supportive of the application. The Day/Galea property is undeveloped raw land and is currently for sale. Sean Day uses the harbour but from another location and is in support of our farm plan. None of these other users use Site #1 for their harbour activities.

Site #2 is more than 300m from the nearest properties and there are six properties within 500m of this site. The owners of these nearby properties will not be significantly impacted by the proposed operation. These properties are located on Town point. Of these, two of the owners, Rainer & Birgit Wunn and Susan Vincent & Marc Genuist support our application even though it is within their view and they do use the harbour for recreational boating. The Wunn's are infrequent users but Susan and Marc are avid kayakers and frequent users of the harbour. Two others May Goring, and Manfred Goring seem to be fairly neutral but have concerns related to possible noise, environmental impact and boat access. The two others, Bowler and Wilgenhof oppose the application based on use of the road, view impacts, and environmental concerns. Each do use the harbour infrequently as recreational boaters. We see little or no impact of the site on their enjoyment of the harbour. The sixth property within 500m is our own.

Site #3 is very secluded and has only two adjacent property owners – the Crown and the Brady Family Trust which is administered from Hilton Head, South Carolina. We wrote to this owner but received no reply, we assume they have no concerns regarding our proposed operation.

- **Pleasure craft and commercial boat traffic**

There are about 12 motorized and 6 sailing pleasure craft that are resident to Antigonish Harbour. There may be another 12 power boats that occasionally visit the harbour. The most common boaters are recreational fishers. While there may be infrequent passage within the proposed lease areas it is very rare and unusual. Most of the boating activity in the outer reaches of the harbour is comprised of recreational fishing in the channel and pleasure boaters transiting to & from St Georges Bay. Kayaking, canoeing and paddle boarding occurs a few times per week through July and August, much less in other months. This activity is more common on weekends than week days and usually is close to shore. One person fishes occasionally from a kayak but usually in the channel.

There are a few small sailboats that use the harbour, generally in the wider and deeper portions. One person does occasionally sail through area 2 as his boat is kept west of this site on the shore of Town Point.

Commercial boat traffic is limited to the four lobster fishers and one crab fisher. They do not fish within the harbour and do not transit through or near the proposed sites.

- **Anchorage and moorings;**

There are no anchorages or moorings within or near to the proposed lease areas.

- **Campgrounds;**

There are no campgrounds near the proposed lease areas.

- **Communities (including cottage communities);**

The communities surrounding the outer harbour are Harbour Centre, Town Point and Southside Harbour. These communities are rural, sparsely populated areas with predominantly undeveloped woodland mixed with farms, private residences and some cottages. There are about 14 homes with a partial view of the proposed farm within one km of the nearest portion of the farm.

- **Municipal, industrial and agricultural users which may be sources of effluent;**

The Antigonish Harbour watershed includes the tributary areas drained by the South River, West River and Wright's River. This watershed area encompasses the Town of Antigonish with a population of about 4,300, StFX university enrollment of about 5,200 and a portion of Antigonish County resident to about another 8,000 persons.

This watershed is largely undeveloped land interspersed with residential properties and farms. Dairy farms are common and make up most of the farming acreage. There is little industrial activity within the watershed and no heavy industrial activity.

The effluent sources are predominantly treated sewage from the town, output from private septic systems (most compliant and functional, some non-compliant and not functional) and runoff from farms. While there has been no known study of the cumulative effluent input there are obvious visual signs of excess effluent input following significant rainfall events.

- **Tourism or recreational operations;**

There are no known tourism or recreation operations presently using the harbour.

- **Private and government wharves;**

There are no private or government wharves within the lease areas other than our own. There are two private wharves in the outer harbour that serve the needs of the commercial fishers, but we see no impact on these facilities from the proposed farm.

- **First Nations territories/reserves;**

There is a First Nations community about seven kilometers east of the site with land adjacent Pomquet Harbour where they have an experimental oyster aquaculture lease. During brief conversations with their representatives regarding our application no objections were raised. There was mention of a pre-confederation oyster lease they hold for an oyster bar in Antigonish Harbour. This site is about one kilometer south of proposed lease area 1.

- **Any known or suspected pre-contact or historic archaeological resources;**

We know of no such resources within the proposed lease areas.

- **Important habitats and conservation areas;**

Our original plan of two grow sites was modified to reduce the size of the area adjacent to Dunn's Beach and move its northern boundary southward due to NSDNR interest in protecting habitat for piping plovers that may nest on the St. George's Bay side of Dunn's Beach.

We have invited to site Dr. Tony Miller long time biology researcher active on Antigonish Harbour for decades to learn first hand his thoughts regarding the suitability of the proposed sites from a conservation perspective. Unfortunately, he was unable to make time for the visit but provided his thoughts as follows;



Tony Miller

Oct 7, 2019, 9:25 PM (13 days ago)

to me

Hello Ernie

I have been working out my schedule for the next couple of weeks. I have no days in the week in which I can insert blocks of 2-3 hours of "other" time. And, really you have already presented your project very well! As I said last week, I would have liked it if NS "dfo" (or whatever they are called now) had used one of the two public meeting to present their ideas and motives about aquaculture. I do hope they will pay more attention to the public and tell what they are about, especially when big fin-fish culture is being considered.

So, I am glad you are getting things almost finished after all the work you have done and can see no reason reason why your project should not go ahead as you have described it.

Regards

Tony

We met with Matt Parker, Director of Parks and Protected Areas and Carrie Drake, Senior Planner with NSDNR to discuss possible use of the proposed Gooseberry Island Site (Site #3). They were open minded and provided helpful suggestions to explore. We then discussed this issue with the following authorities – Randy Lauff, Ornithologist at StFX, Laura Bartlett with Bird Studies Canada, Clarence Stevens, Ornithological Consultant, Simon Burbridge with Ecology Action Centre, and Chris Kennedy, Biologist with Dillon Consulting. All agreed that it is important to protect plover habitat, that plovers likely use Dunn's Beach and that an operation such as is proposed could function in harmony with the objectives of the protection afforded Dunn's Beach given a suitable buffer zone.

The following review conducted by Dillon Consulting confirms that the proposed buffer of 230m is reasonable and adequate to ensure the proposed operation is sufficiently distant from plover habitat to ensure it will not result in a negative impact.

TOWN POINT CONSULTING INC.

Piping Plovers and Marine Shellfish Aquaculture

An assessment of potential impacts to nesting Piping Plovers as a result of a proposed marine shellfish aquaculture lease site in Antigonish Harbour, Nova Scotia.

137 Chain Lake Drive
Suite 100
Halifax, Nova Scotia
Canada
B3S 1B3
Telephone
902.450.4000
Fax
902.450.2008

**Dillon Consulting
Limited**

January 16, 2020

Town Point Consulting Inc.

370 Seabright Road

Antigonish, Nova Scotia

B2G 2L2

Attention: Mr. Ernie Porter

President, Town Point Consulting Inc.

Assessment of Potential Impacts to Nesting Piping Plovers as a Result of a Proposed Marine Shellfish Aquaculture Lease Site in Antigonish Harbour, Nova Scotia.

Based on discussions held in December 2019, Dillon Consulting Limited (Dillon) was retained by Town Point Consulting Incorporated (Town Point Inc.) on January 3, 2020 to prepare and deliver an assessment of potential impacts to piping plover (*Charadrius melodus melodus*) as a result of oyster aquaculture operations proposed by Town Point Inc. The following is a technical report detailing the findings of that assessment.

Sincerely,

DILLON CONSULTING LIMITED

Christopher J. Kennedy, M.Sc.

Biologist

CJK:jes

Our file: 20-2069-1000

1. Introduction

Town Point Consulting Inc. (TPC) proposes to construct and operate a marine shellfish aquaculture operation on three potential lease areas near the mouth of the Antigonish Harbour. One proposed lease area (Site 3) falls within the protected beach area of Dunn's and Monks Head, whose boundaries extend into open water (see Figure 1), and is protected pursuant the *Beaches Act* (R.S. 1989, c. 32, s.1.).

Dunn's Beach is also designated as critical habitat for the Piping Plover (*Charadrius melodus melodus*) (EC 2012), which is listed as 'Endangered' both provincially pursuant the *Nova Scotia Endangered Species Act* (S.N.S. 1998, c. 11) and federally pursuant the *Species at Risk Act* (S.C. 2002, c. 2). However, unlike the protected beach area mentioned above, the critical habitat for the Piping Plover is limited to the portion of Dunn's Beach suitable for nesting, feeding and cover which includes the terrestrial area of beach from the low water mark to the upper beach and dune crest (EC 2012). That said, there have been no observations of Piping Plover at Dunn's Beach reported to eBird (2020) for the past 10 years (see Figure 2). eBird is collaborative database, with over 100 million bird sightings contributed annually and represents the world's largest citizen science project.

The following technical report will present an assessment of possible impacts that could result from the proposed marine shellfish aquaculture operation to Piping Plovers that may use the protected beach area of Dunn's and Monks Head to breed and raise their young. Additionally, similar nearby marine shellfish aquaculture operations are examined to provide context for the current proposed works. Lastly, current and possible future activities, including the proposed shellfish aquaculture operation, that occur on or around Dunn's and Monks Head Beach are discussed in terms of threats to breeding Piping Plovers and compliance with the *Beaches Act*.

2. Known Threats and Limiting Factors to Piping Plover Recovery with Respect to Marine Shellfish Aquaculture

Current estimates suggest that hatching success for Piping Plover pairs in eastern Canada is less than 55% and that predation, along with habitat loss and degradation, are the primary factors limiting Piping Plover populations across their North American breeding range (EC 2012).

There are many predators of Piping Plover adults, chicks, and eggs, including avian predators such as the American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*) and many species of gull (*Larus* spp.), as well as mammalian predators including Raccoon (*Procyon lotor*), Red Fox (*Vulpes vulpes*), American Mink (*Neovison vison*), domestic dogs, and even feral cats. Anthropogenic activities and associated land use practices can result in artificially high predator populations and that these predators may opportunistically prey on adult Piping Plovers, chicks, or eggs. However, the species most commonly associated with congregating at marine shellfish aquaculture facilities in eastern Canada is

the double-crested cormorant (*Phalacrocorax auritus*) (Comeau et al. 2009), a piscivorous bird not considered to be a predator of Piping Plovers.

Piping Plover habitat loss and degradation are primarily related to direct human disturbance and coastal development, but also natural processes such as sea-level rise, coastal erosion, vegetation encroachment, etc. According to Environment Canada (2012), any anthropogenic activity which alters or disturbs critical habitat is likely to result in the destruction of that critical habitat. EC identifies a number of activities likely to result in the destruction of critical habitat:

- Off-road, all-terrain, or motorized vehicle use;
- Coastal development occurring in plover habitat or in other habitats closely associated with plover habitat, including the construction of cottages, homes, or tourist accommodations, boardwalks, and trails;

- Beach nourishment;
- Beach stabilization;
- Sand mining and extraction;
- Beach cleaning or raking activities that remove elements of natural habitat; and
- Deliberate or accidental discharge of oil and toxic chemicals.

Many recreational activities can also result in disturbance to Piping Plovers which can cause changes in normal nesting or feeding behaviour and may lead to lowered hatching success rates. These human related disturbance factors generally include all recreational uses of a beach, such as pedestrian traffic; unleashed pets; camping and campfires; sunbathing; collection of driftwood, shells or wrack; horseback riding; fishing; kite flying; and motorized vehicle traffic on the beach (EC 2012).

While an operational marine shellfish aquaculture lease may be considered “coastal development...in habitats closely associated with plover habitat”, it should be noted that unlike the examples given by Environment Canada (2012), a marine shellfish aquaculture lease has no terrestrial footprint and therefore cannot overlap with critical habitat for Piping Plover, which by definition is terrestrial (EC 2012). Although no direct destruction of Piping Plover habitat will occur as a result of the proposed project, it is important to assess whether or not the operations of an active marine shellfish aquaculture operation will result in disturbance to nesting Piping Plovers on Dunn’s and Monks Head Beach?

3. Environment and Climate Change Canada (ECCC) Guidance, Setback Distances and Buffer Zones for Piping Plover

Environment and Climate Change Canada (ECCC) offers guidance on establishing buffer zones and setback distances for migratory bird nests, including the Piping Plover, which are intended to ensure the successful fledging of young birds from the nest. According to ECCC (2019), buffer zones are determined by a setback distance which can vary according to the:

3

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture
January 2020

- i) degree of tolerance of the species;
- ii) previous exposure of birds to disturbance;
- iii) level of disturbance; and
- iv) landscape context.

Appropriate ‘setback distances’ are determined on a case-by-case basis based on the distance at which nesting birds react to human disturbance (flight initiation distance or FID) along with expert opinion. A higher minimum ‘setback distance’ is often required for natural habitats (compared to urban areas), most waterfowl nests (as compared to songbirds) and the presence of a sensitive species or species at risk (ECCC 2019).

With respect to the ‘degree of tolerance’ of Piping Plovers and ‘previous exposure of birds to disturbance’, it should be noted that Piping Plovers regularly nest in areas impacted by human activities, such as recreational (beach use) or industrial settings (aggregate mining) and that recent research (Jorgensen et al. 2016) suggests that Piping Plovers do appear capable of becoming habituated to stimuli associated with human activity over time.

Along the Atlantic Coast of the United States, the U.S. Fish and Wildlife Service (USFWS 1994; 1996) recommends 50 m diameter buffer zones be placed around active Piping Plover nests, but also suggests the buffer zone should be increased when 50 m is found to be inadequate. This recommended 50 m buffer zone was based on studies in which Piping Plover ‘Flight Initiation Distance’ (FID) in response to human disturbances were quite variable, ranging from less than 5 m to 210 m (Flemming et al. 1990, Cross 1990, Loegering 1992, Hoopes 1993, Cross and Terwilliger 1993, all cited in USFWS 1994) depending on the context of the interaction. This variability in FID exhibited by Piping Plover in these different studies suggests a number of variables affect these birds’ responses to human activity (Jorgensen et al. 2016).

It has been demonstrated that nesting Piping Plovers respond differently to different types of stimuli, flushing more readily to passing pedestrians and dogs than to motorized vehicles (Jorgensen et al. 2016;

McLeod et al., 2013). In a recent study using a 100 m buffer zone, nesting Piping Plovers flushed most readily to off-leash dog(s) (75% of the time) or a human(s) with a dog (70%) compared to only human pedestrian(s) (35%) and motorized vehicles (5.9%) (Jorgensen et al. 2016). Return times to the nest by flushed plovers was also greatest for off-leash dog(s) and a human(s) with a dog compared to only human pedestrian(s), and lowest for passing motorized vehicles.

In Canada, the only published literature available on recommended Piping Plover setback distances comes from the Alberta Ministry of Environment and Parks (AMEP 2011) and Environment Canada (EC 2009) and are primarily intended for use by the petroleum industry in the Prairie and Northern regions of Canada. In apparent recognition of the variability in response distances exhibited by Piping Plovers in previous studies, both documents recommend a range of setback distances for Piping Plover depending

4

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

on time of year and level of anticipated disturbance. Both documents recommend a lower limit setback distance of 50 m for 'low impact' activities, such as surveying, monitoring, or vehicular drive-by.

However, for 'high impact' activities, such as pipeline construction, operating oil or gas wells or pump stations, the AMEP 2011 document recommends an upper limit setback distance of 200 m, while the EC 2009 document recommends an upper limit of 250 m.

If we assume that the 'level of disturbance' caused by the routine operations of a marine shellfish aquaculture operation is similar to 'high impact' activities of the petroleum industry, than by the most stringent guideline available in Canada (EC 2009) an appropriate setback from Piping Plover critical habitat would be 250 m.

The proposed lease site (Site 3) is setback approximately 230 m from its nearest point to Dunn's Beach. However, as the routine operation of a marine shellfish aquaculture site would most appropriately be classified as having a lower overall impact than that of 'high impact' activities of the petroleum industry, the current setback of ~230 m is very likely to be sufficient to prevent the disturbance of any nesting Piping Plovers that may breed on Dunn's Beach.

Given that recent research indicates that nesting Piping Plovers respond to and are more readily disturbed from their nest by off-leash pets and humans' on-foot, than they are by passing terrestrial motorized vehicles, the disturbance impact to nesting Piping Plovers resulting from the routine operations of a neighbouring 'on-water' shellfish aquaculture lease are likely to be negligible.

4. Reference Marine Shellfish Aquaculture Sites in Nova Scotia

There are currently a number of marine shellfish aquaculture sites in operation (NSDFA 2019) that are located immediately adjacent Provincial Parks or other important ecological areas in Nova Scotia, including critical habitat for Piping Plover. While Provincial Parks and Protected Beaches are not the same, they do share some important similarities with respect to their stated purpose. The Acts governing both Provincial Parks (*Provincial Parks Act* R.S., 1989, c. 367, s. 1.) and Protected Beaches (*Beaches Act*) broadly state their purpose is to provide opportunities for outdoor recreation and to preserve significant and sensitive elements of the natural environment of Nova Scotia. In fact, Dunn's Beach (see Figure 3) is currently listed as a site for designation as a Provincial Park by the Province of Nova Scotia (NS 2013), however, the designation has not yet been made official.

Listed below are examples of marine shellfish aquaculture operations currently co-existing with neighbouring Provincial Parks and other important ecological areas in Nova Scotia:

i) Melmerby Beach Provincial Park

a. Commercial Marine Shellfish Licence No.: #0177, #1224 and #1112

b. Size of leased area: ~83.35 hectares

c. Species: American Oyster, Bay Quahaug, Surf Clam and Bay Scallop

d. Significant Habitat for Piping Plover?: Yes

5

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

- ii) Powell's Point Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1350
 - b. Size of leased area: ~17.33 hectares
 - c. Species: American Oyster and Bay Quahaug
 - d. Significant Habitat for Piping Plover?: No
- iii) Caribou-Munroes Island Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~12.77 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No
- iv) Waterside Beach Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~17.26 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: Yes
- v) Wallace Bay National Wildlife Area
 - a. Commercial Marine Shellfish Licence No.: #0331
 - b. Size of leased area: ~2.17 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No

Although not within Nova Scotia, another comparable shellfish aquaculture arrangement occurs in a neighbouring jurisdiction, within the Darnley Basin of Malpeque Bay, Prince Edward Island. The Darnley Basin is approximately 536.3 hectares and is occupied by 39 marine shellfish aquaculture leases totalling approximately 229.0 hectares, or about 42.7% of the total area of the basin (see Figure 4). Similar to the mouth of the Antigonish Harbour, the mouth of Darnley Basin is protected by sandspits, one of which forms part of Cabot Beach Provincial Park. Both sandspits are known to be breeding beaches for Piping Plover (see Figure 5). Similar to Antigonish Harbour, there is a commercial fishing wharf within the Darnley Basin that supports lobster boats, among other vessels, that must traverse the narrow channel alongside the sandspit beaches daily. Despite the density of aquaculture-related activities within the basin and the numerous passing fishing vessels, Piping Plovers continue to show site fidelity and a pair of Piping Plovers were recorded to have successfully hatched three young at these beaches in 2019 (Kelly 2019).

6

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Piping Plovers and Marine Shellfish Aquaculture

January 2020

5. Proposed Shellfish Aquaculture Lease Area and Site-specific Context

There currently exists a commercial fishing wharf within the boundaries of the Protected Beach Area of Dunn's and Monks Head located at the northern end of Southside Harbour Road, immediately northwest from the mouth to Captain's Pond (see Figure 1). Vessels from this wharf must currently pass the proposed location of the proposed 'Site 3' lease area and navigate the channel into St. George's Bay. These vessels are predominantly powered by inboard or outboard motors (hundreds of horsepower (HP)) and the noise generated by their passing would be considerable. In contrast, the vessels proposed for the routine operations of the marine shellfish aquaculture lease would be powered by a 12 HP inboard motor with an additional muffling device installed to further mitigate any noise generated. Since the boundaries of the protected beach area extend between 800 and 1,700 m into St. George's Bay, it is probable that lobster pots are deployed and retrieved regularly within this protected area. This suggests that the noise disturbance caused by passing lobster vessels would not be limited to their departure and return to the harbour, but would be more persistent throughout the day. This is also in contrast to the proposed 'Site 3' aquaculture lease area, which is proposed to be located ~230 m behind the dune crest of Dunn's Beach.

Although lobster fishing occurs in near-shore coastal waters across much of the Maritime Provinces, there has been no suggestion or research that implicates passing lobster vessels with disturbing nesting

Piping Plovers. Therefore, it would seem highly unlikely that the operation of a slower, quieter vessel behind the dune crest of Dunn's Beach would be considered a significant disturbance to nesting Piping Plovers.

6. Conclusions

Based on the research and associated assessment presented in this report, Dillon has concluded that the operation of a marine shellfish aquaculture lease in proximity to critical habitat for Piping Plover, located on Dunn's Beach, is highly unlikely to cause destruction of that habitat or cause a significant disturbance to any Piping Plovers that may breed at Dunn's Beach in the future. Furthermore, since there are many marine shellfish aquaculture leases currently in operation in proximity to Provincial Parks and other important ecological sites in Nova Scotia, the proposed lease site (Site 3) within the boundaries of the Protected Beach Area of Dunn's and Monks Head does not appear to be in conflict with the *Beaches Act*.

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

Figure 1. Overview of the Protected Beach Area and the Proposed Site 3 Lease Area

~1,750 m ~1,000 m

~230 m

Commercial Wharf

*All locations are approximate

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

Figure 2. Observations of Piping Plover, as reported to eBird, in the Vicinity of the Protected Beach Area of Dunn's and Monks Head over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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Piping Plovers and Marine Shellfish Aquaculture

January 2020

Figure 3. Overview of Dunn's Beach Indicating the Area in Consideration for Development as a Provincial Park

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January 2020

Figure 4. Overview of the Darnley Basin, Malpeque, PEI, Illustrating the Density of Marine Shellfish Aquaculture Operations

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January 2020

Figure 5. Observations of Piping Plover, as Reported to eBird, in the Vicinity of the Darnley Basin Over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

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Town Point Consulting Inc.

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January 2020

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- **Other known potential projects (confirmed or proposed) and activities;**

We are unaware of any other potential projects or activities within or near the proposed lease areas.

- **Other users who are relevant to the proposed development area, if applicable.**

We know of no other users relevant to the proposed development area not mentioned above.

5.2 Significance of proposed area to wildlife

Near Site #1 there are occasional cormorants and the usual shore birds, deer cross the harbour from the point and in winter if ice conditions are suitable harbour seals rest on the sandy point just east of this site.

On Site #2 ducks and geese are common in the fall and spring. By our observation the geese prefer the shallows east and north of the site #2 where water depths permit them to forage. Ducks are more likely to move about and are seen throughout the harbour. Merganser ducks are common in winter months throughout the outer harbour where open water is more prevalent.

As mentioned earlier, Dunn's Beach as well as Mahoney's Beach and Pomquet Beach are suitable habitat for Piping Plovers, an endangered species. NSDNR are responsible to provide and enforce protection for this species in efforts to enable a recovery in population. We have met with NSDNR personnel who manage this responsibility to better understand how our proposed operation could exist in harmony with this protection requirement. Subsequent to this meeting we reduced the footprint of the lease area #3 and moved the north boundary about 230m south away from the beach.

There are occasional seals in fall and winter.

Antigonish Harbour is a very vibrant ecosystem home to many species of seabirds, shore birds and migratory birds. It is the migratory route to the West and South rivers used for spawning by Salmon, Sea Trout and Brown Trout. These fish are abundant in the spring then Sea Bass later in the summer. The massive stock of small fish like Silver Sides and Momma Chump are surely sought by the larger fish species.

There is a small resident colony of Cormorants that roost on rocks on the east side of the harbour. Eagles, Osprey and Hawks are common. Large flocks of Merganser ducks occupy open water off our shore and near the harbour mouth in winter months. There are Terns, Sand Pipers and Piping Plovers that nest and forage along the uninhabited beaches on either side of the harbour entrance.

Along the shore abutting our property Gulls, Sand Pipers and Eagles are often seen resting and foraging and Humming Birds are abundant in summer. They all seem unconcerned about activities on our property.

It seems likely the salmon and trout migration will also be unaffected. The channel is along the east side of the harbour and judging by the usual location of those fishing these species that's where they believe the fish travel.

5.3 Impacts to other users including wildlife

We and many others believe the selection and location of the proposed lease sites is as inconspicuous, isolated, and distant from other users as would be possible in Antigonish Harbour. Kingsley Brown's words below capture this sentiment.

"I surveyed these areas from the air yesterday, and would have a hard time finding other harbour locations as inconspicuous to publics, as unvisited for recreation, as removed from navigation, commercial and recreational, as far from our Southside properties as the two Ernie has chosen. They meet my standards of scale and proportionality until shown otherwise."

However, there are a few who disagree. During our 135 door-to-door and boat-to-boat public engagement sessions the following concerns were raised;

- Four area residents objected to having the farm within their view.
- Three area residents were concerned about property values
- Seven area residents are concerned about traffic on Seabright Road
- One family is concerned about activity on our property

These four concerns were expressed only by residents living along Seabright Road. None of these concerns relate to the use of the public waters and while we have offered mitigating solutions to these concerns, they fall outside the scope of the factors used to determine the suitability of this application.

Please review the 150 public engagement response forms in Appendix A to gain a sense for the overwhelming support (87% support) the community has expressed in favor of this application. Also contained within these responses are some concerns that do warrant consideration within the framework of this lease application as follows;

Concern	Times raised
• Restriction to recreational boat traffic.	4
• Location of farm support building, possible noise, odour	6
• Loss of gear in storms	1
• Effect on eelgrass	3
• Effect on birds	0
• Effect on fish	0
• Sale of the business	1
• Scale of the farm	1
• Effect of de-fouling process	1
• Noise from farm	3
• Effect on property values	2
• Odour	1
• General environmental concerns	6

1) Restriction to recreational boat traffic;

The three proposed lease sites are not within normal boating areas. On occasion a boat has been seen within these areas, but it is unusual, certainly less than once per week on average. When this issue arose, we decided to modify the grow sites to permit navigation around them rather than have the areas go to shore.

2) Location of farm support building possible noise, odour;

This issue is outside the parameters used to adjudicate a lease application, but we have addressed it anyway. Five of twelve neighbours with property along Seabright Road have expressed concerns regarding the location of this farm support building. The principle worry is additional traffic on the road and for our closest neighbours, concern about possible noise and odour. One resident of South Side Harbour expressed a concern about this building being within his view...from 1/2km away.

We have visited similar facilities on five other farms and found them to be quiet, clean and not odorous. We have explained this repeatedly but without much acceptance. Regarding the traffic issue, we have explained that it is not our intention to operate a retail business so traffic by the public will be minimal. Furthermore, Seabright Road is a public road from Highway 337 to our property.

We committed to determining if there are suitable alternate locations for this facility and it seems at present there are a few that could work. We will not be ready to make a final decision until year three of farm operation. In the meantime, we will use the existing building on our property.

3) Loss of gear in storms;

One of the key features we designed into our BOBR growth units is ease of sinking, so storm avoidance will be more efficiently achieved. The existing gear common on suspended culture farms is very labour intensive and costly to sink and re-float. This existing gear also presents a much larger exposure to wind and waves than BOBR so it may be more vulnerable to storm damage than BOBR.

The site we have selected have low exposure with a fetch of about 2km and good shelter from the north and east so storm impact should be less than in more exposed locations. No pounding surf can access the sites and storm surge will not be a concern as the BOBR units if not sunk will float only to the elevation permitted by the static lines to which they are attached.

4) Effect on eelgrass;

This concern was raised early in our scoping phase, so we have had ample time to study the issue. We sought scientific opinion regarding the prevalence of eelgrass on the three proposed sites and what potential impact our proposed farm may have on this eelgrass. Site visits by Dr. Jeffrey Barrell and Dr. Isabelle Trembley have provided a good understanding of the likely interaction between the proposed farm operation and existing conditions relating to eelgrass. The consensus is that eelgrass on the proposed sites does not constitute a meadow and is generally sparse in density. The likely impact is some reduction in density within the lease sites due to shading which will be compensated for by greater growth rates beyond the lease boundaries due to greater light transmission. The net effect is expected to be positive.

Dr Barrell conducted a drone and sonar survey of the sites and has told us the results did not change his original opinion that the sites are suitable for the proposed operation and that the expected impact on eelgrass will be beneficial within the estuary.

5) Effect on birds;

This possible concern was not raised during our door-to-door public engagement meetings but is still worthy of consideration. We asked Dr. Tony Miller, a resident authority on birds in Antigonish harbour, to visit the site in order to gain more insight into this issue. Unfortunately, he was unable to make time for the site visit but mentioned he felt there was no reason our plan should not proceed.

We also met with NSDNR officials regarding possible impact on the protection area around Dunn's Beach they regulate. We modified the proposed lease area #3 in response to their feedback to provide a substantial setback and the Dillon report supports the claim that this buffer is appropriate and sufficient to ensure no negative impact on Piping Plover habitat or behavior.

6) Effect on fish;

Through researching scholarly papers on the subject, we could find no indication suspended oyster aquaculture operations have a negative impact on native or migratory fish. We discussed the matter with Dr. Aaron Spares who conducted his doctoral thesis research on migratory trout in Antigonish Harbour. It is his opinion no negative impact would result but there may be a positive influence on juvenile fish through safe refuge opportunity within the growth units.

7) Sale of business;

This is not an issue to be considered in the assessment of this lease application. Members of FOAH have asked repeatedly for us to commit to what they call a "Class B" lease which they claim would be non-transferable. We have not agreed to this concession but have asked NSDFA whether this is even an option available in this situation. The response was no, NSDFA would not consider such a condition on a shellfish aquaculture lease.

8) Scale of farm;

A few individuals have expressed concern related to the scale of the proposed farm. We feel the scale we propose is not unreasonable as it would occupy only 2% of the harbour and the proposed lease areas are well situated to be away from other users. Research of the relevant science indicates such an operation occupying less than 10% of an estuary will not pose negative threat to the ecosystem. Also, scientists from

StFX unassociated with our application but familiar with the harbour have publicly supported this same belief.

Furthermore, throughout the scoping phase we have repeatedly reduced the proposed lease area size and adjusted site locations in response to concerns raised related to navigation, beach access, wild oyster harvest and buffer from Piping Plover.

9) Effect of de-fouling process;

One person expressed concern related to the de-fouling process we have described during our public engagement meetings. There are two de-fouling techniques common in the industry, desiccation by air drying and heat treatment by heated water dip. We plan to use the latter for several reasons but mainly to gain productivity and efficiency. Our innovation regarding this technique is to make it mobile and thereby done on the farm not on shore.

This process involves dipping BOBR growth units on a bi-weekly basis in heated seawater at 60-70C for 10-15 seconds rather than flipping cages for two days. The dip tank holds about 70 gallons which would be returned to the harbour about twice per day when de-fouling is occurring. We have sought scientific opinion regarding the effect this may have on the environment which indicates little or no effect because of the low volume and low frequency. To further minimize risk of harm we are willing to temper the heated water with unheated seawater prior to release.

10) Noise from the farm;

Five area residents have expressed concern regarding potential noise from farm operations. We have explained no homes are within about ½ km and the service boats we plan to use are designed to minimize noise. The onboard power systems are contained in enclosed cabinets to control sound, the mechanical components are hydraulic not gear or chain driven, and the outboard engine will be generally off or at idle. The service boats will not be perfectly silent, but they will be less noisy than the resident lobster boats, area farms, the limestone quarry on the shore at Southside Harbour and trucks on area roads.

5.3 Impacts by other users including wildlife

We expect and are willing to accommodate occasional transit through the lease sites by boaters in kayaks, canoes and paddle boards. Two area residents who are avid kayakers and often use the harbour for this activity have pointed out the benefit of shelter from waves when paddling by or through farms such as the one proposed. We anticipate no other impacts on the farm by other human users.

Many suspended oyster culture farms are impacted by birds and seals, but we have confidence our farm will not have this experience. Our BOBR growth units are designed to mitigate the negative impact of seabirds and seals that can plague existing gear in common use within Atlantic Canada and beyond.

BOBR is far less attractive to seabirds, particularly cormorants, because it is unstable and has near neutral buoyancy. Unlike existing gear, seals will not be attracted to BOBR as a resting place. We have had BOBR growth units in operation on Shandaph Oyster Farm in Merigomish Harbour since August 2019 with no observed cases of birds or seals on the cages.

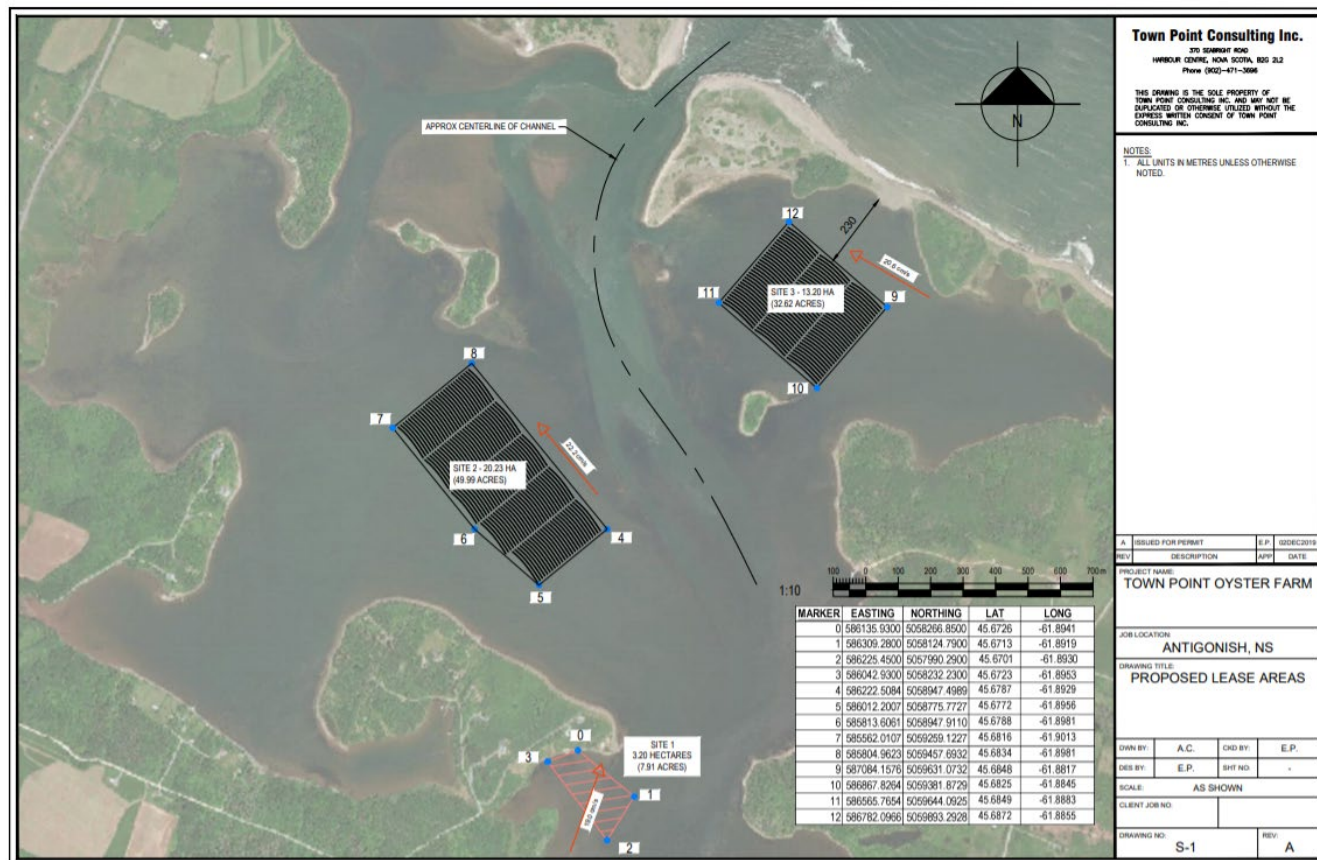
SECTION 6: THE PUBLIC RIGHT OF NAVIGATION

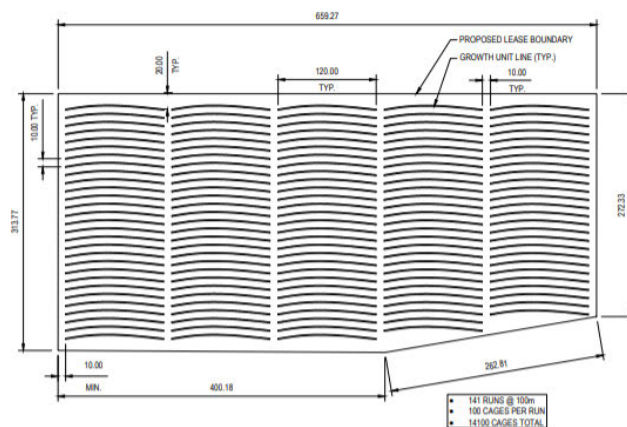
6.1 Navigation Protection Act (NPA) approval

The following four drawings will provide the following;

(larger versions of these drawings are available in Appendix B)

- Location map indicating exact location of the proposed work
- Site description in latitude and longitude
- Plan view drawing complete with relevant dimensions
- Profile view drawing complete with relevant dimensions




Town Point Consulting Inc.

370 SEAWORTH ROAD
HARBOR CENTRE, NOVA SCOTIA, B20 2L2
Phone (902)-471-3066

THIS DRAWING IS THE SOLE PROPERTY OF TOWN POINT CONSULTING INC. AND MAY NOT BE DUPLICATED OR OTHERWISE UTILIZED WITHOUT THE EXPRESS WRITTEN CONSENT OF TOWN POINT CONSULTING INC.

NOTES

1. ALL UNITS IN METRES UNLESS OTHERWISE NOTED.

A. ISSUED FOR PERMIT E.P. 00DEC2019

REV. DESCRIPTION APP. DATE

PROJECT NAME:
TOWN POINT OYSTER FARM

JOB LOCATION:

ANTIGONISH, NS

DRAWING TITLE:

GENERAL OYSTER
LINE LAYOUT
SITE 2

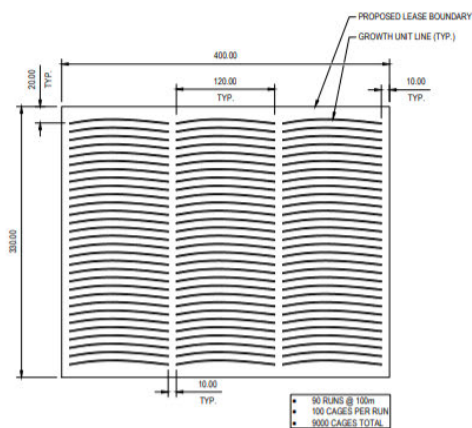
DWN BY: A.C. CHD BY: E.P.

DES BY: E.P. SHT NO. -

SCALE: AS SHOWN

CLIENT JOB NO.

DRAWING NO. S-2 REV. A


Town Point Consulting Inc.

370 SEAWORTH ROAD
HARBOR CENTRE, NOVA SCOTIA, B20 2L2
Phone (902)-471-3066

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NOTES

1. ALL UNITS IN METRES UNLESS OTHERWISE NOTED.

A. ISSUED FOR PERMIT E.P. 00DEC2019

REV. DESCRIPTION APP. DATE

PROJECT NAME:
TOWN POINT OYSTER FARM

JOB LOCATION:

ANTIGONISH, NS

DRAWING TITLE:

GENERAL OYSTER
LINE LAYOUT
SITE 3

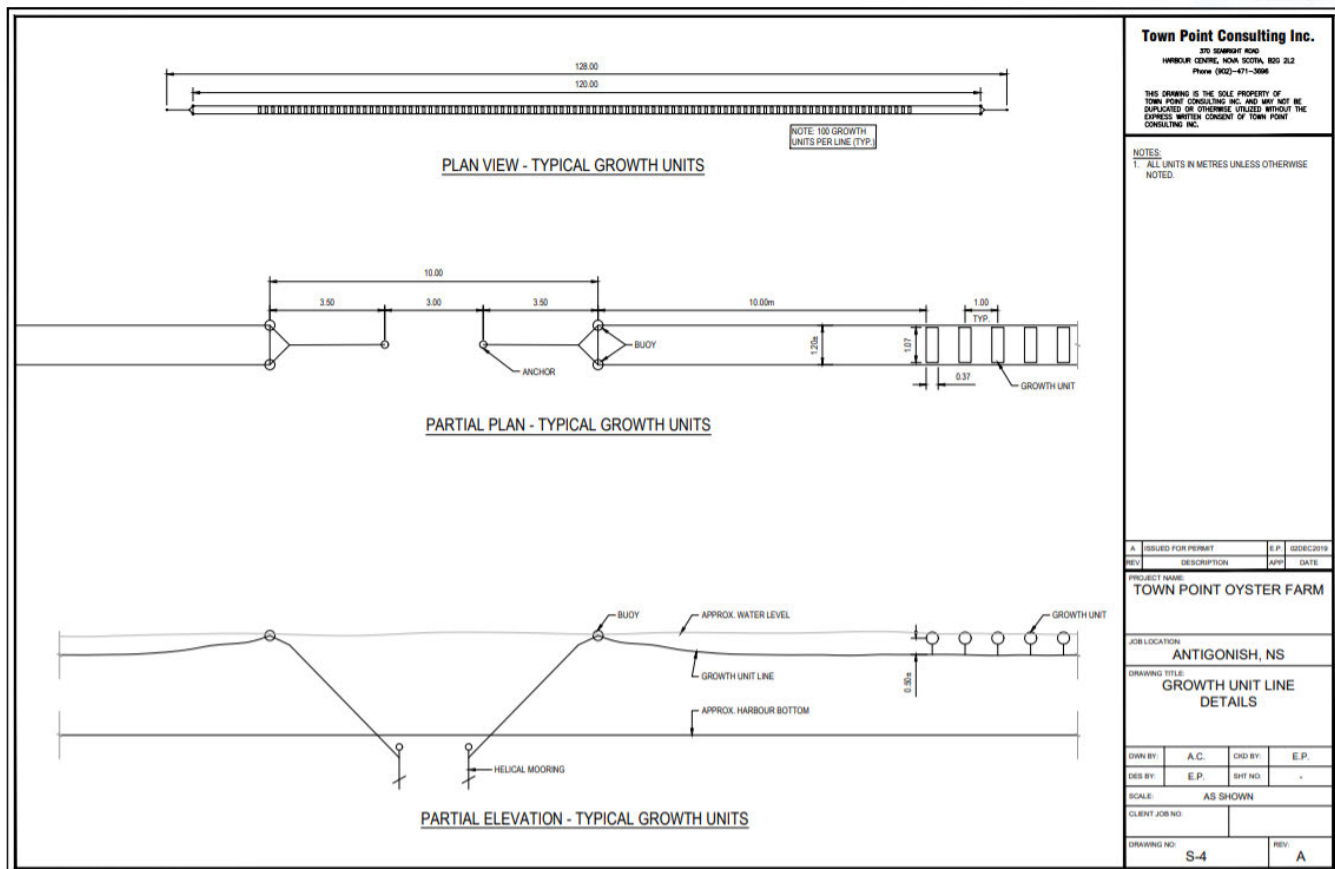
DWN BY: A.C. CHD BY: E.P.

DES BY: E.P. SHT NO. -

SCALE: AS SHOWN

CLIENT JOB NO.

DRAWING NO. S-3 REV. A



- Project description;

The work indicated in the drawing above involves installation of a series of helical moorings in pairs whereby each pair serves to anchor a line of suspended oyster growth units. The spacing of the lines is typically 10m the length is typically 120m and the width of each line is nominally 1.2m. There will also be installed helical moorings to secure lease marker buoys at each corner of each lease site and further markers along the sides of the lease areas at a rate to be prescribed by the authority having jurisdiction.

- Construction methodology;

The task of installing the helical moorings will be done from a floating work platform equipped with a hydraulic drive head. We expect no need to work from or on the harbour bottom. The anchors will be driven .5m below the harbour floor. Connection of lines, floats and growth units will be done also from the floating work platform.

- Anticipated start and end dates;

We plan to begin construction of the farm as soon as approval to proceed is granted. Work will be conducted in month between April and November only. We expect to complete the work over the course of three years following approval.



NAVIGATION PROTECTION ACT (NPA) NOTICE OF WORKS FORM

WARNING: Any false or misleading statement with respect to this form and supporting documentation, including the misrepresentation of a material fact, may result in the refusal to authorize or issue Approval, or result in the suspension or cancellation of an Approval obtained through fraudulent means.

PRIOR TO COMPLETING THIS FORM:

1. Determine if your project is on a navigable water listed on the Schedule to the NPA. A *Notice to the Minister* is required for works on scheduled navigable waters. Works on non-scheduled navigable waters may be eligible to opt in; if requesting Opt-in, the Opt-in annex must be included with your *Notice to the Minister*.
2. Self assess your project against the *Minor Works Order* to determine if a *Notice to the Minister* is required. Links to the NPA Schedule, Order and Regulations can be accessed through the [Navigation Protection Program \(NPP\) Website](#).

PURPOSE		
<p>This <i>Notice of Works</i> Form and its supporting documentation (as well as other relevant information) which may be required for a review by Transport Canada (TC), once completed and submitted, comprise the <i>Notice to the Minister</i> as required under the NPA. For assistance in completing your submission, refer to the guidance provided on the NPP website under "Apply to the NPP" including the <i>Guide to the Navigation Protection Program's Notification, Application and Review Requirements</i>.</p>		
SUPPORTING DOCUMENTATION REQUIREMENTS		
<p>Mandatory Information Checklist (incomplete information will be returned with no action)</p> <p><input checked="" type="checkbox"/> Completed and signed "Notice of Works Form" with all mandatory fields completed</p> <p><input checked="" type="checkbox"/> Map showing location of project ¹</p> <p><input checked="" type="checkbox"/> Top/Plan drawing with dimensions ¹</p> <p><input checked="" type="checkbox"/> Side/Profile drawing with dimensions ¹</p> <p>¹ If you are submitting a Notice of Works in paper form, please provide two (2) copies of each supporting document. If the Notice of Works is submitted electronically, please ensure to attach all relevant documents (individually scanned).</p>	<p>Recommended Information (may expedite your review)</p> <p><input type="checkbox"/> Body of water details</p> <p><input type="checkbox"/> Land use/Ownership information</p> <p><input type="checkbox"/> Body of water use information</p> <p><input type="checkbox"/> Impacts, obstructions and mitigation plans</p> <p><input type="checkbox"/> Any environmental review information</p> <p><input type="checkbox"/> Operation, maintenance and marking plans</p> <p><input type="checkbox"/> Photographs of work site and body of water</p> <p><input type="checkbox"/> Aboriginal consultation results</p> <p><input type="checkbox"/> Other government agencies involved</p> <p><input type="checkbox"/> Water lot lease information</p> <p><input type="checkbox"/> Opt-in request annex (non-scheduled navigable waters only)</p>	
<p>When submitting a Notice to the Minister in paper form, owners should note:</p> <ul style="list-style-type: none">• All plans and drawings must be legible when printed on 11" x 17" paper• Your completed Notice to the Minister should be sent to the appropriate regional office as outlined below		
TRANSPORT CANADA NAVIGATION PROTECTION PROGRAM REGIONAL OFFICES		
<p>Pacific Region Office 820-800 Burrard Street Vancouver BC V6Z 2J8 Telephone: 604-775-8867 Email: NPPAC-PPNPAC@tc.gc.ca</p>	<p>Prairie and Northern Region Office Canada Place 1100-9700 Jasper Ave Edmonton AB T5J 4E6 Telephone: 780-495-8215 Email: NPPNR-PPNRPN@tc.gc.ca</p>	<p>Ontario Region Office 100 South Front Street, 1st Floor Sarnia ON N7T 2M4 Telephone: 519-383-1863 Email: NPPONT-PPNONT@tc.gc.ca</p>
<p>Headquarters Office (For info on the NPP and NPA ONLY) Notices not processed at this office Tower C, 330 Sparks Street, 18th Floor Ottawa ON K1A 0N5 Telephone: 613-991-3476 Email: NPPHQ-PPNAC@tc.gc.ca</p>	<p>Quebec Region Office 401-1550 d'Estimauville Avenue, 5th Floor Quebec QC G1J 0C8 Telephone: 877-646-6420 Email: PPNQUE-NPPQUE@tc.gc.ca</p>	<p>Atlantic Region Office 95 Foundry Street, 6th Floor P.O. Box 42 Moncton NB E1C 8K6 Telephone: 506-851-3113 Email: NPPATL-PPNATL@tc.gc.ca</p>



NAVIGATION PROTECTION ACT NOTICE OF WORKS FORM

TC file number (if known):

Are you the riparian property owner? ☒ Yes ☐ No

GENERAL INFORMATION

Official and/or local name(s) of the body of water (Required)

Antigonish Harbour

Is the body of water listed on the schedule to the NPA?

☐ Yes ☐ No ☒ Unknown

Are you also requesting an Approval, if required?

☒ Yes ☐ No

Is this an Opt-in request?

☐ Yes ☒ No

Are you representing an Aboriginal group?

☐ Yes ☒ No

Is the work near/on First Nations reserve or land claim?

☐ Yes ☒ No ☐ Unknown

Does this project involve throwing or depositing materials in water?

☐ Yes ☒ No

Does this project involve dewatering a body of water?

☐ Yes ☒ No

OWNER CONTACT INFORMATION²

Individual or company name (Required)

Town Point Consulting Inc.

Contact name (Required)

Ernie Porter

Mailing address (Required)

Halifax, NS

City/Town (Required)

Harbour Centre

Province/Territory (Required)

Nova Scotia

Postal code (Required)

B2G 2L2

Primary telephone number (999-999-9999) (Required)

902-471-3696

Other telephone number (999-999-9999)

E-mail

ernieporter77@gmail.com

Owner's agent/mandatary (contractor/consultant/representative/co-proponent, if any)

Company name

Contact name

Mailing address

City/Town

Province/Territory

Postal code

Primary telephone number (999-999-9999) (Required)

Other telephone number (999-999-9999)

E-mail

WORK SITE INFORMATION

Nearest municipality/county/district (Required)

Municipality of the County of Antigonish

Province/Territory (Required)

Nova Scotia

Site location such as lot, concession, section, township, range, meridian, 911 address, property identification, etc. (Required)

370 Seabright Road

Site position Latitude North (Required)

Degrees 45 Minutes 40 Seconds 21

Site position Longitude West (Required)

Degrees 61 Minutes 53 Seconds 33

Hydro chart number: **4446**

Topo map number: **011F12-Antigonish**

Body of water details, such as characteristics, bank/bottom features, biological components, flow/tides, etc.

Tidal Estuary. Sandy/muddy bottom, predominantly low slope beaches. Average tide below 1m. Flushes well at the site in question. Nutrient rich, diverse marine biology. Abundant oysters.

Potential obstructions, such as natural/man-made, other works, navigation aids, etc.

No obstructions to contemplated work.

Land use/Ownership, such as past/current, private/government, rural/suburban, coastal, environmental, etc.

Private property owned by the proponent. Land was agricultural for many decades until about 30 years ago when planted in white spruce.

BODY OF WATER USE INFORMATION

Navigation types (check all that apply) <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Recreational		Maximum vessel size Length <u>17m</u> Width <u>5m</u> Draft <u>1.2m</u>	
Traffic direction <input type="radio"/> One-way <input checked="" type="radio"/> Two-way		Manoeuvrability (check all that apply) <input type="checkbox"/> Poor <input type="checkbox"/> Good <input checked="" type="checkbox"/> Excellent	
Day/Night <input checked="" type="radio"/> Day <input type="radio"/> Night <input type="radio"/> Both	Volume <input checked="" type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High	Navigation season(s) (check all that apply) <input type="checkbox"/> Winter <input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall	

Other uses such as cottagers, special events, fishing, etc.

Five commercial fishers dock in the harbour but fish in St Georges bay. There are about a dozen recreational boaters, all are only occasional users. Several sport fishers who focus on the channel near the harbour entrance. Several kayakers are also occasional users, little other traffic.

PROJECT INFORMATION

Name of work such as bridge, dam, marina, etc. (Required) Three marine oyster aquaculture lease sites.	Type of work (check all that apply) (Required) <input checked="" type="checkbox"/> Construct <input type="checkbox"/> Place <input type="checkbox"/> Alter <input type="checkbox"/> Repair <input type="checkbox"/> Decommission <input type="checkbox"/> Rebuild <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary <input type="checkbox"/> Remove
---	--

Brief project description (or attach) such as status, structures, operation, etc. (Required)

Site #1 is intended for storage or mature oysters and excess seed on bottom in bags. Sites #2 & #3 are to be grow sites with suspended aquaculture gear anchored to the bottom with helical moorings. The gear will be floating from April to October otherwise sunk.

Method of construction such as temporary works, activities, etc. (Required)

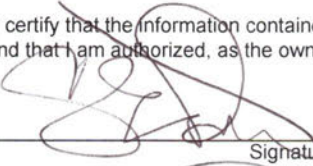

Helical moorings will be installed from a floating work platform equipped with a hydraulic drive head. Pairs of mooring will be installed then static lines run from anchor to anchor. Growth units are then attached to the static lines at a one meter spacing.

Anticipated impacts such as source, severity, mitigation, marking, waste/debris management, use, cumulative, etc.

This is a low impact project. Work will be done from the work platform, no work is anticipated the would require disruption of the bottom beyond driving helical moorings.

Expected start date (dd-mm-yyyy) (Required)
Depending on approvals 15-07-2019

Expected completion date (dd-mm-yyyy) (Required)
22-07-2019

ENVIRONMENTAL REVIEW INFORMATION	
Is the work located on Federal lands? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	Is the project a designated project under the <i>Regulations Designating Physical Activities</i> under the <i>Canadian Environmental Assessment Act, 2012</i> ? <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown
Is the project subject to Northern Environmental Assessment (EA) Regime(s)? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	If yes, identify the northern EA regime(s) that apply <input type="checkbox"/> Inuvialuit Final Agreement (IFA) <input type="checkbox"/> Mackenzie Valley Resource Management Act (MVRMA) <input type="checkbox"/> Nunavut Land Claims Agreement (NLCA) <input type="checkbox"/> Yukon Environmental and Socio-economic Assessment Act (YESAA)
Other Federal Organizations involved	
<input type="checkbox"/> Canadian Environmental Assessment Agency (CEAA) <input checked="" type="checkbox"/> Fisheries and Oceans Canada (DFO) <input type="checkbox"/> Major Projects Management Office (MPMO) <input type="checkbox"/> Aboriginal Affairs and Northern Development Canada (AANDC)	<input type="checkbox"/> Environment Canada (EC) <input type="checkbox"/> Natural Resources Canada (NRCan) <input type="checkbox"/> Northern Projects Management Office (NPMO) <input type="checkbox"/> Other: _____
OWNER AUTHORIZATION ²	
<p>I hereby certify that the information contained herein and in any of the supporting documents is complete, true and accurate to the best of my knowledge and belief, and that I am authorized, as the owner, to submit this Notice to the Minister.</p>	
 _____ Signature (Required)	27- 01- 2020 _____ Date (dd-mm-yyyy) (Required)
 _____ Print Name (Required)	
FOR OFFICE USE ONLY	
	Date stamped (dd-mm-yyyy)

²"Owner", in relation to a work, means the actual or reputed owner of the work or that owner's agent or mandatary. It includes a person who is in possession or claiming ownership of the work and a person who is authorizing or otherwise responsible for the construction, placement, alteration, repair, rebuilding, removal, decommissioning, maintenance, operation, safety or use of the work. It also includes a person who proposes to construct or place a work.

The personal information provided on this Notice to the Minister is collected under the authority of the **Navigation Protection Act**, sections 4, 5, 6, 9, 21, 22, 23 and 24. This information is required for the purpose of processing applications made under the above-noted sections for proposed, commenced or existing works that are or will be constructed, placed, altered, repaired, rebuilt, removed or decommissioned in, on, over, under, through or across any navigable water in Canada. The personal information collected is described in a personal information bank entitled **Navigation Protection Program** (bank number TC PPU 086). Under the provisions of the **Privacy Act**, individuals have the right of access to, correction of and protection of their personal information. Instructions for obtaining personal information are provided in Info Source, a copy of which is available in major public and academic libraries or online at <http://www.infosource.gc.ca>

SECTION 7: THE SUSTAINABILITY OF WILD SALMON**7.1 Identification of local salmon populations**

Antigonish county falls within salmon fishing area SFA 18A Mainland Gulf Nova Scotia. Both the West River and the South River are designated salmon run rivers that flow into Antigonish Harbour. The South River has been much less productive than the West River for decades. According to the DFO report titled Update of Indicators of Atlantic Salmon (SALMO SALAR) in DFO Gulf Region Salmon Fishing Areas 15-18 for 2017 there was a 4% decline in Fry population and a 57% decline in Parr population since 2005.

While we are aware of no negative impact from the proposed farm on the sustainability of wild salmon it is informative to note the existing negative trend in the rivers tributary to Antigonish Harbour. In discussion with Dr. Aaron Spares who is very familiar with both Antigonish Harbour and with the habits of salmon and trout in the harbour we were assured our proposed operation would not impact these fish.

7.2 Support of the sustainability of wild salmon

Our understanding of the habits of wild salmon indicates that when they enter the outer harbour from the ocean, they only transit through the area on their way to the inner harbour and then into the rivers. Similarly, when they leave the rivers and inner harbour on their way to the ocean, they do not persist in the outer harbour but just transit through the area as they seek the relative safety of deeper waters.

We will ensure the operation complies with all environmental regulations. Proper control of fuel and any other hydro carbon materials will be of particular importance to salmon and other fish in the area.

SECTION 8: THE NUMBER AND PRODUCTIVITY OF OTHER AQUACULTURE SITES IN THE PUBLIC WATERS SURROUNDING THE PROPOSED AQUACULTUREAL LOCATION**8.1 Identification of other aquaculture sites**

One other aquaculture site exists within Antigonish Harbour. It is Lease 1385 which is approved for American Oyster by bottom harvest and is owned by Sam McKinley. This lease is located .9km west of proposed Site #2.

We see no tidal effect between the two sites simply because the channel that supplies the McKinley site is west of our site and west of Captain's Island. Our site is east of this channel.

8.2 Interactions with other aquaculture operations

We see no risk to the sole other aquaculture operation from the proposed farm therefore no mitigation measures are necessary. On the contrary, significant benefit to this operation may be possible if the proposed farm is developed. Farm operation will generate more spat in the surrounding waters, some of which will be carried into Lease area 1385 and could set there to produce additional oysters available for harvest within this lease. Also, after construction of the depuration facility, this lease owner may choose to cleanse his harvest in our plant rather than incur the cost and time delay of relaying to another lease before sale.

Use of our dock and launch site may be of interest to this operator as well as the four commercial harvesters active in the harbour. Our seed collection process will produce by-product of undersized or damaged seed that will not be suitable for placement in our land-based nursery. Some of this by-product will be viable seed that could produce marketable product. We have offered this by-product to the harvesters and the leaseholder for use on their areas.

Baseline Video

Baseline environmental monitoring videos were recorded to support the Development Plan. As the initial videos submitted did not meet the minimum video quality requirements, the Department requested the submission of additional baseline video (see Addendum 1: Additional Information Request - A1.4 Additional Information Baseline). The initial submission of baseline videos has been provided to the Aquaculture Review Board. The titles for the video files are listed below:

- GOPRO084
- GOPRO085
- GOPRO093
- GOPRO094
- GOPRO095
- GOPRO096
- GOPRO097
- GOPRO098
- GOPRO099
- GOPRO100
- GOPRO103
- Site 1 transect
- Site 2 transect
- Site 3 transect

APPENDIX B OF APPLICANT'S DEVELOPMENT PLAN

1/24/2020

Gmail - Noise related articles



Ernie Porter <ernieporter77@gmail.com>

Noise related articles**Laura Bartlett** <lbartlett@birdscanada.org>

Wed, Jan 15, 2020 at 12:14 PM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Hi Ernie,

As promised, here are a few documents that may or may not be of use to you. I reached out to colleagues in Canada and the USA and this is what was provided to me. None of them are specific to Piping Plovers and Aquaculture noise unfortunately. Due to the limited scope of these projects it is difficult to generalize across all plovers or all aquaculture sites but this is also the information we have available to us right now. I don't know of anyone doing that kind of research and without the science backing it up it is very difficult to make recommendations. Given the endangered status of Piping Plovers and with limited research many of us in this field tend to defer to the precautionary principle which boils down to if we don't know the impacts and effects we don't do it. But that principle has it's own issues too!

This link is to a study on Red Knot, a different kind of threatened shorebird but often found in similar areas to plovers, and an aquaculture project in Delaware Bay (a great bird hot spot!). Obviously we are dealing with a different bird species here but at least it is with an aquaculture project: https://www.fws.gov/northeast/njfieldoffice/pdf/AquaculturePBO_20160401.pdf (it's a long document so I would check for the most relevant sections like "effects of the action" pg. 93)

The attached articles are about Piping Plovers but in relation to a bridge replacement project. This might be a better source for how these plovers deal with noise more generally, even though it's not an aquaculture project. Perhaps some comparisons can be drawn from overall decibel levels and distance to the source of noise?

Hopefully there are some lessons that can be learned from these articles to help make the best decision possible for both you and the birds!??

Good luck,

Laura

Laura Bartlett

Nova Scotia Program Coordinator

Birds Canada/Oiseaux Canada

lbartlett@birdscanada.org<mailto:rfriendshipkeller@birdscanada.org> * birdscanada.org

Tel * 902-426-4055

Your Voice For Birds/ Votre voix pour les oiseaux

<<https://mail.bsc-eoc.org/ecp/Customize/www.facebook.com/ploverconservation>>

2 attachments**20080508_report_Route 36 bridge noise monitoring plover OCR (1).pdf**

2063K

**Longport Monitoring Report (1).pdf**

831K

Based on the above review of available information, we find no causal effects from the action area's longest-operating oyster farm on any localized declines in the abundance of spawning horseshoe crabs or crab eggs. Though some information suggests that crab declines did occur, we are unable to verify the declines or tie them to the roughly 18-year operation of the Atlantic Capes Fisheries, Inc. farm. As discussed above, localized shorebird data is not available for the vicinity of this farm, therefore we cannot determine if the localized abundance of red knots declined in this area over the time this farm was in operation on the riparian grant. However, as noted above, Maslo *et al.* (2016) found that oyster tending activities appear to have a negative effect on the abundance of red knots, and this conclusion is supported by other information that is discussed under Effects of the Action, below. We therefore conclude that existing aquaculture is likely affecting red knot habitat use in the action area at the time of this PBO, primarily due to the effects of disturbance from human activities such as tending.

EFFECTS OF THE ACTION

Effects to Red Knots (Direct Effects)

Disturbance

Human activities associated with aquaculture may disturb any red knots present in the vicinity. Such activities include but are not limited to, maintaining racks or other gear (*e.g.*, repairing, replacing, repositioning), tending oysters (*e.g.*, washing, turning, culling, sorting), and harvesting oysters. Red knots will not be disturbed by installation of new gear as this activity is seasonally restricted in the intertidal zone from April 15 to June 7. Allowable aquaculture activities, such as those listed above, may involve use of boats, power washers and, in the Southern Segment, motor vehicles. In the Northern Segment, no motor vehicle use will be allowed on Leases A-19 or A-28 (see Appendices C and D) from May 1 to August 31 during the three transitional years established in CMs 20 and 21. In the Southern Segment, aquaculture activities will occur 5 days per week, and in the Northern Segment (Leases A-19 and A-28), low-tide aquaculture activities during the transitional years will be 2 days per week. In both the Southern and Northern Segments, aquaculture activities will be on a weekly schedule coordinated by the BSF and limited to the 2 hours before and after low tide (CM 15, Appendices C and D). Additional tending may occur on Lease A-19 2 hours before and after high tide, as long as the boat(s) remains at least 500 feet (152 m) from the water's edge. Disturbance to red knots from aquaculture activities may displace birds from otherwise preferred habitats, and may impact birds' ability to gain weight (*i.e.*, affect their energy budget, which is the balance between food intake and energy expenditure). As discussed under Species Status, above, adequate weight gain in Delaware Bay is vital for red knots to complete their northbound migration and breed in the Arctic.

Displacement

Where shorebirds are habitually disturbed, they may be pushed out of otherwise preferred roosting and foraging habitats (*e.g.*, displaced) (USFWS 2014). Roosting knots are particularly vulnerable to disturbance because birds tend to concentrate in a few small areas during high tides, and availability of suitable roosting habitats is already constrained by predation pressures and energetic costs such as traveling between roosting and foraging areas (USFWS 2014).

Exclusion of shorebirds from preferred habitats due to disturbance has been noted throughout the red knot's nonbreeding range, including Massachusetts (Pfister *et al.* 1992), the Atlantic coast of New Jersey (Mizrahi 2002), and Florida (Burger and Gochfeld 1991). Exclusion of shorebirds, or reduced shorebird use of otherwise suitable habitats, has been shown to result from vehicle use (Forgues 2010; Tarr 2008) as well as pedestrians and other beach uses.

Specific to red knots, the mean abundance of red knots on Mustang Island, Texas decreased 54 percent from 1979 to 2007, while the mean number of people on the beach increased fivefold (Foster *et al.* 2009). In 2008, Escudero *et al.* (2012) found that human disturbance pushed red knots off prime foraging areas near Río Grande in Argentinean Tierra del Fuego, and that disturbance was the main factor affecting roost site selection. In Delaware Bay, Karpanty *et al.* (2006) found that potential disturbance reduced the probability of finding red knots on a given beach, although the effect of disturbance was secondary to the influence of prey resources. Also in Delaware Bay, Harrington (2005) found that shorebird numbers were lower in areas of higher disturbance.

At two sites on the Atlantic coast of New Jersey, Burger and Niles (2013a) found that disturbed shorebird flocks often did not return to the same place or even general location along the beach once they were disturbed, with return rates at one site of only 8 percent for monospecific red knot flocks. Even when flocks returned, not all shorebirds did so, with half or less of the birds returning after a disturbance (Burger and Niles 2013a). At one of these New Jersey study sites, Burger and Niles (2013b) found that spatial use by shorebirds, especially red knots, depended upon whether the beach was open or closed to recreational beach users. Of the shorebird species in this study, red knot behavior was most affected by beach closure. Knots spread out over the entire beach when it was closed, and concentrated in a fenced (protected) area when the beach was open (Burger and Niles 2013b). When the beach was open, knots concentrated on the beach segments that were the greatest distance from where people could enter. For all shorebird species, there was a significant difference in the mean flock size depending upon whether the beach was open or closed (Burger and Niles 2013b).

In a related study, Burger and Niles (2014) found that approach of new stressors (*e.g.*, people, trucks) exerted an effect on foraging shorebirds (five species, including red knots), and that variations in the percent of flocks that were disturbed were partly explained by whether the beach was open or closed. Closing the beach resulted in fewer flocks being disturbed, and when the beach was open, the percent of flocks disturbed was affected by whether the flocks were far from the point of human entrance onto the beach. The presence of people also influenced how quickly shorebirds returned to the places they had been foraging (Burger and Niles 2014).

Burger *et al.* (2015) studied red knot abundance at experimental oyster racks off South Reeds Beach in 2013. The objective of the study was to examine shorebird use as a function of oyster racks and growers, as well as tidal cycle and the presence/absence of recreational beach users (*e.g.*, people not engaged in aquaculture). The study design consisted of 50 racks, set up 24 inches (60 cm) above the intertidal sediment, with two lines of the individual racks parallel to the beach located 82 feet (25 m) from the MHW line. The racks were constructed early in the migration period, topped with filled oyster bags, and tended by growers 1 to 2 days per week.

During low tides, the exposed mudflat extended to the racks, and growers worked only at low tide. The growers did not use any vehicles or power washers. Survey segments with racks were compared to reference segments without racks.

Statistical analysis showed that variables of racks (present/absent), tidal phase (high/falling/low/rising), and people (present/absent) could explain some, but not most, of the variability in shorebird abundance (Burger *et al.* 2015). However, the observed (limited) influence of these variables on bird abundance was highly statistically significant. Specific to red knots, people and tides contributed the most to the variation in bird numbers. When people were present (growers and/or other beach users), there were virtually no red knots in the rack segments. In addition to these statistical findings, Burger *et al.* (2015) reported anecdotally that, if growers appeared during low tide to work on the racks, shorebirds moved down the beach away from the operations. With time, some other shorebird species returned close to the racks, but the red knots remained on the adjacent reference site while growers were present at the racks (Burger *et al.* 2015).

These results from Burger *et al.* (2015) are from only one site and one year. This study reflects the lower range of oyster tending intensity currently practiced in the action area (*e.g.*, only 1 or 2 days per week, no vehicles, no power washing). Conversely, the location of the racks only 82 feet (25 m) from the MHW line is not applicable to the conditions that red knots will encounter at oyster farms under this PBO, which requires gear be at least 300 feet (91 m) from the MHW line during the stopover season (CM 10). Aquaculture activity so close to the MHW line (where horseshoe eggs are concentrated) could have caused a higher level of red knot disturbance (*e.g.*, displacement), and over a greater proportion of the tidal cycle, than might be expected to occur under this PBO, which requires gear to be located much farther out in the intertidal zone. The combination of CMs 10 (Protected Areas) and 15 (limiting of access to the 4 hours around low tide) are expected to reduce the effects of disturbance during the mid-tide foraging periods, relative to the experimental conditions of this study.

The height of the experimental racks (24 inches [60 cm]) (Burger *et al.* 2015) was also quite different from gear typically used at commercial oyster farms in the action area. Most racks in the action area currently have 8-inch-tall (20-cm-tall) legs. Under CM 8, leg heights are expected to increase to 14 inches (36 cm). Based on current practices, we do not expect racks as tall as 24 inches (60 cm), but such gear would not be prohibited under this PBO. Burger *et al.* (2015) postulated that birds could perceive racks and other gear as blocking their exit flight paths (*e.g.*, if a predator approaches). Under this theory, a taller rack could exert a greater displacement influence (with or without tending) than a shorter rack (physical and visual effects of gear are discussed under Functional Habitat Loss, below). However, we conclude that this atypical rack height was not a factor in this study's finding on the strong displacement effect of oyster tending and other human activities, because the presence or absence of racks alone was not a significant variable in explaining the abundance of red knots. When no people were present, there were no differences in the number of red knots as a function of racks being present or absent (Burger *et al.* 2015).

Most relevant to this PBO, Maslo *et al.* (2016) found, based on preliminary data and analysis, that oyster tending activities at active farms appeared to have a negative effect on the abundance

of red knots. These authors collected shorebird census data and behavioral observations from May 7 to June 4, 2015 between Kimbles Beach and Green Creek. Though the magnitude of the negative effect of tending appeared less influential than tidal stage, the presence of tending was a significant factor in explaining observed red knot distributions in the action area. Though based on only one year of data to date, these preliminary findings of the Rutgers study (Maslo *et al.* 2016) are consistent with those of Burger *et al.* (2015). (The Rutgers study is funded to continue in 2016 and 2017.) Despite the aforementioned caveats regarding both of these studies, their consistent findings strongly suggest that human activities associated with aquaculture can and do suppress localized red knot use of otherwise suitable habitats in the action area. These findings are also consistent with the body of literature, summarized above, regarding displacement of red knots and other shorebirds due to human disturbance.

We have little data on which to estimate the distances over which aquaculture activities may displace red knots. When people were present in the study by Burger *et al.* (2015), there were virtually no red knots in the three 197-foot-long (60-m-long) rack segments (591 feet (180 m) total); however, we cannot ascertain from this paper how far away from the human activity this displacement extended (*e.g.*, into those reference segments adjacent to the rack segments). Of 395 red knot behavior observations collected by Maslo *et al.* (2016), no knots were seen foraging within three 100-foot-long (30-m-long) survey segments (300 feet (91 m) total) of a tended oyster rack. This is roughly consistent with an observation (discussed more under Effects to Energy Budgets, below) that red knots become alert to human activity at about 270 feet (J. Burger pers. comm. September 28, 2014). Thus, we postulate that displacement (or at least suppression) of habitat use by red knots extends at least 300 feet (91 m) from aquaculture activity. We recognize this estimate is based on preliminary information, and the actual distance is likely influenced by various factors such as tide stage, egg density, flock size, and the type, intensity, and duration of the aquaculture activity.

Effects to Energy Budgets

Disturbance of shorebirds can cause behavioral changes resulting in less time roosting or foraging, shifts in feeding times, decreased food intake, and more time and energy spent in alert postures or fleeing from disturbances (USFWS 2014). By reducing time spent foraging and increasing energy spent alert or fleeing, disturbance may hinder red knots' ability to recuperate from migratory flights, maintain adequate weights, or build fat reserves for the next phase of the annual cycle (Harrington 2005; Clark *in* Farrell and Martin 1997; Burger *et al.* 1995).

Although population-level impacts cannot be concluded from species' differing behavioral responses to disturbance (Stillman *et al.* 2007; Gill *et al.* 2001), behavior-based models can be used to relate the number and magnitude of human disturbances to impacts on the fitness of individual birds (Goss-Custard *et al.* 2006; West *et al.* 2002). When the time and energy costs arising from disturbance were included, modeling by West *et al.* (2002) showed that disturbance could be more damaging than permanent habitat loss. Modeling by Goss-Custard *et al.* (2006) was used to establish critical thresholds for the frequency with which shorebirds can be disturbed before they die of starvation. There is evidence from modeling that, under some conditions, sanderlings could spend more energy responding to human disturbances than they were able to accrue in their daily foraging; disturbance can be energetically costly to shorebirds at a migration staging area (B. Harrington pers. comm. November 14, 2013). Birds can tolerate more

disturbance before their fitness levels are reduced when feeding conditions are favorable (e.g., abundant prey, mild weather) (Niles *et al.* 2008; Goss-Custard *et al.* 2006).

Studying another *Calidris canutus* subspecies in Australia, Rogers *et al.* (2006) found that energy expenditure over a tidal cycle was sensitive to the amount of disturbance, and a relatively small increase in disturbance can result in a substantial increase in energy expenditure. Shorebirds may be able to compensate for these costs to some extent by extending their food intake, but only to a degree, and such compensation is dependent upon the availability of adequate food resources. The energetic costs of disturbance are greatest for heavy birds, such as just before departure on a migratory flight (Rogers *et al.* 2006). Additional shorebird studies, not specific to red knots, support the conclusion that disturbance can impact energy budgets (Forgues 2010; Tarr 2008; Burger and Gochfeld 1991).

Both modeling (West *et al.* 2002) and empirical studies (Burger 1986) suggest that numerous small disturbances are generally more costly than fewer, larger disturbances. Burger *et al.* (2007) found that repeated disturbances to red knots and other shorebirds may have the effect of increasing interference competition for foraging space by giving a competitive advantage to gull species, which return to foraging more quickly than shorebirds following a response to vehicles, people, or dogs.

Shorebirds are more likely to be flushed by dogs than by people, and birds react to dogs from greater distances than to people (USFWS 2014). Burger *et al.* (2007) found that foraging shorebirds in migratory habitat do not return to the beach following a disturbance by a dog, and Burger *et al.* (2004) found that disturbance by dogs was increasing in Delaware Bay even as management efforts were having success at reducing other types of disturbances.

Several studies have documented behavioral disturbance responses specific to rufa red knots. In two New Jersey bays, Burger (1986) found that 70 percent of shorebirds, including red knots, flew when disturbed, including 25 (Raritan Bay) to 48 (Delaware Bay) percent that flew away and did not return (see Displacement, above). Birds in smaller flocks tended to be more easily disturbed than those in larger flocks (opposite the findings of Koch and Paton (2014), below). Explanatory variables for differences in response rate included date, duration of disturbance, distance between the disturbance and the birds, and the number of people involved in the disturbance (Burger 1986). On some Delaware Bay beaches, the percent of shorebirds (including red knots) that flew away and did not return in response to disturbance increased between 1982 and 2002 (Burger *et al.* 2004). Also from Delaware Bay, data presented by Harrington (2005) suggest that shorebird foraging rates were affected by the presence of people. Along with reduced size of prey items, disturbance was a key factor explaining sharp declines in red knot food intake rates at Río Grande, Argentina, on Tierra del Fuego (Escudero *et al.* 2012). Comparing conditions in 2008 with earlier studies, total red knot feeding time was 0.5 hour shorter due to continuous disturbance and flushing of the birds by people, dogs, and vehicles during prime feeding time just after high tide (Escudero *et al.* 2012).

Some data is available regarding the distance(s) at which red knots respond to human activities. Harrington (1999) reported that larger shorebirds typically initiate flight when people are within 295 to 459 feet (90 to 140 m). In an experimental study in Massachusetts, Koch and Paton

(2014) found that about 80 percent of red knots ran before taking flight when approached by pedestrians. Red knots typically ran less than 65 feet (20 m) before flying. Across shorebird species (including red knots), flock size, behavior (foraging or not), and number of pedestrians all appeared to have mixed effects on flight initiation distance, or the distance at which birds flew when approached by pedestrians. Flight initiation distance generally increased as flock size and number of pedestrians increased, and was generally less for birds that were foraging than for birds engaged in other behaviors. Specific to adult red knots, median flight initiation distance was about 100 feet (30 m), with 5th and 95th percentile values of about 65 and 165 feet (20 and 50 m), respectively. Koch and Paton (2014) recommended a red knot buffer distance of 407 feet (124 m), calculated as two times the sum of mean flight initiation distance (across adults and juveniles) plus 1.6495 times the Standard Deviation.

At two Atlantic coast sites in New Jersey, Burger and Niles (2013a) found that about 70 percent of shorebird flocks with red knots flew when disturbed by people, vehicles, or dogs, whether the flocks were monospecific or contained other species as well. Unpublished data collected as part of this and related studies (Burger and Niles 2014; Burger and Niles 2013b) show that red knots first became alert when human activity was about 270 feet (82 m) away, and responded by flying or running when the human activity was about 215 feet (66 m away) (J. Burger pers. comm. September 28, 2014). We have no explanation for the substantial difference between this flight initiation distance (215 feet [66 m]) and that reported by Koch and Paton (2014) (about 100 feet [30 m]). For flocks comprised of only red knots (and no other shorebirds), 87 percent of flocks were disturbed during the New Jersey study, 72 percent of flocks returned after a disturbance, and returning flocks contained 65 percent as many birds as before the disturbance (J. Burger pers. comm. September 28, 2014). These results suggest some level of displacement from preferred habitats (*e.g.*, by the non-returning flocks and individual birds), as discussed above, as well as energetic impacts to both the returning and non-returning birds.

We expect that some red knots exposed to aquaculture, namely those that do not avoid the aquaculture area entirely, will experience effects to their energy budgets (*i.e.*, increased energy expenditure and/or decreased food intake). However, we have essentially no data on which estimate the magnitude of the energy budget effects red knots may experience as a result of disturbance from aquaculture activities. In spring 2015, Maslo *et al.* (2016) collected 395 red knot behavioral observations in the action area, looking for possible effects to the birds' energy budgets from aquaculture activities. Presumably due to the displacement effects of human activity, discussed above, these researchers did not record any red knots foraging within three 100-foot-long (30-m-long) survey segments (300 feet [91 m] total) of a tended oyster rack, and were therefore unable to assess any behavioral response of the birds to aquaculture activities to date. Thus, we have no basis on which to attempt quantifying effects to energy budgets at this time. However, the Rutgers study is funded to continue in 2016 and 2017, so new information may become available in the future.

Subtidal Aquaculture

We do not expect any red knots to be disturbed by subtidal aquaculture activities. Under CM 10, Protected Areas will extend 300 feet (91 m) on either side of the MHW line and 500 feet (152 m) around creek mouth shoals, including areas of open water. Under CM 11, boats engaged in subtidal aquaculture will remain at least 500 feet (152 m) from the water's edge. Because red

knots rarely wade in water more than about 1 inch (2 to 3 cm) deep (Harrington 2001), birds are no farther seaward than the water's edge when foraging, and thus at least 500 feet (152 m) from the nearest aquaculture boat. Reported red knot response distances to human activities range from about 100 feet (30 m) to 270 feet (82 m) (Koch and Paton 2014; J. Burger pers. comm. September 28, 2014). As knots will be at least 500 feet (152 m) away from the nearest boats, we do not expect any disturbance to occur. However, the reported response distances were for pedestrians, not boats. If the 500-foot (152-m) buffer distance proves insufficient to prevent disturbance to red knots, it will be adjusted as needed during the Tier 2 and adaptive management processes, as stated in CM 11.

In the Southern Segment, access to subtidal growing areas by land may occur if following the approved Intertidal Access Plan for an adjacent intertidal farm (CMs 11 and 15). We do not expect any additional, incremental disturbance from these subtidal growers transiting through adjacent intertidal farms, due to the coordinated access schedule and particularly because only a small percentage of subtidal aquaculture would be accessible via land (*e.g.*, areas where all gear is covered, but the area is still wadable, at low tide).

Functional Habitat Loss

In addition to displacement of red knots from habitual disturbance (*e.g.*, due to the routine presence of people), aquaculture may also result in functional habitat loss from the physical and visual effects of gear. The physical effect is one of covering suitable intertidal foraging habitat. Based on all available information, we conclude red knots cannot or will not forage under cages, racks, floating gear, or any other gear types. Thus, although not irreversibly destroyed or modified, all intertidal areas covered by gear during the red knot stopover period are lost as foraging habitat. Further, we have no information suggesting that red knots will forage in the spaces or lanes between gear. Therefore, the entire intertidal footprint of an aquaculture farm present during the stopover season is lost as foraging habitat.

In addition, perhaps due to visual effects of the gear, we conclude red knots likely avoid foraging for some distance around the perimeter of a farm (a "precluded zone"), even when growers are not present. Burger *et al.* (2015) postulated that birds could perceive racks and other gear as blocking their exit flight paths (*e.g.*, if a predator approaches). If red knots avoid foraging in the vicinity of structural aquaculture operations, regardless of human activity, this will cause additional loss of foraging habitat throughout the stopover period, not just when gear is being tended (NJDFW 2016). Unfortunately, we have little information regarding the additional distance this effect may extend around the outside of a farm. We review relevant studies below.

Areas of estuarine habitat occupied by intertidal shellfish farms have the potential to displace birds from foraging sites. Bird species that avoid structured habitats may be susceptible to displacement effects. The evidence for such effects is equivocal and indicates that influences will be species- and situation-specific (Dumbauld *et al.* 2009; Forrest *et al.* 2009). Some bird species may be attracted to bivalve farms due to increased invertebrate biomass and/or richness (Dumbauld *et al.* 2009; Forrest *et al.* 2009). However, we do not believe this applies to red knots in the action area of this PBO due to the additional trophic link (*i.e.*, knots do not feed directly on the benthic or fouling invertebrates that may attract other bird species to a bivalve farm; instead knots in the action area feed on the eggs of horseshoe crabs, which, in turn, feed on benthic

Handout - Rt.36 Highlands + Sea Bright mtg. ~ Monitoring for possible Noise effect



AMY S. GREENE
ENVIRONMENTAL CONSULTANTS, INC.

18 COMMERCE STREET PLAZA • FLEMINGTON, NJ 08822-1743
(908) 788-9676 • FAX (908) 788-6788 • PA (610) 250-0773 • E-MAIL mail@amygreene.com

Jeff Palmer
NJDOT
1035 Parkway Avenue
Trenton, NJ 08625

May 10, 2002

VIA U.S. MAIL

Re: Piping Plover Study 2001
Ocean City-Longport Bridge
Ocean City, Cape May County
Egg Harbor Township, Atlantic County
ASGECI Project #1513

Dear Mr. Palmer:

We are pleased to present you with a white paper on the experimental research that we conducted on Piping Plover nesting in the vicinity of the Ocean City-Longport Bridge in 2001. Overall, the results showed that noise exposure from pile driving or vibratory hammering did not result in a significant change in incubation or brood-rearing behavior (at least at the distances maintained by the birds in the 2001 breeding season).

The white paper was written in scientific paper format as we would like to possibly submit it for publication in a professional journal as a technical research article. Perhaps you can recommend a suitable transportation journal for the article. In addition, please feel free to suggest any editorial changes or technical comments on the manuscript before we submit it for publication.

Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,
AMY S. GREENE ENVIRONMENTAL CONSULTANTS, INC.


Amy S. Greene, President

Enc.

Cc: Nick Caiazza, NJDOT BES
Joe Mumber, Parsons Brinckerhoff

PROJECT MANAGEMENT
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MAY 17 2002

Impact Assessment of Bridge Construction Noise on the Behavior of Nesting Piping Plovers at Ocean City, New Jersey

Thomas Bosakowski, Richard P. Radis, and Scott Angus

Amy S. Greene Environmental Consultants, Inc.

18 Commerce Street Plaza

Flemington, NJ 08822

Abstract

Piping Plovers (*Charadrius melodus*) have nested annually for over 10 years within the vicinity of the Ocean City-Longport Bridge in Cape May County, New Jersey. A project to replace the existing bridge is currently being undertaken by New Jersey Department of Transportation and Cape May County. In response to federal and state permit requirements, we located and monitored 8 nests that were found within the project study area. Behavioral observations were tallied separately during the incubation period and the brood-rearing period. Observations were tallied in 5 min periods for at least 1 hr before exposure to construction noise impacts (pre-exposure period), during impact exposure of at least 15 min (exposure period), and for at least 1 hr after exposure (post-exposure period). A total of 16 complete experiments were conducted during the incubation period from 26 April to 25 May, 2001, with one complete experiment conducted per day on 12 days and two complete experiments occurring on the same day for 2 days. Ten of these experiments were conducted during pile driving and six experiments were conducted during the use of vibratory hammer. A total of 8 experiments occurred during the brood-rearing period from 1 June to 29 June, 2001, with only one complete experiment conducted per day. Two of these experiments were conducted during pile driving and six experiments were conducted during the use of vibratory hammer. Overall, the results of the experiments in 2001 showed a lack of significant changes to incubation or brood-rearing behavior of Piping Plovers as a result of exposure to bridge construction noise, specifically pile driving and vibratory hammering. Effects of the overall project on nesting success could not be assessed because a severe storm wiped out 4 of the 8 active nests.

Introduction

Piping Plovers (*Charadrius melodus*) have nested annually for over 10 years within the vicinity of the Ocean City-Longport Bridge in Cape May County, New Jersey. A project to replace the existing bridge is currently being undertaken by New Jersey Department of Transportation and Cape May County.

Piping Plovers are listed as federally-threatened (50 CFR Part 17) and are considered a state-endangered species in New Jersey (N.J.A.C. 7:25-4.17). Therefore, measures to monitor Piping Plover nesting and avoid incidental "take" were required as conditions of permits from the U.S. Fish and Wildlife Service (USFWS), NJ Department of Environmental Protection (NJDEP) Land Use Regulation Program (under the Coastal Area Facility Review Act - N.J.S.A. 13:19), Army Corps of Engineers, and U.S. Coast Guard.

In New Jersey, Piping Plovers currently nest along the Atlantic coast from Sandy Hook in Monmouth County, south to Cape May City and Cape May Point, in Cape May County. The New Jersey Audubon Society's Breeding Bird Atlas project has recorded Piping Plover as a breeding species within twenty-one survey "blocks" (Walsh *et al.* 1999). Surveys conducted for the USFWS (2000a) from 1987-1999 produced an estimated number of pairs present in the state ranging from 134 in 1992 to 93 in 1987 and 1998). In 2000, the New Jersey breeding population in New Jersey was estimated at 118 pairs (New Jersey Endangered and Nongame Species Program 2000).

The project includes bridge construction, demolition of a portion of the existing Ocean City-Longport bridge, and dune and beach restoration. In accordance with these permits, no project-associated activity was allowed within 100 m of Piping Plover nest sites between April 1 and August 15. However, concern was raised by the USFWS that noise impacts from the construction may be extending beyond the 100 m buffer zone. In compliance with permit conditions as noted above, we conducted continuous monitoring throughout the nesting season in order to determine if Piping Plover behavior and/or nesting success within the project area was impacted due to construction-related noise impacts, specifically pile driving and vibratory hammering.

Methods

The study focused mainly on the dune and beach area within 150 m of the existing Ocean City-Longport Bridge at Ocean City, New Jersey. Observations of nesting Piping Plovers were conducted among sand dunes adjacent to the Atlantic Ocean beach and Great Egg Harbor Inlet in the 2001 nesting season. During the breeding season, the birds typically forage and nest in open, dry or wet bare sand, or areas of sand that are very sparsely vegetated with growths of dune grass (*Ammophila breviligulata*), glassworts (*Salicornia* sp.) and sea lavender (*Limonium carolinianum*). About 40% of dunes were vegetated with dunegrass and some of the dunes were fenced with symbolic fencing (twine and PVC pipes) to direct pedestrian access to the beach and deter walking through vegetation.

Piping Plovers return to their nesting beaches in New Jersey as early as early March, but more regularly by late March (Walsh *et al.* 1999). Males establish a breeding territory, usually by

mid-April (USFWS 2000b). Both adults incubate eggs, but the female often deserts young after hatching, leaving the male to tend young (Kaufman 1996). Eggs hatch in May or June after 30 days of incubation (Richards 1988). The young are precocial, leave the nest site quickly, and are able to feed themselves within a day or two of hatching (Kaufman 1996). Fledging is in roughly 21-35 days (Kaufman 1996; Richards 1988).

Observations were conducted by one observer before, during, and after bridge construction-noise impacts. Two types of construction noise occurred including pile driving with a 60,000 pound pile-driving hammer or vibratory hammer. Pile driving typically accounted for no more than 15-30 min of drive time each day with the remaining time used for positioning of equipment, mobilization, and maintenance. Observers were supplied with a checklist of possible behaviors and impacts, which were derived from preliminary observations conducted in 2000. The following incubation/brooding behaviors were recorded: courting/display, nest selection/building, incubation, preening, resting, adult with young, exchange of incubation duties, foraging, and no birds present. The following alert/flight behaviors were recorded: alert (standing), alarm vocalization, flight, chase flight, retreat flight, skirmish (ground), broken wing display, false incubation display, seek cover, and walk-retreat. The following impacts other than construction noise were: dog on leash, dog unleashed, predator aerial, predator ground, bird harassment, human pedestrian – stays on trail, human trespasser – ignores fencing, unknown, and other (boat, plane, etc.).

Sampling Design

"One-Zero Sampling" was used to quantify behavior of Piping Plovers before, during, and after exposure to construction noise. In this procedure, a behavior presence (+) or absence (nothing) was recorded only once during a standard short-time interval of 5 minutes. More than one behavior could be recorded during each 5 minute observation interval. Any suspected impacts on behavior other than construction noise were also recorded that may occur during the same time interval.

Benefits of this sampling design are that: 1) more than one behavior type or other impact type can be represented during each time interval, 2) continuous behavior is broken into systematic time intervals which can be quantified, 3) start and finish times for each behaviors do not need to be recorded, and 4) monitoring continues unbiased regardless of noise impact times.

Field Procedure

A complete experiment included starting observations approximately 1 hr before construction activity and continuing until approximately 1 hr after, thus resulting in 3 periods per experiment (pre-exposure period, exposure period, and post-exposure period). The closest nest to construction activities was observed (or individual if incubation was finished). All behaviors and/or impacts were recorded (checked-off) that occurred during a standardized observation interval (5 min period). If birds left, observations continued and were noted with NB for "no birds present" during subsequent 5 min intervals until the birds' return or end of the observation period.

For noise impacts, decibel (dBA) levels were sometimes recorded with a decibel meter when wind did not interfere with readings. Winds above 15-20 mph interfere with accurate readings (Sharon Paul Carpenter, pers. comm.), so it was often not possible to get accurate data because it

was frequently too windy. On many days, only a range of values was recorded because of wind gusts, so the actual increase during noise exposure could not be calculated. Piping Plovers and nests that were selected for observation were usually located between approximately 600-800 feet from pile driving and 400-600 feet from the vibratory hammer.

Statistical Analysis

The database was divided into the incubation period and brood-rearing period, and noise impact type (pile driving vs. vibratory hammer) which resulted in 4 categories of data. Furthermore, many observation days lacked any noise impacts, due to a lack of construction activities. As a result, the sample size (number of experiments for each of the 4 categories) was not large enough to permit statistical hypothesis testing and observations violated the assumption of independence (Zar 1974). Therefore, assessment of impacts was done on a qualitative basis by examining each experiment separately for trends in the 3 periods per experiment (pre-exposure period, exposure period, and post-exposure period).

Results

A total of 16 complete experiments were conducted during the incubation period from 26 April to 25 May, 2001, with one complete experiment conducted per day on 12 days and 2 complete experiments occurring on the same 2 days (Table 1). Ten of these experiments were conducted during pile driving and 6 experiments were conducted during the use of vibratory hammer. A total of 8 experiments occurred during the brood-rearing period from 1 June to 29 June, 2001, with only one complete experiment conducted per day (Table 2). Two of these experiments were conducted during pile driving and 6 experiments were conducted during the use of vibratory hammer. In this study, noise exposures varied widely throughout the exposure periods and were not recorded during all days or observation periods because it was often too windy for accurate readings. Therefore, it was not possible to make a direct correlation between behavior and decibel readings in this study. However, pile driving noise generally was recorded as an increase of 6 to 10 dBA above ambient noise levels, whereas vibratory hammer usually caused an increase of about 3 dBA.

Below we summarize the results of each experiment during incubation (Table 1) or brood-rearing (Table 2) in relation to pile driving or vibratory hammering:

Pile Driving during the Incubation Period

- **April 26** – No incubation was observed before the exposure period. Birds were mainly foraging and resting near the nest. During the exposure period, birds remained incubating, and most of the time (11 of 13 observations) during the post-exposure period.
- **April 27** – Very little time was spent incubating before the exposure (only 3 of 32 observations). This trend continued through the exposure and post-exposure periods, where no birds incubated. Birds were mainly foraging and resting near the nest, and a Merlin (*Falco columbarius*) was observed hunting the site in the pre-exposure period, causing flight.
- **May 1** – Birds remained incubating through the pre-exposure and exposure period, and the first 5 minute post-exposure period, but were not in-site for the remaining observation time.
- **May 4** – Birds remained incubating through all periods, except for one observation.

- May 5 - Birds remained incubating through all periods.
- May 11 - Birds remained incubating through all periods.
- May 15 - Birds remained incubating through all periods.
- May 16 - Birds remained incubating through all periods.
- May 23 - Birds remained incubating through all periods.
- May 25 - Birds remained incubating through all periods, except for 3 pre-exposure observations.

Vibratory Hammer during the Incubation Period

- May 1 - Birds remained incubating through the pre-exposure period. During exposure, 5 of 9 observations of incubation occurred and false incubation display occurred the rest of the time (4 remaining observations).
- May 2a - Birds remained incubating through the pre-exposure and exposure periods, and 8 of 19 post-exposure observations.
- May 2b - Birds remained incubating through all periods, except for 2 of 10 pre-exposure observations and 3 of 11 exposure observations.
- May 8a - Birds remained incubating through all periods.
- May 8b - Birds remained incubating through all periods.
- May 9 - Birds remained incubating through all periods.

Pile Driving during the Brood-rearing Period

- June 1 - Birds rested and foraged with young during all three exposure periods, behavior was identical through each of the three periods.
- June 26 - Birds rested and foraged with young during all three exposure periods. No remarkable change in behavior occurred during or after the exposure period. A Peregrine Falcon (*Falco peregrinus*) hunted near the site which resulted in alert behavior, flight, and alarm calls in the pre- and post-exposure periods.

Vibratory Hammer during the Brood-rearing Period

- June 6 - Birds foraged with young identically during all three exposure periods. A human trespasser was noted twice during the pre-exposure period, and once during the exposure period which resulted in appropriate responses such as retreat flight, alarm vocalization, alert behavior, and broken wing distraction displays.
- June 12 - Birds foraged with young identically during all three exposure periods. No remarkable change in behavior occurred during or after the exposure period. A Northern Mockingbird (*Mimus polyglottus*) and House Sparrow (*Passer domesticus*) were successfully escorted away from chicks by an adult plover resulting in alert behavior, alarm vocalizations, and flight.
- June 19 - Adults attended young and foraged most during the exposure period. Crows (*Corvus* sp.) were recorded on 8 pre-exposure observations resulting in alert behavior, alarm calls, and chase flight.
- June 27 - Adults attended young and foraged most during the pre-exposure period (22 of 31 observations). However, an unleashed dog was reported in both the exposure and post-exposure periods and a human trespasser in all three periods explained the low number of parents attending young. The presence of the dog and human explained the alarm calls, alert behavior, and flight as well as absence from the site.

- **June 28** – Foraging was the most prominent behavior among all three periods, but attendance with young was lowest during the exposure period. However, the exposure period was not continuous with the pre-exposure period (i.e., 4.5 hour gap), so the start of the exposure impact was not correlated with the lower numbers of adults and adults with young observed. No aberrant changes in behavior were noted at the start of hammering.
- **June 29** - Adults attended young and foraged most during the pre-exposure period (22 of 31 observations), although some attendance of young occurred in the exposure period (2 of 5) and the post-exposure period (4 of 13). The exposure period was not continuous with the pre-exposure period (i.e., 5 hour gap), so the start of the exposure was not responsible for the lower numbers of adults and adults with young observed. No aberrant changes in behavior were noted at the start of hammering.

Discussion

During the incubation period, pile driving did not typically result in a change of the frequency of incubation observed when comparing the pre-exposure, exposure, and post-exposure periods. The most notable deviations from incubation behavior occurred only early in incubation from 26 April to 1 May. However, this is normal behavior for Piping Plovers which generally avoid incubating until they are finished laying their entire clutch in about 6-7 days (Goldin 1994). The function of delayed incubation is to ensure that all the chicks hatch at the same time. Otherwise, there were very few (if any) behaviors that would signal distress from the pile driving such as alarm calls, alert posture, flight, walk-retreat, broken wing display, and false incubation display. Furthermore, when these distress behaviors occasionally occurred it was mostly in a random pattern, except when correlated with predators, dogs, or human trespassers. Thus, the data suggest that the incubation period was not negatively influenced by pile driving noise which generally increased ambient noise levels by about 6 to 10 dBA. The results for vibratory hammer were similar to results obtained during pile driving, i.e., the early incubation period showed inconsistent levels of incubation, but the mid- and late-incubation period were almost exclusively devoted to incubation. This result is not unexpected since vibratory hammer generally increased ambient noise levels by only about 3 dBA. Overall, the results showed no effects of construction noise on incubation, the most important reproductive behavior for survival.

The brood-rearing period resulted in a more diverse frequency of behaviors as birds were no longer tied to the nest with incubation duties and were more likely to attract or respond to potential predators. During two experiments with pile driving, birds rested and foraged with young in attendance with a similar frequency of observations in the pre-exposure, exposure, and post-exposure periods. The only distress behaviors were noted during overflights of a hunting Peregrine Falcon. The most frequent behaviors were foraging, attending young, and resting. During the six vibratory hammer experiments, the behavioral patterns were similar, except for more interference with predators, dogs, and people wandering through the dunes. Overall, there were no clearcut increases or decreases in behavior which could be correlated with noise produced by pile driving or vibratory hammering.

Numerous studies on the impacts of noise on wild birds have been conducted, and while the results generally varied with the intensity of the noise impacts, the general trend has been very minor or no response by the birds. For example Black et al. (1984) noted no effects on nesting

success, nestling survival, and nesting chronology as related to low (<500 ft AGL) overflights of F-16 jets. Lynch and Speake (1978) concluded that sonic booms did not initiate abnormal behavior that would result in decreased productivity of Wild Turkeys (*Meleagris gallapavo*). At a colony of Everglades Kites (*Rostrhamus sociabilis*), Snyder et al. (1978) found the only response of kites to low level jet overflights (78-89 dBA) was "watching the aircraft flyby." Ellis (1981) found that frequent and nearby jet aircraft noise (82-114 dBA) had no effect on nesting success, site reoccupancy, or heart rate of Peregrine Falcons. Ellis (1981) reported minimal behavioral responses that were never associated with reproductive failure. Higgins (1974) noted that continuous songs of birds were silenced 4 to 8 sec before sonic booms occurred apparently by detection of seismic compression waves, which preceded the audible sonic boom. However, normal singing occurred within 10 sec of the sonic boom. A study of nesting Prairie Falcons (*Falco mexicanus*) demonstrated that a buffer of 125 m was effective in reducing disturbance from blasting activity (Holthuijzen et al. 1990).

Unfortunately, a major storm event occurred in 2001, which destroyed 4 out of 8 nests with incubating birds. Thus, the direct impact of the project on nesting success could not be accurately assessed in this study. However, the same study area was monitored in 2000 for nesting success (New Jersey Endangered and Nongame Species Program 2000), but impacts from ongoing bridge construction (extensive driving of test piles) were not assessed. In that year, the dunes in the vicinity of the project area had 5 pairs of Piping Plovers, all of which hatched chicks, and fledged a total of 11 chicks, with a fledging rate of 2.20 young fledged per breeding pair. This fledging rate represents the best numbers for the species at this site since monitoring began in 1987 and well above the national average for a sustainable population. It can be inferred from these numbers that the construction activity during the 2000-nesting season had no impact on the breeding success of the Piping Plovers. In conclusion, the experiments in 2001 showed a lack of significant changes to incubation or brood-rearing behavior of Piping Plovers as a result of exposure to pile driving or vibratory hammering impacts.

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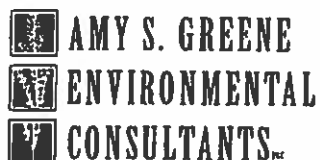
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Table 1. Piping Plover behavioral observations during the incubation period. Data represent the total number of 5 minute periods having each behavior. PRE = pre-exposure, EXP = exposure, and POST = post-exposure.

date	Impact	period	Nesting/brood rearing behavior										Alert/light behavior					Impacts/Cause				
			OBS	CT	IN	PR	RS	EX	FO	NB	AL	AV	FL	FC	WE	DL	PA	PG	BH	HP	UN	OT
04/26/01	Pile driving	PRE	28	8		4	18		21	5												
		EXP	3	3																	2	
		POST	13	11					2													
04/27/01	Pile driving	PRE	32	1	3	3	12		18	14	1					1						
		EXP	3				3		1												1	
		POST	20				2	3	6	13												
05/01/01	Pile driving	PRE	13	13																		
		EXP	4	4																		
		POST	13	1					12												1	
05/04/01	Pile driving	PRE	31	31																		
		EXP	6	6																		
		POST	13	12					2													
05/05/01	Pile driving	PRE	31	31																		
		EXP	4	4					5													
		POST	13	13																		
05/11/01	Pile driving	PRE	31	31																		
		EXP	3	3																		
		POST	13	13																		
05/15/01	Pile driving	PRE	25	25																		
		EXP	3	3																		
		POST	13	13																		
05/16/01	Pile driving	PRE	19	19																		
		EXP	25	25																		
		POST	3	3																		
05/23/01	Pile driving	PRE	16	16																		
		EXP	31	31																		
		POST	3	3																		
05/25/01	Pile driving	PRE	19	19																		
		EXP	31	31																		
		POST	4	4																		
05/01/01	Vibratory hammer	PRE	19	19																		
		EXP	31	31																		
		POST	15	15																		
05/02/01a	Vibratory hammer	PRE	20	20																		
		EXP	13	13																		
		POST	19	19																		
05/02/01b	Vibratory hammer	PRE	10	10																		
		EXP	11	11																		
		POST	15	15																		
05/08/01a	Vibratory hammer	PRE	24	24																		
		EXP	3	3																		
		POST	19	19																		
05/08/01b	Vibratory hammer	PRE	19	19																		
		EXP	8	8																		
		POST	17	17																		
05/08/01	Vibratory hammer	PRE	7	7																		
		EXP	7	7																		
		POST	7	7																		
Nesting/Brooding			adult w/ young	AV	FL	CF	RF	SK	AL	foraging	exchange of inc.	Alert/Fight	AL	FO	counting/display	resting	CT	RS	IN	PR		

Nesting/brood rearing behavior: CT = courting/display, IN = incubation, PR = pre-exposure, RS = resting, EX = exposure, AL = alert (standing), AV = adult w/ young, FL = flight, NB = broken wing display, FC = false incubation, WE = walk-retreat, DL = dog on leash, PA = dog unleashed, PG = predator arial, BH = predator ground, HP = bird harassment, UN = human pedestrian, OT = other.



**NOISE MONITORING CONTINGENCY PLAN
FOR THE PROTECTION OF
PIPING PLOVER (*Charadrius melodus*)**

Associated With

**ROUTE 36 HIGHLANDS BRIDGE OVER SHREWSBURY RIVER
BRIDGE REPLACEMENT**

**Highlands and Sea Bright Boroughs
Monmouth County, New Jersey**

May 1, 2008

APPLICANT:

New Jersey Department of Transportation
1035 Parkway Avenue, P.O. Box 600
Trenton, NJ 08625
Attention: Pamela Garrett, Bureau of Environmental Project Support

PREPARED FOR:

Jacobs Civil, Inc.
70 Wood Avenue, 4th Floor
Iselin, NJ 08830

PREPARED BY:

Amy S. Greene Environmental Consultants, Inc.
4 Walter E Foran Blvd., Suite 209
Flemington, NJ 08822
ASGECI Project #2184

TABLE OF CONTENTS

<u>SECTION #</u>		<u>PAGE</u>
1.0	INTRODUCTION.....	1
2.0	PROJECT DESCRIPTION.....	1
3.0	NOISE IMPACT	3
4.0	TIMING RESTRICTION.....	5
5.0	MONITORING PROGRAM.....	5
5.1	NOISE MONITORING METHODOLOGY.....	5
5.2	BEHAVIOR MONITORING METHODOLOGY.....	7
6.0	CONTINGENCY PLAN.....	7
7.0	SCHEDULE	9
8.0	DELIVERABLES.....	9
9.0	REFERENCES.....	9

APPENDICES

APPENDIX A	FIGURES Figure 1 - County Road Map Figure 2 - USGS Topographic Map Figure 3 - SSurgo Soils Map
APPENDIX B	CORRESPONDENCE
APPENDIX C	SCHEDULE
APPENDIX D	RESUME OF PREPARER

1.0 INTRODUCTION

On behalf of our client, the New Jersey Department of Transportation (NJDOT), Amy S. Greene Environmental Consultants, Inc. (ASGECI) has prepared this contingency plan to monitor noise associated with the proposed replacement of the Rt. 36 Bridge over the Shrewsbury River located in the Boroughs of Highlands and Sea Bright, Monmouth County, New Jersey (see Appendix A – Figures). The purpose of this contingency plan is to insure that noise associated with the proposed project does not disrupt the breeding, nesting, or rearing behavior of Federally threatened piping plovers (*Charadrius melodus*) or State endangered least terns (*Sterna antillarum*) that may inhabit the dunes along the Atlantic Coast in the vicinity of the proposed project. This contingency plan has been prepared as a condition of the informal consultation letter issued by the United States Fish and Wildlife Service (USFWS) on September 22, 2006 as well as the New Jersey Department of Environmental Protection (NJDEP) Division of Land Use Regulation (DLUR) permit (DLUR# 1300-06-0002.1) issued on November 22, 2006 (see Appendix B – Correspondence).

2.0 PROJECT DESCRIPTION

The Highlands Bridge is a vital link across the Shrewsbury River for recreational, residential, and commercial traffic and serves as an evacuation route from Sea Bright and the Gateway National Recreation Area (Gateway). The existing bascule bridge is deficient in its ability to provide a safe and efficient transportation link to and from the Sandy Hook peninsula, connecting the Boroughs of Highlands and Sea Bright. According to the project's Feasibility Assessment, dated June, 2003, the bridge is below standards in the following areas:

- System linkage,
- Safety on bridge,
- Vehicular and navigational model conflicts,
- Structural deficiencies (i.e. existing bridge condition, live load capacity, and earthquake resistance), and
- Operating deficiencies (i.e. electrical/mechanical components and cost of operation).

The project consists of the replacement of the existing Route 36 Bridge, a 1,240-foot long low-level movable bridge built in 1933, with a mid-level fixed bridge. The new bridge is to provide for a minimum vertical clearance of 65 feet above Mean High Water (MHW) elevation 1.81 as compared to 35 feet for the existing bridge in the closed position. This will eliminate the need to raise the bridge to allow passage of marine vessels.

The typical deck cross-section of the mainline bridge will be two box segments each of which will carry two 12-foot traffic lanes in each direction, flanked by 3-foot and 8-foot wide inside and outside shoulders respectively, and 8-foot wide sidewalks on each side. The bridge is to be built in two halves to enable the crossing to carry a minimum of two traffic lanes throughout the construction period. The eastbound roadway (south structure) is to be constructed first while portions of the existing bridge remain in service. Upon completion of the eastbound roadway, all

traffic will be re-routed from the existing bridge to the eastbound structure. After completing demolition of the existing bridge, the westbound (north) structure will be constructed. The traffic then will be re-routed to a normal eastbound and westbound pattern on the completed new bridge.

The construction of the new Route 36 Highlands Bridge and removal of the existing bridge will require work within the waterway of the Shrewsbury River. Specifically, these activities include the construction of new piers and foundations, the erection of the superstructure, as well as the removal of the superstructure and substructure of the existing bridge, foundations and fender system. It is estimated the work will impact the waterway for approximately three years. The following is a description of the in-water work activities and the mitigation measures proposed to minimize impacts on the environment.

The bridge abutments will be constructed landward of the spring high tide line and will only require standard erosion control measures. The work associated with pier construction will be performed inside heavy-duty turbidity barriers. The Shrewsbury River is subject to tidal rise and fall, rapid currents, storms, and boat wakes. The manufacturer specifications for these systems indicate that the use of the heavy-duty versions of the different types of turbidity barriers is appropriate in these environments.

The bridge work within the river is to be constructed in several stages with the south half of the bridge built first followed by the removal of the existing bridge and construction of the north half of the new bridge. River piers 3 through 6 eastbound (EB) and westbound (WB) and 7EB consist of nine 54 inch precast concrete cylinder piles for foundation support. Piers 7WB and 10WB each have six 54 inch precast concrete cylinder piles, and pier 9WB has twelve 54 inch precast cylinder piles. The piles, footing, piers, and superstructure are designed as precast concrete segments to speed installation and allow for erection year round.

The construction will start with eastbound piers 3 and 4 and proceeding eastward across the river for the eastbound half of the bridge. Once the piers have been completed the superstructure can be erected using a balanced cantilever method so that the superstructure is being erected while the remainder of the foundations and piers are being completed. All of the work in the river is proposed to be performed using barge mounted equipment. The barges are to be stabilized by the use of spuds.

Upon completion of the south half of the new bridge, the existing bridge will begin to be demolished using cutting tools and jackhammers. Initially, the superstructure will be cut into segments and lowered onto a barge for removal and disposal. Scaffolding and shielding which will contain any debris from falling into the river will be placed during cutting and removal operations. The piers will then be cut and removed as was the superstructure. The existing piles will be removed by pulling the piles or by cutting them off a minimum of three (3) feet below the river bottom. Blasting is not anticipated at this time. All work under water will take place within the enclosed turbidity barrier placed around the footing prior to the start of demolition activities in the water. All cutting and jackhammer equipment will be required to be used with sound damping devices.

Concurrent with the removal of the existing bridge, the new foundations for the westbound structure will be constructed. Work will start with piers 10 and 9WB and work in the westbound direction.

The project also includes modification to the existing fee plaza area for Gateway National Park. The proposed work includes the installation of four new toll lanes, a parking lot, and turn around lanes located before and after the toll plaza. Existing pedestrian/bicycle trails within the project area which do not currently connect to one another will be united by new paths (including pedestrian bridges) that will connect the Borough of Highlands, the Borough of Sea Bright, and Gateway National Recreation Trail/Path.

3.0 NOISE IMPACTS

It is anticipated that three phases of the proposed bridge construction may result in increases in noise levels above ambient conditions that may result in the disturbance to breeding, nesting, and rearing behavior of piping plovers and least terns. These high-noise construction activities are as follows:

- Pier Construction – the proposed bridge piers will be constructed by driving multiple, large diameter piles into the substrate of the Shrewsbury River to form the main support structure for each of the bridge piers. These piles are driven with the use of an hydraulic hammer that can produce a noise output of as much as 101 decibels (dBA) at 50 feet,
- Bridge Demolition – demolition of the bridge structure will be conducted using jackhammers that individually can produce a sound output of up to 89 dBA,
- Roadway Improvements – The access road and toll plaza to Gateway are to be realigned and reconstructed. Due to proximity to the potential nest sites, noise associated with these activities is a potential concern.

Pile driving activities will be limited to construction of the piers, abutments, and fenders. The following is a table containing the approximate distance each pier and abutment is located from the nearest dune area.

PILE LOCATION	DISTANCE TO DUNE (ft)
East Abutment	220
Pier 8 WB	330
Pier 8 EB	341
Ramp J Abutment	352
Pier 10 WB	480
Pier 7 WB	484
Pier 7 EB	490
Pier 9 WB	559
Pier 6 WB	634

Pier 6 EB	660
Pier 5 WB	858
Pier 5 EB	860
East Fender Piling	1088
Pier 4 WB	1089
Pier 4 EB	1091
Pier 3 WB	1315
West Fender Piling	1320
Pier 3 EB	1331
Fishing Pier	1334
Pier 2 WB	1485
Pier 2 EB	1507
Pier 1 WB	1628
Pier 1 EB	1656
West Abutment	1716

Demolition of the existing bridge foundations will begin once the south half of the new bridge is completed. It is anticipated that the bridge deck and piers will be dismantled using cutting tools and jackhammers equipped with a sound dampening device. Existing piles will either be pulled or cut off three (3) feet below the stream bed. No blasting is anticipated. A detailed description of the demolition is included in the Project Description. The following table shows the approximate distances that the existing piers and abutments are from the nearest dune.

DEMOLITION AREA	DISTANCE TO DUNE (ft)
East Abutment	406
Pier 11 (Easternmost Pier)	537
Pier 10	587
Pier 9	682
Pier 8	783
Pier 7	870
Pier 6	972
Pier 5	1102
Pier 4	1247
Pier 3	1392
Pier 2	1486
Pier 1	1581
West Abutment	1639

4.0 TIMING RESTRICTION

Piping Plovers return to their nesting beaches in New Jersey as early as early March, but more regularly by late March (Walsh *et al.* 1999). Males establish a breeding territory, usually by mid-April (USFWS 2000b). Both adults incubate eggs, but the female often deserts young after hatching, leaving the male to tend young (Kaufman 1996). Eggs hatch in May or June after 30 days of incubation (Richards 1988). The young are precocial, so they leave the nest site quickly, and are able to feed themselves within a day or two of hatching (Kaufman 1996). Fledging is in roughly 21-35 days (Kaufman 1996; Richards 1988). Based on this breeding behavior, the USFWS recommended timing restrictions for certain activities in and adjacent to dune areas between March 15 and August 15 of each year of construction (see Appendix B – Correspondence). The following restrictions will be enforced:

- Construction personnel will be prohibited from entering the dune areas between March 15 and August 15 of each year,
- Use of Parking Lot B for construction staging will be prohibited from March 15 to Labor Day,
- Construction activities along the Gateway access road, including toll plaza demolition/construction, pedestrian/bicycle path construction, Parking Lot A reconfiguration, and access road milling and paving will be prohibited between March 15 and August 15. Paving may occur during the restricted period if evidence is presented to USFWS that these activities will have no adverse effect on nesting plovers or terns,
- Noise monitoring will be conducted in order to determine which activities, if any, create noise levels that exceed a level of 6 dBA above ambient. The following section includes a detailed monitoring plan including contingencies that will insure that piping plovers and least terns will not be adversely impacted by pile driving or demolition activities.

5.0 MONITORING PROGRAM

The proposed piping plover monitoring program, once the background noise levels are established, consists of two components. The first component is to monitor construction noise (primarily noise associated with pile driving) and determine which activities, if any, produce noise levels 6 dBA above ambient within the potential piping plover and least tern nesting areas. The second component consists of monitoring piping plover and least tern behavior during the breeding season (March 15 to August 15) and determine whether noise from construction activities affects breeding behavior. The following sections provide the methodologies associated with the two components of the monitoring program.

5.1 NOISE MONITORING METHODOLOGY

The noise monitoring program will be implemented by Paul Carpenter Associates, Inc.(PCA) to determine whether construction activities will result in noise levels that exceed 6 dBA above ambient within the Atlantic Coast dunes in Sea Bright and Gateway. Prior to construction activities, a baseline noise level analysis will be conducted in order to evaluate typical noise levels for the project area. Measuring noise levels within the project area is difficult due to the

high levels of background noise associated with wind and ocean waves. Noise from common sources typically occurs between 500 and 4000 Hertz (Hz). Monitoring A-weighted noise levels accounts for normal environmental noise; however, equipment utilized during construction activities are known to produce noise in lower frequencies. In order to account for these differences in frequency, noise levels will be measured utilizing an octave band analyzer. Background noise levels will be documented within the following frequencies: 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k and 16k Hertz, as well as A-weighted, using 10-minute intervals. The increases or decreases in the volume of noise are measured in decibels. By monitoring multiple frequencies, it can be determined which of the noise frequencies, if any, are responsible for increasing noise levels above the 6 dB threshold. It is anticipated that background noise monitoring will be performed until the piping plover begin nesting activities.

Since construction activities may occur over weekdays or weekends, day or night, it may be necessary to establish the background levels based on twenty-four (24) hour periods. The need for weekend data is the limiting factor for this project since there are less weekend days than week days, making a trend harder to establish. Further more, weekend noise levels documented in March may not be representative of weekend noise levels during other times of the year. The amount of noise data required to establish a noise level trend is dependent on the deviation of noise levels once filtered. Deviation of noise levels can be caused by the weather or uncharacteristic noise events. Any period with inappropriate meteorological conditions such as high winds, high relative humidity or any precipitation event will be filtered from the data set. The most appropriate NOAA station will be utilized for meteorological data to determine what monitoring periods need to be filtered from the data set.

In addition to identifying background noise levels, it will be appropriate to determine the level of noise protection offered by the sea wall, located between the dunes and the project area. For this task, a Norsonics hemi-dodecahedron sound source and amplifier will be utilized. This powerful sound source will be placed west of the sea wall and will produce pink noise, essentially as a flat frequency response. Noise levels will also be documented at the source as well as at various locations along the shore line (east of the sea wall). It is important to note that noise levels will be documented near the ground. All measurement periods will be within two minute durations, one minute without the sound source (background) and one minute with the sound source producing obtrusive pink noise. The data obtained within this task will assist in understanding the noise level reduction offered by the sea wall. This task was performed on March 18th of 2008.

But the construction won't be performed in the same area as the pink noise measurement.

It is anticipated that pile driving activities will begin in June 2008. To monitor these activities, one (1) long-term noise level meter will be placed outside the piping plover nesting area but in a location that is protected from much of the wind and wave interferences associated with the dunes. Noise levels at this station will be continuously monitored during construction. Based on previous data obtained at the site and numerical propagation modeling, noise levels within the dune area will be calculated. Once a piping plover nest is established, numerical propagation modeling can predict what level of noise exposure is being experienced by the plovers. Data from this monitor can be downloaded and analyzed as needed.

5.2 BEHAVIOR MONITORING METHODOLOGY

Between the periods of March 15 and August 15 of 2008, piping plover and least tern behavior will be monitored by a qualified biologist when pile driving and demolition activities are undertaken. Behavior monitoring will be conducted concurrently with noise monitoring, and observations will be recorded for one hour before construction, during construction, and for one hour after the noise impacts cease. Biologists will be supplied with a checklist of possible behaviors and impacts. The following incubation/brooding behaviors will be recorded: courting/display, nest selection/building, incubation, preening, resting, adult with young, exchange of incubation duties, foraging, and no birds present. The following alert/flight behaviors will be recorded: alert (standing), alarm vocalization, flight, chase flight, retreat flight, skirmish (ground), broken wing display, false incubation display, seek cover, and walk-retreat. The following impacts other than construction noise will be recorded: dog on leash, dog unleashed, predator aerial, predator ground, bird harassment, human pedestrian – stays on trail, human trespasser – ignores fencing, unknown, and other (boat, plane, etc.).

“One-Zero Sampling” will be used to quantify behavior of Piping Plovers before, during, and after exposure to construction noise. In this procedure, a behavior presence (+) or absence (nothing) will be recorded only once during a standard short-time interval of 5 minutes. More than one behavior can be recorded during each 5 minute observation interval. Any suspected impacts on behavior other than construction noise will also be recorded during the same time interval. The benefits of this sampling design are as follows:

- More than one behavior type or other impact type can be represented during each time interval,
- Continuous behavior is broken into systematic time intervals which can be quantified,
- Start and finish times for each behaviors do not need to be recorded, and
- Monitoring continues unbiased regardless of noise impact times.

6.0 CONTINGENCY PLAN

Based upon a 2001 study conducted by ASGECI on the effects of pile driving noise on piping plover associated with the Ocean City-Longport Bridge replacement project, the USFWS has determined that noise levels of 6 dBA or less above ambient have no detrimental effect on piping plover breeding behavior. The purpose of this noise monitoring program is to determine whether pile driving and demolition activities associated with the replacement of the Route 36 Bridge will result in noise levels that exceed 6 dBA above ambient in the vicinity of piping plover nests. There are a total of 18 piers and 3 abutments associated with the proposed bridge. Each pier consists of a support structure made up of multiple piles, each of which must be driven into the substrate by an impact hammer. Conducting behavioral monitoring of piping plovers for each of the proposed piers and abutments would be extremely expensive; therefore, this contingency plan has been designed to determine which activities will require piping plover behavior monitoring and which will not. There are several possible scenarios associated with this study, and each

scenario will require a set of contingencies to insure that breeding piping plovers will not be disturbed. These scenarios are as follows:

- Pile driving and demolition activities conducted between March 15 and August 15 of 2008 will require that noise monitoring and piping plover behavior monitoring be conducted concurrently with the construction activity.
 - If behavior monitoring indicates that plover behavior is being altered by the noise, the biologist will immediately inform the contractor that work must cease.
 - The contractor will then have the option of implementing noise mitigation measures to reduce the noise levels reaching the nesting area.
 - If noise mitigation measures are not successful at eliminating the disturbance to the piping plovers, the activity must cease for the duration of the breeding season and will only be allowed between August 16 and March 14.
- If behavior monitoring conducted between March 15 and August 15 of 2008 indicates that the construction activity has no negative impacts to piping plover behavior, behavior monitoring for that activity at that location will not be required during the 2009 or 2010 nesting season (e.g., pile driving at pier 3).
- Pile driving and demolition activities conducted between August 16, 2008 and March 14, 2009 will require that noise levels be monitored and recorded.
 - If noise levels associated with pile driving and demolition within the nesting area are greater than 6 dBA above ambient, and the activity is to continue into the restricted period (March 15 to August 15), piping plover behavior monitoring will be required during the restriction period.
 - If behavior monitoring indicates that plover behavior is being altered by the noise, the monitor will immediately inform the contractor that work must cease.
 - The contractor will then have the option of implementing noise mitigation measures to reduce the noise levels reaching the nesting area.
 - If noise mitigation measures are not successful at eliminating the disturbance to the piping plovers, the activity must cease for the duration of the breeding season and will only be allowed in the unrestricted period between August 16 and March 14.
- If noise monitoring conducted between August 16, 2008 and March 14, 2009 indicates that noise levels associated with pile driving or demolition are less than 6 dBA above ambient, and that activity at that location is to continue into the restricted period, no behavior monitoring will be required.

7.0 SCHEDULE

Initial test pile installation is scheduled to begin on May 6, 2008. A Preliminary Baseline Schedule is included in Appendix C.

8.0 DELIVERABLES

A noise monitoring report that details background noise levels east and west of the seawall will be prepared and submitted to USFWS and NJDEP ENSP. This report will contain all noise monitoring results for that time period as well as an assessment of what activities will require behavior monitoring if conducted during the restricted nesting period between March 15 and August 15. For pile driving and demolition activities that require piping plover behavior monitoring, monitoring reports will be submitted to the USFWS and NJDEP ENSP on a weekly basis. If however, any activities result in the disturbance to nesting plovers, the USFWS, NJDEP ENSP, and NPS will be informed immediately.

9.0 REFERENCES

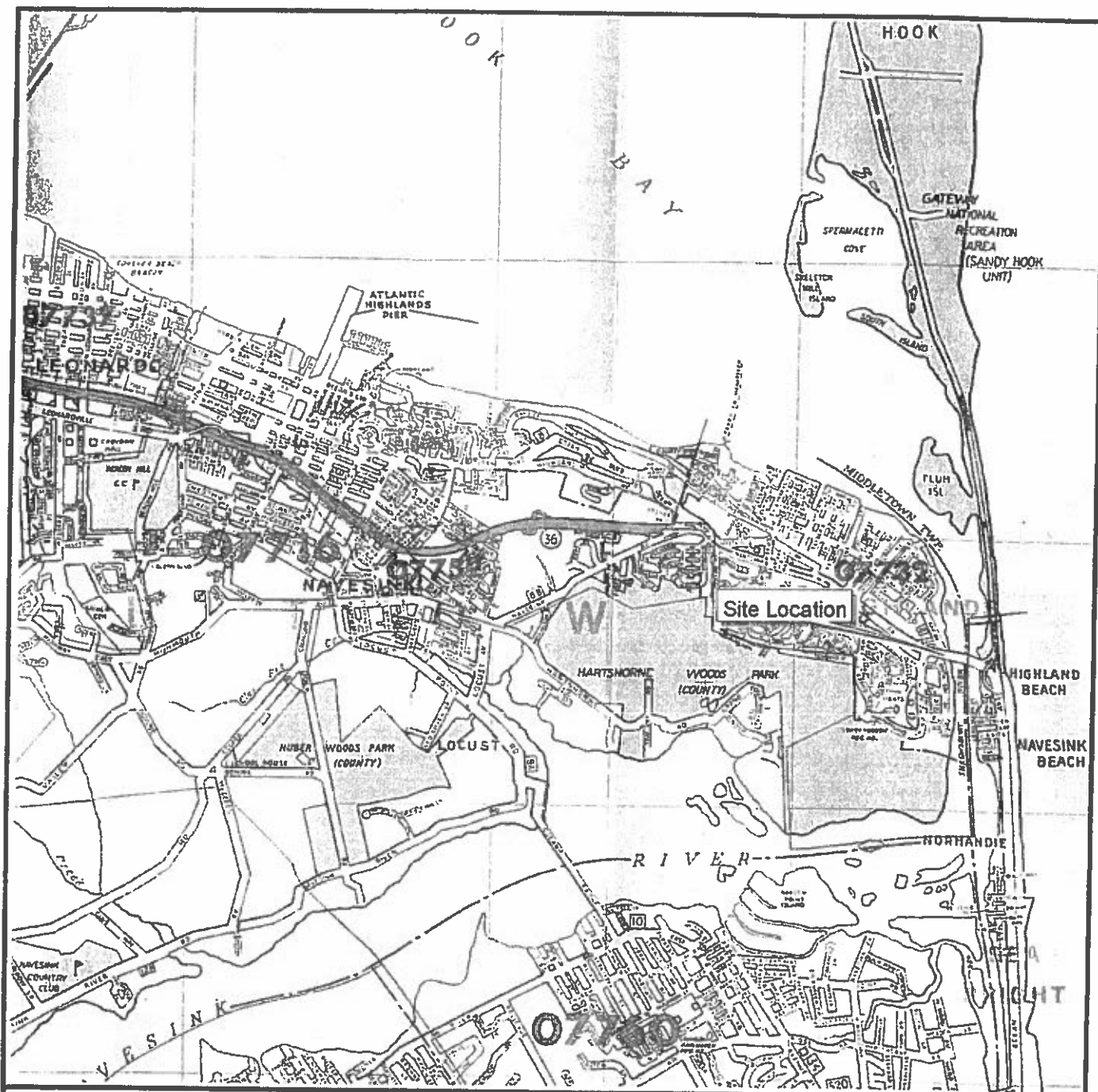
- Kaufman, K. 1996. Lives of North American Birds. Houghton Mifflin Company, Boston.
- Richards, A. 1988. Shorebirds, A Complete Guide to Their Behavior and Migration. Gallery Books, W.H. Smith Publishers, New York.
- U.S. Fish and Wildlife Service. ¹⁹⁷⁶2000. Recovery Plan: Life History and Ecology, Piping Plover, Atlantic Coast Population. Sudbury, Massachusetts.
- Walsh, J., V. Elia, R. Kane and T. Halliwell. 1999. Birds of New Jersey. New Jersey Audubon Society, Bernardsville. New Jersey.

APPENDIX A
SITE FIGURES

Figure 1 - County Road Map

Figure 2 - USGS Topographic Map

Figure 3 - SSurgo Soils Map



SOURCE: Street Map of Monmouth County, NJ,
Hagstrom Inc., 2001.

FIGURE 1 COUNTY ROAD MAP

Route 36 Highlands Bridge
Over Shrewsbury River
Sea Bright Boro
Monmouth County, New Jersey

ASGECI Project #2184

AMY S. GREENE
ENVIRONMENTAL CONSULTANTS, INC.



0 4693'





LEGEND

NJ State Plane coordinates at approximate locations within the site.

	North	East
Point #1	570,822'	637,814'
Point #2	569,760'	637,627'
Point #3	568,926'	638,147'
Point #4	569,801'	636,541'



SITE LOCATION

SOURCE:
Monochromatic 88-Mapped 7.5 Minute Topographic Images of New Jersey, Gregory C. Herman and Maryann C. Scott, N.J. Geological Survey Digital Geodata Series DGS99-1, May 27, 1999, derived from USGS 7.5 Minute Digital Raster Graphic (DRG) Topographic Series Map, Sandy Hook and Long Branch N.J. Quadrangles.

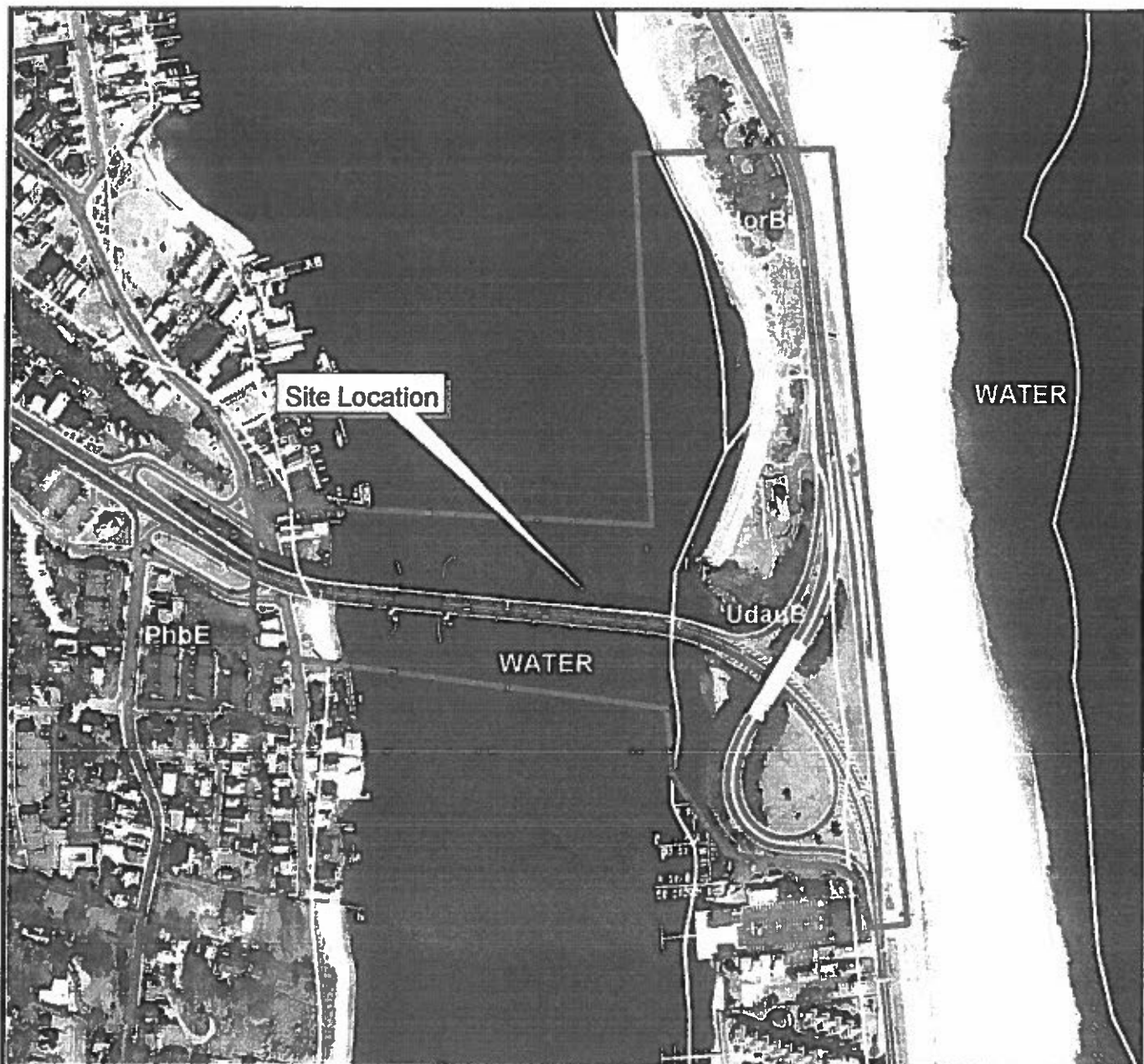
0 2000'

FIGURE 2 USGS TOPOGRAPHIC MAP

Route 36 Highlands Bridge
Over Shrewsbury River
Sea Bright Boro
Monmouth County, New Jersey

ASGECI Project #2184

AMY S. GREENE
ENVIRONMENTAL CONSULTANTS, INC.



LEGEND

HorBr - Hooksan sand, 0 to 5% slopes, rarely flooded
 PhbE - Phalanx loamy sand, 10 to 25% slopes
 UdauB - Udorthens-Urban land complex, 0 to 5% slopes

SOURCES:
 Soil Survey Geographic (SSURGO) database
 for Monmouth County, New Jersey, U.S. Department of Agriculture, Natural
 Resources Conservation Service, Fort Worth, Texas,
 January 2005.

Aerial Photography was obtained from NJDEP Office of Information Resources
 Management, Bureau of Geographic Information and Analysis, 1995/97 Color Infrared
 Digital Imagery, Index #rx-x.

This (map/publication/report) was developed using New Jersey Department of
 Environmental Protection Geographic Information System digital data, but this
 secondary product has not been verified by NJDEP and is not state-authorized.



0 400'



FIGURE 3 SSURGO SOILS MAP

Route 36 Highlands Bridge
 Over Shrewsbury River
 Sea Bright Boro
 Monmouth County, New Jersey

ASGECI Project #2184

AMY S. GREENE

ENVIRONMENTAL CONSULTANTS, INC.



APPENDIX B
CORRESPONDENCE



United States Department of the Interior

FISH AND WILDLIFE SERVICE



In Reply Refer To:
2006-I-0032

New Jersey Field Office
Ecological Services
927 North Main Street
Pleasantville, New Jersey 08232
Phone: (609) 646-9310 FAX: (609) 646-0352
<http://fws.gov/northeast/njfieldoffice>

#2184

SEP 22 2006

Bill Romaine, Senior Project Manager
Amy S. Greene Environmental Consultants
4 Walter E. Foran Blvd., Suite 209
Flemington, New Jersey 08822

RECEIVED

SEP 25 2006

Dear Mr. Romaine:

This responds to a July 5, 2006 request from Amy S. Greene Environmental Consultants, Inc. (ASGECI) to the U.S. Fish and Wildlife Service (Service) to initiate informal consultation on behalf of the Federal Highway Administration (FHWA) regarding potential impacts to federally listed species from the New Jersey Department of Transportation's (NJDOT) proposed Route 36 Shrewsbury River Bridge Replacement Project (ASGECI Project #2184) located in Highlands Borough, Sea Bright Borough, and the Sandy Hook Unit of Gateway National Recreation Area (Sandy Hook), Monmouth County, New Jersey.

AUTHORITY

This response is provided pursuant to Section 7 of Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of endangered and threatened species.

BACKGROUND

Via letter dated July 9, 2002 (our log # PL-USCG-02/185), the Service responded to U.S. Coast Guard (USCG) Public Notice No. 1-974 regarding an application for a permit for the proposed project pursuant to Section 9 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). As indicated in our 2002 letter and subsequent correspondence in 2003 (ES-03/053) and 2005 (ES-05/076), the federally listed (threatened) piping plover (*Charadrius melodus*) and seabeach amaranth (*Amaranthus pumilus*) occur in sandy beach areas immediately adjacent to the proposed project in a contiguous distribution from Sandy Hook south into Sea Bright. A map of recent piping plover nest sites is enclosed. However, piping plovers may engage in nesting behaviors (e.g., courtship, territorial defense, nesting, brood rearing), and seabeach amaranth plants may occur, anywhere on the adjacent beach. As indicated in past Service correspondence, piping plovers and seabeach amaranth may be adversely affected if project implementation will require construction, staging, or any other activities within beach, dune, or intertidal habitats. In addition, piping plovers may be adversely affected by construction-related noise or activity adjacent to the beach.

Potential adverse impacts have been identified, as well as opportunities to benefit listed species, based on ASGECI's June 5, 2006 correspondence, subsequent Service coordination with you and the NJDOT, and a September 12, 2006 meeting and site visit held at Sandy Hook. Meeting participants included representatives from ASGECI, NJDOT, Sea Bright Borough, the National Park Service (NPS), the Service, the New Jersey Endangered and Nongame Species Program (ENSP), and the New Jersey Land Use Regulation Program (LURP). This letter addresses each identified potential impact and opportunity.

The NJDOT has indicated that project funding will be provided by the FHWA. The Service will forward a copy of this letter to the FHWA, as the lead federal action agency pursuant to Section 7 of the ESA. The USCG and all participants at the September 12, 2006 meeting will also be provided with copies of this letter.

DIRECT IMPACTS TO LISTED SPECIES

The Service normally recommends restrictions on construction activities within 100 meters (330 feet) of piping plover nesting areas, and fencing and avoidance of seabeach amaranth plants in construction areas. The NJDOT proposes to work within 220 feet of the landward edge of the dune, with a year-round construction schedule that includes the piping plover nesting season (March 15 through August 15) and the seabeach amaranth growing season (May 15 through December 1). The Service does not anticipate any direct impacts to listed species (e.g., mortality, injury, harassment) because the construction areas are separated from the beach by an existing 15 to 20-foot-high seawall. As a Conservation Measure, the Service recommends that project contracts prohibit construction personnel from entering the beach (seaward of the seawall) in the course of their work, either on foot or via motorized vehicle.

ADVERSE IMPACTS TO HABITAT

Your July 5, 2006 letter indicates that the only impacts to dune areas will occur landward of the existing seawall in Sandy Hook, as will an associated dune mitigation project. No work is proposed seaward of the seawall (e.g., in dune, beach, or intertidal areas). Based on this project information and the site visit, the Service concurs that the project as proposed is not likely to adversely affect habitat for federally listed species. This determination may be reconsidered if project plans change to include any work seaward of the seawall, including grading, storage or staging of equipment or material, or access for construction personnel.

ADVERSE IMPACTS FROM NOISE AND DISTURBANCE

Bridge Construction and Demolition

The NJDOT proposes year-round work on construction of the new bridge and demolition of the existing bridge, including the piping plover nesting seasons (March 15 through August 15) in 2007 and 2008. Noise from pile driving and demolition may disturb birds nesting on the adjacent beach. Your July 5, 2006 letter indicates that the closest pile driving will take place 220 feet from the landward edge of the dune, and the closest demolition area will be 406 feet from the dune.

At our September 12, 2006 meeting, the NJDOT agreed to a general Conservation Measure to maintain noise levels at or below those that were documented to produce no observable changes in piping plover behaviors at the north Ocean City nesting area during replacement of the Longport Bridge (Atlantic and Cape May Counties) in 2001. An ASGECI monitoring report for the Longport Bridge project, dated May 10, 2002 recorded pile driving noise at an increase of 6 to 10 decibels (dBA) above ambient noise levels and vibratory hammer noise at an increase of about 3 dBA above ambient in the nesting area, which was located about 600-800 feet from pile driving and 400-600 feet from the vibratory hammer. At these noise levels, no changes in piping plover behavior were observed that could be clearly attributed to noise exposure (*i.e.*, distinguished from normal behaviors or from distress behaviors caused by other disturbances such as humans or predators).

Based on the above information observations from a similar construction project, the Service recommends the following.

- Adopt a Conservation Measure to keep noise on the beach from pile driving and demolition at or below 6 dBA above ambient between March 15 and August 15.
- Submit a plan to achieve the above noise limit. Possible methods discussed with NJDOT include equipment to muffle sound and scheduling work on the east side of the Shrewsbury River outside of the nesting season.
- Submit a schedule of planned pile driving and demolition activities during the 2007 and 2008 nesting seasons, and a description of the proposed work and equipment (*e.g.*, no blasting is proposed for demolition).
- Measure dBA levels on the beach during the driving of test piles on both the west and east sides of the Shrewsbury River currently scheduled for June 2007 and spring 2008, respectively. If possible, record noise from the test piles during quiet early morning hours when birds are particularly active, on calm days to avoid interference from wind. Noise dampening effects of the seawall or amplification from nearby hills are unknown; therefore, the Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile (1,320 feet) to the north and south.
- Measure ambient dBA levels on the beach twice per month during March, May, and June 2007, during both quiet early morning hours and later in the day, for comparison to ambient levels at the north Ocean City nesting area. The Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile to the north and south.
- Submit a monitoring contingency plan to detect any changes in piping plover behavior if, based on monitoring of test piles, noise levels in nesting areas are projected to approach the limit of 6 dBA above ambient during the nesting season. Continuous monitoring is not necessary and may disturb nesting birds; however, an approved monitor should be present during any work activities that may approach the 6 dBA noise limit. Monitoring must be coordinated closely with the Service and the ENSP, and monitors must have authority to temporarily halt work if birds are disturbed.

Staging Areas

Parking Lot B in Sandy Hook will be made available to the construction contractor as a staging area. Parking Lot B is located immediately adjacent to an active piping plover nesting area. The NPS has seasonally restricted use of this staging area between Memorial Day and Labor Day. However, adverse effects to listed species may occur between March 15 and Memorial Day, including noise, disturbance, attraction of predators to trash, and unauthorized intrusions into beach habitats used by the species. The NJDOT discussed extending the seasonal restriction to avoid such impacts. The Service concurs and recommends adoption of a seasonal restriction to prohibit use of Parking Lot B as a staging area between March 15 and Labor Day as a Conservation Measure.

Road Work

As part of the proposed project, the NJDOT will reconfigure and repave the southern portion of Hartshorne Drive, the major roadway into Sandy Hook. South of the Sandy Hook Fee Plaza, the road is located adjacent to an active piping plover nesting area. The Service recommends a Conservation Measure to conduct this road work outside of the nesting season. However, NJDOT has described difficulties of paving during winter months. As an alternative, the NJDOT may submit a brief assessment of the potential for paving to adversely affect listed species to allow the Service to determine if this aspect of the road work may proceed during the nesting season. The Service continues to recommend seasonally restricting other aspects of the road work (milling, grading) to avoid the nesting season.

Pedestrian/Bicycle Path and Parking Lot Reconfiguration

As part of the proposed project, the NJDOT will reconfigure the Sandy Hook Fee Plaza and the adjacent Parking Lot A. The NJDOT will also install a pedestrian/bicycle path between the seawall on the east and Hartshorne Drive or the Fee Plaza on the west, to connect paths in Highlands Borough with the Sandy Hook Multi-Use Pathway via the new bridge. The NPS proposes changes to the seasonal use patterns of Parking Lot A following reconstruction. The Service recommends conducting this work outside the nesting season, and submission of a plan to prevent an increase in the incidence of unauthorized intrusions into nesting areas from changes in the parking lot and installation of the new path. Measures to prevent nesting area intrusions may include fencing, signs, and monitoring, and should be consistent with the Conservation Measures and Terms and Conditions of the Service's 2003 Biological Opinion for the Multi-Use Pathway (copy enclosed).

OPPORTUNITIES FOR BENEFICIAL IMPACTS

As the proposed dune impacts and mitigation are located landward of the seawall, the Service has determined that no opportunities exist for habitat improvement incidental to the proposed Route 36 bridge project.

During the September 12, 2006 site visit, the agencies discussed the possibility of reconfiguring the seawall adjacent to the bridge to reduce the frequency of vehicle trips by Sea Bright public works staff through piping plover nesting habitat. This opportunity was identified in a beach management plan recently adopted by Sea Bright Borough. However, NPS staff raised concerns that the proposed seawall modification may increase unauthorized entries into Sandy Hook, including intrusions into nearby piping plover nesting areas. Therefore, the Service does not recommend pursuing this option at this time.

SUMMARY RECOMMENDATIONS

Conservation Measures

The Service recommends adoption of the following Conservation Measures as binding provisions of the Route 36 Bridge Replacement Project to minimize adverse impacts to listed species. Additional Measures may be recommended based on the additional information requested in this letter. To be considered in the Service's effects analysis (and determination if the project is likely to adversely affect listed species), Conservation Measures must be officially adopted in writing by the action agency (FHWA) or its non-federal representative (NJDOT).

1. Prohibit construction personnel from entering the beach in the course of their work, either on foot or via motorized vehicle.
2. Keep noise on the beach from pile driving and demolition at or below 6 dBA above ambient between March 15 and August 15.
3. Prohibit use of Parking Lot B as a staging area between March 15 and Labor Day.
4. Conduct road work outside of the nesting season. Paving, which may not be feasible in winter, may proceed during the nesting season if this aspect of the work can be shown to not adversely affect listed species.
5. Reconfigure the Fee Plaza and Parking Lot A, and install the bicycle/pedestrian path, outside the nesting season.

Additional Information

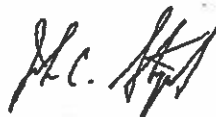
The Service requests the following additional information to determine if modification or addition of Conservation Measures is needed to avoid adverse effects to listed species.

1. A plan to achieve the noise limit of 6 dBA above ambient on the beach during the nesting season. Possible methods discussed with NJDOT include equipment to muffle sound and scheduling work on the east side of the Shrewsbury River outside of the nesting season.
2. A schedule of planned pile driving and demolition activities during the 2007 and 2008 nesting seasons, and a description of the proposed work and equipment.

3. Noise (dBA) levels on the beach during the driving of test piles on both the west and east sides of the Shrewsbury River currently scheduled for June 2007 and spring 2008, respectively. If possible, measure noise from test piles during quiet early morning hours when birds are particularly active, on calm days to avoid interference from wind. Because of the unknown effects of the seawall and nearby hills, the Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile (1,320 feet) to the north and south.
4. Ambient dBA levels on the beach collected twice per month March, May, and June 2007, during both quiet early morning hours and later in the day, for comparison to ambient levels at the north Ocean City nesting area. The Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile to the north and south.
5. A monitoring contingency plan to detect any changes in piping plover behavior if, based on monitoring of test piles, noise levels in nesting areas are projected to approach the limit of 6 dBA above ambient during the nesting season. Continuous monitoring is not necessary and may disturb nesting birds, but an approved monitor should be present during work activities that may be close to the noise limit. Monitoring must be coordinated closely with the Service and the ENSP, and monitors must have authority to temporarily halt work if birds are disturbed.
6. A plan to prevent an increase in the incidence of unauthorized intrusions into Sandy Hook nesting areas from changes in the use of Parking Lot A and installation of the new bicycle/pedestrian path. Measures to prevent nesting area intrusions may include fencing, signs, and monitoring, and should be consistent with the Conservation Measures and Terms and Conditions of the Service's 2003 Biological Opinion for the Sandy Hook Multi-Use Pathway (copy enclosed).

The Service appreciates the cooperation of the NJDOT in avoiding adverse impacts to listed species from the Route 36 Bridge Replacement Project. Please contact Wendy Walsh of my staff at (609) 646-9310, extension 48 if you have any questions regarding the above recommendations to protect federally listed species, or the consultation process.

Sincerely,



John C. Staples
Assistant Supervisor

Enclosures

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

(See Issuing Division below)

PERMIT*

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the Permittee upon acceptance of the permit.

Permit No. 1308-06-00021.CAF060001.WFD060001.FWW060001
CWN060001, CDT060001

Application No. 1308-06-00021.1.CAF060001.WFD060001.FWW060001
CWN060001, CDT060001

Issuance Date November 22, 2006		Effective Date Same as Issuance date		Expiration Date November 22, 2011	
Name and Address of Applicant NJDOT 1035 Parkway Avenue, P.O.Box 600 Trenton, NJ 08626-0600		Name and Address of Owner Applicant		Name and Address of Operator Applicant	
Location of Activity/Facility (Street Address) Sea Bright and Highlands Boroughs Monmouth County		Issuing Division Land Use Regulation Program		Statute(s) NJSA 13:19 (CAFRA) NJSA 12:5-3 (WDA) NJSA 13:9A (CWA 1970) NJSA 13:9B (FWPA) NJSA 58:10A (WQCA)	
Type of Permit: CAFRA, Waterfront Development, Coastal Wetlands, Freshwater Wetlands GP10B, Water Quality Cert.				Maximum Approved Capacity, if applicable	
<p>This permit grants permission to: Replace the existing movable Route 36 bridge over the Shrewsbury River with a new fixed bridge with a minimum vertical clearance of 85 feet above Mean High Water elevation 1.81, improvements to roadway approaches to the new bridge and install new drainage structures, in the Boroughs of Highland and Sea Bright, Monmouth County. Work will also include the construction of four new toll lanes, a parking lot with fisherman access and turn around lanes before and after the toll plaza within the Gateway National Park, extension of the existing pedestrian/bicycle access trail from the Borough of Sea Bright to meet the existing trail within the Gateway National Park and the construction of a new fishing pier for public access at the south west corner of the bridge consisting of a 6' x 100' fixed pier with a 8' x 45' "T" over the waters of the Shrewsbury River in the Borough of Highlands.</p> <p><u>Limit of authorized disturbance</u></p> <p>The proposed construction will temporarily impact .007 acres of mapped coastal wetlands, permanently impact .14 acres of freshwater wetlands and wetland transition areas under a Freshwater Wetlands Statewide General Permit 10B, permanently impact .296 acres of state open waters for the installation of the bridge piers, creation of .345 acres of open water due to the removal of existing piers, permanently impact .075 acres of intertidal subtidal shallows, creation of .084 acres of intertidal subtidal shallows due to the removal of the bridge abutments, permanently impact .037 acres of dunes and the restoration of .236 acres of dune.</p> <p>See Page 2 for Approved Project Plans</p> <p>Prepared By: <u>Priya Sundaram</u> Priya Sundaram</p>					
Revised Date		Approved by the Department of Environmental Protection			
		Name (Print or Type) <u>Charlie Welch</u>		Title <u>Supervisor</u>	
		Signature <u>SEE FINAL PAGE</u>		Date	

*The word permit means "approval, certification, registration, etc."

(General Conditions are on Page 3)

1300-06-0002.1CAFO60001, WPD060001, FW060001, CW060001, CDT060001

The authorized work is as shown on plans, on sheets listed below and entitled, "State of New Jersey Department of Transportation, Plans of Route 36, From the vicinity of Route 38 STA.100+00 to the vicinity of Ocean Avenue STA.129+44.73, Contract No. ", Grading, Paving and Structures, Borough of Highlands and Sea Bright, Monmouth County", dated March 13, 2006 and prepared by Jacobs Civil, Inc.

1. "CONSTRUCTION PLAN" SHEETS C-1 to C-8
2. "SOIL EROSION PLAN" SHEETS SE-1 to SE-8
3. "UTILITY & DRAINAGE PLAN" SHEETS U&D-1 to U&D-7
4. "OVERALL GENERAL PLAN AND ELEVATION" 2 SHEETS:
"GENERAL PLAN AND ELEVATION 1"
"GENERAL PLAN AND ELEVATION 2"
5. "WEST ABUTMENT PLAN AND SECTION"
6. "EAST ABUTMENT PLAN AND SECTION"
7. "RAMP J PLAN AND SECTION"
8. "FOOTING PLAN PIER 1 EB AND WB"
9. "FOOTING PLAN PIER 2 EB AND WB"
10. "FOOTING PLAN PIERS 3,4,5 & 6 EB AND WB"
11. "FOOTING PLAN PIER 7 EB AND WB"
12. "FOOTING PLAN PIER 8 EB AND WB"
13. "FOOTING PLAN PIER 9"
14. "FOOTING PLAN PIER 10 RAMP J"

A Tidelands Instrument is required for this project (Tidelands application/Docket No. 06-0289-T).

The issuance of this permit is in no way construed as a relinquishment by the State of New Jersey of any tidelands right, title or interest in the subject property or in any land surrounding it.

This permit is authorized under and in compliance with the Freshwater Protection Act Rules at N.J.A.C. 7:7A and all applicable Rules on Coastal Zone Management (N.J.A.C. 7:7E-1.1 et seq.) specifically, Intertidal and Subtidal Shallows 7:7E-3.15, Dunes 7:7E-3.16, Wetlands 7:7E-3.27, Wetland Buffers 7:7E-3.28, Endangered or Threatened Wildlife or Plant Species Habitat 7:7E-3.38, Geodetic Control Reference Marks 7:7E-3.47, Rule on Location of Linear Development 7:7E-6.1, Basic Location Rule 7:7E-6.2, Transportation Use Rule 7:7E-7.5, Stormwater Runoff 7:7E-8.7 Public Access to the Waterfront (7:7E-8.11) and Traffic 7:7E-8.14.

1300-06-0002, 1CAF060001, WFD060001, FWW060001, CW060001, CDT060001

Transition Areas

The Freshwater Wetlands affected by this permit authorization will be of intermediate resource value, requiring a 50 foot Transition Areas. This permit includes a transition area waiver which allows encroachment only in that portion of the transition area that has been determined by the Program to be necessary to accomplish the authorized activities. Any additional regulated activities conducted within the standard Transition Area on site shall require a separate Transition Area Waiver from the Program. Regulated activities within a transition area are defined at N.J.A.C. 7:7A-6.2(a).

The authorization of activities included in this permit also includes a Water Quality Certificate.

The Permittee shall allow an authorized representative of the Department of Environmental Protection the right to inspect construction pursuant to N.J.A.C. 7:7-1.6(b)4.

PERMIT CONDITIONS

The Director of the Land Use Regulation Program hereby finds the applicable findings as required by the Rules on Coastal Zone Management will be met to the satisfaction of the Land Use Regulation Program. The issuance of this permit is contingent upon compliance with the conditions below and failure to comply with any or all conditions may result in appropriate enforcement action and revocation of this permit. Compliance with Administrative Conditions shall be determined once copies of all specified permits, certifications, plans, agreements, etc. have been received, not less than 30 days prior to construction, and approved by the Land Use Regulation Program. All other conditions are subject to on-site compliance inspection by the Bureau of Coastal and Land Use Enforcement. As per N.J.A.C. 7:7E-1.4, the permittee must notify the Bureau of Coastal and Land Use Enforcement, (1510 Hooper Avenue, Toms River, N.J. 08753), in writing at least three (3) days prior to commencement of construction.

Coastal Permit General Conditions

1. This permit is revocable, or subject to modification or change at any time, pursuant to the applicable regulations, when in the judgment of the Department of Environmental Protection of the State of New Jersey such revocation, modification or change shall be necessary.
2. The issuance of the permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application.
3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.
4. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey.
5. The granting of this permit shall not be construed to, in any way, affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership.
6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.

1300-06-0002, 1CAF060001, WFD060001, FW060001, CW060001, CDT060001

7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.
8. In cases of conflict, the conditions of this permit shall supersede the plans and/or engineering data.

CONDITIONS OF THE CAFRA PERMIT

The activities allowed by this authorization shall comply with the following conditions as well as the conditions noted at N.J.A.C. 7:7A-9.2 and 9.3.

ADMINISTRATIVE CONDITIONS

1. This permit is NOT VALID until the permit acceptance form has been signed by the applicant, accepting and agreeing to adhere to all permit conditions, and returned to the Land Use Regulation Program at P.O.Box 439, Trenton, NJ 08625.
2. This permit, including all conditions listed herein, shall be RECORDED in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES in the applicable counties) in the county wherein the lands included in the permit are located within ten (10) days after receipt of the permit by the applicant. A copy of the recorded permit shall be forwarded to the Land Use Regulation Program immediately thereafter.
3. Prior to any construction activities, the permittee must obtain authorization from the State Historic Preservation Office.
4. Prior to any construction activities, the Permittee must obtain a Department of the Army authorization. You are advised to contact the New York District at (212) 264-3622.
5. Prior to start of any construction activities, the Permittee must obtain a Tidelands instrument from the Bureau of Tidelands Management. Failure to comply with this condition will result in fines up to \$1000 plus \$100 per day, a higher fee for the conveyance and possible prosecution by the Attorney General's Office to remove authorized structures and pay use and occupancy charges.
6. Prior to any construction activities, the permittee must receive authorization from the Monmouth County Soil Conservation District.
7. Prior to conducting temporary or permanent activities associated with the construction of the public access fishing pier on municipal parkland (Block 8, Lot 2) which is Green Acres encumbered land, the permittee must obtain approval from the Green Acres Program and the State House Commission.
8. The fishing pier to be constructed on Block 8, Lot 2 for public access shall be deed restricted. The deed restriction language shall include the Department approved project plans for the public access fishing pier, the use of non polluting materials for the pier construction and shall prohibit the removal, rehabilitation or reconstruction of this pier without the prior approval of the Department's Division of Land Use Regulation and the Green Acres Program. The restriction shall be included on the deed, and recorded in the office of the County Clerk (REGISTRAR OF DEEDS AND MORTGAGES), in the county wherein the lands included in the permit are located

1300-06-0002.1CAPO60001, WFD060001, FWW060001, CW060001, CDT060001

PHYSICAL CONDITIONS

1. This Permit authorizes activities within the waterfront area and results in permanent maximum disturbance of 0.14 acres of freshwater wetlands and wetland transition areas, 0.301 acres of state open waters for the installation of the bridge piers and 0.075 acres of intertidal subtidal shallows. Additional project impacts include temporary disturbance of 0.223 acres of wetland transition areas and 0.007 acres of mapped coastal wetlands for access and shading impacts of 2.649 acres of State open waters.
2. The proposed activities shall not disturb more than 0.037 acres of dunes. Dune areas impacted shall be mitigated by creating 0.236 acres of dune habitat. Prior to construction, the permittee shall submit to the Division's Roads and Infrastructure Unit, a dune restoration plan developed in accordance with the Coastal Zone Management Rules for Standards applicable to dune creation and maintenance (N.J.A.C. 7:7E-3A.4) for review and approval.
3. All wetland and wetland transition areas disturbed for access must be vegetated upon completion of the activity. The disturbed wetland should be allowed to naturally re-vegetate, however, if it is necessary to prevent erosion, the area may be seeded with wetland seed mixture to stabilize the ground until natural vegetation re-establishes. Re-vegetation with native species is required only when disturbances within the work area have resulted in destruction of vegetation and disturbance to the soil, which would preclude natural re-vegetation within one growing season.
4. Soil and erosion controls shall be installed in accordance with the approved plans prior to any earth moving activity and maintained for the duration of the disturbance until the soils are stabilized. The permittee shall monitor all erosion and sediment controls daily and repair as needed to maintain compliance with the approved plans and conditions contained in this permit to ensure that sediment release from decanted or filtered water is near zero prior to being discharged into wetlands or State open water.
5. In order to protect the anadromous fisheries resources of the Shrewsbury River, instream sediment generating activities within the State open waters on site are prohibited between April 1 to June 30 of each year. The Department reserves the right to suspend all regulated activities on site should it be determined that the applicant has not taken proper precautions to ensure continuous compliance with this condition.
6. All demolition materials must be disposed of at an approved site. Under no circumstances should material be disposed of in wetlands, state open waters, or other environmentally sensitive areas.
7. Any and all precautions are to be taken to prevent raw concrete, which is toxic to fish, from coming in contact with the waters of the Shrewsbury River. No pumped water form grout/concrete operations may be discharged directly to the waterway. All pumped water shall be discharged to a holding tank and disposed of properly.
8. Positive means shall be taken to prevent any hot work, debris or construction material from entering the waterway. This includes sandblasting material, paint, or epoxy and any concrete work by-products. If welding or burning is to take place, some type of flame-proof material shall be the uppermost protective containment material.
9. Prior to the construction of the piers, Heavy duty turbidity barriers shall be placed in the water around the pier construction areas. Work associated with the pier construction must be performed inside these heavy duty turbidity barriers.

1300-06-0002.1CAF060001, WFD060001, PWW060001, CW060001, CDT060001

10. All of the work proposed in the river shall be performed using barge mounted equipment. In the event the use of the barge is not feasible, the New Jersey Department of Transportation shall notify the Department's Division of Land Use Regulation, Roads and Infrastructure Unit, in writing prior to the use of alternative devices.
11. The NJDEP reserves the right to suspend all work activities if turbidity levels of the stream are increased because of the regulated activities.
12. The following Conservation Measures shall be officially adopted in writing as binding provisions of the Route 36 Bridge Replacement Project by the Federal Highway Administration or the New Jersey Department of Transportation to minimize adverse impacts to federally listed (threatened) species, the Piping Plover and Seabeach Amaranth.
 - I. Prohibit construction personnel from entering the beach in the course of their work, either on foot or via motorized vehicle.
 - II. Keep noise on the beach from pile driving and demolition at or below 6 dBA above ambient between March 15 and August 15.
 - III. Prohibit use of Parking Lot B as a staging area between March 15 and Labor Day.
 - IV. Conduct road work outside of the piping plover nesting season. Paving, which may not be feasible in winter, may proceed during the nesting season if this aspect of the work can be shown to not adversely affect the above listed species.
 - V. Reconfigure the Fee Plaza and Parking Lot A, and install the bicycle/pedestrian path, outside the nesting season. Noise (dBA) levels on the beach during the driving of test piles on both the west and east sides of the Shrewsbury River currently scheduled for June 2007 and spring 2008, respectively. If possible, measure noise from test piles during quiet early morning hours when birds are particularly active, on calm days to avoid interference from wind. Because of the unknown effects of the seawall and nearby hills, the United States Fish and Wildlife Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile (1,320 feet) to the north and south.
 - VI. Ambient dBA levels on the beach collected twice per month March, May, and June 2007, during both quiet early morning hours and later in the day, for comparison to ambient levels at the north Ocean City nesting area. The United States Fish and Wildlife Service recommends measuring dBA levels immediately adjacent to the bridge alignment as well as 0.25 mile to the north and south.
 - VII. A monitoring contingency plan to detect any changes in piping plover behavior if, based on monitoring of test piles, noise levels in nesting areas are projected to approach the limit of 6 dBA above ambient during the nesting season. Continuous monitoring is not necessary and may disturb nesting birds, but an approved monitor should be present during work activities that may be close to the noise limit. Monitoring must be coordinated closely with the United States Fish and Wildlife Service and the Endangered Non Game Species Program, and monitors must have authority to temporarily halt work if birds are disturbed.

1300-06-0002,1CAF060001, WFD060001, FWWD060001, CW060001, CDT060001

- VIII. (A plan to prevent an increase in the incidence of unauthorized intrusions into the Sandy Hook piping plover nesting areas from changes in the use of Parking Lot A and installation of the new bicycle/pedestrian path. Measures to prevent nesting area intrusions may include fencing, signs, and monitoring, and should be consistent with the Conservation Measures and Terms and Conditions of the Service's 2003 Biological Opinion for the Sandy Hook Multi-Use Pathway.)



Charles Welch, Supervisor
Roadway and Infrastructure Unit
Division of Land Use Regulation

11/22/06

Date

C: Bureau of Coastal and Land Use Enforcement



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Town Point Consulting Inc.
370 SEABRIGHT ROAD
HARBOR CENTRE, NOVA SCOTIA, B3C 2L2
Phone (902)-471-3696

NOTES:
1. ALL UNITS IN METRES UNLESS OTHERWISE NOTED.

A	ISSUED FOR PERMIT	E.P.	02DEC2019
REV	DESCRIPTION	APP	DATE

PROJECT NAME:
TOWN POINT OYSTER FARM

JOB LOCATION:
ANTIGONISH, NS

DRAWING TITLE:
PROPOSED LEASE AREAS

DWN BY:	A.C.	CKD BY:	E.P.
DES BY:	E.P.	SHT NO:	-

SCALE:
AS SHOWN

CLIENT JOB NO.

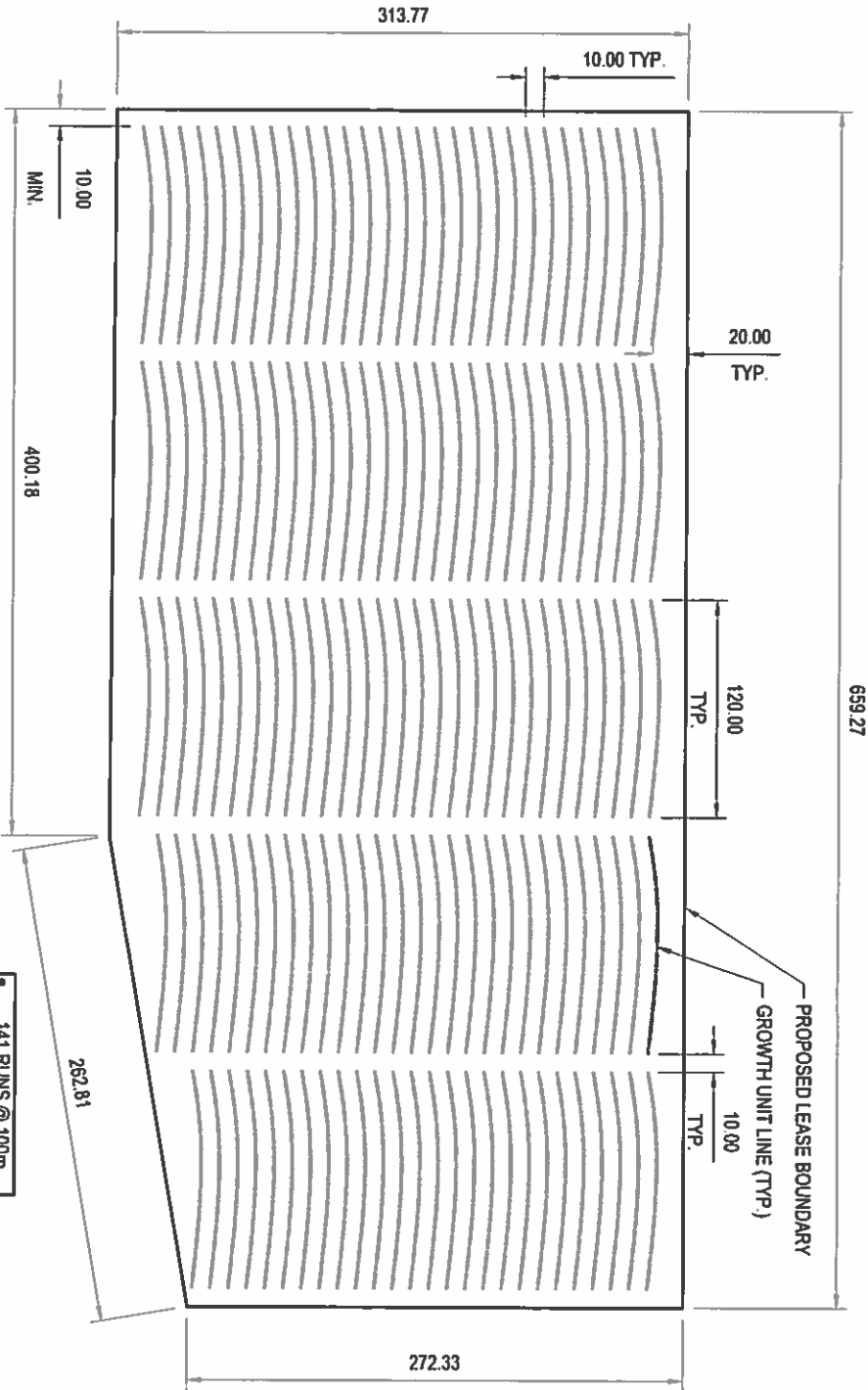
DRAWING NO.	S-1	REV:	A
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Town Point Consulting Inc.

370 SEABRIGHT ROAD
HARBOUR CENTRE, NOVA SCOTIA, B2C 2L2
Phone (902)-471-3696

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NOTED.



A	ISSUED FOR PERMIT	E.P.	02DEC2019
REV	DESCRIPTION	APP	DATE

PROJECT NAME:
TOWN POINT OYSTER FARM

JOB LOCATION:
ANTIGONISH, NS

DRAWING TITLE:
GENERAL OYSTER
LINE LAYOUT
SITE 2

DWN BY:	A.C.	CXD BY:	E.P.
DES BY:	E.P.	SHT NO:	-

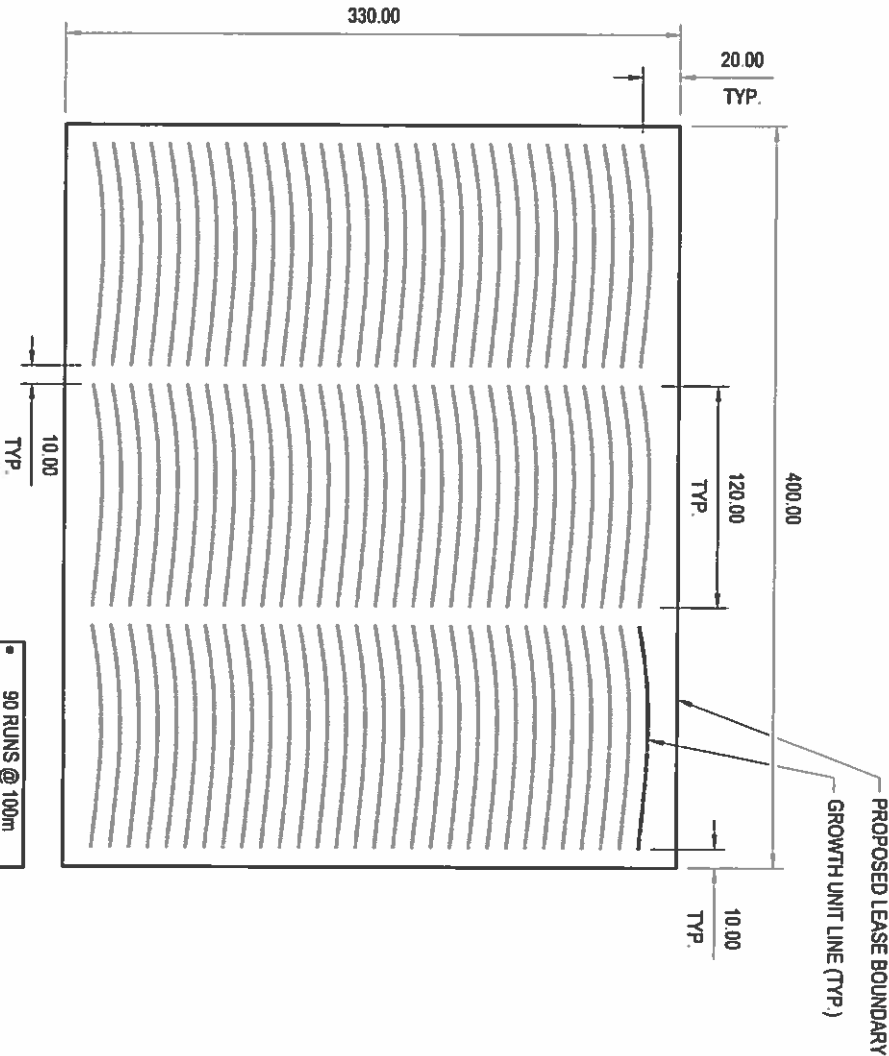
SCALE:	AS SHOWN
CLIENT JOB NO:	
DRAWING NO:	S-2
REV:	A

Town Point Consulting Inc.

370 SEABROOK ROAD
HARBOUR CENTRE, NOVA SCOTIA, B2G 2L2
Phone (902)-471-3896

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NOTES:
1. ALL UNITS IN METRES UNLESS OTHERWISE
NOTED



A	ISSUED FOR PERMIT	E.P.	02DEC2019
REV	DESCRIPTION	APP	DATE

PROJECT NAME:

TOWN POINT OYSTER FARM

JOB LOCATION:

ANTIGONISH, NS

DRAWING TITLE:

GENERAL OYSTER
LINE LAYOUT
SITE 3

DWN BY:	A.C.	CHK BY:	E.P.
DES BY:	E.P.	SHT NO:	-

SCALE: AS SHOWN

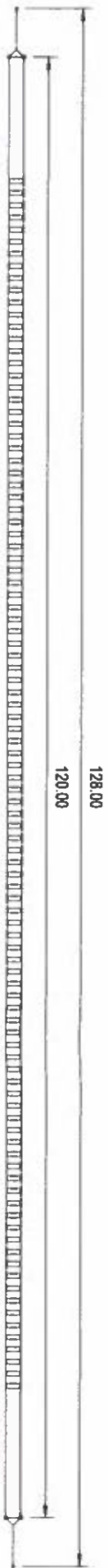
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DRAWING NO:

S-3

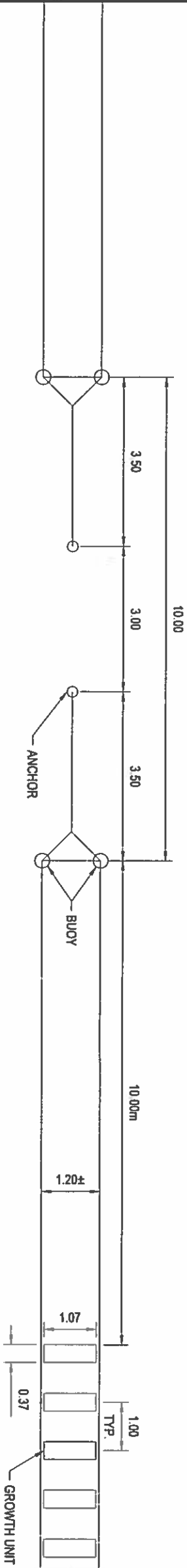
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A

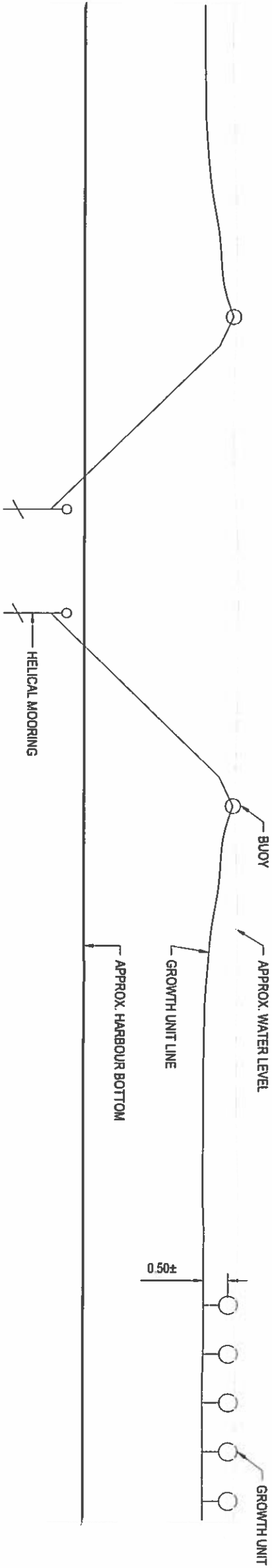


NOTE: 100 GROWTH
UNITS PER LINE (TYP)

PLAN VIEW - TYPICAL GROWTH UNITS



PARTIAL PLAN - TYPICAL GROWTH UNITS



PARTIAL ELEVATION - TYPICAL GROWTH UNITS

Town Point Consulting Inc.

370 SEABRICK ROAD
HARBOUR CENTRE, NOVA SCOTIA, B2C 2L2
Phone (902)-471-3696

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CONSULTING INC.

- NOTES:
1. ALL UNITS IN METRES UNLESS OTHERWISE
NOTED.

A	ISSUED FOR PERMIT	E.P.	02DEC2019
REV	DESCRIPTION	APP	DATE

PROJECT NAME:
TOWN POINT OYSTER FARM

JOB LOCATION:
ANTIGONISH, NS

DRAWING TITLE:
GROWTH UNIT LINE
DETAILS

DWN BY:	A.C.	CKD BY:	E.P.
DES BY:	E.P.	SHT NO:	-

SCALE: AS SHOWN

CLIENT JOB NO:	
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DRAWING NO.	S-4	REV.	A
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ADDENDUM 1: ADDITIONAL INFORMATION REQUEST

A1.1 ADDITIONAL INFORMATION REQUESTED BY NSDFA

ADDITIONAL INFORMATION REQUIRED

**AQ#1442, 1443, 1444
BN#819077439NS0001**

May 14, 2020

Town Point Consulting Inc.
Attention: Ernie Porter
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Dear Ernie:

Re: Aquaculture Licence/Lease Numbers 1442, 1443, 1444 (AQ#1442, 1443, 1444)

Your aquaculture applications are currently in the internal review stages of the application process. It was noted there is incomplete information or clarification needed on information submitted in the Development Plan. The following is information we would like to discuss, seek clarity on and add to your Development Plan to continue with the review of your application.

Section 2.1

- Please provide information regarding the new culture equipment.
Please provide cage dimensions, stocking capacities, floatation material utilized, and cage mesh material and opening size.
- Please provide site specific stocking densities of oyster of varying size grades.
- Please provide site specific gear stocking densities.
- Please provide site specific maximum number of lines.
- Please provide the maximum number of shellfish to be introduced and the maximum number of shellfish on each site.
- Please provide the location where oyster collectors will be deployed to support stocking of AQ#1442.

Section 4.1

- Please provide what type of equipment was used to measure the current data, and who collected this data.

Section 4.2

- Baseline environmental monitoring video submitted in the application does not meet the minimum video quality requirements. Video image quality must be sufficient to recognize and identify sediment type, condition, and any benthic macrofauna/flora present.

Town Point Consulting Inc.
AQ#1442, 1443, 1444
May 14, 2020

We would like to discuss your applications prior to any information being submitted to the Department to ensure the appropriate information is compiled and submitted for further review. Please contact me with available dates and times so a meeting can be arranged to review this letter and your application with appropriate departmental staff.

Please contact me at 902-875-7443 or Megan.Greenwood@novascotia.ca

Yours truly,



Megan Greenwood
Licensing Coordinator

c. NSDFA staff

A1.2 ADDITIONAL INFORMATION RECEIVED FROM APPLICANT

June 1, 2020

NS Fisheries and Aquaculture
1575 Lake Road
Shelburne, NS
BOT 1W0

Attn: Megan Greenwood, Licensing Coordinator

Re: Aquaculture Lease Numbers AQ1442, 1443, 1444

Dear Megan;

As requested, the following addresses the points raised in your letter dated May 14, 2020 and the conference call meeting we had on June 1, 2020.

Section 2.1

The culture equipment we plan to use is as described in the attached drawings. For clarity our BOBR growth units use standard VEXAR bags in a way that shapes the bag into a cylinder rather than the usual pillowcase form. So, the cage mesh material is identical to that already in common use. Also, cage volume is not reduced by a need to fold the ends as is the case with Oyster Gro and similar systems. BOBR cages have an internal volume of 0.10 m³ while Vexar bags configured to fit Oyster Gro or similar systems have a volume of 0.025 m³ but both use the same bag stock having the same dimensions. Even though the volume of BOBR is 4 times greater than competing cage designs we have taken a conservative approach with stocking rates by predicting stocking rates commonly used on farms using Oyster Gro cages. We expect, after trials are complete later this year, to confirm higher stocking rates do not adversely effect performance. It may be that higher stocking rates will be possible. The farm design is based on the following conservative stocking rates:

		Mesh Size
Year Class 1 (Seed)	1000/BOBR	9 mm
Year Class 2	500/BOBR	14 mm
Year Class 3	250/BOBR	25 mm

Floatation is achieved simply by inserting HDPE torpedo floats common in the industry inside the cage. We are in the process of developing a proprietary HDPE float that is optimized dimensionally to suit BOBR, but existing floats work and are currently in use at ShanDaph Oyster Farm. By the time our farm is operational our custom BOBR float (same material, different shape) will be available, and we plan to use these instead of those presently on the market.

- Site specific stocking densities of oysters of varying size grades are as follows;

Site 1: Not a grow site.

Site 2:		Oyster size	# Cages	# Oysters
Year Class 1 (Seed)	1000/BOBR	15-30 mm	2000	2,000,000
Year Class 2	500/BOBR	30-50 mm	4000	2,000,000
Year Class 3	250/BOBR	50-75 mm	8100	2,025,000

Site 3:		Oyster size	# Cages	# Oysters
Year Class 1 (Seed)	1000/BOBR	15-30 mm	1250	1,250,000
Year Class 2	500/BOBR	30-50 mm	2500	1,250,000
Year Class 3	250/BOBR	50-75 mm	5000	1,250,000

Of course, there will be morbidity losses so total production is likely to be less than the total stock numbers by 10% or more.

- Site specific gear stocking densities are as follows;

Site 1: This site is not a grow site. It is intended for overwinter storage of excess seed and marketable oysters. No floating gear.

Site 2: This site will have 141 lines each with 100 cages. Total cages 14,100.

Site 3: This site will have 90 lines each with 100 cages. Total cages 9,000.

- Site specific maximum number of lines;

Site 1: No floating cages

Site 2: 141 lines

Site 3: 90 lines

- Maximum number of shellfish to be introduced and maximum number of shellfish on each site;

Site 1: Not a grow site

Site 2: Max Number introduced	Max number on site
2,000,000	6,025,000

Site 3: Max Number introduced	Max number on site
1,250,000	3,750,000

- Location of oyster spat collectors:

We hope to do sample collection this year if we are successful in securing a spat collection license. Application was made in April. This sampling will serve two purposes; A) Spat for nursery trials. B) Knowledge of spat fall characteristics in areas of interest both within the proposed lease sites and in Captain's Pond.

It seems likely Captain's Pond will prove to be superior for spat collection due to its very restricted channel and significant native oyster population. Spat generated within this portion of the harbour are effectively trapped and unlikely to be swept away so may have greater opportunity to set on a collector.

We will also sample areas within the proposed lease sites. The outflow of Captain's pond passes through Site 3 and is adjacent to several minor beds so may prove to be productive. Site 1 has beds on three sides of it so it too may be productive. We will sample site 2 but it has beds adjacent only one end so may be less productive.

Section 4.1

Flow measurements were made as suggested by NSDFA staff. We used two anchored bouys tethered together by a 30m rope and aligned with the current direction. Then a third bouy with a suspended weight (a brick) was introduced upstream of the anchored bouys and its passage between the bouys timed with a stopwatch. With distance and time determined current speed was then calculated. Several tests were conducted at each site to collect data which was then averaged for both speed and direction. This process was conducted by the applicant.

Section 4.2

New videos have been collected and submitted...clarity is much better than those taken last November.

Best regards,

Town Point Consulting Inc

Ernie Porter, P.Eng
President

A1.3 ADDITIONAL INFORMATION – GEAR PHOTOS

From: [Ernie Porter](#)
To: [Greenwood, Megan N](#)
Subject: Fwd:
Date: June 1, 2020 9:14:40 PM

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

Exercice caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Photos
Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

----- Forwarded message -----

From: **Ernie Porter** <ernieporter77@gmail.com>
Date: Mon, Jun 1, 2020 at 8:57 PM
Subject:
To: Ernie Porter <ernieporter77@gmail.com>

Sent from my iPhone







A1.4 ADDITIONAL INFORMATION – BASELINE

A1.4 ADDITIONAL BASELINE

Additional baseline environmental monitoring videos were requested and recorded to support the Development Plan. The additional baseline videos have been provided to the Aquaculture Review Board. The titles for the video files are listed below:

- GOPRO148 – 1442
- GOPRO150 - 1442
- GOPRO164- 1442
- GOPRO165 - 1442
- GOPRO161 - Transect 1442

ADDENDUM 2: ADDITIONAL INFORMATION REQUEST

A2.1 ADDITIONAL INFORMATION REQUESTED BY NSDFA

**ADDITIONAL INFORMATION REQUIRED
APPLICATIONS - AQ#1442, 1443, 1444**

November 14, 2022

Town Point Consulting Inc.
Attn: Ernie Porter
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Dear Ernie Porter:

RE: Additional Information Required for Aquaculture Licence and Lease Application Nos. 1442, 1443, 1444

Your aquaculture applications AQ#1442, AQ#1443 and AQ#1444 are currently in the review stage of the application process and there has been missing or incomplete information identified from your submitted Development Plan. If you could provide the following information, the review of your application will proceed.

1. The figures outlined below were not present within “Section 1: Optimum Use of Marine Resources” or in “Section 5: The Other Users of the Public Waters Surrounding the Proposed Aquacultural Operation” sections of the Development Plan, where they were referenced. The figures are identical in both sections, please provide a copy of each figure.

Fig. 1 Overview of the Protected Beach Area and the Proposed Site 3 Lease Area.

Fig. 2 Observations of Piping Plovers as reported to Ebird, in the vicinity of the protected beach area of Dunn’s and Monk’s Head over the last ten years.

Fig. 3 Overview of Dunn’s Beach indicating the area in consideration for development as a provincial park.

Fig. 4 Overview of the Darnley Basin, Malpeque, PEI, illustrating the density of Marine Shellfish Aquaculture operations.

Fig. 5 Observations of piping plover, as reported to Ebird, in the vicinity of the Darnley Basin over the last ten years.

November 14, 2022
Town Point Consulting Inc.
Attn: Ernie Porter
Page 2 of 2

2. In “Section 1: Optimum Use of Marine Resources”, the correspondence with Laura Bartlett from Nova Scotia Program Coordinator Birds Canada has a link within it:

https://www.fws.gov/northeast/njfieldoffice/pdf/AquaculturePBO_20160401.pdf

This link is broken. Please provide the associated pdf or an updated link to the referenced document.

3. Another recommendation is regarding the Scoping Report. There were some attachments identified in your correspondence with varying stakeholders that were not included within the Scoping Report. The Department does not require these attachments to be submitted at this time. However, once your application is submitted to the Aquaculture Review Board (ARB), the hearing process is initiated. Please see link for process details ([nova scotia aquaculture review board process.pdf \(novascotia.ca\)](#)). During this process you will have an opportunity to present your application information and any additional information for the board to consider. At the appropriate time within the ARB process, you may wish to include the attachments that were not present in your scoping report.

To avoid any delays in processing your requests, please provide the requested information as soon as possible but no later than **February 14, 2023.**

Should you have any questions, please do not hesitate to contact Lewis Clancey at 902-956-3839 or by email at Lewis.Clancey@novascotia.ca .

Sincerely,

E. Lynn Winfield

Lynn Winfield,
Licensing Coordinator

- c. Lewis Clancey, Aquaculture Development Advisor
Robert Ceschiutti, Manager, Licensing and Leasing
Nathaniel Feindel, Manager, Aquaculture Development

A2.2 ADDITIONAL INFORMATION RECEIVED FROM APPLICANT

From: [Ernie Porter](#)
To: [Winfield, Lynn](#)
Cc: [Clancey, Lewis](#)
Subject: Additional Information
Date: November 14, 2022 3:50:13 PM
Attachments: [Piping Plover Assessment Report, 16Jan2020 \(1\).pdf](#)

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

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Hi Lynn and Lew

The additional information you requested earlier today is as follows;

The five figures will be contained in the electronic version of the Dillon Study attached below.
The revised link to the Red Knot study is below.

<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.3097>

Please let me know if you have any difficulty accessing these documents.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com



TOWN POINT CONSULTING INC.

Piping Plovers and Marine Shellfish Aquaculture

An assessment of potential impacts to nesting Piping Plovers as a result of a proposed marine shellfish aquaculture lease site in Antigonish Harbour, Nova Scotia.



January 16, 2020

Town Point Consulting Inc.
370 Seabright Road
Antigonish, Nova Scotia
B2G 2L2

Attention: Mr. Ernie Porter
President, Town Point Consulting Inc.

*Assessment of Potential Impacts to Nesting Piping Plovers as a Result of a
Proposed Marine Shellfish Aquaculture Lease Site in Antigonish Harbour, Nova
Scotia.*

Based on discussions held in December 2019, Dillon Consulting Limited (Dillon) was retained by Town Point Consulting Incorporated (Town Point Inc.) on January 3, 2020 to prepare and deliver an assessment of potential impacts to piping plover (*Charadrius melodus melodus*) as a result of oyster aquaculture operations proposed by Town Point Inc. The following is a technical report detailing the findings of that assessment.

Sincerely,

DILLON CONSULTING LIMITED

Christopher J. Kennedy, M.Sc.
Biologist

CJK:jes

Our file: 20-2069-1000

137 Chain Lake Drive
Suite 100
Halifax, Nova Scotia
Canada
B3S 1B3
Telephone
902.450.4000
Fax
902.450.2008

1. Introduction

Town Point Consulting Inc. (TPC) proposes to construct and operate a marine shellfish aquaculture operation on three potential lease areas near the mouth of the Antigonish Harbour. One proposed lease area (Site 3) falls within the protected beach area of Dunn's and Monks Head, whose boundaries extend into open water (see Figure 1), and is protected pursuant the *Beaches Act* (R.S. 1989, c. 32, s.1.).

Dunn's Beach is also designated as critical habitat for the Piping Plover (*Charadrius melodus melodus*) (EC 2012), which is listed as 'Endangered' both provincially pursuant the *Nova Scotia Endangered Species Act* (S.N.S. 1998, c. 11) and federally pursuant the *Species at Risk Act* (S.C. 2002, c. 2). However, unlike the protected beach area mentioned above, the critical habitat for the Piping Plover is limited to the portion of Dunn's Beach suitable for nesting, feeding and cover which includes the terrestrial area of beach from the low water mark to the upper beach and dune crest (EC 2012). That said, there have been no observations of Piping Plover at Dunn's Beach reported to eBird (2020) for the past 10 years (see Figure 2). eBird is collaborative database, with over 100 million bird sightings contributed annually and represents the world's largest citizen science project.

The following technical report will present an assessment of possible impacts that could result from the proposed marine shellfish aquaculture operation to Piping Plovers that may use the protected beach area of Dunn's and Monks Head to breed and raise their young. Additionally, similar nearby marine shellfish aquaculture operations are examined to provide context for the current proposed works. Lastly, current and possible future activities, including the proposed shellfish aquaculture operation, that occur on or around Dunn's and Monks Head Beach are discussed in terms of threats to breeding Piping Plovers and compliance with the *Beaches Act*.

2. Known Threats and Limiting Factors to Piping Plover Recovery with Respect to Marine Shellfish Aquaculture

Current estimates suggest that hatching success for Piping Plover pairs in eastern Canada is less than 55% and that predation, along with habitat loss and degradation, are the primary factors limiting Piping Plover populations across their North American breeding range (EC 2012).

There are many predators of Piping Plover adults, chicks, and eggs, including avian predators such as the American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*) and many species of gull (*Larus* spp.), as well as mammalian predators including Raccoon (*Procyon lotor*), Red Fox (*Vulpes vulpes*), American Mink (*Neovison vison*), domestic dogs, and even feral cats. Anthropogenic activities and associated land use practices can result in artificially high predator populations and that these predators may opportunistically prey on adult Piping Plovers, chicks, or eggs. However, the species most commonly associated with congregating at marine shellfish aquaculture facilities in eastern Canada is

the double-crested cormorant (*Phalacrocorax auritus*) (Comeau et al. 2009), a piscivorous bird not considered to be a predator of Piping Plovers.

Piping Plover habitat loss and degradation are primarily related to direct human disturbance and coastal development, but also natural processes such as sea-level rise, coastal erosion, vegetation encroachment, etc. According to Environment Canada (2012), any anthropogenic activity which alters or disturbs critical habitat is likely to result in the destruction of that critical habitat. EC identifies a number of activities likely to result in the destruction of critical habitat:

- Off-road, all-terrain, or motorized vehicle use;
- Coastal development occurring in plover habitat or in other habitats closely associated with plover habitat, including the construction of cottages, homes, or tourist accommodations, boardwalks, and trails;
- Beach nourishment;
- Beach stabilization;
- Sand mining and extraction;
- Beach cleaning or raking activities that remove elements of natural habitat; and
- Deliberate or accidental discharge of oil and toxic chemicals.

Many recreational activities can also result in disturbance to Piping Plovers which can cause changes in normal nesting or feeding behaviour and may lead to lowered hatching success rates. These human-related disturbance factors generally include all recreational uses of a beach, such as pedestrian traffic; unleashed pets; camping and campfires; sunbathing; collection of driftwood, shells or wrack; horseback riding; fishing; kite flying; and motorized vehicle traffic on the beach (EC 2012).

While an operational marine shellfish aquaculture lease may be considered “coastal development...in habitats closely associated with plover habitat”, it should be noted that unlike the examples given by Environment Canada (2012), a marine shellfish aquaculture lease has no terrestrial footprint and therefore cannot overlap with critical habitat for Piping Plover, which by definition is terrestrial (EC 2012). Although no direct destruction of Piping Plover habitat will occur as a result of the proposed project, it is important to assess whether or not the operations of an active marine shellfish aquaculture operation will result in disturbance to nesting Piping Plovers on Dunn’s and Monks Head Beach?

3. Environment and Climate Change Canada (ECCC) Guidance, Setback Distances and Buffer Zones for Piping Plover

Environment and Climate Change Canada (ECCC) offers guidance on establishing buffer zones and setback distances for migratory bird nests, including the Piping Plover, which are intended to ensure the successful fledging of young birds from the nest. According to ECCC (2019), buffer zones are determined by a setback distance which can vary according to the:

- i) degree of tolerance of the species;
- ii) previous exposure of birds to disturbance;
- iii) level of disturbance; and
- iv) landscape context.

Appropriate 'setback distances' are determined on a case-by-case basis based on the distance at which nesting birds react to human disturbance (flight initiation distance or FID) along with expert opinion. A higher minimum 'setback distance' is often required for natural habitats (compared to urban areas), most waterfowl nests (as compared to songbirds) and the presence of a sensitive species or species at risk (ECCC 2019).

With respect to the 'degree of tolerance' of Piping Plovers and 'previous exposure of birds to disturbance', it should be noted that Piping Plovers regularly nest in areas impacted by human activities, such as recreational (beach use) or industrial settings (aggregate mining) and that recent research (Jorgensen et al. 2016) suggests that Piping Plovers do appear capable of becoming habituated to stimuli associated with human activity over time.

Along the Atlantic Coast of the United States, the U.S. Fish and Wildlife Service (USFWS 1994; 1996) recommends 50 m diameter buffer zones be placed around active Piping Plover nests, but also suggests the buffer zone should be increased when 50 m is found to be inadequate. This recommended 50 m buffer zone was based on studies in which Piping Plover 'Flight Initiation Distance' (FID) in response to human disturbances were quite variable, ranging from less than 5 m to 210 m (Flemming et al. 1990, Cross 1990, Loegering 1992, Hoopes 1993, Cross and Terwilliger 1993, all cited in USFWS 1994) depending on the context of the interaction. This variability in FID exhibited by Piping Plover in these different studies suggests a number of variables affect these birds' responses to human activity (Jorgensen et al. 2016).

It has been demonstrated that nesting Piping Plovers respond differently to different types of stimuli, flushing more readily to passing pedestrians and dogs than to motorized vehicles (Jorgensen et al. 2016; McLeod et al., 2013). In a recent study using a 100 m buffer zone, nesting Piping Plovers flushed most readily to off-leash dog(s) (75% of the time) or a human(s) with a dog (70%) compared to only human pedestrian(s) (35%) and motorized vehicles (5.9%) (Jorgensen et al. 2016). Return times to the nest by flushed plovers was also greatest for off-leash dog(s) and a human(s) with a dog compared to only human pedestrian(s), and lowest for passing motorized vehicles.

In Canada, the only published literature available on recommended Piping Plover setback distances comes from the Alberta Ministry of Environment and Parks (AMEP 2011) and Environment Canada (EC 2009) and are primarily intended for use by the petroleum industry in the Prairie and Northern regions of Canada. In apparent recognition of the variability in response distances exhibited by Piping Plovers in previous studies, both documents recommend a range of setback distances for Piping Plover depending

on time of year and level of anticipated disturbance. Both documents recommend a lower limit setback distance of 50 m for 'low impact' activities, such as surveying, monitoring, or vehicular drive-by. However, for 'high impact' activities, such as pipeline construction, operating oil or gas wells or pump stations, the AMEP 2011 document recommends an upper limit setback distance of 200 m, while the EC 2009 document recommends an upper limit of 250 m.

If we assume that the 'level of disturbance' caused by the routine operations of a marine shellfish aquaculture operation is similar to 'high impact' activities of the petroleum industry, than by the most stringent guideline available in Canada (EC 2009) an appropriate setback from Piping Plover critical habitat would be 250 m.

The proposed lease site (Site 3) is setback approximately 230 m from its nearest point to Dunn's Beach. However, as the routine operation of a marine shellfish aquaculture site would most appropriately be classified as having a lower overall impact than that of 'high impact' activities of the petroleum industry, the current setback of ~230 m is very likely to be sufficient to prevent the disturbance of any nesting Piping Plovers that may breed on Dunn's Beach.

Given that recent research indicates that nesting Piping Plovers respond to and are more readily disturbed from their nest by off-leash pets and humans' on-foot, than they are by passing terrestrial motorized vehicles, the disturbance impact to nesting Piping Plovers resulting from the routine operations of a neighbouring 'on-water' shellfish aquaculture lease are likely to be negligible.

4. Reference Marine Shellfish Aquaculture Sites in Nova Scotia

There are currently a number of marine shellfish aquaculture sites in operation (NSDFA 2019) that are located immediately adjacent Provincial Parks or other important ecological areas in Nova Scotia, including critical habitat for Piping Plover. While Provincial Parks and Protected Beaches are not the same, they do share some important similarities with respect to their stated purpose. The Acts governing both Provincial Parks (*Provincial Parks Act* R.S., 1989, c. 367, s. 1.) and Protected Beaches (*Beaches Act*) broadly state their purpose is to provide opportunities for outdoor recreation and to preserve significant and sensitive elements of the natural environment of Nova Scotia. In fact, Dunn's Beach (see Figure 3) is currently listed as a site for designation as a Provincial Park by the Province of Nova Scotia (NS 2013), however, the designation has not yet been made official.

Listed below are examples of marine shellfish aquaculture operations currently co-existing with neighbouring Provincial Parks and other important ecological areas in Nova Scotia:

- i) Melmerby Beach Provincial Park
 - a. Commercial Marine Shellfish Licence No.: #0177, #1224 and #1112
 - b. Size of leased area: ~83.35 hectares
 - c. Species: American Oyster, Bay Quahaug, Surf Clam and Bay Scallop
 - d. Significant Habitat for Piping Plover?: Yes

- ii) Powell's Point Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1350
 - b. Size of leased area: ~17.33 hectares
 - c. Species: American Oyster and Bay Quahaug
 - d. Significant Habitat for Piping Plover?: No
- iii) Caribou-Munroes Island Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~12.77 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No
- iv) Waterside Beach Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~17.26 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: Yes
- v) Wallace Bay National Wildlife Area
 - a. Commercial Marine Shellfish Licence No.: #0331
 - b. Size of leased area: ~2.17 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No

Although not within Nova Scotia, another comparable shellfish aquaculture arrangement occurs in a neighbouring jurisdiction, within the Darnley Basin of Malpeque Bay, Prince Edward Island. The Darnley Basin is approximately 536.3 hectares and is occupied by 39 marine shellfish aquaculture leases totalling approximately 229.0 hectares, or about 42.7% of the total area of the basin (see Figure 4). Similar to the mouth of the Antigonish Harbour, the mouth of Darnley Basin is protected by sandspits, one of which forms part of Cabot Beach Provincial Park. Both sandspits are known to be breeding beaches for Piping Plover (see Figure 5). Similar to Antigonish Harbour, there is a commercial fishing wharf within the Darnley Basin that supports lobster boats, among other vessels, that must traverse the narrow channel alongside the sandspit beaches daily. Despite the density of aquaculture-related activities within the basin and the numerous passing fishing vessels, Piping Plovers continue to show site fidelity and a pair of Piping Plovers were recorded to have successfully hatched three young at these beaches in 2019 (Kelly 2019).

5. Proposed Shellfish Aquaculture Lease Area and Site-specific Context

There currently exists a commercial fishing wharf within the boundaries of the Protected Beach Area of Dunn's and Monks Head located at the northern end of Southside Harbour Road, immediately northwest from the mouth to Captain's Pond (see Figure 1). Vessels from this wharf must currently pass the proposed location of the proposed 'Site 3' lease area and navigate the channel into St. George's Bay. These vessels are predominantly powered by inboard or outboard motors (hundreds of horsepower (HP)) and the noise generated by their passing would be considerable. In contrast, the vessels proposed for the routine operations of the marine shellfish aquaculture lease would be powered by a 12 HP inboard motor with an additional muffling device installed to further mitigate any noise generated. Since the boundaries of the protected beach area extend between 800 and 1,700 m into St. George's Bay, it is probable that lobster pots are deployed and retrieved regularly within this protected area. This suggests that the noise disturbance caused by passing lobster vessels would not be limited to their departure and return to the harbour, but would be more persistent throughout the day. This is also in contrast to the proposed 'Site 3' aquaculture lease area, which is proposed to be located ~230 m behind the dune crest of Dunn's Beach.

Although lobster fishing occurs in near-shore coastal waters across much of the Maritime Provinces, there has been no suggestion or research that implicates passing lobster vessels with disturbing nesting Piping Plovers. Therefore, it would seem highly unlikely that the operation of a slower, quieter vessel behind the dune crest of Dunn's Beach would be considered a significant disturbance to nesting Piping Plovers.

6. Conclusions

Based on the research and associated assessment presented in this report, Dillon has concluded that the operation of a marine shellfish aquaculture lease in proximity to critical habitat for Piping Plover, located on Dunn's Beach, is highly unlikely to cause destruction of that habitat or cause a significant disturbance to any Piping Plovers that may breed at Dunn's Beach in the future. Furthermore, since there are many marine shellfish aquaculture leases currently in operation in proximity to Provincial Parks and other important ecological sites in Nova Scotia, the proposed lease site (Site 3) within the boundaries of the Protected Beach Area of Dunn's and Monks Head does not appear to be in conflict with the *Beaches Act*.

Figure 1. Overview of the Protected Beach Area and the Proposed Site 3 Lease Area



162
Proposed Lease Area Site 3
(~13.2 hectares)

Protected Beach Area of
Dunn's and Monks Head

Jimtown

Harbour Centre

Southside Antigonish Harbour

*all locations are approximate



Figure 2. Observations of Piping Plover, as reported to eBird, in the Vicinity of the Protected Beach Area of Dunn's and Monks Head over the Last Ten Years (January 2010 – January 2020)



Figure 3. Overview of Dunn's Beach Indicating
the Area in Consideration for Development as
a Provincial Park



Dunns Beach

Provincial Park and Park Reserve Series

6° Universal Transverse Mercator (UTM) Projection, Zone 20,
Central Meridian 63°00' West, North American Datum (NAD) 1983.
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0 1,250
metres

- | | |
|---------------------------------------|--------------------|
| Fire Station | Trans Canada |
| Hospital | Arterial Highway |
| Police Station | Collector Highway |
| School | Trunk Highway |
| Church | Paved Road |
| Building | Unpaved Road |
| Water Body | Track (2m & wider) |
| River / Stream | Trail / Footpath |
| County Boundary | Railway |
| | Abandoned Railway |
| Camping Park | |
| Day Use Park | |
| Park Reserve | |
| Crown Land | |
| Wilderness Area | |
| Nature Reserve | |
| National Historic Site, National Park | |



Data Sources:
Nova Scotia Topographic Database 2010: Service Nova Scotia
and Municipal Relations
Wilderness Areas and Nature Reserves 2012: NS Department
of Environment
Crown Land, Provincial Parks and Park Reserves 2012:
Restricted and Limited
Use Lands 2007: NS Department of Natural Resources

Produced by the Nova Scotia Department of Natural Resources, 2012.
The Province of Nova Scotia accepts no liability for
any errors, deficiencies, or faults on this map.

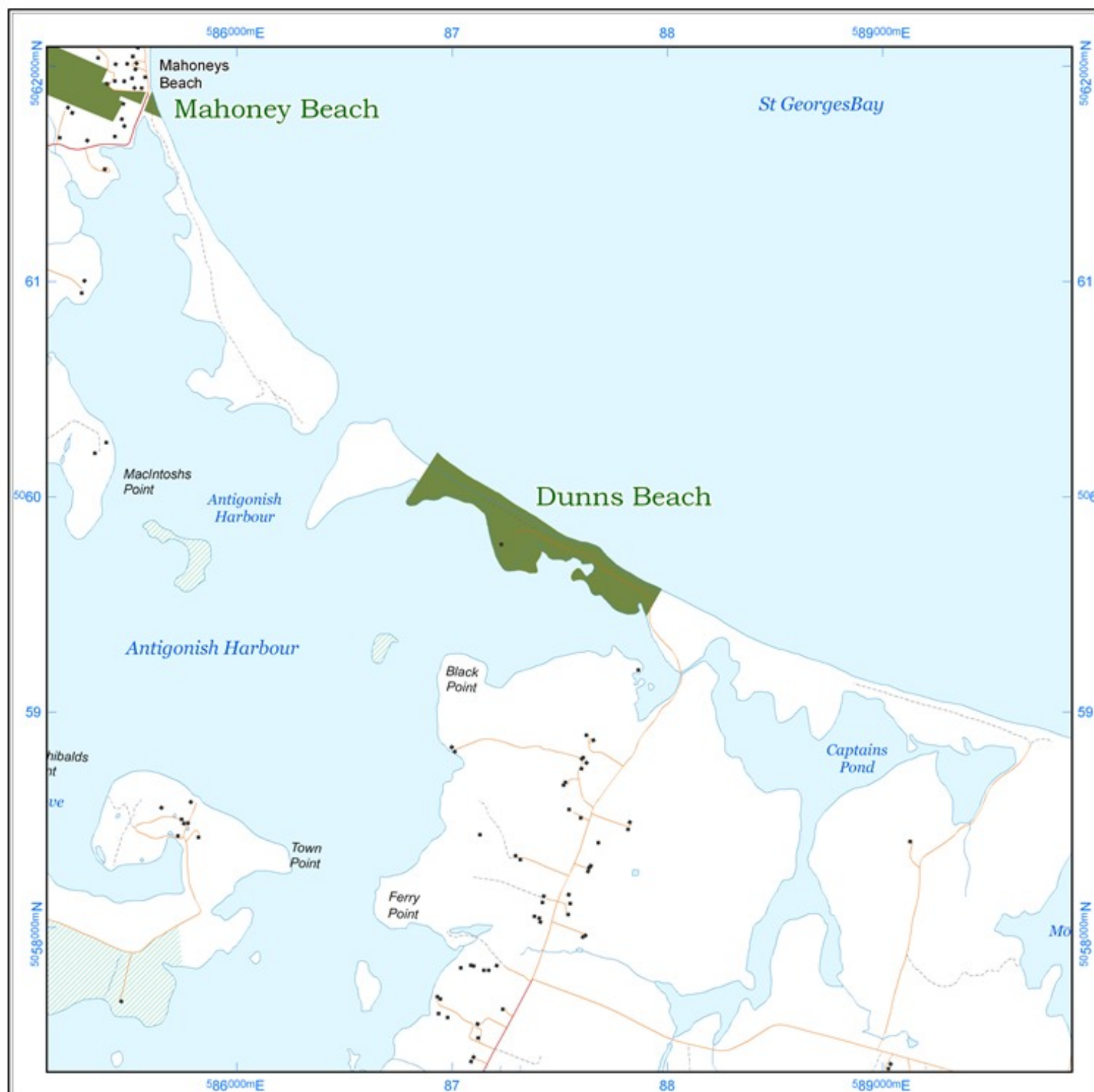


Figure 4. Overview of the Darnley Basin,
Malpeque, PEI, Illustrating the Density of
Marine Shellfish Aquaculture Operations



Figure 5. Observations of Piping Plover, as Reported to eBird, in the Vicinity of the Darnley Basin Over the Last Ten Years (January 2010 – January 2020)



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3.0 SCOPING REPORT

Report on Public Engagement during Scoping

AQ#1424

Part 1 – In response to section 1.4 paragraph 5 of the Proponent’s Guide to Public Engagement during Scoping for Aquaculture Development:

A) Levels of Public Engagement:

Our family purchased a 10 acre property on Town Point in 2004. We used this property as a seasonal residence until 2016 when we started construction of a four-season dwelling. This project was completed in 2018. During construction and since we have made Town Point our principle residence.

Over the past 15 years we have observed the abundance of oysters in Antigonish Harbour, as well as the presence of commercial oyster harvesters on the shores of our property which led to the recognition of a potential business opportunity associated with this natural resource. During the summer of 2018 we discussed with our immediate neighbours our interest in establishing a family business associated with oyster aquaculture at our property. The feedback was generally positive.

We accepted this feedback as being supportive of our initial thoughts, and after researching methods of oyster growing and how these operations interact with the local ecology, we were convinced that this venture would be suitable, both ecologically and as a positive economic venture for the Antigonish community. We then began the application process by applying for an Option to Lease in November 2018. This Option to Lease was granted April 3, 2019 which established the legal commencement date for scoping. Very soon after, we developed a concept plan for a proposed off bottom oyster aquaculture operation that included two grow sites and two storage sites. This concept plan, see Figure 1 below, was shared only with our immediate neighbours on the peninsula of Town Point.

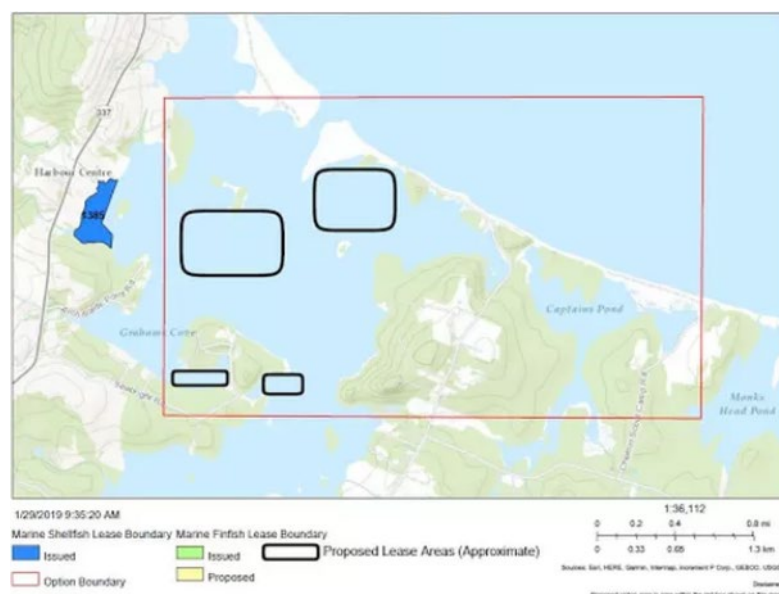


Figure 1 Initial Concept Farm Plan

Feedback from these meetings was varied with some neighbors supportive and others concerned. Two principle concerns were evident. 1) The use of Grahams Cove and 2) traffic on Seabright Road. Our next-door neighbour, Peter Bowler, from Dallas Texas, (a seasonal resident), had broader concerns that related to potential activities on our property that he felt could impact the quiet enjoyment of his property and to visible components of the farm that could impact the view from his cottage. As well he shared in an email dated May 16, 2019, concerns related to potential environmental impacts, the scale of the venture, proximity to their property, risk of using new technology and commercialization of Town Point. All are valid concerns that required careful consideration. However, it was evident now that this neighbour simply wanted no change to occur in the harbour or on Town Point.

In response to feedback from our immediate neighbours we eliminated the Graham's Cove portion and reduced the size of the Captain's Island site as shown in figure 2 below. We have also responded to the Bowler's environmental concerns, by seeking and obtaining direct contact with doctoral level scientists, and providing references to scientific, peer reviewed papers. Scientific support for the positive effect of oyster aquaculture in estuaries just like Antigonish Harbour is ubiquitous.

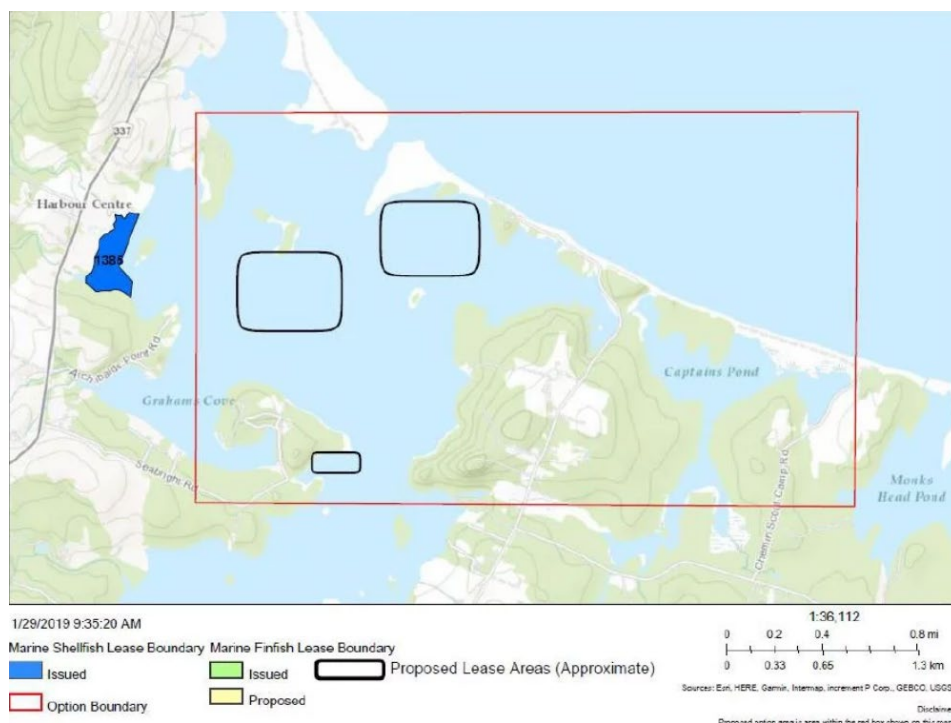


Figure 2 Farm Plan Revision 1

Regarding the concern about traffic on Seabright Road, some background information may be helpful in understanding the road situation. Seabright Road is a public Road that extends eastward from highway 337 to Town Point where it intersects our property. From this point northward the road is a right of way across the various properties and terminates near the north end of the peninsula. See the road plan below.



The right of way portion is not affected by this proposed operation as there is no need for farm operations to access the right of way except the portion on our own property. Only the public portion is planned to be used by farm related traffic.

The public portion of the road can be divided into two segments. The portion from highway 337 to Martha Lane is built to comply with Nova Scotia Department of Transportation and Infrastructure Renewal (NSDTIR) specifications and is maintained by NSDTIR. The portion from Martha Lane to our property is not built to NSDTIR standards and therefore is categorized as a "J class" road... crown owned but not maintained. So, the residents of Town Point maintain this section as well as the right of way portion.

The J class portion of the road is bordered by six properties. To the north, the Sisters of Saint Martha's, Sean Day/Chris Galea, To the south Ernie & Jane Porter, Peter Bowler, The Parish of St Paul the Apostle and NS Department of Natural Resources. All are undeveloped, heavily wooded raw land except for a small portion of the crown land where the Antigonish Boat Club road, dock and small storage building are located, and a small historic cemetery located on the church property. There are no residences, businesses, cottages or private driveways along this portion of the road.

The maintenance of this portion of the road entails winter snow removal which is contracted out, periodic grading, and occasional minor upgrades. The periodic grading is mainly done by myself using my backhoe and/or tractor. Others have helped from time to time particularly with manual tasks but for the last 15 years I have done the bulk of this machine work. Collectively, and sometimes individually, we would annually purchase a supply of gravel and place it at the south west corner of Town Point where the J class section meets the right of way section. This stockpile would be used to fill potholes as they arose, sometimes by me with a machine and sometimes by a few other residents by hand. This has been the practice for about ten years.

It is not unreasonable that some residents of Town Point would be concerned about increased traffic on Seabright Road given that they share some of the cost of maintenance for the J class portion of the road. However, we expect only a modest increase in traffic on the road should our application be approved. This traffic would be comprised of workday employee commute, weekly or bi-weekly product shipments by cube van or smaller, occasional supply

deliveries a few times per week and occasional visits by inspectors/monitors. We have explained to the residents we do not plan to operate on a retail basis so visits by the public will be minimal. In response to the expressed concerns over additional traffic on the road resulting from our farm operations we have committed to our neighbors that we will increase our maintenance efforts of the J class portion of the road on a pro-rata basis.

The publicly maintained portion of Seabright Road from the 337 to Martha Lane is bordered by eight properties. The owners are; to the north, The Sisters of St Martha's, William Landry, Lou Bilik, Rod Bantjes, to the south, Jack Thompson, Leonard Hanrahan, Tony & John Corsten, Pat MacDonald, and NS Department of Natural Resources. Of these property owners only two have residences directly accessed from Seabright Road – Lou Bilik and Pat MacDonald. Leonard Hanrahan's property contains a Quonset Hut commercial building from which he operates a commercial business, the Thompson and Corsten properties are active dairy farm land, the remainder is heavily wooded undeveloped land.

Both Lou Bilik and Pat MacDonald have expressed concerns over increased traffic on Seabright Road due largely to the fact that on dry days traffic raises dust, some of which enters their homes. This is certainly a valid concern which we have offered to mitigate by petitioning the provincial government to improve their maintenance of the road including periodic applications of calcium chloride or other dust suppressant during dry periods. We feel government should take this issue seriously, and we hope that through encouragement from NSDFA and Antigonish County Council NSDTIR will put in place measures to both mitigate the concern and communicate their plans to residents living along Seabright Road. If this application is approved, support from government on road maintenance will aid our ability to operate in harmony with our neighbours. The location of the various properties referred to in this discussion of the road issue is shown on the following map;



After adjusting the initial farm concept plan to delete the Graham's Cove portion and reduce the size of the Captain's Island site we began a door to door process of public engagement in May 2019. We visited local residents in an expanded area including the other residents along Seabright Road, and throughout Harbour Centre. We also visited residents in Lanark, our neighboring community and South Side Harbour the community across the harbour

from Town Point. These activities coincided with more data collection from the potential sites, as we were then able to spend more time on the water. Feedback from residents was generally very positive with about 87% being supportive. Many suggestions were offered, and some concerns raised. This feedback led to a further adjustment of the farm plan whereby the Captain's Island site (Site #2) shifted location somewhat and the Gooseberry Island site (Site #3) became more well defined. See Figure 3 below.

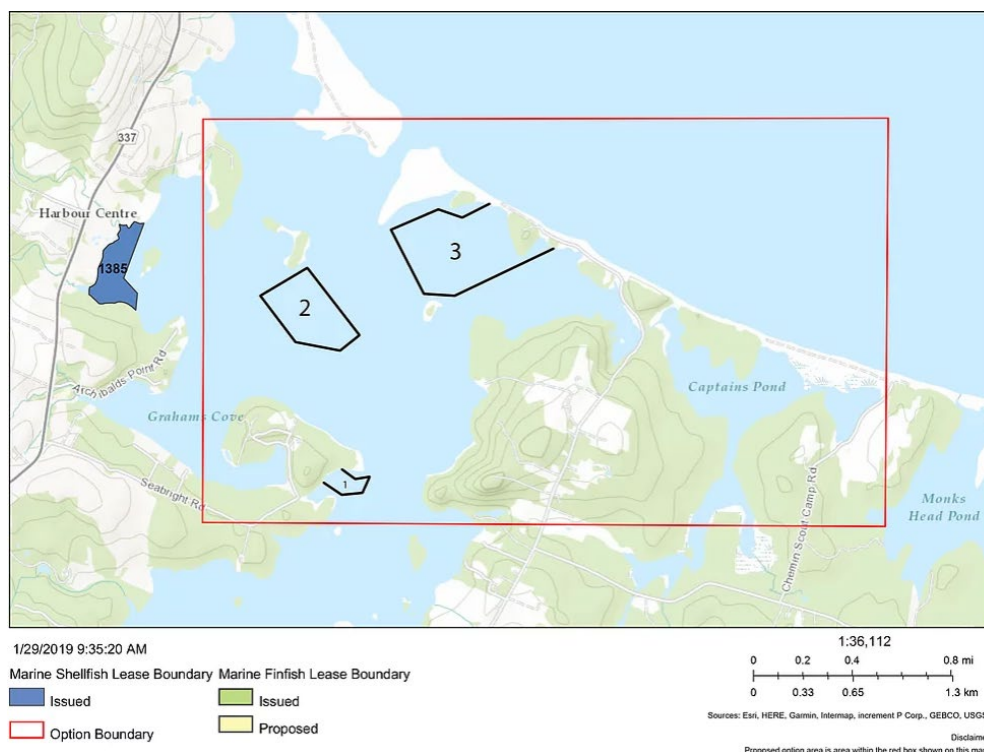


Figure 3, Farm Plan Revision 2

We worked diligently to reach all those who could be considered to be directly and substantially impacted. Our door-to-door campaign extended beyond the area captured in the below map. The following map shows properties, some of them near the development, whose owners we have engaged to describe our plans and seek their feedback. Green dots mean successful engagement, yellow means contacted but no engagement, blue means crown land with no requirement for engagement.



We asked for and received, a list from NSDFA of those residents deemed to be within 500m of the proposed sites and made every effort to meet with each of these parties. This list contains 20 properties:

Six: are crown land requiring no consultation

Four: are owned by the applicant

Four: owned by our next-door neighbour Peter Bowler whom we met with several times but remains opposed

One: by the Parish of St Paul the Apostle- supportive.

One: Rainer & Birgit Wunn-supportive

One: Susan Vincent & Marc Genuist- supportive

One: Joe MacKenna & Sarah Jadot – Joe came to our property and went through our farm plan and is ambivalent but despite repeated invitations Sarah has not been available but she did come to our open house meeting and asked a few questions.

One: Bill and Sheilagh Hudon – through the summer we called twice to ask for a meeting, visited their home three times, sent them an email asking to meet, and spoke in person at the StFX Public Panel Discussion, finally on September 5 Bill came over by boat after asking to view our growth units. His questions during his visit revealed his likely true interest was to learn the date of our public meeting which was still being organized. We did try to discuss our farm plan and to have Bill complete a response form, but he declined. He did say he opposes the application because he wants no restriction to his recreational boating activities and because he doesn't want to see more

buildings on our property. It seemed this was a major concern for Bill even though their house is in South Side Harbour and the distance to the potential building site is over one kilometer. Furthermore, the Hudon's live in Denver Colorado and are only seasonal residents of South Side Harbour. Beyond this we are unsure if he has any other concerns.

One: Brady Family Trust administered in Hilton Head North Carolina – we wrote to this party to inform them of our plans and ask for a response, but none has been received.

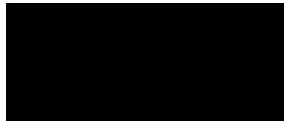
Most of the residents of Archibald Point have a direct view of the Captain's Island site, while it is more than 500m from their homes we felt these residents may be concerned so we made every effort to contact each of them directly. Tony and John Corsten who both own properties on Archibald Point came to our property to review our proposed farm plan, examine the gear we plan to use and have several discussions regarding our application. They admit, they will see a change in their view but are unconcerned. Instead they see great benefit to the area from the prospect of more employment and engaging a small portion of the harbours natural resources to create economic activity. Their response forms are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: July 7-2019 Time: 11.30 Location: 370 Seabright Road

Persons in attendance:

Address:



Full time Resident: yes.

Seasonal Resident:

Project Outline reviewed: yes.

Questions:

Concerns: no.

Response:

Date of response:

Residents own words:

it is a very good project

John Corsten

In Person Meeting record regarding AQ#1424

Date of meeting: June 28 / 19 Time: 2 PM Location: _____

Persons in attendance: Anthony Corst

Address: _____

Full time Resident: ☒

Seasonal Resident: ☒

Antigonish Landing NS

Archibald Point

Project Outline reviewed: yes

Questions: no

Concerns:

Water Rates

Response:

Date of response:

Residents own words:

I think it's a good Project
Anthony Corst

Antonia and Keith Cracknell also residents of Archibald Point met with us on our property to review our proposed farm plan, examine the gear we plan to use and discuss oyster aquaculture in general. They have similar opinions to the Corsten brothers and have encouraged us to forge ahead despite the opposition by a few of our neighbours. See their response forms below;

In Person Meeting record regarding AQ#1424

Date of meeting: July 4, 2019 Time: 9:00 Location: 370 Seabright

Persons in attendance:

Ernie Porter, Antonia Cracknell, Keith Cracknell

Address:

Full time Resident: ☒

Seasonal Resident: ☐

Harbour Centre

Project Outline reviewed: YES

Questions:

not at this time

Concerns:

No

Response:

Date of response:

Residents own words:

Very interesting & informative
innovative & environmentally conscious!

J Cracknell

In Person Meeting record regarding AQ#1424

Date of meeting: July 4/19 Time: 9:00 Location: 370 SEABRIGHT RD

Persons in attendance:

KEITH CRACKWELL

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

HARBOR CENTRE
NS [REDACTED]

Project Outline reviewed: Yes

Questions:

NONE AT THIS TIME

Concerns:

NONE AT THIS TIME

Response:

LOOK GOOD.

Date of response:

July 4/19

Residents own words:

LOOKS GOOD.

Blamuel

We met with Paul Corsten and his son at their home on Archibald Point. Paul said he is supportive despite his desire to have their view remain unchanged. No other concerns were expressed but instead, Paul pointed out that his son,

a graduate of the agriculture college, would like to be considered for employment should the farm be approved.

In Person Meeting record regarding AQ#1424

Date of meeting: ~ July 13 2019 Time: 3:00 Location: 164 Archibald PTB

Persons in attendance: Paul Corstian, His Son (Dillon?)
EDNIE

Address: [REDACTED] Full time Resident: ☒
Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions: Many - 45 minute discussion

Concerns: View will change. But its ok

Response: Dillon T. Corstian

Date of response:

Residents own words:

Paul said he was ok with
the plan & farm in general.
He asked if his son - grandson
of Dan A.C. could be considered for
employment.
Discussed Donald Chisholm - Paul said
he will be fine.

We met with Martin and Karen Corsten who also own property on Archibald Point with similar supportive comments and no objections.

In Person Meeting record regarding AQ#1424

Date of meeting: 7/20/19 Time: 1300h Location: M. Porter's House.

Persons in attendance: MARTIN CORSTEN
KAREN CORSTEN

Full time Resident:

Seasonal Resident:

Antiprism Co, NS.

Project Outline reviewed: YES.

Questions: No

Concerns: No

Response:

Date of response:

Residents own words:

was explained very well about project.
I have no objections.

Karen Corsten

After many attempts we finally met with Dawn Edgar, also a property owner on Archibald Point, to review our farm plan. We met for about an hour and discussed many issues related to the farm. I invited Dawn to come to our property to learn more about the proposed farm and left my contact coordinates. She said she plans to visit ShanDaph Oyster farm to view our BOBR growth units in use there. The record of this meeting is as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: OCT 14/19 Time: 3:10 Location: 182 Antigonish P.R.

Persons in attendance: Dawn Edouard

Address: [REDACTED] Full time Resident: ☒
Harbour Centre Seasonal Resident: ☐

Project Outline reviewed: YES

Questions: Many

Concerns: Pressure. - will visit Shandagh
Oyster farm to see zone

Response: Dawn Meeting

Date of response:

Residents own words:

I invited Dawn to come to
370 SEAPORT ROAD TO LOOK AT
ABOUT THE PROPOSED FARM. LEFT MY
PHONE # & ADDRESS.

An important stakeholder group we met with is the commercial oyster harvesters. There are four licenced harvesters active in Antigonish harbour each with a licenced helper. Throughout the summer we met each of them, they visited our property, reviewed our proposed farm plan and examined the gear we plan to use. They were concerned that certain areas of the farm may overlap with areas they have traditionally harvested, so we went out to the sites with Ken Fraser, one of the harvesters to identify these areas of overlap. We also conducted a similar review with Mike MacIntosh another of the harvesters. We then met as a group in New Glasgow to finalize an agreement whereby we would adjust the farm layout to avoid areas on the grow sites less than 3 feet in depth at low tide. On this basis the harvesters support our application.

CURRENT LEASE APPLICATION BY Town Point Consulting
FOR ANGLIMOUTH HARBOUR
WITH COMMERCIAL OYSTER
HARVESTERS.

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 7/19 Time: 1:00-2:00 Location: New Glasgow

Persons in attendance: KEN FRASER JAMIE DAVISON
MIKE MACINTOSH STEPHEN TOLAN

Address:

Full time Resident:

Seasonal Resident:

EDMUND FORSTER

JOHN FORSTER

Project Outline reviewed: YES

Questions:

Concerns: WHEREAS THROUGH DIRECT CONSULTATION
WITH ALL 4 HARVESTERS TPC HAS AGREED TO
STAY OFF SPURZ MINIMUM 50' AND AVOID ALL

Response:

AREAS IDENTIFIED AS POST HARVEST AREAS.
GENERALLY ANY AREA OF GREATER LOW TIDE DEPTH
OF 3' WILL BE ACCEPTABLE.

Residents own words:

Stephen MacIntosh Aug 7/19

Jamie Davison Aug 7/19

Kenny Fraser

Michael MacIntosh Aug 7/19

This agreement with oyster harvesters combined with feedback from a broader spectrum of other stakeholders and further data from the proposed sites led to a third revision of our farm plan. See Figure 4 below. An important feature of this revision is the inclusion of right of passage around the two grow sites. We had been advised by other oyster farmers to include a location on each site where the lease would go to shore as an operational convenience. While this shore component may have been of value to the farm, we realize the right of passage feature could help in our efforts to have the farm function more harmoniously with other users of the harbour. Our assessment is that the prospect of greater harmony and acceptance is of more value than whatever convenience the shore component

may afford. We are focused on the bigger picture and see social acceptance/social licence as an important goal to achieve in the early stages of farm development.

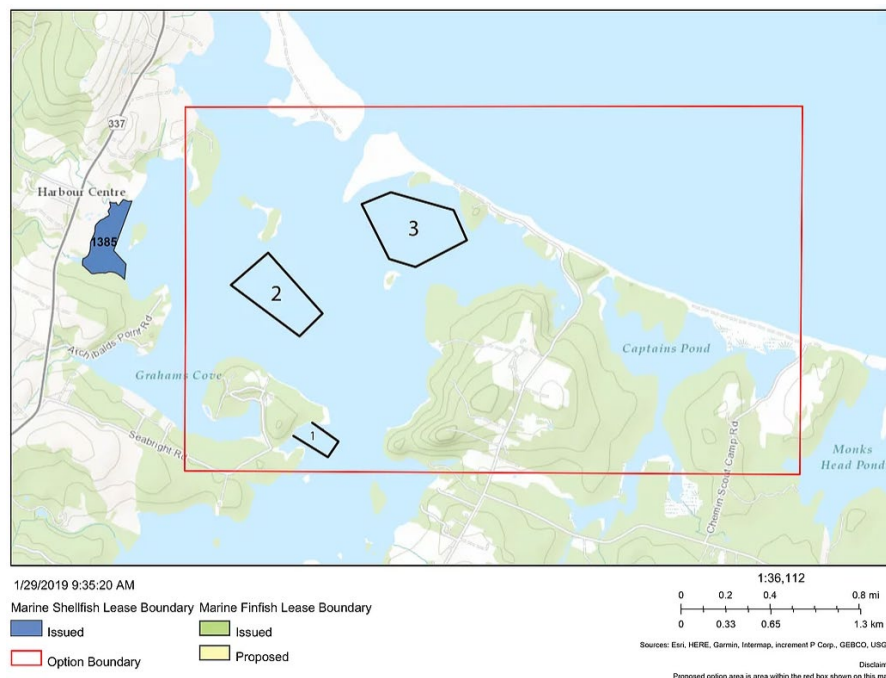
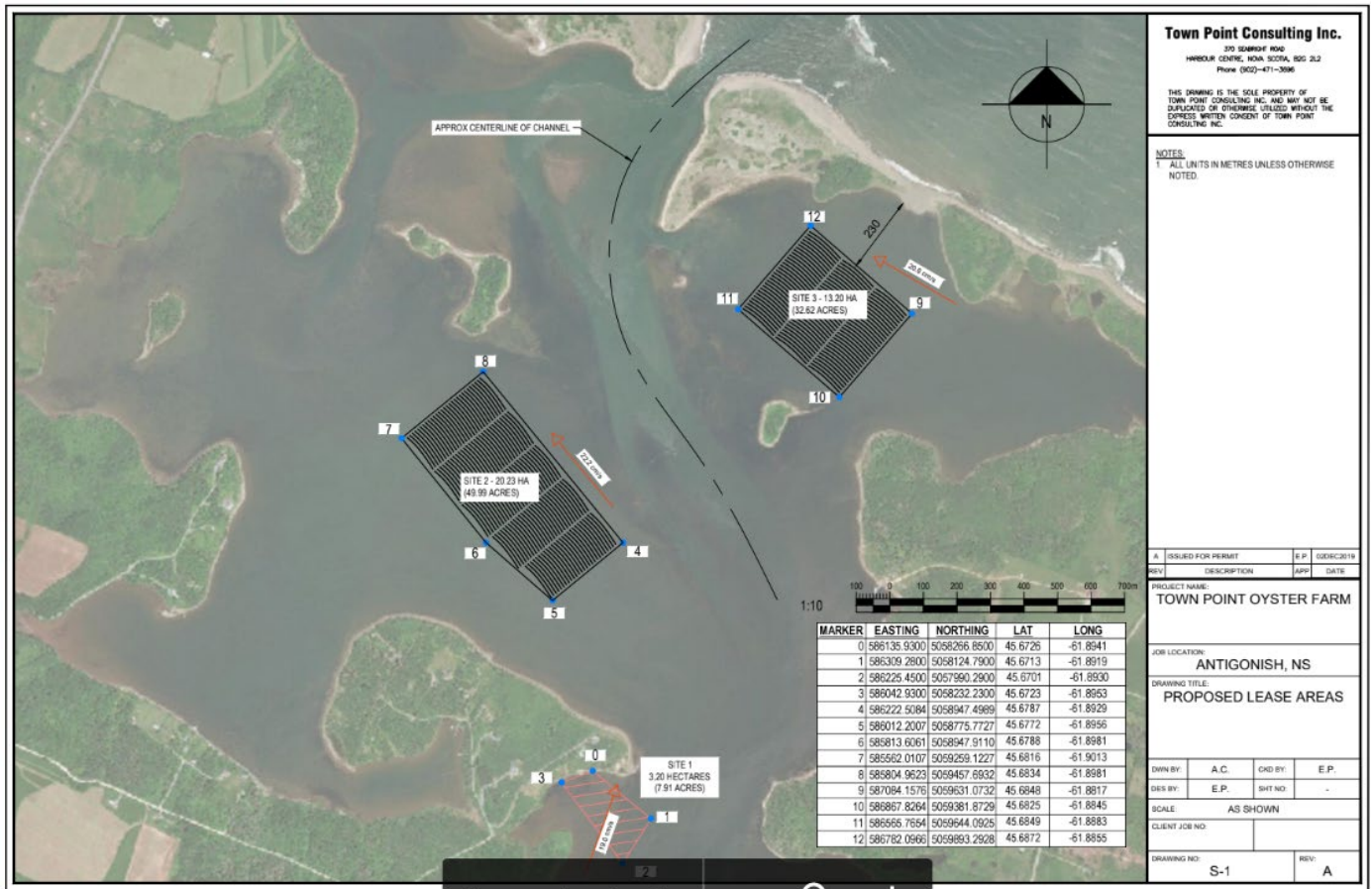


Figure 4, Farm Plan Revision 3

During our Open House Public Meeting on September 27, 2019 we learned there was a protection zone associated with Dunn's Beach and that our proposed Site #3 may fall within this area. Consequently, we obtained a copy of The Beaches Act and began to research the origins and objectives of this Act. While the original purpose was to protect the beach from removal of sand and to place limits on the types of activities permitted on the beach at some point protection was added to aid in the preservation of critical habitat for Piping Plovers.

To learn if/how our proposed operation could function within this protection zone with the approval of the recognized authority having jurisdiction we met with the Director of Provincial Parks and Protected Areas, Matt Parker and his senior planner Carrie Drake. They were receptive, open minded and willing to consider possible accommodations provided we confirmed the operation would not cause negative impact on Plovers. They suggested we meet with Birds Canada and have a biologist provide confirmation of the effects. As a result of these discussions with NSDNR we revised Site 2 to reduce its size by half and to include a setback from Dunn's Beach of about 230m as shown below.



We then reached out to Laura Bartlett at Birds Canada, Ecology Action Centre, Randy Lauff – Ornithologist at StFX, and Chris Kennedy – Biologist with Dillon Consulting. The various discussions were informative and consistent. All agreed that Plovers are on the beach and our operation is not so with an appropriate buffer the two should be able to co-exist. Further discussion of this issue is contained in the Development Plan Section 5.3.

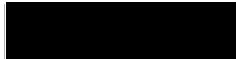
We met with dozens of local business owners who are overwhelmingly supportive and have encouraged us to proceed with the application. Local restaurant owners, Mark Gabrielleau and Ryan Shimozaawa are keenly interested in having access to locally grown and branded oysters as local sourcing is a key feature of their businesses.

In Person Meeting record regarding AQ#1424

Date of meeting: June 30 Time: 11:00 Location: Home

Persons in attendance: Mark Gabrielsen

Address:



Full time Resident: Full

Seasonal Resident:

Project Outline reviewed: yes

Questions: Benefits Many.

Concerns: None

Response:

Date of response:

Residents own words: I am all for it beneficial for the area
and the economy Plus I would sell them at my Restaurant
owner operator of Gabrielsen's Bistro

A handwritten signature in black ink, appearing to read 'M. Gabrielsen'.

In Person Meeting record regarding AQ#1424

Date of meeting: JUNE 22, 2019 Time: 1130 Location: 370 SEABALL CTPersons in attendance: RYAN SUMOZAWA

Address:

[REDACTED]
ANTIGONISH, NS
[REDACTED]Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed:

Questions:

MANY
WE HAD CONVERSATION MANY TOPICS DISCUSSED

Concerns:

— NONE AT THIS TIME.

Response:


DURING MEETING.

Date of response:

JUNE 22, 2019.

Residents own words:

AS A SMALL BUSINESS OWNER IN ANTIGONISH,
I THINK THE PROPOSED PROJECT WOULD
BE A GREAT ADDITION TO OUR COMMUNITY
BRINGING BOTH JOBS AND EXCITING NEW INDUSTRY
TO ANTIGONISH. AS A RESTAURANT OWNER
BEING ABLE TO OFFER PRODUCT FROM OUR REGION
IS ALWAYS BEST PRACTICE. OYSTERS FROM OUR
OWN HARBOUR WOULD BE GREAT FOR OUR
RESTAURANT!


RYAN SUMOZAWA

We spoke with some of the lobster fishers who fish in St. Georges Bay, and have home dockage in Antigonish Harbour. We waited until after lobster season to contact them out of respect for their busy time. Unfortunately, they had already been lobbied by our opponents and these fishers were reluctant to meet. One of them, Darryl Beaton told me by phone he had no concerns provided his travel route is not impeded and it is not. Another, Billy Brophy (the spokesman for the Brophy family of lobster fishers), attended the StFX Public Panel Discussion where we fully described the farm plan, location of proposed lease sites, type of operation, etc. and I spoke with him a few days afterward. He did not want to meet but expressed no concerns.

We followed up with the lobster fishers in writing to provide them with a map of the current farm plan at the time revision (#3) and to ask for comment, invited them to our Open House Meeting and to suggest there may be ways to cooperated to our mutual benefit. No response was received. A copy of this letter is as follows;

Town Point Consulting Inc.

September 22, 2019

Billy Brophy

Southside Harbour, NS

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

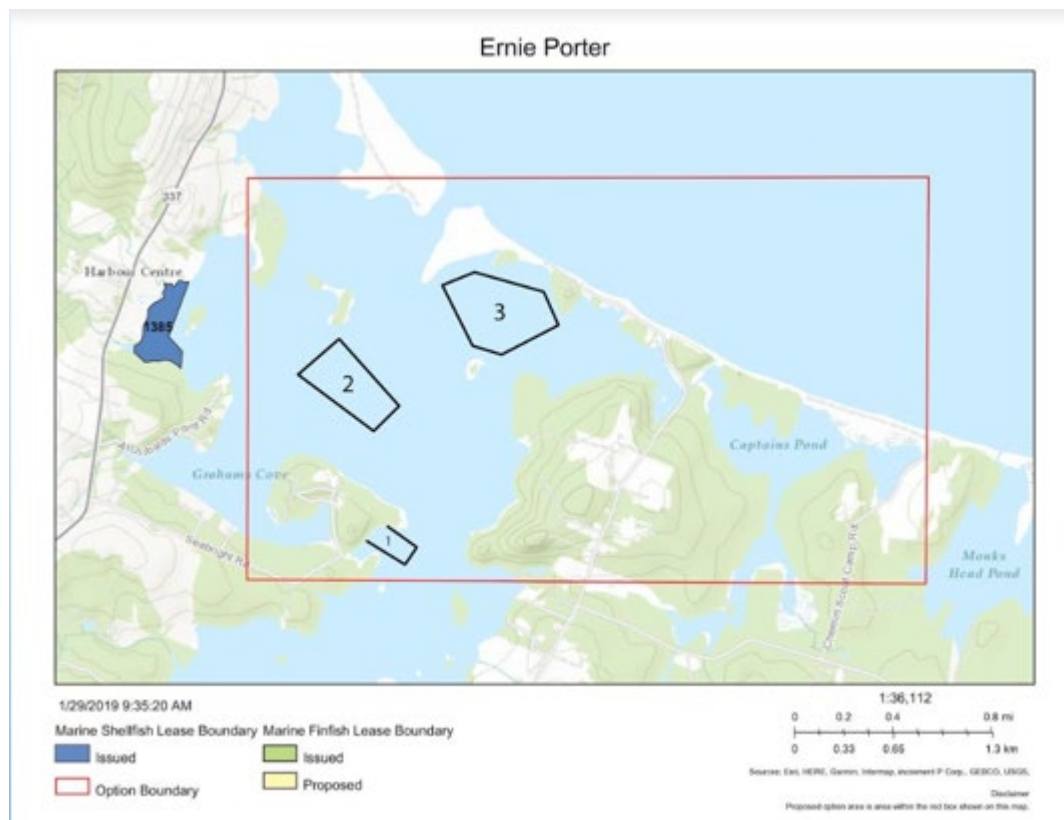
Best regards,
Town Point Consulting Inc.



Ernie Porter, P.Eng.
President

Town Point Consulting Inc.

370 Seabright Road
Harbour Centre, NS
B2G 2L2
Tel: (902) 471-3696



We met with numerous recreational boaters to determine the impact our proposed farm may have on their activities. Response was mixed. Many indicated they would be unaffected and were unconcerned. Others felt it would be a minor inconvenience and the impact would be tolerable. A few, particularly those aligned with “The Friends of Antigonish Harbour” felt the impact would be significant and intolerable.

It is important to understand Antigonish Harbour is not heavily populated with recreational boaters. Such boats resident to the harbour total about 14 including 2 of our own. Visiting boats are less common but on occasion there may be a few per day. The most frequent recreational power boaters are the following; Tony Corsten, Bill Chisholm, Brian MacLeod, Brian Latwatis, Jason Stewart, Peter Cameron, ourselves, and Bill Hudon. This group use the harbour on average a few times per week. Of this group only Bill Hudon, a founding member of “Friends of Antigonish Harbour” opposes. The Hudon’s are seasonal residents from Denver Colorado and live here from mid June to mid October each year. There are likely six other residents who use the harbour recreationally but only on a weekly basis and only during summer months.

Recreational sail boaters are less common in Antigonish Harbour than recreational power boaters. Presently there are no keel boats on the harbour. There are two day sailors (neither has been seen under sail this summer) a few dingys at the boat club, two similar dingys at the Goring property on Town Point, one small trimaran and three 16’ Hobie cats. Collectively, these boats are in use only a few times per week and only during summer months. We have spoken with several of the owners as follows; the Antigonish Boat Club is not opposed and is located such that the common use of their dingys is unaffected - Stephen Feist owns the trimaran and is supportive of our venture - Mr. Goring would rather we didn’t build the Captain’s Island portion of the farm as he does sail there on occasion, likely several times per summer, one of the day sailors will be transferred to Bras Dor Lakes as soon as repairs are complete and it hasn’t been seen other than on its mooring at the boat club. We own one of the Hobie cats, another is owned by Fraser Summerfield who is supportive, and the other day sailor is owned by the Wilgenhof’s and hasn’t been seen under sail this summer. So, recreational sailing is not a common activity on Antigonish Harbour, and we believe we have chosen lease site locations that are away from such traffic, except for Mr. Goring.

Recreational fishing is common in Antigonish harbour and while difficult to reach we feel we have contacted a representative sample of this stakeholder group. These users tend to be in small boats that are trailered in,

launched for part of the day then removed, so unless contact is made on the water there is little way to have dialogue with these individuals. Those we have reached all indicate they fish in the channel and 15 years of observing these fishers strongly supports this trend. None of this group, other than Peter Bowler, who occasionally fishes from a kayak, have indicated our proposed farm would impact their use of the harbour. The recreational fisher most often on the harbour is Jason Stewart who fishes most days from spring until fall, he expects no negative impact from our proposed farm and is in support. Some of these fishers may be aware of a beneficial effect related to the safe haven our growth units would provide for juvenile fish which could decrease the mortality rate among this cohort and possibly lead to greater abundance of game fish years later.

We met with Jim Lerikos an avid recreational fisher, duck hunter and board member of the Antigonish Rivers Association. He sees no detrimental effect of our proposed operation on the sustainability of trout and salmon common in the harbour and tributary rivers. Below is his in-person meeting response.

In Person Meeting record regarding AQ#1424

Date of meeting: ^{Dec.} ~~Nov~~ 15, 2019 Time: 11 AM Location: 370 Seabright Rd.

Persons in attendance:

Jim Larikos

Address:

[REDACTED]
Antigonish, N.S.

Full time Resident: ☒

Seasonal Resident: ☒

Project Outline reviewed:

Questions:

several

Concerns:

none since my exposure to all the facts

Response:

project was well defined + explained. I
now support this project.

Date of response:

Dec 15, 2019

Residents own words:

There is nothing that troubles me
about this project. There is no
environmental issues that I
can see that affect the harbour.
so much misinformation out there!

[Signature]

We are aware of no currently operating commercial fishers active in Antigonish Harbour. We did speak with one commercial fisher, Archie MacKenzie, who holds several licences for the commercial harvest of bait fish and other species in Antigonish Harbour. Archie is in the process of transitioning his fishing business to his son, Christopher,

and is no longer using his Antigonish Harbour fishing licences. Both Archie and Christopher support our initiative and have no concerns regarding our farm plan.

Through our door to door public engagement efforts we have reached out to more than 100 households in the area and have spoken with more than 150 residents resulting in meeting records relating 137 residents. A few of the people we met preferred not to go on record.

Our approach has been to make contact and ask for some of the resident's time to discuss our oyster farm plans. The vast majority have been receptive, interested and grateful. Those who accepted would receive a verbal description of our interest in oyster aquaculture. We would review the current version of our farm plan as represented by outlines drawn to scale of the three lease sites on a map of Antigonish Harbour. I described how off bottom oyster farming is done, why we had chosen the particular sites shown, the size of the sites, when gear would be visible, how our gear would appear from their vantage point, the general scale of the operation, the need for a farm support building somewhere on the shore of Antigonish Harbour and so on. I would ask if the resident had any questions and then answer them. These meetings would last as long as the resident wished, many were 2 hours or longer. The most important aspect of these meetings was asking for and receiving any concerns the resident may have had regarding oyster aquaculture and/or our farm plan. I would typically invite the resident to come to our property to view the proposed sites and examine the gear we plan to use. Many accepted this offer and did visit us. I did not try to convince residents to support our plan. If asked I would let them know support is appreciated but the meeting was about understanding stakeholder views and providing the community an opportunity to be informed and express concerns.

During the meetings I asked the residents to complete a public engagement form intended to capture important information regarding the meeting, the participants and their concerns. Beyond the who, when, where data points the more important part of the form is the comments residents recorded usually in their own handwriting. From this feedback we have been able to gain solid understanding with respect to how the community views our proposed farm which has enabled us to make well reasoned adjustments to the farm plan in response to this feedback.

Unfortunately, the "Friends of Antigonish Harbour" have chosen not to communicate directly with us so in effect they have opted out of the process. Simply put, without dialogue that would lead to understanding the specific concerns an individual may feel, we cannot factor those thoughts into our farm design. Furthermore, the "Friends" efforts to jaundice the views of the community prior to people learning anything factual about our proposal has caused some of these individuals to be either misinformed or persuaded to oppose without knowing the facts. Despite the ongoing campaign against our application, most of the community remains solidly supportive.

A further component of our public engagement efforts came about through Dr. David Garbary, head of the StFX Department of Aquatic Resources. Through Susan Vincent, another professor at StFX and our neighbor, I was introduced to Dr. Garbary. He stated he was concerned about the direction some of the public discourse was taking and had decided to do something about it. He asked if I would be willing to participate in a public panel discussion focused on our application and related biological effects. I immediately agreed to participate with a few conditions.

- 1) no microphone would be in the audience while I was speaking
- 2) Dr. Garbary would control the room so that the meeting would function well and progress respectfully.
- 3) We would be permitted to hold a poster board public information session prior to the meeting in the foyer outside the meeting room.

Dr. Garbary agreed to these conditions and we then discussed how the meeting would function. His plan was to have Kerry Prosper from Paqtnekek First Nation open with a statement/prayer. Then NSDFA was to present the application process, I would do a PowerPoint presentation regarding our farm plan. A biologist from St FX would speak to the biology of the harbour, and a representative from the "Friends" would make their case in opposition to

our application. Dr. Garbary suggested, and I agreed, I would be given 30 minutes for my presentation and each other party would have 15 minutes. This was simply because the most important information to convey was thought to be particulars regarding our proposed farm.

Because NSDFA does not participate in such meetings relating to an active application as it would appear to be a conflict of neutrality, they declined Dr. Garbary's request. So, I suggested someone from the Aquaculture Association of NS could cover the application process topic. Dr Garbary agreed, and Tom Smith, (director of Nova Scotia Aquaculture association) was contacted and engaged for this component of the meeting. From inception through completion the "Friends" threw up continual obstacles for Dr. Garbary. They refused to participate if Tom Smith was on the panel and they refused to inform Dr. Garbary who would represent their group on the panel.

Somehow the "Friends" took control of the advertising of the event in the local newspaper, local radio station, and on their Facebook page. They misrepresented the start time in the newspaper advertisement indicating a start time that did not include the agreed poster board public information session prior to the public panel discussion. These actions further concerned Dr Garbary who attempted to correct the time issue.

One day before the event the "Friends" informed Dr Garbary they would have three representatives on the panel instead of one and they would require 10 minutes each. So, the result was that 3 people would speak in opposition, and they insisted on double the allotted time which had been set forth when I agreed to participate. Then only at 10:00pm the evening before did they let Dr. Garbary know who would represent them. All these manipulations were intended to stack the deck in the "Friends" favor which caused us some concern, but other than asking for fairness, we continued to see the event as a potentially beneficial opportunity to engage with a broad group of community residents.

The evening of the event saw a good number of the public arriving in time for the poster board session which lasted about one hour. The "Friends" arrived halfway through and were immediately very upset. Peter Bowler accosted Dr Garbary demanding to know why we had information displays. Dr. Garbary stood his ground, explaining that all parties had been welcome to have information available prior to the public panel discussion. Peter Bowler expressed his unhappiness about our information panels and demanded to know why the "Friends" did not have the same. Dr Garbary informed him that they were in fact informed of this. So, the "Friends" then tried to block the public from entering. When this didn't work, they then tried to stand in the way blocking public access to our displays and attendants. This strategy was also unsuccessful so the "Friends" then very energetically worked to direct people entering the foyer away from the information displays and toward their impromptu petition signing station. As has been their strategy all along, they encouraged anyone they encountered to sign a petition opposing our application. The "Friends" of Antigonish Harbour knowingly used misinformation in order to cast us and our proposal in a very negative light.

Despite the drama during the information session, the public panel discussion proceeded well and in conformance with ground rules established by Dr. Garbary. The attendance was significant with 257 people - partial attendance list is as follows.

Name	Community	Full Time Resident	Seasonal resident
Dr. David Garbary	Antigonish	*	
Dolna Garbary	Antigonish	*	
Dr. Russell Wyeth	Antigonish	*	
Lynn Paterson	Antigonish	*	
Dr. Tony Miller	Antigonish	*	
Kerry Prosper	Paqtnkek First Nation	*	
Peter Bowler	Town Point		*
Coleen Bowler	Town Point		*

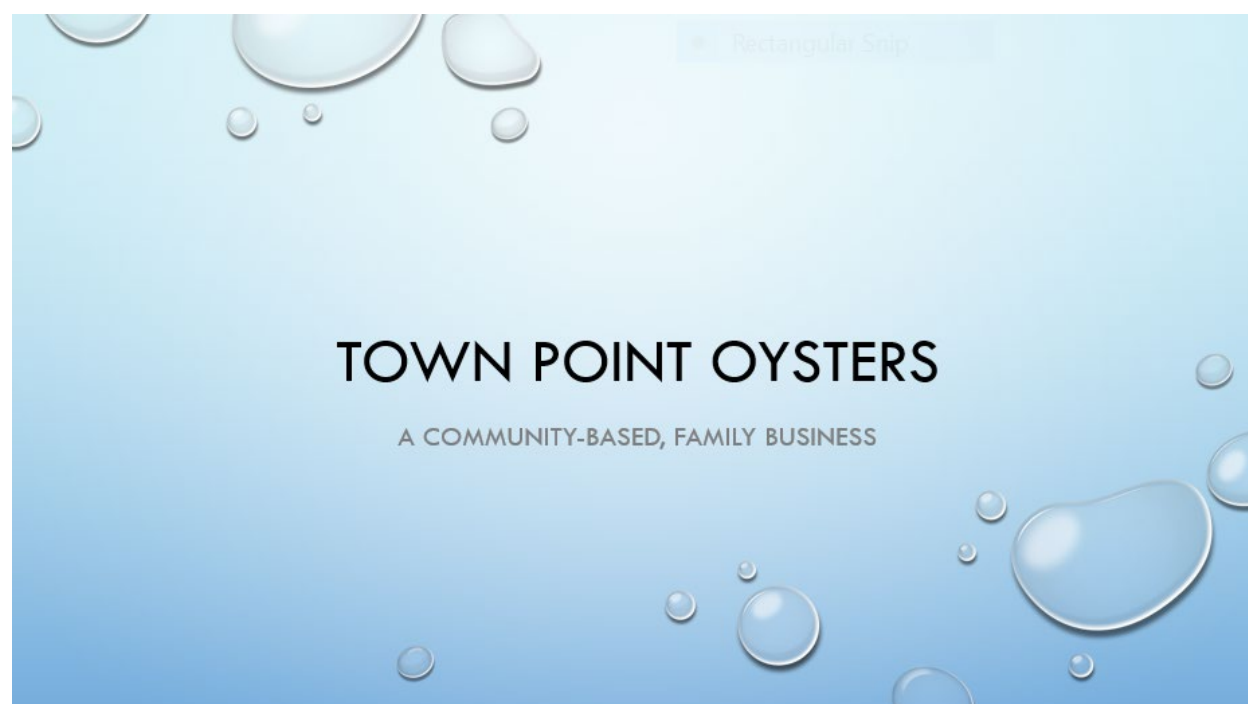
Mike MacDonald	Town Point	*	
	Town Point	*	
Rainer Wunn	Town Point	*	
Birgit Wunn	Town Point	*	
Susan Vincent	Town Point	*	
Marc Genuist	Town Point	*	
Richard Wilgenhof	Town Point	*	
Alena Wilgenhof	Town Point	*	
Manfred Goring	Town Point		*
Marie Claire Declerck	Town Point		*
May Goring	Town Point		*
Ernie Porter	Town Point	*	
Jane Porter	Town Point	*	
Ted Porter	Town Point		*
John Porter	Town Point		*
Rachel Odgers	Town Point		*
Michael Goldschmidt	Town Point		*
Pat MacDonald	Harbour Centre	*	
Lucy MacDonald	Harbour Centre	*	
Aly MacDonald	Harbour Centre		*
Angus MacDonald	Harbour Centre	*	
Shamus MacDonald	Harbour Centre	*	
Lou Bilik	Harbour Centre	*	
Linda Bilik	Harbour Centre	*	
Rod Bantjes	Harbour Centre	*	
Maureen Moynagh	Harbour Centre	*	
Jack Thompson	Harbour Centre	*	
Leo Cameron	Harbour Centre	*	
Kay Cameron	Harbour Centre	*	
Sian Turner	Harbour Centre	*	
Rick Turner	Harbour Centre	*	
Greg MacGuillavray	Mahoneys Beach	*	
John Allan MacDonald	Mahoneys Beach	*	
Stephen Feist	Antigonish	*	
Sean Day	Antigonish	*	
Brian MacLeod	Terra Tory Drive	*	
Irene MacLeod	Terra Tory Drive	*	
Frank Gallant	Terra Tory Drive	*	
Heather Mayhew	Terra Tory Drive	*	
Dan Smith	Terra Tory Drive	*	
Dr Danny MacKenna	Antigonish	*	
Ann MacKenna	Antigonish	*	
Mark Gabrielau	Antigonish	*	
	Lanark		*
	Lanark		*
Mark Sears	Antigonish	*	
Robin Stewart	Sydney	*	
Steve Mattie	Harve Bouchie	*	
Alex Bouchie	Merigomish	*	
Hana Nelson	Merigomish		*

Philip Docker	Merigomish		*
Bill Chisholm	South Side Harbour	*	
Tony Corsten	Archibauld Point		*
John Corsten	Antigonish	*	
Archie MacKenzie	Morristown	*	
Francis MacKenzie	Morristown	*	
Viola Linkletter	South Side Harbour	*	
	Malignant Cove		
Josh Chabinka	Halifax	*	
Billy Brophy	South Side Harbour	*	
Kingsley Brown	South Side Harbour	*	
Kevin Gillis	Harbour Centre		*
Andrea Gillis	Harbour Centre		*
Cameron Gillis	Harbour Centre		*
Leonard Hanrahan	Harbour Centre	*	
Garret Sears	Antigonish	*	
Paul Cameron	Antigonish	*	
Ann Marie Cameron	Antigonish	*	
Ryan Shimozaawa	Antigonish	*	
Neil Atkinson	Halifax	*	
Geoff Atkinson	Halifax	*	
Rob Kell	Antigonish	*	
Liz Kell	Antigonish	*	
Owen McCarron	North Grant ?	*	
Bill Hudon	South Side Harbour	*	
Sheleigh Hudon	South Side Harbour	*	
Gardia MacDonald	Antigonish	*	
Susan Shaw	Kentville	*	
Grant Crosby	Malignant Cove	*	
Christine Vickers Crosby	Malignant Cove	*	
Brian Latwatis	South Side Harbour	*	
Beth Latwatis	South Side Harbour	*	
Valeri Chugg	Cape George	*	
Sharon Pinkohs	Antigonish	*	
Elsa Pinkohs	Antigonish	*	
Rudy Stewart	Antigonish	*	
Rowena Stewart	Antigonish	*	
Angela Bowles	Antigonish	*	
Carmen Bowles	Antigonish	*	
Jack MacLeod	Lanark	*	
Noel Samson	Lanark	*	
Ina Porter	Antigonish	*	
Grazia Wood	Antigonish	*	
Elizabeth Brennan	Antigonish	*	
Bernadette Lancaster	Antigonish	*	
Richard Lancaster	Antigonish	*	
Maurice Smith	Antigonish	*	
Jane Smith	Antigonish	*	
Donnie MacDonald	Antigonish	*	
Ann Boyd	Cribbons Point	*	

JR MacDougal	Lanark	*	
Mrs JR MacDougal	Lanark	*	
Ed Pencer	Lanark	*	
Mrs Ed Pencer	Lanark	*	
Eddie Benoit	South Side Harbour	*	
Mrs Eddie Benoit	South Side Harbour	*	
Shannon Boyd	Morristown	*	
Shannon's Partner	Morristown	*	
Gerard MacEachern	Lanark	*	
Florance MacEachern	Lanark	*	
Patsy Boyd	Montreal	*	
William Landry	Antigonish	*	
Wil Landry (William's Son)	Antigonish	*	
Vaughan Chisholm	St Josephs	*	
Blaise MacDonald	Arisaig	*	
Sarita Landry	Antigonish	*	
Bill Landry	Antigonish	*	
Roberta Clarke (re-married)	?	?	
Sean Cameron	Antigonish	*	
Betsy MacDonald	Antigonish	*	
Maurice Smith	Antigonish	*	
Carl Myette	Antigonish	*	
Cory Smith	Antigonish	*	
Nancy Peters	Antigonish	*	
Melissa Romans	Halifax	*	
Lorraine Beaton	South Side Harbour	*	
Gary Delorey	Harbour Centre	*	
Sarah Bowler	Toronto		
Adam Baden-Clay	Antigonish		
Yvon Grenier	Antigonish	*	
Connie Clement	Terra Tory Drive	*	
Phyllis Baker	South Side Harbour	*	
Jay Ross	Antigonish	*	
Susan Ross	Antigonish	*	
Karen Brebner	Mahoneys Beach	*	
Jane MacMillan	Antigonish	*	
Jerry Connolly	Terra Tory Drive	*	
Kathleen Robertson	Antigonish	*	
Ronda Semple	Antigonish	*	
John Buckland-Nicks	Antigonish	*	
Leslie Buckland-Nick	Antigonish	*	
L. Jane McMillan	South Side Harbour	*	
Sue Evans	Antigonish	*	
Mary MacDougall	North Grant	*	
Mr MacDougall	North Grant	*	
Mr Fraser	Seabright Lane		*
Brenda Fraser	Seabright Lane		*
Louise Lorefice	Antigonish	*	
Leda Arnold	Antigonish	*	
George Arsenault	South Side Harbour	*	

Ian MacKinnon	Antigonish	*	
Ralph Mattie	Tracadie	*	
Donalda Mattie	Tracadie	*	
George Arsenault	Antigonish	*	
Matalyn McDonald	Student		*
Aaron Cogger	Student		*
	Williams Point	*	
Gary Mattie	Tracadie	*	
Struan MacIntosh	St Andrews	*	
Gerard Gillis	Antigonish	*	
Lori Boucher	Cribbons Point/Antigonish	*	
Jack Sullivan	Antigonish	*	
Paul Boyd	Cribbons Point	*	
Ann Boyd	Cribbons Point Road	*	
Bob Fraser	Antigonish	*	
Sister Donna Grady	Antigonish	*	
Morag MacGillivray	Antigonish	*	
Jane Teasdale	Antigonish	*	
Pat MacGillivray	Antigonish	*	
Pat's Husband (Robert?)	Antigonish	*	
Glenn Horne	Antigonish	*	
John Dunbar	Antigonish	*	
Brenda Martel	Student	*	
Ashly Bouchie	Antigonish	*	
Sister Marion Sheridan	Antigonish	*	

The audience was attentive and respectful. Our presentation involved the following PowerPoint and lasted 30 minutes.



THE APPLICANTS

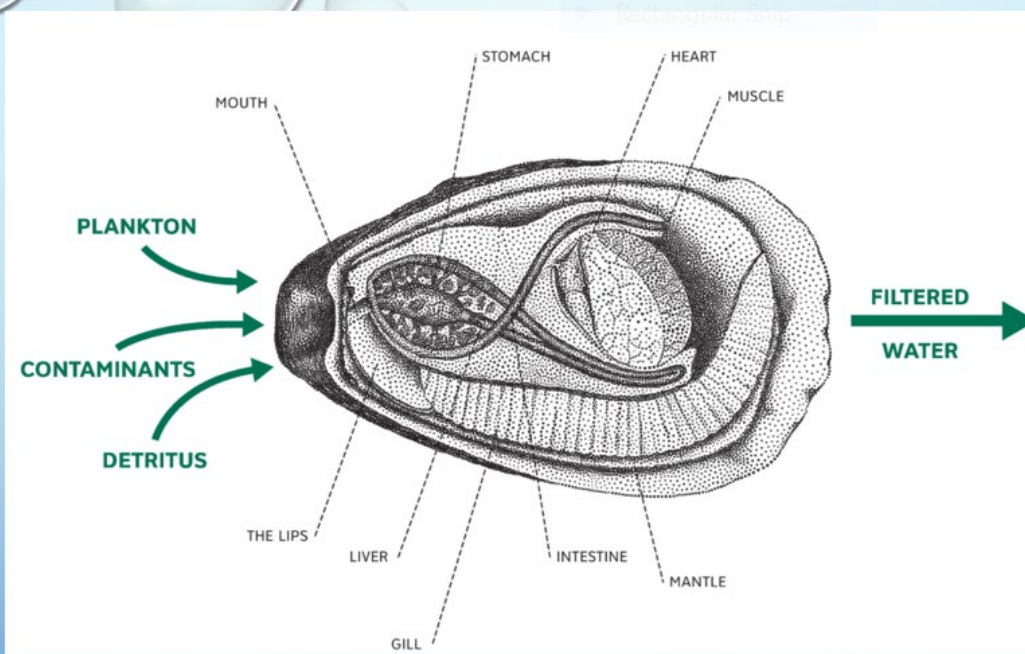


- JOHN...BSC GEOLOGY FROM ST. FX, RENEWABLE ENERGY DIPLOMA FROM NSCC, CURRENTLY IN ELECTRICAL ENGINEERING AT DAL
- ERNIE...FROM NEW GLASGOW, RETIRED ENGINEER, FORMER PRESIDENT AND CHAIRMAN OF LINDSAY CONSTRUCTION
- JANE...DENTIST, BSC FROM ST. FX, DEEP FAMILY ROOTS IN ANTIGONISH
- TED...BBA IN INTERNATIONAL BUSINESS AND SUSTAINABILITY

WHY OYSTER FARMING?

- OPPORTUNITY
- EXCELLENT CONDITIONS
- CLEANER HARBOUR





Rectangular Snail

IVANY REPORT



OYSTERS – THE MARKET

- OYSTERS ARE HEALTHY & SUSTAINABLE
- ECO-FRIENDLY SOURCE OF PROTEIN
- PREMIUM FOOD PRODUCT, HIGH VALUE
- SUPPLY DOES NOT MEET DEMAND
- WILD HARVESTED OYSTERS IN DECLINE

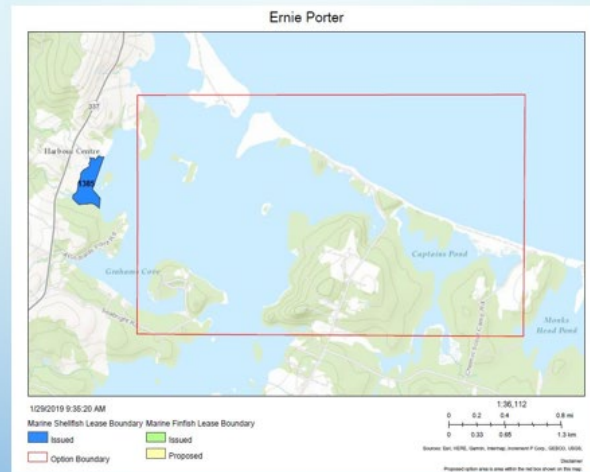


APPLICATION PROCESS

- APPLIED FOR “OPTION TO LEASE” NOV 2018
- OPTION TO LEASE GRANTED APRIL 2019
- PUBLIC ENGAGEMENT/SCOPING
- PLAN ADJUSTED AS FEEDBACK AND SCOPING DATA ACCUMULATED
- HOLD PUBLIC MEETING
- COMPLETE FINAL FARM DESIGN AND SUBMIT APPLICATION

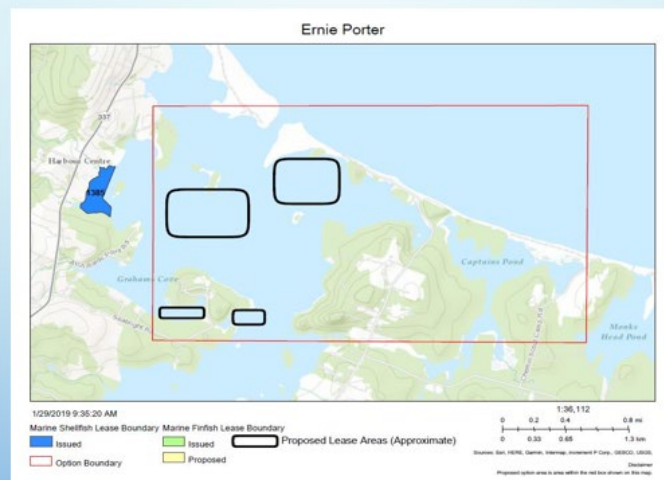


SCOPING AREA

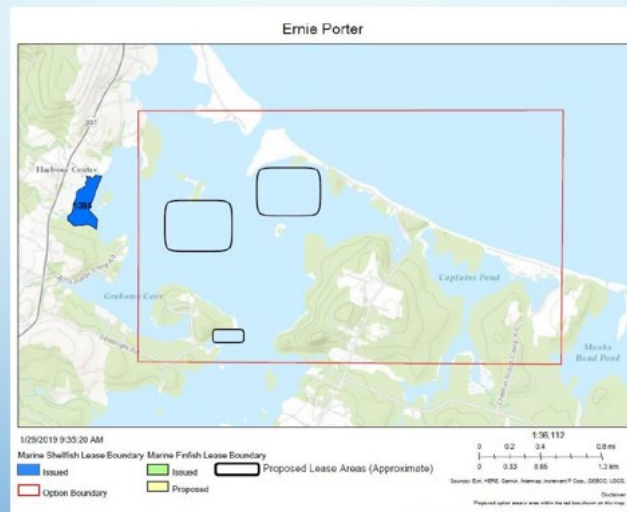


INITIAL PROPOSED FARM LAYOUT

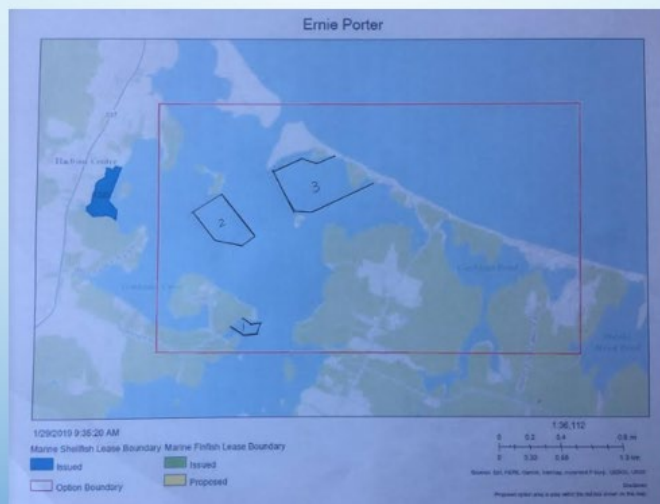
Saved to this PC



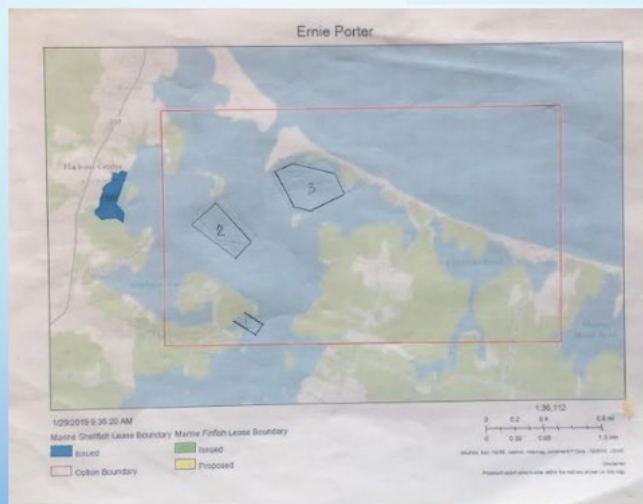
REVISED FARM LAYOUT



FURTHER FARM PLAN REVISIONS



CURRENT FARM LAYOUT



RIGHT SIZING FARM

- TOTAL SURFACE AREA OF ANTIGONISH HARBOUR4400 ACRES
- TOTAL SURFACE AREA OF PROPOSED FARM ...120.25 ACRES
- FARM OCCUPIES 2.7% OF HARBOUR
- GROWTH UNITS OCCUPY <4% OF LEASE AREA
- PORTION OF HARBOUR COVERED BY GROWTH UNITS 0.1%
- GROWTH UNIT DENSITY <300 PER ACRE
- YIELD...2-3 MILLION PER YEAR



FARM OPERATION

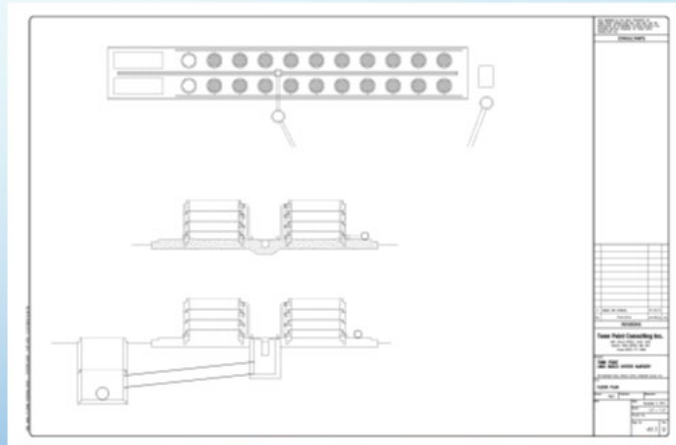
- SEED COLLECTED FROM THE HARBOUR
- SEED PLACED IN LAND-BASED NURSERY
- SEED TRANSFERRED TO GROW SITES
- ON GROW SITE FOR 3 YEARS
- MARKET SIZE OYSTERS HARVESTED
- RELAY / DEPURATION
- SORTING
- PACKAGING
- COLD STORAGE
- ORDERS FILLED

SEED COLLECTION



LAND BASED NURSERY

- LOCATED ON OUR PROPERTY
- SEPARATE APPLICATION
- SEPARATE ENTERPRISE
- FLOW THROUGH
- NO TREATMENTS
- 17' X102'
- LOW PROFILE
- QUIET
- NO ODOUR
- YIELD OF 6-12 MILLION SEED PER YEAR
- EXCESS SEED SOLD TO OTHER FARMS



STORAGE SITE

- NO VISIBLE GROWTH UNITS
- ON BOTTOM STORAGE FOR EXCESS SEED
- OVER WINTER STORAGE FOR MARKET OYSTERS
- AREA 11 ACRES
- DEPTH 3'-7'
- MINIMAL IMPACT ON OTHER USERS



GROW SITES

Rectangular Snip

- AREA 109 ACRES
- LOCATION
- MORE THAN ½ KM TO NEAREST HOMES
- DEPTH 3'-7'
- LOW IMPACT ON OTHER USERS
- GROWTH UNITS SUNK NOVEMBER TO MAY
- YIELD OF ABOUT 2-3/YEAR



CURRENT TECHNOLOGY



NEW TECHNOLOGY

- VERY LOW VISUAL PROFILE
- NOT ATTRACTIVE TO BIRDS OR SEALS
- NO LOST GROW DAYS
- DEPLOYED AT SHANDAPH OYSTER FARM



ENVIRONMENTAL BENEFITS

- CLEANER WATER...OYSTERS ARE FILTER FEEDERS
- BENEFICIAL EFFECT ON SEA PLANTS, DR BARRELL
- SAFE REFUGE FOR SMALL FISH
- CARBON SEQUESTERING



POTENTIAL COMMUNITY BENEFITS

- EMPLOYMENT, 8-10 JOBS
- LOCAL OYSTERS
- CLEANER HARBOUR
- GROWS LOCAL ECONOMY



SUMMARY

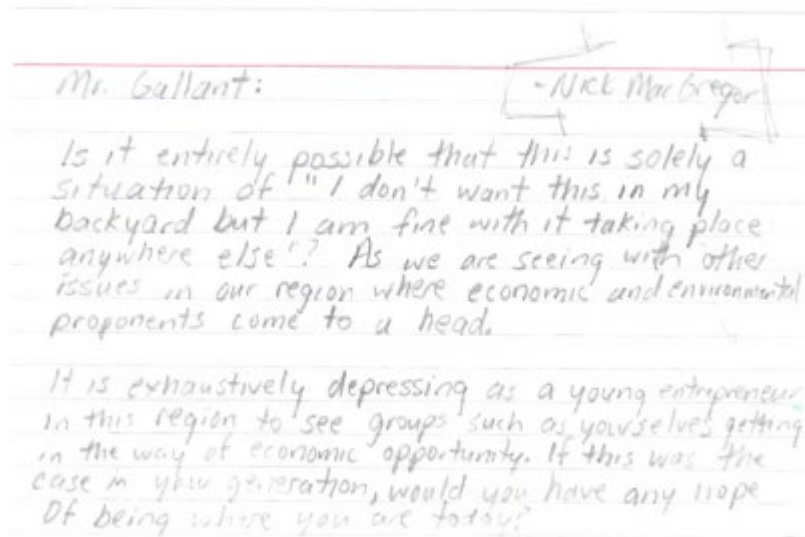
- CLEANER HARBOUR ... 60 MILLION GALLONS FILTERED DAILY
- SUSTAINABLE ECO-FRIENDLY SEAFOOD
- JOBS – IVANY REPORT
- LOW VISUAL PROFILE
- 2.7 % OF HARBOUR
- SHARE CANADIAN PUBLIC RESOURCE FOR BENEFIT OF ALL CANADIANS



Unfortunately, the scientist on the panel, Dr. Tony Miller, did not address scientific issues related to oyster aquaculture. Instead he mentioned eelgrass, showed slides of eelgrass at a location other than the proposed sites and never connected eelgrass biology to the effects of oyster aquaculture. Then he went on at great length showing slides of and discussing the habits of birds from Manitoba to the arctic and again didn't connect birds to oyster aquaculture. This left the public somewhat baffled and wondering how this information could be relevant.

Questions from the public were permitted but only if written and passed in during the meeting. These questions were vetted and collated by St FX staff and read by Dr. Garbary.

Following presentations by the panelists the "Friends" were asked a question that we believe summarizes their motivations. The question was posed by Nick MacGregor and is included below. Frank Gallant answered as panelist for the "Friends" as follows; "We don't oppose oyster aquaculture, just not in Antigonish Harbour".



Fortunately, both Dr. Garbary and Dr. Russell Wyeth both spoke up to provide some scientific comment to help fill the information void left by Dr. Miller and to refute some of the blatantly false claims made during the “Friends” presentation. Dr. Garbary stated after prefacing his comments by citing his sources that scientific studies he has read and that colleagues who specialized in this particular field of study all concur with the belief that “If properly managed, the effect of an oyster aquaculture farm of the type proposed operating in an estuary such as Antigonish Harbour and occupying not more than 10% of the area of that estuary will environmentally be at worst benign”. Our proposed farm would occupy only 2% of the harbour area.

Dr. Wyeth called into question the scientific basis for the claims made during the “Friends” presentation and asked to see their cited references . . . none were provided.

At this Public Panel discussion, we were successful in presenting our farm plan to 257 area residents. Our presentation covered all the required elements of public engagement including open dialogue, facts describing our proposed venture and opportunity to ask questions or express concerns. During the poster board session, we also provided business cards containing our contact coordinates to interested attendees and a few have been in contact.

We organized and hosted our own public information meeting held September 27, 2019 at the Lakevale Community Centre. Notices were posted in local coffee shops, the post office, Antigonish Town Hall, Antigonish County Municipal Building and in The Casket Newspaper. The newspaper Ad is enclosed in Appendix A and the posted notice is as follows;

OPEN HOUSE

INFORMATION MEETING

WHERE: Lakevale Community Centre
4382 Hwy 337, Antigonish Co. B2G 2L2

WHEN: 7-9 p.m., Friday, September 27, 2019

HOSTED BY: Town Point Consulting Inc.

PURPOSE: to provide to the public information related to a proposed oyster aquaculture operation in Antigonish Harbour. This proposed oyster farm would be located in the outer harbour and produce 2 – 3 million oysters per year on about 48 hectares using suspended, off bottom growth units. Please visit our website for more information related to this application.

www.townpointconsulting.com

This meeting was attended by 69 area residents who reviewed our information stations and for 11/2 hours we responded to questions while the “Friends of Antigonish Harbour” filmed the proceedings. The meeting was civil, well attended and served the purpose of providing information directly to area residents. Most of the questions came from members of FOAH but the answers benefitted all in attendance. During this question period the issue of Dunn’s Beach protection was raised for the first time.

Names of those who attended this public meeting are as follows;

Name	Address
Kathlene Chisholm	Morristown
Susan Ross	Antigonish
Robert Stewart	Terra Tori Drive, Lanark
Noel Samson	Terra Tori Drive, Lanark
Greg MacGillivray	Mahoneys Beach
Kathleen Robertson	53 Sanderson Way
John Robertson	53 Sanderson Way
Teri Arsenaault	12 Sylvan Road
Cyril Smith	58 Macken Road
Doreen Smith	58 Macken Road
Donnie MacDonald	811 North Grant
Pat MacDonald	Seabright Road
Mike MacDonald	500 Seabright Road
Lou Bilik	Seabright Road
Linda Bilik	Seabright Road

Lucy MacDonald	Seabright Road
Mairi MacFarlane	Hawthorne St, Antigonish
David MacFarlane	Hawthorne St, Antigonish
Anna Syprick	Mahoneys Beach
Peter Murphy	Mahoneys Beach
Jane Porter	Town Point
Ted Porter	Town Point
John Porter	Town Point
Rachel Odgers	Town Point
Jay Ross	[REDACTED]
Lois Wazney	Cribbons Point
Larry Wazney	Cribbons Point
Sandy Maclean	[REDACTED]
Joe Boudreau	Antigonish Harbour
Alena Wilgenhof	Seabright Road
Richard Wilgenhof	Seabright Road
Laurie Oakes	[REDACTED]
Peter Hoefling	[REDACTED], Loch Katrine
Jacqueline Delorey	[REDACTED]
David Faulkenham	[REDACTED] Cape George
Brian MacLeod	Terra Tory Drive
Anne MacLellan	3 [REDACTED], Harbour Ctr
Noreen Nunn	[REDACTED], Jimtown
Jason Stewart	[REDACTED], Lanark
Donald Chisholm	[REDACTED], Lanark
Barb MacKinnon	Jimtown
Lloyd Jewkes	Jimtown
Rob Kell	[REDACTED], Antigonish
Bernie Faulkenham	[REDACTED], Ballantynes Cove
Kingsley Brown	Southside Harbour
John Corsten	Mount Cameron, Antigonish
Tony Overmars	Antigonish Landing
Dakota Coates	[REDACTED]
Connie Clement	Aberdeen Ave, Lanark
Sandy Linkletter	[REDACTED] Harbour
Archie MacKenzie	[REDACTED], Morristown
Viola Baker	[REDACTED] Harbour
Angela Bowles	[REDACTED], Lanark
Mr. Bowles	[REDACTED], Lanark
Marilyn Wright	[REDACTED], Lanark
Hugh Haley	[REDACTED]
Beaton MacDougall	Lakevale
Sarah Jadot	[REDACTED]
Chris MacKenzie	[REDACTED]
Roger Porter	[REDACTED], Antigonish
Ina Porter	[REDACTED], Antigonish
Valeri Chugg	[REDACTED], Cape George
Gary Delorey	[REDACTED], Harbour Centre
Carrol MacPherson	Lakevale

Philip Docker	
Tom Smith	Dartmouth
Isabelle Trembley	Halifax
Josh Chabinka	Halifax
Brad Smith	Cape George

We met with area government representatives to provide them with first hand information regarding our application and oyster aquaculture in general. This involved meetings with area MP, Sean Fraser, MLA, Randy Delory and twice with members of Antigonish County Council. In each case we reviewed our farm plan in detail, discussed size, location, scale, species and the technology we plan to use. The primary objective of these meetings was to inform the local elected officials so that they may be better able to respond to enquiries from constituents should they arise. An encouraging result of the meetings was learning that without exception these government representatives were all very supportive and keenly interested in the venture.

One council member, Mr. Donnie MacDonald, was concerned about the issues related to traffic on Seabright Road because of a past controversy that arose from proposed upgrades of this road related to planned improvements to the Antigonish Boat Club. The same residents along this road who oppose our plans opposed this previous initiative for the same reasons...increased traffic on a public road leading to more dust in their homes. Councillor MacDonald was criticized by these residents for his support of this prior initiative and wanted assurances we would have a public meeting to address our plans publicly.

Another component of our public engagement effort is our website. It was constructed in house, designed to follow up on the successful public panel discussion and push back on misinformation circulating in the community. The coordinates of this website and its connection to our application has been advertised in the local newspaper, see copy of advertisement in [Appendix A](#). We do not have statistics regarding number of visits, duration of visit and such but we feel confident it has been an effective tool in presenting our case and dispelling some of the myths associated with our application and the effects of oyster aquaculture. This too is an effective venue for the public to get relevant information and to forward any questions or concerns to us. The website may be accessed through searching Town Point Consulting or www.townpointconsulting.com.

In summary, we have reached out directly to the local community to inform area residents and other stakeholders of our plans and seek their feedback. Through door to door meetings we have consulted more than 150 area residents and have written feedback from 138 of these people. Our farm plan has been responsive to this feedback. We presented our farm plan via PowerPoint and poster board presentations to 257 area residents during the StFX Public panel Discussion and we have conducted our own open house public meeting attended by 69 area residents. We have met with local government elected representatives and with representatives of the local First Nations group. All told, we have conducted public engagement with over 500 area residents and have factored feedback collected from this large cohort of the population into our farm plan. Furthermore, our website has provided valuable information and sought feedback from an unknown additional number of area residents.

The vast majority (about 87%) of the feedback has been positive and supportive. We feel we have satisfied the requirement for public engagement and our farm plan has been improved in the process.

B) Community views on proposed location, scale, species, operator and technology

We have received a mix of opinions regarding location, scale, species, operator and technology related to the proposed lease sites. The “Friends” are committed to stopping our application entirely and have put forth arguments that other harbours would be more suitable. However, these sentiments are not supported by feedback we have received from our extensive public engagement efforts. The four families living along Seabright Road who became founding members of FOAH provided feedback in the early stages of our public engagement efforts. This included concerns related to traffic on Seabright Road, the visibility of the farm, noise from farm operations on our property, use of Graham’s Cove, size of the farm, possible odours, and location of the farm support building. We made significant mitigating adjustments to our farm plan in response to these concerns but without acknowledgement or acceptance by this group.

Area residents we have engaged, other than these four families broadly support the proposed location, scale, species, operator and technology. This is clear upon review of the comments provided on the in-person meeting response forms contained in Appendix A. The residents of Archibald point who have the closest view of any site agree these are suitable locations. Kingsley Brown who lives on South Side Harbour Road directly across the harbour from our property flew his float plane over the proposed sites and wrote the following email message to members of the “Friends” group;

From: Kingsley Brown [REDACTED]@gmail.com>
Subject: Re: Oyster Farm
Date: July 21, 2019 at 5:10:32 PM ADT
To: Sheilagh Hudon [REDACTED]@gmail.com>, Lorraine Beaton [REDACTED]@hotmail.com>, [REDACTED]@hotmail.com

Dear neighbours:

I’m on the side of the public interest in these matters: what people would choose if they saw clearly, thought rationally and acted disinterestedly. I knew nothing of the project at this time last week. Then the scary rumours and stories of Ernie Porter’s interests diminishing the public interest.

Appears to me that the first part of the application comes under a private category not requiring mandatory public information sessions, which I believe Ernie Porter is willing to do anyway, Dr. Garbary’s leadership was mentioned to me.

The big public information round is Fisheries and Oceans, which I believe FAO expects the community to run. I’ll be a willing witness to Ernie’s explanation and documentation to me yesterday of two intended growing areas using innovative low-visibility rollers in the water compared to current boxes/cages.

I surveyed these areas from the air yesterday, and would have a hard time finding other harbour locations as inconspicuous to publics, as unvisited for recreation, as removed from navigation, commercial and recreational, as far from our Southside properties as the two Ernie has chosen. They meet my standards of scale and proportionality until shown otherwise.

Reminds me of [REDACTED] and his airboat, dozens of calls asking me to do something about it. I told them, “He’s your neighbour, for Christ sake, talk to him about it.” [REDACTED] and I investigated, found the problem mostly propeller tips at supersonic speeds. [REDACTED] didn’t want further abuse of the community, gave it up.

I'd like to see this handled harmoniously and productively for all interests. Would publicizing Ernie's formal proposals to Halifax and Ottawa mitigate misinformation and unwarranted anxiety of harbour residents? Criticism of my observations are welcomed. You've heard my story. What about yours?

Kind regards, King

Regarding location, the commercial oyster harvesters asked for adjustment to avoid areas they use, we complied to their satisfaction. They did comment on the selection of grow sites claiming they are well chosen regarding suitability for optimum growth conditions and wished they had made similar application. Recreational boaters and fishers are generally satisfied the sites are not a significant hinderance as they are not areas frequently used.

The Antigonish Boat Club is very small but does have an objective view of issues regarding the Harbour. They have been lobbied by our opponents to join them in objecting to our farm plans but have instead been supportive. The following three emails from members of the club executive indicate their position. The second being in response to misinformation and fear mongering sent to the boat club membership list by the "Friends".

From: Fraser Summerfield [REDACTED] <[\[REDACTED\]@antigonishboatclub.ca](mailto:[REDACTED]@antigonishboatclub.ca)>
Sent: July 22, 2019 10:07 AM
To: Ernie Porter <Ernie.Porter@lindsayconstruction.ca>
Subject: Re: Operation Oyster Bar

Hi Ernie,
 Thanks again for giving me a run-down on the proposed oyster farm. Overall I have a positive feeling about the process.

See attached the sheet which I have partially filled out. Some sections seemed as though they were for you to fill out so I will leave them to you and you can send me back a copy if you like. You will see that my only hesitation, which I communicated to you, is about the area of waterways that could be blocked. However, I wouldn't be so concerned if you stuck to the current plan. And, it's only reasonable to recognize that the harbour is a shared resource so of course there will be give and take over time as different parties make use of it.

Best wishes as you move forward.
 Fraser

PS - after I left I was thinking that a jet-drive might not do so well in muddy-bottom areas, depending on whether it would be prone to suck in some of the silt. So, outboard seems reasonable!

From: Antigonish Boat Club <info@antigonishboatclub.ca>
Sent: August 8, 2019 8:34 AM
To: members@antigonishboatclub.ca; ABC Enthusiasts <enthusiasts@antigonishboatclub.ca>
Subject: Antigonish Harbour

Hello all - hope this email finds you well.

I am writing today in regard to an email some of you may have received regarding an oyster farm proposed for the outer reaches of the harbour.

While no doubt sent with good intentions (based in a desire to protect the health of Antigonish Harbour), it contained inflammatory language and was highly misleading with respect to the scope and potential impact of the proposal.

While the club, as an organization, has no position on this specific matter, we are very much interested in ongoing use and enjoyment of the harbour in a sustainable, respectful manner. While I cannot speak for all board members, I do know that several have had the benefit of being briefed on the scope and general details of the project and of these, no one has brought expressions of further concern to my attention.

For those seeking more information about this proposal, I highly recommend you attend the upcoming public information session. I will resend out a subsequent email with more details of the session once I have them.

Getting back to the original point of this email, I want to remind everyone that this is not a forum for posts which seek to build support for positions on community issues.

Thanks for your patience and ongoing support of the Antigonish Boat Club
Sean

In Person record regarding AQ#1424

Rainer Wunn [REDACTED]@me.com>

Sat, Sep 14, 2019 at 12:20 PM

To: ernieporter77@gmail.com

Cc: Birgit Wunn [REDACTED]@mac.com>

In Person record regarding. AQ#1424
Date of meeting Friday Sept 13,2010 @

[REDACTED],
B2G 2L2 , Nova Scotia

Attending Ernie Porter, Birgit and Rainer Wunn

full time Residents: Yes

Project Outline Reviewed : oyster farming application

Questions : no current questions

Concerns/Response :

No noise, smell or direct traffic concerns on land nor water are expected by details and facts as presented during the most recent panel discussion.

Residents own words:

I have followed the application process from a very early point on. This offered me a highly unique opportunity to listen and learn from Ernie as his project grew from an idea through the various stages. His thoroughness and concerns towards nature as well as neighborhood impressed me from the beginning.

On a more general note I like to highlight that I know Ernie since almost 16 years by now. I have never seen him to cut corners or to over simplify things, not in building his various constructions on the family homestead nor in our steady relation which has improved over the time from a " just a neighbor" to a solid friendship.

I am a founding board member from day one of the resurrection of The Antigonish Boat Club. I also served proudly in the capacity of Treasurer until end of 2018 when I asked to stand down due to health issues. I continue to be active as Vice President thereafter.

Today's ABC could not have survived without Ernie's voluntary activities with his know how plus his heavy equipment. Many of his positive structural improvements helps the ABC to look forward to a growing membership towards the future. The Antigonish Harbour will remain open and accessible to all kind of boating activities since the oyster farming license will only affect approximately 4 % of the overall water surface.

I trust Ernie to not only listen to any complaints coming forward regarding this oyster farm project but rather to take a proactive approach towards finding overall acceptance as much as possible .

██████████ is our home where we plan to live out our lives. We do not anticipate nor feel any direct impact from this oyster farming project towards our plan.

I am very hopeful that our little 'SeaBright or Townpoint' community will mend and come together as one strong group again to go forward.

Pls let me know if you have any questions.

Rainer Wunn

Sent from my iPad

Of the 138 written responses to our door to door public engagement meetings only those from founding members of the "Friends" group plus Manfred Goring mention any concerns related to location, scale, species, operator or technology. In fact, many other responses emphasised positive thoughts regarding these factors. Mr. Goring's response which is particularly thoughtful is below, followed by our reply;

In Person Meeting record regarding AQ#1424

Date of meeting: July 18 Time: noon Location: Ernie Porters shop
 Persons in attendance: Ernie Porter & his business on Town Point
Manfred E. Goring, partner
Marie-Joelle Declerck
 Address: [REDACTED] Full time Resident:
 Seasonal Resident: ☒

Project Outline reviewed: under construction oystermatic
 Questions: prototype -
see back of page

Concerns: see back of page.

Response: Proposed function of Oyster matic machine
including oyster cylinder traps.

Date of response:
July 18/2019

Residents own words:

- Interesting concept at a very early state of development.
- It should be further explored.

M Goring
Manfred E. Goring

t.e.p.

- 1- effect of project on the local marine environment?
- 2- visual & acoustic impact of project (proposed) of oyster farm in Antigonish Harbour?
- 3- response of licensed local harvestors?
- 4- scale of the project for Antigonish harbour?
- 5- will there be a study made of the effect of the heated sea water (60°C-70°C) treatment of the traps (BOBR) on the local water quality?
- 6- will the cleansing (treatment) affect the turbidity of the harbour water?
- 7- schedule, duration, & frequency of treatment?
- 8- emergency protocol for workers on the motorized barges?

Town Point Consulting Oyster Farm Application

1 message

To: seagardenretreating [REDACTED]@gmail.com>

Dear manfred and Marie Claire;

This is in response to your eight questions noted on your in person meeting response form dated July 18, 2019. First of all, please accept my apologies for taking so long to get back to you...as you are aware there have been a few other tasks to deal with in the meantime. Also, I would like to thank you for taking time to meet with me both at your home and later at our property. Your response was one of the most thoughtful and thorough we have received, it is helpful to the application process when feedback of this type is available.

The answers to your questions are as follows;

1) Effect of the project on the local marine environment/

You attended the StFX Public Panel Discussion where Dr. Garbary stated that for a farm of this type if properly managed and occupying not more than 10% of the estuary area the environmental effect will be at worst benign. Our proposed farm would occupy only 2.7% of the harbour.

2) Visual & acoustic impact of the farm in Antigonish Harbour?

During both your visit to our property and the StFX meeting we described the extraordinary lengths we have gone to reduce the visual profile of the farm. From cages that float 8"-16" above water to ones that extend only a couple of inches. We have also designed noise control into our equipment where the engines in normal operation are contained within enclosures that will reduce noise. We expect normal noise levels to be similar to a lawn mower but it will be about 1/2 km away.

3) Response of licenced harvesters?

We have met with all the licenced harvesters to understand and accommodate their concerns and they are in full support of our application.

4) Scale of the project for Antigonish Harbour?

We plan to apply for three lease areas totalling about 120 acres and capable of producing about 2-3 million oysters per year.

5) Will there be a study made of the effect of the heated seawater (60-70 C) treatment of the traps (BOBR) on the local water quality?

No, we have asked NSDFA if this discharge is a concern and they have provided feedback indicating that if the discharge were to a freshwater watercourse it would be a concern but as it will be direct to a marine environment NSDOE regulations do not apply. Their response indicated this practice is commonplace in PEI and is therefore likely compliant with Fisheries and Oceans Canada regulations. I will confirm this in due course.

6) Will the cleansing (treatment) affect the turbidity of the harbour water?

No, there may be very localized short term increase in suspended solids but this material is all natural biological material that came from the harbour and is just being returned to it. The net effect of the farm will be to reduce turbidity through the much more pronounced and ongoing filtering of about 60 million gallons per day.

7) Schedule, duration and frequency of treatment?

Defouling is necessary only when water temperatures are high enough to permit rapid marine growth. Roughly mid June to mid September. During this period defouling of each growth unit would be done on a bi-weekly basis.

8) Emergency protocol for workers on the motorized barges?

NS Department of labour and NSDFA both require comprehensive safe work protocols. They are compiled in a farm management plan required for every farm. This farm management plan is submitted annually and is monitored by the regulators. Each work task has a written safe work practice that is intended to provide guidance to farm workers to ensure safe working conditions.

I trust the meetings we've had, the knowledge gained from your attendance at the StFX Public Panel Discussion and the answers above are satisfactory. Please feel free to contact me anytime should another concern arise.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

C) Views on compatibility with other users;

The commercial oyster harvesters seem to have the most at stake as their income could be at risk whereas all others risk only minimal impact on convenience or recreational uses. The oyster harvesters have been well informed and have agreed that the proposed farm is compatible with their use of the harbour.

Board members responsible for the wellbeing of the Antigonish Boat Club have engaged with us to fully understand the potential impact of our proposed farm on their use of the harbour and see that their operations will not be significantly impacted. These individuals support our initiative.

The lobster fishers have chosen to stay on the sidelines even though we have made repeated attempts to meet with them. They have seen the farm plan, do understand its scale and location and surely would object if they felt it would impede their travel routes. Furthermore, Darrel Beaton has provided his verbal approval.

Manfred Goring has expressed a concern related to occasional dinghy sailing in the Captain's Island area, but he has not made this a significant point of contention, rather more of an inconvenience. The vast majority of responses do not indicate any concern related to compatibility with other users.

D) Views on impacts, benefits, risks, and uncertainties;

Most residents are very aware the harbour suffers pollution inputs from three primary sources. Manure from farm runoff, private sewage outfalls and untreated sewage from the town plant during major rain events. An oyster farm of the proposed scale is capable of extracting the nitrogen input from about 2000 homes (World Aquaculture Journal Vol 34, No 4) and (Rice et al. 2001) while also reducing turbidity caused by other suspended solids. This is significant and will have a noticeable effect on the cleanliness of harbour water.

If approved and we meet predicted annual production of 2-3 million oysters, daily filtration by oysters on the farm will be very significant. The expected grow time from seed to market size is 3 years so at any time there will be about 6-9 million oysters on the farm. Mature oysters filter up to 50 gal/day so let's say on average the oysters on our farm filter 20 gal/day given the range in maturity. That means a filtration rate of up to 120-180 million gallons every day.

The report titled "Canadian Technical Report of Hydrography and Ocean Sciences No. 143" states on page 15, shown below, that Antigonish Harbour has a flushing time of 18.3 hr, a Tidal/Freshwater volume ratio of 28.96 and the harbour water volume is 15 million m³. Even though the flushing rate is substantial the beneficial effect of filtration will be significant because the proposed farm would filter a volume of water equivalent to the harbour volume roughly between once and twice monthly.

15

ANTIGONISH HARBOUR		Zone	4Tg	Chart 4462	
				Bay ID..CU	
Area (CD)	11.4 km ²	Area (HW)	17.5 km ²		
Perimeter	46.1 km	Volume (CD)	15.0 10 ⁶ m ³		
Axis Length	11.8 km	Maximum Depth	8.2 m		
Section Width	0.2 km	Section Area	233.3 m ²		
Tidal Range		Tidal Volume		Tidal Current	
Mean	Large	Mean tide		Mean Peak	
1.00 m	1.60 m	14.5 10 ⁶ m ³		2.78 m/s 4.37 m/s	
Flushing time		18.3 hr			
Tidal/Freshwater volume ratio		28.96			
Watershed Area		721.9 km ²			
Freshwater Discharge		m ³ /s (Standard Deviation)			
Jan	28.4 (51%)	May	27.9 (65%)	Sept	10.6 (78%)
Feb	21.8 (72%)	June	10.1 (73%)	Oct	17.9 (63%)
Mar	31.9 (44%)	July	7.0 (100%)	Nov	28.4 (52%)
Apr	44.1 (40%)	Aug	8.6 (118%)	Dec	32.2 (39%)

Many of the written responses cited environmental benefits as a key point. We believe this is due to general knowledge in the community that the harbour is unclean and that oysters provide a valuable ability to remove some of the contaminants in the harbour water. Some of these respondents may have been also referring to oysters natural carbon sequestering mechanism whereby dissolved carbon dioxide is removed from seawater and used to build their shell. Oyster shells are 12% carbon and once incorporated will not return to the atmosphere for millennia. An example of a response that referenced environmental benefits follows;

In Person Meeting record regarding AQ#1424

Date of meeting: 13 July 2019 Time: 4:20 p.m. Location: [REDACTED]

Persons in attendance: Boyke Turnicowski

Address: [REDACTED]

Harbour Centre
N.S. [REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: YES

Questions: NONE

Concerns: NONE

Response: Positive

Date of response: 13 July 2019

Residents own words: wonderful project for the community which
would be beneficial economically + ecologically.

B.J. Turnicowski

Many of the written responses referred to economic benefits of the proposed operation. As the Ivany Report implores, Nova Scotia must create more jobs in coastal and rural communities in order to reverse the negative trends so entrenched in our economy. Our proposed farm would provide about 10 jobs that do not presently exist. Ivany identifies aquaculture as a key opportunity that needs further development, our proposal fits this objective. All but one of the local business owners who responded are supportive of our proposal likely in part because our operation would add a few million dollars of annual economic activity in a community that needs both growth and more diversity of economic activity. See example of such a response below;

And Recreational Fisher - on Tide
Harbour Trust says is suitable.

In Person Meeting record regarding AQ#1424

Date of meeting: OCT 27/19 Time: 12 AM Location: Home

Persons in attendance:

JASON STEWART

Address:

[REDACTED]

Time Resident:

yes

LANARK, NS

Seasonal Resident:

Project Outline reviewed: yes

Questions: asked many.

Concerns: cleared concerns

Response: Have Had a few positive chats

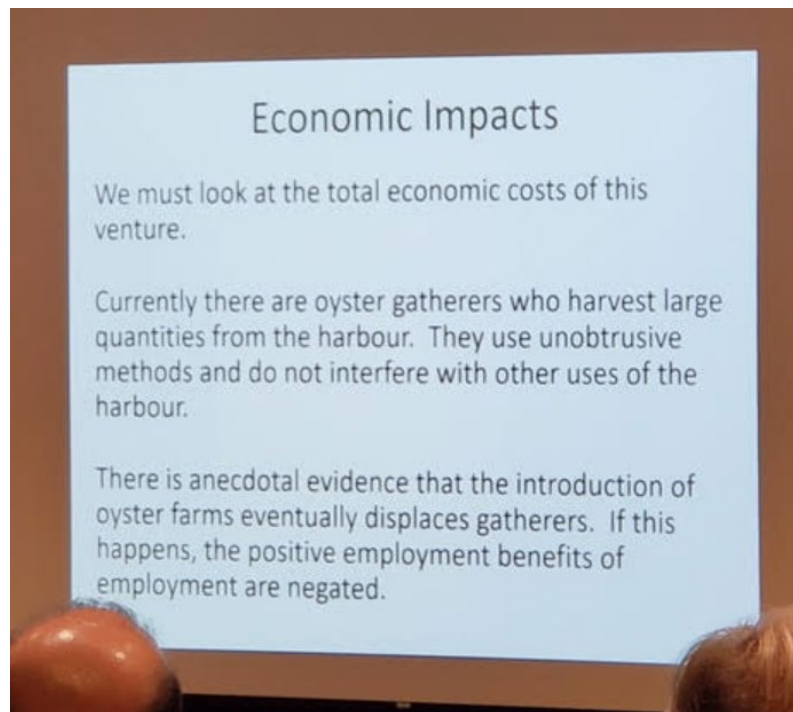
Date of response: OCT 28/19

Residents own words:

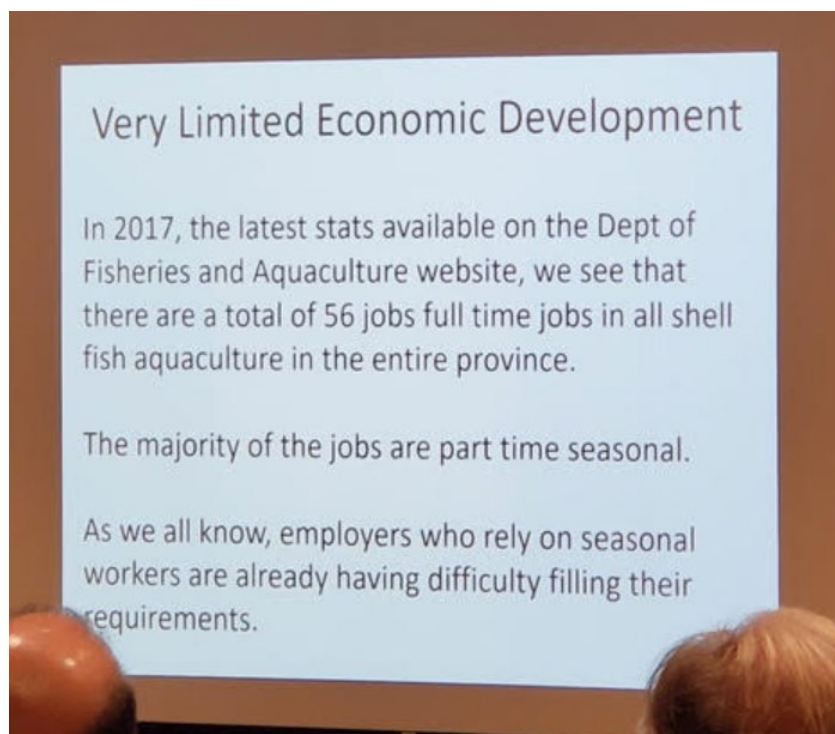
Still Learning and looks
exciting! Would very much
like \$ Hope for employment
in the company!

JS

This commonly stated impact relates to increased employment and economic development. Twenty-nine respondents mentioned the benefit of more employment and economic activity in Antigonish resulting from the proposed farm. However, during the StFX Public Panel Discussion the "Friends" claimed through the following PowerPoint slides that our farm would not contribute significantly to the local economy;



In fact, the oyster harvesters support our application and see potential benefits to their operations that may be directly correlated to the farm. 1) more seed production in the harbour would result in more native oysters available for harvest. 2) potential opportunity to use our depuration process for their catch rather than relaying oysters to other sites 3) some of the harvesters have asked if we would be interested in purchasing their catch which could eliminate some risk and effort from their present approach while improving cash flow.



The “Friends” logic in this slide is hard to follow. It seems they are saying because they claim there are only 56 full time jobs in shellfish aquaculture (which is not a number that aligns well with Ivany or One NS) we shouldn’t add any more. We struggle to comprehend how this argument stands up to any scrutiny.

Instead, we offer an opportunity to do exactly what I many implores Nova Scotians to do – provide more employment opportunities in coastal and rural communities.

Some others mentioned the benefit of local product, particular interest was expressed by local restaurant owners.

The “Friends” made a false and misleading claim during the StFX Public Panel Discussion that this farm would negatively impact eelgrass in Antigonish Harbour. In fact, Dr. Jeffrey Barrell (DFO, Moncton) expressed the opposite opinion after examining the sites for 2 hours by boat. He stated the following; a) the eelgrass density on the proposed sites is “very sparse... 10’s of sprouts per sm” and b) the net effect on an estuary wide basis is likely to be beneficial. Furthermore, Dr. David Garbary pointed out at the Public Panel Discussion the impact of such a farm on Antigonish Harbour will be at worst benign. Dr. Russell Wyeth asked for the “Friends” cited scientific references to support their claim of negative effects because to his knowledge the effect would not be as they stated ... no references were provided.

A few individuals aligned with the “Friends” claimed that there was a risk associated with our proposed gear in that it is untested. In fact, this gear is presently being used at Shan Daph oyster farm in Merigomish Harbour and while new and innovative it is not “untested”. Furthermore, should our lease application be approved the earliest the gear would be installed would be summer 2020 which allows for many further months of use at Shan Daph.

There is always risk associated with innovation and we are well aware of these challenges. We do, however, possess the skills and financial resources to properly assess this risk and to find workable solutions should an issue arise.

The impact most ardently voiced by a few residents has been the addition of traffic on Seabright Road. The Bilik, MacDonald, Bowler, and MacDonald families, all founding members of the “Friends” have each repeatedly voiced this concern initially to us and later to our other neighbors. Wilgenhof and Goring have also expressed this concern. As stated previously, we have offered reasonable mitigation of this concern and plan to follow through should we be successful. However, it is a public road and we feel we do have a right to use it, but it would be helpful if government would assist with improving maintenance of the road and communicating their commitment with those most concerned.

Two individuals raised an uncertainty related to sea level rise and its effect on the stability of Dunn’s Beach. Dr. Garbary has been studying shoreline changes in this area for many years and has data that suggests Dunn’s Beach is receding in some areas and stable in others. He said if current trends continue then eventually a portion may be breached but he is unable to predict when or if this may happen.

It is clear this is an uncertainty but the lease area we identified is 230m away from this portion of the beach and water depth in the area is about 2m at low tide. So, if a breach occurs it is doubtful it will significantly change the bottom profile within the lease area, but it would alter the flow characteristics perhaps for the better.

An interesting benefit of establishing an oyster aquaculture operation in Antigonish Harbour relates to potential synergies between the operation and the local University. Four StFX faculty members have expressed interest in conducting biology research in connection with this proposed farm. The opportunity to study environmental impacts (positive and negative) that may result from establishment of the farm is of interest to these researchers and their study could provide significant benefit to industry, government and society.

The close proximity, existing deep familiarity with the harbour ecosystem within the StFX Biology Department, the perceived value of a baseline study followed by years of monitoring and the wide range of potential research topics for students to pursue are all compelling reasons to explore this opportunity. For the university, working together with industry opens a broader range of funding options and provides research topics that could have direct benefit to industry. For the operator, we could benefit from having

greater understanding of the ecological effects in play and be more able to adjust in response to real time feedback.

This desire to collaborate was raised by Dr. Reunov the evening of the public panel discussion held by the university. We subsequently discussed the matter with Dr. David Garbary, head of the Aquatic Resources program and the following other professors and staff: Dr. Russell Wyeth, Dr. Cory Bishop and Dr. Arkadiy Reunov. Each has expressed interest in being involved.

Dr. Garbary has summarized the basic notions related to this potential cooperative effort in the following letter;



st. FRANCIS XAVIER UNIVERSITY

P.O. BOX 5000
ANTIGONISH, NOVA SCOTIA
CANADA B2G 2W5
Website: <http://www.sfx.ca>

Interdisciplinary Studies
in Aquatic Resources (ISAR)

November 12, 2019

Dear Mr. Porter (Ernie),

I am writing this letter in my position as a professor in the Biology Department and as the co-ordinator of Interdisciplinary Studies in Aquatic Resources (AR). I have canvassed my colleagues in the Department of Biology, and there is a strong interest in collaborating with you with respect to research opportunities that might become available when your oyster farm is approved and becomes operational.

To this end, Dr. Russell Wyeth and I would be interested in pursuing research on the ecological impacts of the farm both as baseline and once it is in place. This would require some field work when the exact locations and extent of the farm components are known.

Another colleague, Dr. Cory Bishop, has expertise with invertebrates and runs a molecular biology laboratory. He would be interested in carrying out genetic work. This could potentially allow for a branding of the 'Antigonish' oyster. Another colleague, Dr. A. Reunov, runs our electron microscope facility, and he has expertise working with oysters from the perspective of fertilization.

I suspect that you have ideas on the research lines that you would like to see pursued. To the extent that we have the expertise and the interest, a mutually beneficial research program could be initiated that would solve some of your problems and supply summer employment for our students.

Regards,

David J Garbary
Professor of Biology
Co-ordinator of Aquatic Resources.

DG/lp

E) Views on what the operator should do to minimize adverse impact on the natural environment and on other users of the coastal area

A few environmental impacts have been raised by those with whom we engaged. First to come up was potential impact on eelgrass. This issue has also been the topic most often raised. Our neighbour, Susan Vincent first raised this issue April 21, 2019 when she shared with us two articles she had read on the topic. We raised the issue during our pre-application meeting on May 1 and asked NSDFA representatives to come to site and provide feedback that we could pass on to our neighbour.

Dr. Gregor Reid and Brennan Gorham came to site that day to do a visual survey from shore. Neither was able to be definitive, but Dr. Reid offered to raise the issue at an upcoming working group meeting dealing with eelgrass in general. From this came a new contact, Dr. Jeffrey Barrell. Dr. Barrell came to site, spent time reviewing our new gear and how we believe it mitigates both potential shading concerns and prop wash effects. He then did a 2-hour visual survey of the three proposed lease sites and provided preliminary opinion as to their suitability.

Dr. Barrell characterized the eelgrass in the proposed lease areas as “very sparse” having only 10s of sprouts per sm. Definitely not an eelgrass meadow. He suggested the net effect of our proposed farm would be beneficial not detrimental to eelgrass estuary wide. We communicated these findings to those who had expressed concern. Dr. Barrell returned to conduct an instrument survey of the proposed sites to establish a more definite assessment of eelgrass in the areas. We have not received a copy of the results but did speak with Dr. Barrell to ask if his opinion related to suitability of the site had changed. It had not.

Our equipment has been designed to have less shading effect and much lower disturbance due to prop wash from the service boat than the gear types presently in use in Atlantic Canada. The usual growth units (Oyster Gro) are about 3’x4.5’ in plan dimension so they cast a shadow that is up to 13.5 sf in area. Our growth units, BOBR (Benefit of Being Round), are 14.5”x42” and cast a shadow that is only 4.2sf. Therefore, less shading from our units simply because the shadow of each unit is small enough to ensure no area of the bottom is continually in shade.

Furthermore, with the Oyster Gro system the only propulsion available is the outboard motor on the service boat so it will normally run continuously. With BOBR, the outboard is normally off, and propulsion is provided instead by onboard rope haulers. These haulers cause no prop wash so would be less detrimental to eelgrass.

So, to the issue of eelgrass, we believe the science supports a net beneficial effect of the farm on eelgrass. With the mitigation measures designed into our gear potential localized detrimental effects will be further reduced meaning the net effect will be even more positive.

We became aware of a concern raised by the “Friends” that we had somehow changed the flow of water in the harbour. Very puzzling and unlikely even possible. We attribute this to another desperate attempt to influence members of the public to oppose our application through more fear mongering and misinformation.

The “Friends” have not offered suggestions aimed at minimizing adverse impacts but have instead taken a no farm at all approach. So, without specific concerns and/or suggestions from this group its difficult to assess what issues they would like us to address.

One member of the “Friends” did respond through our website to express concerns on two occasions. Her correspondence and our response are as follows:

10/3/2019

New message via your website, from [REDACTED]@gmail.com - emieporter77@gmail.com - Gmail

A site visitor just submitted a new Contact Form
<https://www.townpointconsulting.com/>

Message Details:

Name: Susan Ross

Email: [REDACTED]@gmail.com

Subject: carbon sequestering

Message: I am now wondering if your claim that 'Through carbon sequestering, oysters help to combat climate change' implies that your project will be better than carbon neutral. Will the sequestering by your oysters more than offset the oyster farm emissions related to equipment manufacture in and transport from China; plastic basket manufacture in and transport from central Canada; fuels and electricity needed for mechanization and depuration; transport of inputs to your facilities and of product to markets; etc. over the lifetime of the project? I am not debating that oysters sequester carbon and therefore 'help to combat climate change' but am simply asking if that sequestering is sufficient to offset the contribution of your project to emissions that cause the climate change oysters will help to combat.

I would appreciate a response/

Thank you. Cheers. Susan

10/3/2019

Gmail - Carbon Sequestering



Ernie Porter <ernieporter77@gmail.com>

Carbon Sequestering

Ernie Porter <ernieporter77@gmail.com>
 Draft To: [REDACTED]@gmail.com

Thu, Oct 3, 2019 at 9:03 AM

Hi Susan;

Thank you for visiting our website and sending your question regarding carbon sequestering.

If I may paraphrase your question it asks will the carbon sequestered by oysters grown on our farm offset all the carbon inputs required to produce the oysters? Will the farm be better than carbon neutral?

This is an interesting question that would require considerable study to answer with confidence. We have not taken time to study the issue in detail as we are presently focused on completing the application portion of the farm development process.

However, we can reiterate our keen interest in establishing an operation that has at its core a commitment to sustainability. One of the important components of this commitment is our desire to work toward carbon neutrality. Key factors in this quest are localizing operations to limit carbon inputs related to transportation within the farm area, conversion of the land-based nursery to solar power, being an early adopter of Glas-Ocean technology for fully electric propulsion systems, employing DockPort technology to reduce shore trips and increase farm efficiency/productivity and building a culture of environmental awareness and responsibility in our operation.

Will this all add up to carbon neutrality? We hope so, but if not at least we will work hard to raise the bar of awareness, provide technology to the industry that is more sustainable and perhaps provide a model that others may adopt. If you too are concerned about our future and want to take action please consider working in cooperation with us to build a farm that better accomplishes these goals. There is no doubt in our minds oyster aquaculture is inherently very sustainable and eco-friendly. We want to leverage this fundamental quality by adding thoughtful, effective technology to an emerging industry so that it can be even more sustainable.

Please call me if you wish to further discuss this matter.

Best regards,
 Ernie

Town Point Consulting Inc.
 Ernie Porter, P.Eng.
 President

Cellular: 902-471-3696
 Email Address: ernieporter77@gmail.com

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>

Message Details:

Name: Susan Ross

Email: [REDACTED]@gmail.com

Subject: proposed project

Message: I take issue with a number of statements on your website, as follows: 1. It is not our role to defend the scientific facts supporting the benign/positive effects of oyster farming on estuaries. This is the role of government scientists and other relevant agencies, by whom the application will be vetted. My understanding is that whereas it is up to the government of Nova Scotia to determine whether or not an environmental impact assessment (EIA), at whatever level, is required for a proposed aquaculture project it is not in fact the responsibility of government to undertake any EIA it determines is necessary. That is, if an EIA is deemed necessary, it would be up to the project proponent to

undertake such. So yes, if there is potential for negative environmental impacts, as there seems to be, it would up to you to assess these and mitigate if negative effects are found to be significant.

2. We have found and cited several scholarly papers and articles on the subject within this website. Your website originally included one citation, a DFO video about a research project to determine why oyster farms in bays appear to be correlated to an increase in eelgrass. First, correlation is not causation. Secondly, Antigonish Harbour is not a bay, and is reportedly (including by you in the past) not well flushed as a bay would be. The video also includes a statement that there are locations not suitable for oyster farming. As DFO has also documented negative effects on eelgrass in estuaries, that this video was your only citation, I may be forgiven for seeing this as a misrepresentation of the potential for negative oyster farm effects in Antigonish Harbour. More recently you have added a number of other citations which you call 'scientific' but many are in fact industry supported and none are specific to Atlantic Canada estuaries, or in one case, even oysters. There are hundreds, literally, of peer reviewed papers documenting environmental effects of oyster farming, some indicating negative and some indicating positive effects. There are also review papers addressing both positive and negative effects. Since the consensus seems to be that impacts are operation and site specific, your cherry picking of industry supported papers and site specific papers in order to support your generalized statement that your oyster farm will be beneficial or at least benign is not at all convincing.

3. The proposed farm would necessitate an additional 8-10 employees. You have not indicated what this employment consists of, or what 'additional' is additional to. Data from the Nova Scotia Fisheries and Aquaculture website indicates that about 50% of shellfish farm employees in Nova Scotia (less than 300 in total in 2016 and 2017) are seasonal and a further 30% are part time. There is anecdotal evidence that competition for seasonal employees is causing hardship to farm, fish, forest, tourism and construction sectors in Antigonish. You are also suggesting that your operation alone would increase shellfish employment by about 3%, although it will represent less than 1% of shellfish acreage in Nova Scotia and be innovatively mechanized.

4. . . . the farm needs to be large enough to ensure sufficient revenue to cover all costs plus a reasonable margin. Although your proposed farm will be the second largest of over 45 oyster farms (one lease holder of at least one lease), I don't suppose you are suggesting that the others will all fail as

businesses or sources of income, as they cannot generate a reasonable margin. The statement is circular – if you are planning a large investment, then yes you need a large farm. If you planned a smaller investment, you would not need such a large farm. 5. The proposed farm will contribute significantly to the annual economic activity within Antigonish County. Wages, taxes, purchases, etc. all benefit the local economy. First I am not sure what ‘significantly’ means in the context of Antigonish county but additionally this ignores the potential for costs to other economic users of the harbour (First Nations, wild oyster harvesters, eel fishers, providers of tourist accommodation, residential construction and sales businesses, etc.), to recreational users of the harbour and to tax payers. 6. A single oyster is capable of filtering anywhere from 25-50 gallons of water per day. Proposed farm size will filter approximately 60 million gallons of water per day. While it is clear from the scientific literature that oyster filtering is beneficial to heavy metal contaminated water, to sediment heavy waters and to waters that have eutrophication problems (excessive nutrients, phytoplankton blooms and resultant low dissolved oxygen with negative effects on other species), none of these apply to Antigonish Harbour. The filtering of pathogens is not well studied or understood however when pathogen counts are found or expected to be high, shellfish harvesting is closed. It is clear however that oysters take nutrients out of the water. As we do not know much about the nutrient loadings in Antigonish harbour waters, other than that they are not excessive (as evidenced by dissolved oxygen levels), how removing nutrients affects other species is not known. Perfectly clean water supports no aquatic life at all. How much ‘cleaning’ of the water is supportable by other species? 7. Through carbon sequestering, oysters help to combat climate change. What oysters do is remove carbon and calcium from the water, and where their shells end up on land, the removal of calcium contributes to acidification of the water (a climate change problem already) and a withdrawal of the calcium that oysters themselves, as well as other shell fish, need to thrive. Also, the sequestering of carbon does happen, however depending on the fate of oyster shells such sequestering can be temporary. 8. TPC will be using new and innovative technology to increase sustainability and decrease the visual profile of our farm. Unlike commonly used off-bottom oyster farm gear, our units float at the water's surface emerging only a few inches. The units are black in color and curved in shape so they will tend to blend in rather than stand out. This

innovative technology drastically decreases the visual profile of the farm. How the 'new and innovative technology increases sustainability' is not explained. The full statement just addresses the visual profile, not a measure of sustainability. Further, the contention that the units will 'will blend in rather than stand out' is unsupported. If that is in fact the case, please show photographs of how your units will look, perhaps using the very lovely photo of the harbour your have on your website. You have a fondness for trigger words. Your claim that your proposed project will be environmentally sustainable, eco-friendly is not supported, simply asserted. Given the potential for negative environmental impacts, just how is your oyster farm sustainable and eco-friendly? 9. Myths: According to NSDOFA's most recent data, there is only one pure play oyster farm (combination of leases to one operator) that would be larger (123.5 acres) than yours, since your statement at the panel discussion that you are expecting to apply for a 120 acre lease, rather than 150. Yours would in fact be the 12th largest shellfish farm. I am presuming here that you, as an aspiring oyster farmer, know the difference between oyster and shellfish. It is possible that among the 11 shellfish farms larger than your proposed farm, only 6 of which include oysters among the multiple species licensed, oyster acreage is larger than 120 acres, but the data do not break this down. The 10% rule of thumb on eelgrass comes from extensive research in New Brunswick, not Nova Scotia. Further, your farm would take up more than 10% of the northern harbour, from the choke point of Town Point and Ferry Point north. Effects on eelgrass are local, not harbour wide. There is a difference between small oyster farms scattered throughout the harbour and a very large oyster farm in one area. Further, I suspect your 2.7% figure is based on high tide harbour margins and includes islands as part of the harbour waters. My figure is closer to 4%. Your contention now that the harbour is well flushed, and therefore that oyster poop is not a problem, contradicts your assertion in the past, in opposition to another's intent to do something in the harbour that you opposed, that the harbour is in fact not well flushed. Part of your appeal for support is that yours will be a community based family business. If that is the case, then it should be no problem to commit to a Class B license that prohibits sale. I have some experience with environmental assessment of projects. My experience is that in order to gain public trust, project proponents describe to the public in some detail just what the proposed project is, what the potential is for both

positive and negative impacts, and how they plan to enhance the positives and mitigate the negatives. While I am not surprised that you claim only benefits and do not acknowledge potential costs, I nevertheless will note that your website does not address i) issues of access by harbour users and related liabilities; ii) potential for a long list of negative environmental impacts (that shellfish farming is 'better' than fin fish farming does not make it necessarily good for the environment, just less bad); iii) effects on livelihoods of other economic users of the harbour, tax payers, competitors for seasonal labour, etc.; iv) public health and safety; v) resilience of gear to extreme weather events; vi) intents for consultation with the people of Antigonish County, including First Nations. With regard to item vi above, I discovered yesterday that you are planning a public consultation in Lakevale (?) in Friday. You have selectively notified some, but not all, adjacent properties of this event. Today, you have a notice in the Casket, providing two days notice to the public, which best practice would consider insufficient. Support for your proposed project depends on transparency, and some respect for people potentially affected. Your unsupported statements of only positive effects and your selective and short notice advising of a public meeting engender a mistrust in my view, and leads me to a position of non support.



Ernie Porter <ernieporter77@gmail.com>

Mon, Oct 7, 5:56 PM

to susan.ilsley.ross

Hi Susan;

Thank you for taking time to research and compose your email providing feedback relating to information contained in our website. While we do not necessarily agree with your assertions we do appreciate your counterpoints.

We will consider the points you have made as we move through the remaining stages of our application. As I mentioned in a previous email we also appreciate you coming to our public information session.

Again we invite you to consider collaborating with us to enable the proposed farm to be as beneficial to our community as possible in the event the application be approved.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

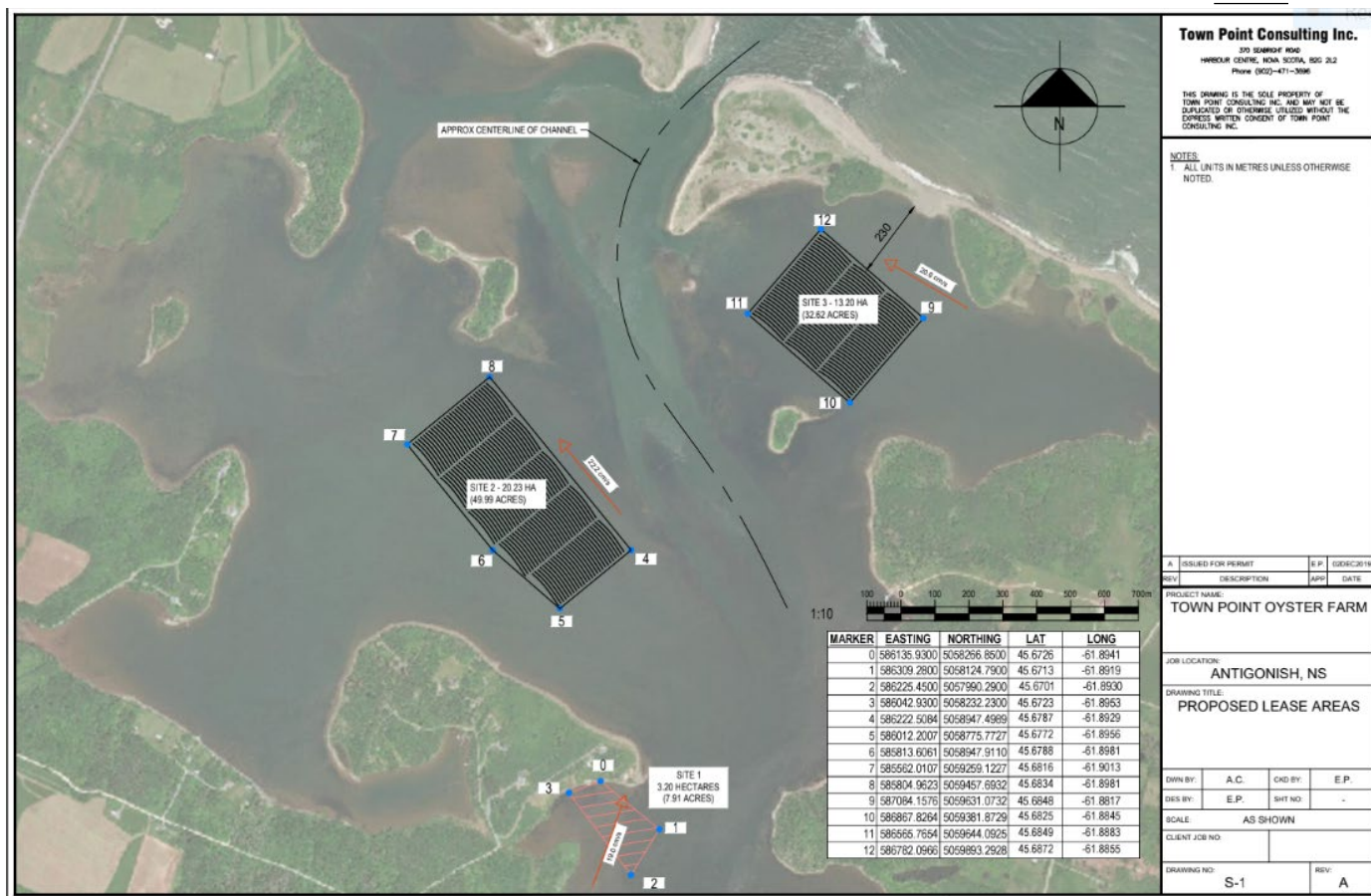
Email Address: ernieporter77@gmail.com

In reviewing the other public engagement responses there are very few that raise such concerns or make suggestions regarding minimizing adverse effects. One respondent described seeing a lot of oyster shells on the beach near an oyster farm in France. I explained that the environment in many French farms is much more energetic than would be the case in Antigonish Harbour. Tides of 5m vs 1m and fetch of 33km minimum vs 2km. This higher energy situation would account for more debris on shore and would not apply in our case.

During our Public Meeting on September 27 a concern was raised regarding the protected area surrounding Dunn's Beach. Following the meeting we delved into this concern by obtaining a copy of the Beaches Act which is a provincial statute enacted in 1975, revised 1989 and amended 1993. A copy of this statute is contained in **Appendix A**.

We then met with Matt Parker NSDNR Director of Parks and Protected areas and Carrie Drake NSDNR Senior Planner to discuss the possibility of locating a portion of our proposed aquaculture operation within this protection zone. This meeting was productive in that there seemed to be interest in exploring solutions rather than enforcing barriers. We described the nature of the proposed operation including size, farming techniques, seasonality, daily work activities, work hours, environmental effects, need for buffer setback from plover habitat, and how to confirm whether the operation may exist in harmony with the intentions of the Beaches Act.

Following this meeting we amended lease site #3 to reduce its size by half and provide a 230m setback from Dunn's Beach as shown in the following farm plan;



We then discussed the matter Randy Lauff, Ornithologist at StFX, Laura Bartlett, Nova Scotia Coordinator with Bird studies Canada, Simon Ryder-Burbridge, Marine Conservation Officer with Ecology Action Centre, Clarence Stevens, Ornithological Consultant and Chris Kennedy, Biologist with Dillon Consulting. All agreed that the proposed operation with a proper buffer distance could exist in harmony with piping plovers on Dunn's Beach and that the other factors meant to be protected by the Beaches Act would be unaffected. The following report confirms the proposed operation as designed with 230m setback from Dunn's Beach will function without negative impact on piping plovers or their habitat.

TOWN POINT CONSULTING INC.

Piping Plovers and Marine Shellfish Aquaculture

An assessment of potential impacts to nesting Piping Plovers as a result of a proposed marine shellfish aquaculture lease site in Antigonish Harbour, Nova Scotia.

137 Chain Lake Drive
Suite 100
Halifax, Nova Scotia
Canada
B3S 1B3
Telephone
902.450.4000
Fax
902.450.2008
[Dillon Consulting Limited](#)
January 16, 2020

Town Point Consulting Inc.
 370 Seabright Road
 Antigonish, Nova Scotia
 B2G 2L2
 Attention: Mr. Ernie Porter
 President, Town Point Consulting Inc.

Assessment of Potential Impacts to Nesting Piping Plovers as a Result of a Proposed Marine Shellfish Aquaculture Lease Site in Antigonish Harbour, Nova Scotia.

Based on discussions held in December 2019, Dillon Consulting Limited (Dillon) was retained by Town Point Consulting Incorporated (Town Point Inc.) on January 3, 2020 to prepare and deliver an assessment of potential impacts to piping plover (*Charadrius melodus melodus*) as a result of oyster aquaculture operations proposed by Town Point Inc. The following is a technical report detailing the findings of that assessment.

Sincerely,

DILLON CONSULTING LIMITED

Christopher J. Kennedy, M.Sc.

Biologist

CJK:jes

Our file: 20-2069-1000

1

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

1. Introduction

Town Point Consulting Inc. (TPC) proposes to construct and operate a marine shellfish aquaculture operation on three potential lease areas near the mouth of the Antigonish Harbour. One proposed lease area (Site 3) falls within the protected beach area of Dunn's and Monks Head, whose boundaries extend into open water (see Figure 1), and is protected pursuant the *Beaches Act* (R.S. 1989, c. 32, s.1.).

Dunn's Beach is also designated as critical habitat for the Piping Plover (*Charadrius melodus melodus*) (EC 2012), which is listed as 'Endangered' both provincially pursuant the *Nova Scotia Endangered Species Act* (S.N.S. 1998, c. 11) and federally pursuant the *Species at Risk Act* (S.C. 2002, c. 2). However, unlike the protected beach area mentioned above, the critical habitat for the Piping Plover is limited to the portion of Dunn's Beach suitable for nesting, feeding and cover which includes the terrestrial area of beach from the low water mark to the upper beach and dune crest (EC 2012). That said, there have been no observations of Piping Plover at Dunn's Beach reported to eBird (2020) for the past 10 years (see Figure 2). eBird is collaborative database, with over 100 million bird sightings contributed annually and represents the world's largest citizen science project.

The following technical report will present an assessment of possible impacts that could result from the proposed marine shellfish aquaculture operation to Piping Plovers that may use the protected beach area of Dunn's and Monks Head to breed and raise their young. Additionally, similar nearby marine shellfish aquaculture operations are examined to provide context for the current proposed works. Lastly, current and possible future activities, including the proposed shellfish aquaculture operation, that occur on or around Dunn's and Monks Head Beach are discussed in terms of threats to breeding Piping Plovers and compliance with the *Beaches Act*.

2. Known Threats and Limiting Factors to Piping Plover Recovery with Respect to Marine Shellfish Aquaculture

Current estimates suggest that hatching success for Piping Plover pairs in eastern Canada is less than 55% and that predation, along with habitat loss and degradation, are the primary factors limiting Piping Plover populations across their North American breeding range (EC 2012).

There are many predators of Piping Plover adults, chicks, and eggs, including avian predators such as the

American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*) and many species of gull (*Larus* spp.), as well as mammalian predators including Raccoon (*Procyon lotor*), Red Fox (*Vulpes vulpes*), American Mink (*Neovison vison*), domestic dogs, and even feral cats. Anthropogenic activities and associated land use practices can result in artificially high predator populations and that these predators may opportunistically prey on adult Piping Plovers, chicks, or eggs. However, the species most commonly associated with congregating at marine shellfish aquaculture facilities in eastern Canada is

2

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

the double-crested cormorant (*Phalacrocorax auritus*) (Comeau et al. 2009), a piscivorous bird not considered to be a predator of Piping Plovers.

Piping Plover habitat loss and degradation are primarily related to direct human disturbance and coastal development, but also natural processes such as sea-level rise, coastal erosion, vegetation encroachment, etc. According to Environment Canada (2012), any anthropogenic activity which alters or disturbs critical habitat is likely to result in the destruction of that critical habitat. EC identifies a number of activities likely to result in the destruction of critical habitat:

- Off-road, all-terrain, or motorized vehicle use;
- Coastal development occurring in plover habitat or in other habitats closely associated with plover habitat, including the construction of cottages, homes, or tourist accommodations, boardwalks, and trails;
- Beach nourishment;
- Beach stabilization;
- Sand mining and extraction;
- Beach cleaning or raking activities that remove elements of natural habitat; and
- Deliberate or accidental discharge of oil and toxic chemicals.

Many recreational activities can also result in disturbance to Piping Plovers which can cause changes in normal nesting or feeding behaviour and may lead to lowered hatching success rates. These human related disturbance factors generally include all recreational uses of a beach, such as pedestrian traffic; unleashed pets; camping and campfires; sunbathing; collection of driftwood, shells or wrack; horseback riding; fishing; kite flying; and motorized vehicle traffic on the beach (EC 2012).

While an operational marine shellfish aquaculture lease may be considered “coastal development...in habitats closely associated with plover habitat”, it should be noted that unlike the examples given by Environment Canada (2012), a marine shellfish aquaculture lease has no terrestrial footprint and therefore cannot overlap with critical habitat for Piping Plover, which by definition is terrestrial (EC 2012). Although no direct destruction of Piping Plover habitat will occur as a result of the proposed project, it is important to assess whether or not the operations of an active marine shellfish aquaculture operation will result in disturbance to nesting Piping Plovers on Dunn’s and Monks Head Beach?

3. Environment and Climate Change Canada (ECCC) Guidance, Setback Distances and Buffer Zones for Piping Plover

Environment and Climate Change Canada (ECCC) offers guidance on establishing buffer zones and setback distances for migratory bird nests, including the Piping Plover, which are intended to ensure the successful fledging of young birds from the nest. According to ECCC (2019), buffer zones are determined by a setback distance which can vary according to the:

3

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

- i) degree of tolerance of the species;
- ii) previous exposure of birds to disturbance;
- iii) level of disturbance; and
- iv) landscape context.

Appropriate ‘setback distances’ are determined on a case-by-case basis based on the distance at which nesting birds react to human disturbance (flight initiation distance or FID) along with expert opinion. A higher minimum ‘setback distance’ is often required for natural habitats (compared to urban areas), most waterfowl nests (as compared to songbirds) and the presence of a sensitive species or species at risk (ECCC 2019).

With respect to the ‘degree of tolerance’ of Piping Plovers and ‘previous exposure of birds to disturbance’, it should be noted that Piping Plovers regularly nest in areas impacted by human activities, such as recreational (beach use) or industrial settings (aggregate mining) and that recent research (Jorgensen et al. 2016) suggests that Piping Plovers do appear capable of becoming habituated to stimuli associated with human activity over time.

Along the Atlantic Coast of the United States, the U.S. Fish and Wildlife Service (USFWS 1994; 1996) recommends 50 m diameter buffer zones be placed around active Piping Plover nests, but also suggests the buffer zone should be increased when 50 m is found to be inadequate. This recommended 50 m buffer zone was based on studies in which Piping Plover ‘Flight Initiation Distance’ (FID) in response to human disturbances were quite variable, ranging from less than 5 m to 210 m (Flemming et al. 1990, Cross 1990, Loegering 1992, Hoopes 1993, Cross and Terwilliger 1993, all cited in USFWS 1994) depending on the context of the interaction. This variability in FID exhibited by Piping Plover in these different studies suggests a number of variables affect these birds’ responses to human activity (Jorgensen et al. 2016).

It has been demonstrated that nesting Piping Plovers respond differently to different types of stimuli, flushing more readily to passing pedestrians and dogs than to motorized vehicles (Jorgensen et al. 2016; McLeod et al., 2013). In a recent study using a 100 m buffer zone, nesting Piping Plovers flushed most readily to off-leash dog(s) (75% of the time) or a human(s) with a dog (70%) compared to only human pedestrian(s) (35%) and motorized vehicles (5.9%) (Jorgensen et al. 2016). Return times to the nest by flushed plovers was also greatest for off-leash dog(s) and a human(s) with a dog compared to only human pedestrian(s), and lowest for passing motorized vehicles.

In Canada, the only published literature available on recommended Piping Plover setback distances comes from the Alberta Ministry of Environment and Parks (AMEP 2011) and Environment Canada (EC 2009) and are primarily intended for use by the petroleum industry in the Prairie and Northern regions of Canada. In apparent recognition of the variability in response distances exhibited by Piping Plovers in previous studies, both documents recommend a range of setback distances for Piping Plover depending

4

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

on time of year and level of anticipated disturbance. Both documents recommend a lower limit setback distance of 50 m for ‘low impact’ activities, such as surveying, monitoring, or vehicular drive-by.

However, for ‘high impact’ activities, such as pipeline construction, operating oil or gas wells or pump stations, the AMEP 2011 document recommends an upper limit setback distance of 200 m, while the EC 2009 document recommends an upper limit of 250 m.

If we assume that the ‘level of disturbance’ caused by the routine operations of a marine shellfish aquaculture operation is similar to ‘high impact’ activities of the petroleum industry, than by the most stringent guideline available in Canada (EC 2009) an appropriate setback from Piping Plover critical habitat would be 250 m.

The proposed lease site (Site 3) is setback approximately 230 m from its nearest point to Dunn’s Beach. However, as the routine operation of a marine shellfish aquaculture site would most appropriately be classified as having a lower overall impact than that of ‘high impact’ activities of the petroleum industry, the current setback of ~230 m is very likely to be sufficient to prevent the disturbance of any nesting Piping Plovers that may breed on Dunn’s Beach.

Given that recent research indicates that nesting Piping Plovers respond to and are more readily disturbed from their nest by off-leash pets and humans’ on-foot, than they are by passing terrestrial motorized vehicles, the disturbance impact to nesting Piping Plovers resulting from the routine operations of a neighbouring ‘on-water’ shellfish aquaculture lease are likely to be negligible.

4. Reference Marine Shellfish Aquaculture Sites in Nova Scotia

There are currently a number of marine shellfish aquaculture sites in operation (NSDFA 2019) that are located immediately adjacent Provincial Parks or other important ecological areas in Nova Scotia, including critical habitat for Piping Plover. While Provincial Parks and Protected Beaches are not the same, they do share some important similarities with respect to their stated purpose. The Acts governing both Provincial Parks (*Provincial Parks Act* R.S., 1989, c. 367, s. 1.) and Protected Beaches (*Beaches Act*) broadly state their purpose is to provide opportunities for outdoor recreation and to preserve significant and sensitive elements of the natural environment of Nova Scotia. In fact, Dunn's Beach (see Figure 3) is currently listed as a site for designation as a Provincial Park by the Province of Nova Scotia (NS 2013), however, the designation has not yet been made official.

Listed below are examples of marine shellfish aquaculture operations currently co-existing with neighbouring Provincial Parks and other important ecological areas in Nova Scotia:

i) Melmerby Beach Provincial Park

- a. Commercial Marine Shellfish Licence No.: #0177, #1224 and #1112
- b. Size of leased area: ~83.35 hectares
- c. Species: American Oyster, Bay Quahaug, Surf Clam and Bay Scallop
- d. Significant Habitat for Piping Plover?: Yes

5

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

ii) Powell's Point Provincial Park

- a. Commercial Marine Shellfish Licence No. #1350
- b. Size of leased area: ~17.33 hectares
- c. Species: American Oyster and Bay Quahaug
- d. Significant Habitat for Piping Plover?: No

iii) Caribou-Munroes Island Provincial Park

- a. Commercial Marine Shellfish Licence No. #1347 and #1380
- b. Size of leased area: ~12.77 hectares
- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: No

iv) Waterside Beach Provincial Park

- a. Commercial Marine Shellfish Licence No. #1347 and #1380
- b. Size of leased area: ~17.26 hectares
- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: Yes

v) Wallace Bay National Wildlife Area

- a. Commercial Marine Shellfish Licence No.: #0331
- b. Size of leased area: ~2.17 hectares
- c. Species: American Oyster
- d. Significant Habitat for Piping Plover?: No

Although not within Nova Scotia, another comparable shellfish aquaculture arrangement occurs in a neighbouring jurisdiction, within the Darnley Basin of Malpeque Bay, Prince Edward Island. The Darnley Basin is approximately 536.3 hectares and is occupied by 39 marine shellfish aquaculture leases totalling approximately 229.0 hectares, or about 42.7% of the total area of the basin (see Figure 4). Similar to the mouth of the Antigonish Harbour, the mouth of Darnley Basin is protected by sandspits, one of which forms part of Cabot Beach Provincial Park. Both sandspits are known to be breeding beaches for Piping Plover (see Figure 5). Similar to Antigonish Harbour, there is a commercial fishing wharf within the Darnley Basin that supports lobster boats, among other vessels, that must traverse the narrow channel alongside the sandspit beaches daily. Despite the density of aquaculture-related activities within the basin and the numerous passing fishing vessels, Piping Plovers continue to show site fidelity and a pair of Piping Plovers were recorded to have successfully hatched three young at these beaches in 2019 (Kelly 2019).

5. Proposed Shellfish Aquaculture Lease Area and Site-specific Context

There currently exists a commercial fishing wharf within the boundaries of the Protected Beach Area of Dunn's and Monks Head located at the northern end of Southside Harbour Road, immediately northwest from the mouth to Captain's Pond (see Figure 1). Vessels from this wharf must currently pass the proposed location of the proposed 'Site 3' lease area and navigate the channel into St. George's Bay. These vessels are predominantly powered by inboard or outboard motors (hundreds of horsepower (HP)) and the noise generated by their passing would be considerable. In contrast, the vessels proposed for the routine operations of the marine shellfish aquaculture lease would be powered by a 12 HP inboard motor with an additional muffling device installed to further mitigate any noise generated. Since the boundaries of the protected beach area extend between 800 and 1,700 m into St. George's Bay, it is probable that lobster pots are deployed and retrieved regularly within this protected area. This suggests that the noise disturbance caused by passing lobster vessels would not be limited to their departure and return to the harbour, but would be more persistent throughout the day. This is also in contrast to the proposed 'Site 3' aquaculture lease area, which is proposed to be located ~230 m behind the dune crest of Dunn's Beach.

Although lobster fishing occurs in near-shore coastal waters across much of the Maritime Provinces, there has been no suggestion or research that implicates passing lobster vessels with disturbing nesting Piping Plovers. Therefore, it would seem highly unlikely that the operation of a slower, quieter vessel behind the dune crest of Dunn's Beach would be considered a significant disturbance to nesting Piping Plovers.

6. Conclusions

Based on the research and associated assessment presented in this report, Dillon has concluded that the operation of a marine shellfish aquaculture lease in proximity to critical habitat for Piping Plover, located on Dunn's Beach, is highly unlikely to cause destruction of that habitat or cause a significant disturbance to any Piping Plovers that may breed at Dunn's Beach in the future. Furthermore, since there are many marine shellfish aquaculture leases currently in operation in proximity to Provincial Parks and other important ecological sites in Nova Scotia, the proposed lease site (Site 3) within the boundaries of the Protected Beach Area of Dunn's and Monks Head does not appear to be in conflict with the *Beaches Act*.

Figure 1. Overview of the Protected Beach Area and the Proposed Site 3 Lease Area

~1,750 m ~1,000 m

~230 m

Commercial Wharf

*All locations are approximate

Figure 2. Observations of Piping Plover, as reported to eBird, in the Vicinity of the

Protected Beach Area of Dunn's and Monks Head over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

Figure 3. Overview of Dunn's Beach Indicating the Area in Consideration for Development as a Provincial Park

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January 2020

Figure 4. Overview of the Darnley Basin, Malpeque, PEI, Illustrating the Density of Marine Shellfish Aquaculture Operations

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January 2020

Figure 5. Observations of Piping Plover, as Reported to eBird, in the Vicinity of the Darnley Basin Over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

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January 2020

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References

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

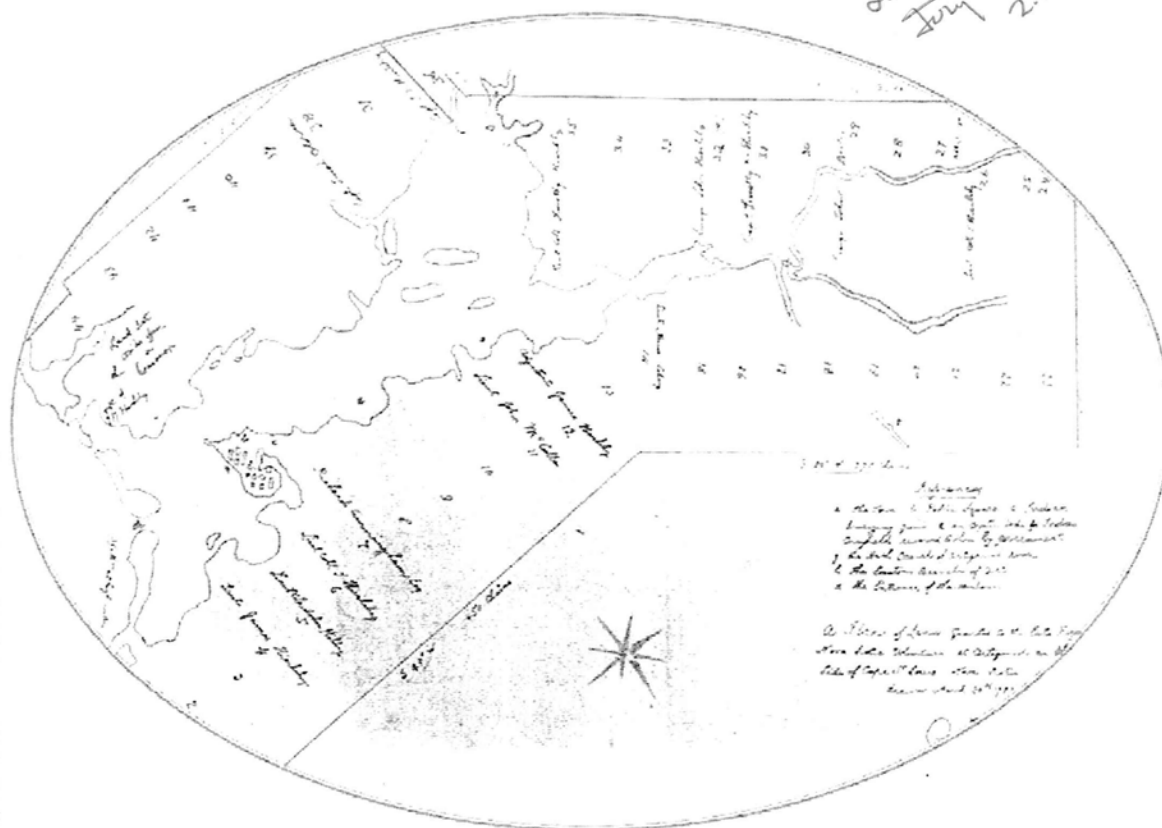
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F) Any views or concerns expressed by the Mi'kmaq community

We reached out to Paqtnkek First Nation numerous times with little response. Spoke with and emailed Norma Prosper to request a meeting but none was arranged. We then met Norma and Kerry Prosper in Truro June 3 2019 at an AANS working group meeting dealing with the issue of an Oyster Hatchery in NS. Mr. Prosper was not opposed to our plan but mentioned the existence of a pre-confederation oyster lease granted to his people in Antigonish Harbour. I asked if I could have details of this lease and he said he didn't even know if he could find the document.

I located the document at the Antigonish Museum, copy below, it indicates an oyster lease south of the Antigonish Boat Club. This area is more than a kilometer from the nearest proposed lease site.



HIERLIHY TOWN POINT SITE, TOWN POINT MAP, 1787

This 1787 map shows the original site of the Hierlihy settlement at Town Point on a small peninsula on the west side of Antigonish Harbour. The tract of land granted to this group stretched from the harbour's mouth as far inland as Salt Springs on the West River. Here, Lt. Col. Timothy Hierlihy and a group of Royal Nova Scotia Volunteers, along with some wives and children, erected log cabins and planted crops. The land grant called the "Soldiers' Grant" comprised a generous 21,600 acres (8,740 hectares). Hierlihy received 2,200 acres (890 hectares) for himself. Officers were assigned an amount in proportion to their rank, while privates were allotted 100 or 200 acres (40 or 80 hectares). They were also given an assortment of agricultural implements and provisions for three years. Some land was set aside to be used as a commons and town square for the settlement. There were also areas reserved for the local Mi'kmaq population for corn fields, a burying ground, and an oyster bed.

I met Mr. Prosper again at the StFX Public Panel Discussion and he again offered no objection to our application. In fact, during his presentation he mentioned how he would find it difficult to object to our plan since his people are doing the same thing in Pomquet Harbour just a few kilometers east of our proposed site. He went on to discuss the benefits our farm could bring to the community and how sharing resources

makes good sense. He corrected the “Friends” portrayal of Antigonish harbour as “pristine” saying it hasn’t been that way for 200 years.


He rejected the notion that his people should be expected to choose a side in this debate likening it to the choice his ancestors had to make between the British and the French. It seems to us Mr. Prosper and Paqtnkek First Nation do not oppose our application.

Part 2 - In response to section 3.1 of Proponent's Guide to Public Engagement during Scoping for Aquaculture development:

The following will describe the feedback received by those members of the community who contributed to the scoping activities we conducted. This feedback is organized and categorized by the eight regulated factors to be considered in decisions related to marine aquaculture leases.

a) The optimum use of marine resources;

A resident of Town Point who was informed of our interest in oyster farming from the very early stages and remained interested throughout submitted a question at the StFX Public Panel Discussion held August 13, 2019. It is as follows;



Susan Vincent

SUBMITTED During
AUG 13/19 PUBLIC PANEL
DISCUSSION.

Panel discussion organized by David Garbary, AQUA
Schwartz Auditorium, Tuesday 13 August 2019

I am a Town Point resident, a kayaker, and environmentalist. I am neutral with respect to this project – in favour because of the environmental positives and local community development, slightly against on what I confess are NIMBY grounds. Given the positives, I don't feel NIMBYism is a legitimate position.

My kayaking friends and I have paddled among oyster beds – no big deal. Not always great to look at, but they break waves when it is rough. There has been some discussion about “privatizing the commons,” but is this really an argument for maintaining access for the leisure activities of privileged white people – like me -- as opposed to permitting a broad range of activities, some economic and some for recreation?

The Porters approached us about the project and have been meticulously transparent with us, so I am surprised about FOAH claims to the contrary. Our initial concerns were about the environmental impact so I independently researched the scientific literature. This generally tends toward oysters as beneficial, particularly for filtering water, something the harbour desperately needs. I like untouched wilderness, but also want to live in a house, have roads, electricity and so on. So do others and I am not hypocritical enough to try to prevent them from enjoying services I have or want. Collectively we pay taxes and for services, and community-based economic development supports those services. Because the environmental research shows oysters to be positive, I am puzzled by the FOAH position, especially when they present their arguments in environmental terms. It is exceedingly dangerous to misuse environmentalist discourse as that can undermine legitimate science-based environmentalism.

It is especially concerning when a large network has been mobilized, using alarmism around the environment. This is a textbook case of the downside of the powerful social bonds that characterize Maritime culture: they can offer fast effective assistance in times of crisis, but are also exclusionary and resistant to change. In this case, supporting one's friends and family appears frequently to have taken priority over evaluating the real advantages and disadvantages of the situation. My question to those who have joined FOAH or signed their petitions is whether, having heard the evidence presented here tonight, if someone in your own social network had put forward this project, would you still be against it? Or would you then praise its environmental, locavore and community development benefits?

One point Susan makes is that despite her preference that on NIMBY grounds the project not happen she sees greater benefit when viewed more broadly... “because of the environmental positives and local community development”. This position speaks to the optimum use of this marine resource. Clearly, Ms. Vincent values her time kayaking in this area but realizes there is more value to the community that would result if the farm were established. To her, the balance between her convenience when kayaking verses potential benefits the farm could provide falls in favor of engaging a portion of this marine resource as an economic opportunity and an environmental positive.

Another area resident, Kingsley Brown, Shared information regarding our application with his nephew, Darren Brown. Below are some of Darren's thoughts on the matter and my response. It seems to me his point is farming of oysters in Antigonish Harbour is more beneficial and a more optimum use of the resource than harvesting of native oysters.

Antigonish Oyster Farm

Inbox



Darren C Brown [REDACTED]@gmail.com>

Aug 3, 2019,
8:50 AM

to me, Kingsley

Good Morning Ernie;

I trust you are smiling on this gift of another glorious day blessing Antigonish Harbour.

I have been discussing your oyster farm proposal with King over the last few days. I've been visiting and part-timing in South Side Harbour since the week I was born. Learned to swim at the canal and duck hunt the inside of Dunn's Beach as a kid. Still enjoy both!

A life time ago, I worked for the province's aquaculture experimental station in Ostrea Lake and currently consult with the UN's FAO. I support your interest in establishing an oyster farm cultivating the native American oyster in Antigonish Harbour. If I was to express any concern about oysters and the harbour, it would be focused on the summer's daily extraction of wild oysters with no return.

Enjoy a great day. Let me know if you would like to chat further. I am in Halifax for a few weeks work, but frequently back and forth.

Sincerely,

Darren C Brown



Ernie Porter <ernieporter77@gmail.com>

to Darren, Kingsley

Hi Darren

Thank you very much for reaching out to me. I would like to meet you next time you are here if possible.

Community engagement is an important part of the application process so I am doing my best to have dialogue with area residents. Their feedback, positive or negative will be considered in our application. It is especially important for those with concerns to feel they have been heard.

We have gone to extraordinary lengths to mitigate many of shortcomings related to existing off bottom oyster farming techniques which can be best understood by seeing our innovations in person. For this reason I hope you could come visit our property sometime.

Also, there will be a public panel discussion regarding our application Aug 13 6:00-9:00pm at the Schwartz business school auditorium on campus...I hope you can attend. A visit prior would be optimal.

Regards,
Ernie

Sent from my iPhone

When considering the optimum use of this marine resource we must be mindful of not only the positive economic effects but also the ecological impact. One of these potential impacts relates to piping plovers on Dunn's Beach. Of course, we share the common concern for all endangered species and would not knowingly contribute to their further decline. When we examined the plover situation it became clear our proposed operation will not negatively impact either their viability or their habitat. If we had learned otherwise, we would have abandoned the Gooseberry Island lease site.

This protected area extends beyond the shoreline and into St George's Bay and Antigonish Harbour. On the bay side, a thriving lobster fishery exists partially within the protected area. Similarly, within the protected area extending from harbour entrance along the channel southward recreational fishing occurs daily throughout the spring and summer. It seems, plovers are unaffected by these activities even though they involve many vessels often working at night and often operating much more energetically than we would require.

We believe and the scientists we consulted concur that our proposed operation will not impact plovers. It will however, increase the economic productivity of this portion of the harbour from zero to over \$500,000.00 (at wholesale prices) annually without negative impact. Ecology Action Centre, Bird Studies Canada, StFX Biology Dept, Clarence Stevens Consulting, and Dillon Consulting all have considered the implications, and none have expressed concerns given the proposed setback from the beach.

Birds Canada offered the following

Laura Bartlett

Attachments

Mon, Jan 20, 3:10 PM (1 day ago)

to me

Hi Ernie,

Please find my letter attached. Good luck with the application!

Cheers,

Laura

Attachments area



To whom it may concern,

Birds Canada is a national charity for bird research, citizen science, education, and conservation. Since 2006 Birds Canada has run the Nova Scotia Piping Plover Conservation Program which aims to conserve beach ecosystems, reduce threats to plovers, and support recovery in Nova Scotia through monitoring, protection, and stewardship. Piping Plovers are federally and provincially listed as an endangered species which breed on many of Nova Scotia's beaches, including beaches surrounding Antigonish Harbour, from April to August.

I was contact by Ernie and Jane Porter and met with them on December 12th, 2019 to discuss their proposed oyster farm for Antigonish Harbour. They had become aware that a beach near the proposed site is identified as critical habitat for Piping Plovers under the federal Recovery Strategy and wanted to learn more about the birds and how their project might affect the plovers.

I had a chance to learn more about the proposed project and made them aware of my concerns for the plovers including:

- attracting predators like gulls
- changes to the natural processes and dynamics of the beach, such as storms creating washouts that create suitable habitat but might impact the flow of water to the oysters
- changes to the food systems that might impact the abundance and availability of food for the plovers
- direct disturbances to birds through the construction and maintenance of the proposed sites

Mr. and Mrs. Porter were very receptive to my comments and explained how they are working to address those concerns if the project did not already account for them. I appreciated their pro-active approach to trying to mitigate the unforeseen consequences of the project. Should the project move forward we look forward to working with Mr. and Mrs. Porter to ensure they are good plover stewards for Antigonish Harbour.

Sincerely,

Laura Bartlett
Nova Program Coordinator
lbartlett@birdscanada.org
1-902-426-4055

45 Alderney Drive, 7th floor, Dartmouth, NS Canada B2Y 2N6 Phone/Tel 902-426-4055 www.birdscanada.org

Noise related articles

Inbox



Laura Bartlett <lbartlett@birdscanada.org>

Jan 15, 2020, 12:14 PM (6 days ago)

to me

Hi Ernie,

As promised, here are a few documents that may or may not be of use to you. I reached out to colleagues in Canada and the USA and this is what was provided to me. None of them are specific to Piping Plovers and Aquaculture noise unfortunately. Due to the limited scope of these projects it is difficult to generalize across all plovers or all aquaculture sites but this is also the information we have available to us right now. I don't know of anyone doing that kind of research and without the science backing it up it is very difficult to make recommendations. Given the endangered status of Piping Plovers and with limited research many of us in this field tend to defer to the precautionary principle which boils down to if we don't know the impacts and effects we don't do it. But that principle has it's own issues too!

This link is to a study on Red Knot, a different kind of threatened shorebird but often found in similar areas to plovers, and an aquaculture project in Delaware Bay (a great bird hot spot!). Obviously we are dealing with a different bird species here but at least it is with an aquaculture project: https://www.fws.gov/northeast/njfieldoffice/pdf/AquaculturePBO_20160401.pdf (it's a long document so I would check for the most relevant sections like "effects of the action" pg. 93)

The attached articles are about Piping Plovers but in relation to a bridge replacement project. This might be a better source for how these plovers deal with noise more generally, even though it's not an aquaculture project. Perhaps some comparisons can be drawn from overall decibel levels and distance to the source of noise?

Hopefully there are some lessons that can be learned from these articles to help make the best decision possible for both you and the birds!??

Good luck,

Laura

Laura Bartlett
Nova Scotia Program Coordinator
Birds Canada/Oiseaux Canada
lbartlett@birdscanada.org <mailto:rfriendshipkeller@birdscanada.org> * birdscanada.org
Tel * 902-426-4055

Your Voice For Birds/ Votre voix pour les oiseaux

<<https://mail.bsc-eoc.org/ecp/Customize/www.facebook.com/ploverconservation>>

2 Attachments

Dillon Consulting produced the following report;

TOWN POINT CONSULTING INC.

Piping Plovers and Marine Shellfish Aquaculture

An assessment of potential impacts to nesting Piping Plovers as a result of a proposed marine shellfish aquaculture lease site in Antigonish Harbour, Nova Scotia.

137 Chain Lake Drive
Suite 100
Halifax, Nova Scotia
Canada
B3S 1B3
Telephone
902.450.4000
Fax
902.450.2008

Dillon Consulting
Limited

January 16, 2020

Town Point Consulting Inc.

370 Seabright Road

Antigonish, Nova Scotia

B2G 2L2

Attention: Mr. Ernie Porter

President, Town Point Consulting Inc.

Assessment of Potential Impacts to Nesting Piping Plovers as a Result of a Proposed Marine Shellfish Aquaculture Lease Site in Antigonish Harbour, Nova Scotia.

Based on discussions held in December 2019, Dillon Consulting Limited (Dillon) was retained by Town Point Consulting Incorporated (Town Point Inc.) on January 3, 2020 to prepare and deliver an assessment of potential impacts to piping plover (*Charadrius melodus melodus*) as a result of oyster aquaculture operations proposed by Town Point Inc. The following is a technical report detailing the findings of that assessment.

Sincerely,

DILLON CONSULTING LIMITED

Christopher J. Kennedy, M.Sc.

Biologist

CJK:jes

Our file: 20-2069-1000

1

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

1. Introduction

Town Point Consulting Inc. (TPC) proposes to construct and operate a marine shellfish aquaculture operation on three potential lease areas near the mouth of the Antigonish Harbour. One proposed lease area (Site 3) falls within the protected beach area of Dunn's and Monks Head, whose boundaries extend into open water (see Figure 1), and is protected pursuant to the *Beaches Act* (R.S. 1989, c. 32, s.1.). Dunn's Beach is also designated as critical habitat for the Piping Plover (*Charadrius melodus melodus*) (EC 2012), which is listed as 'Endangered' both provincially pursuant to the *Nova Scotia Endangered Species Act* (S.N.S. 1998, c. 11) and federally pursuant to the *Species at Risk Act* (S.C. 2002, c. 2). However, unlike the protected beach area mentioned above, the critical habitat for the Piping Plover is limited to the portion of Dunn's Beach suitable for nesting, feeding and cover which includes the terrestrial area of beach from the low water mark to the upper beach and dune crest (EC 2012). That said, there have been no observations of Piping Plover at Dunn's Beach reported to eBird (2020) for the past 10 years (see Figure 2). eBird is a collaborative database, with over 100 million bird sightings contributed annually and represents the world's largest citizen science project.

The following technical report will present an assessment of possible impacts that could result from the proposed marine shellfish aquaculture operation to Piping Plovers that may use the protected beach area of Dunn's and Monks Head to breed and raise their young. Additionally, similar nearby marine shellfish aquaculture operations are examined to provide context for the current proposed works. Lastly, current and possible future activities, including the proposed shellfish aquaculture operation, that occur on or around Dunn's and Monks Head Beach are discussed in terms of threats to breeding Piping Plovers and compliance with the *Beaches Act*.

2. Known Threats and Limiting Factors to Piping Plover Recovery with Respect to Marine Shellfish Aquaculture

Current estimates suggest that hatching success for Piping Plover pairs in eastern Canada is less than 55% and that predation, along with habitat loss and degradation, are the primary factors limiting Piping Plover populations across their North American breeding range (EC 2012).

There are many predators of Piping Plover adults, chicks, and eggs, including avian predators such as the American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*) and many species of gull (*Larus* spp.), as well as mammalian predators including Raccoon (*Procyon lotor*), Red Fox (*Vulpes vulpes*), American Mink (*Neovison vison*), domestic dogs, and even feral cats. Anthropogenic activities and associated land use practices can result in artificially high predator populations and that these predators may opportunistically prey on adult Piping Plovers, chicks, or eggs. However, the species most commonly associated with congregating at marine shellfish aquaculture facilities in eastern Canada is

2

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

the double-crested cormorant (*Phalacrocorax auritus*) (Comeau et al. 2009), a piscivorous bird not considered to be a predator of Piping Plovers.

Piping Plover habitat loss and degradation are primarily related to direct human disturbance and coastal development, but also natural processes such as sea-level rise, coastal erosion, vegetation encroachment, etc. According to Environment Canada (2012), any anthropogenic activity which alters or disturbs critical habitat is likely to result in the destruction of that critical habitat. EC identifies a number of activities likely to result in the destruction of critical habitat:

- Off-road, all-terrain, or motorized vehicle use;
- Coastal development occurring in plover habitat or in other habitats closely associated with plover habitat, including the construction of cottages, homes, or tourist accommodations, boardwalks, and trails;
- Beach nourishment;
- Beach stabilization;
- Sand mining and extraction;
- Beach cleaning or raking activities that remove elements of natural habitat; and
- Deliberate or accidental discharge of oil and toxic chemicals.

Many recreational activities can also result in disturbance to Piping Plovers which can cause changes in normal nesting or feeding behaviour and may lead to lowered hatching success rates. These human related disturbance factors generally include all recreational uses of a beach, such as pedestrian traffic; unleashed pets; camping and campfires; sunbathing; collection of driftwood, shells or wrack; horseback riding; fishing; kite flying; and motorized vehicle traffic on the beach (EC 2012).

While an operational marine shellfish aquaculture lease may be considered “coastal development...in habitats closely associated with plover habitat”, it should be noted that unlike the examples given by Environment Canada (2012), a marine shellfish aquaculture lease has no terrestrial footprint and therefore cannot overlap with critical habitat for Piping Plover, which by definition is terrestrial (EC 2012). Although no direct destruction of Piping Plover habitat will occur as a result of the proposed project, it is important to assess whether or not the operations of an active marine shellfish aquaculture operation will result in disturbance to nesting Piping Plovers on Dunn’s and Monks Head Beach?

3. Environment and Climate Change Canada (ECCC) Guidance, Setback Distances and Buffer Zones for Piping Plover

Environment and Climate Change Canada (ECCC) offers guidance on establishing buffer zones and setback distances for migratory bird nests, including the Piping Plover, which are intended to ensure the successful fledging of young birds from the nest. According to ECCC (2019), buffer zones are determined by a setback distance which can vary according to the:

3

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

- i) degree of tolerance of the species;
- ii) previous exposure of birds to disturbance;
- iii) level of disturbance; and
- iv) landscape context.

Appropriate ‘setback distances’ are determined on a case-by-case basis based on the distance at which nesting birds react to human disturbance (flight initiation distance or FID) along with expert opinion. A higher minimum ‘setback distance’ is often required for natural habitats (compared to urban areas), most waterfowl nests (as compared to songbirds) and the presence of a sensitive species or species at risk (ECCC 2019).

With respect to the ‘degree of tolerance’ of Piping Plovers and ‘previous exposure of birds to disturbance’, it should be noted that Piping Plovers regularly nest in areas impacted by human activities, such as recreational (beach use) or industrial settings (aggregate mining) and that recent research (Jorgensen et al. 2016) suggests that Piping Plovers do appear capable of becoming habituated to stimuli associated with human activity over time.

Along the Atlantic Coast of the United States, the U.S. Fish and Wildlife Service (USFWS 1994; 1996) recommends 50 m diameter buffer zones be placed around active Piping Plover nests, but also suggests the buffer zone should be increased when 50 m is found to be inadequate. This recommended 50 m buffer zone was based on studies in which Piping Plover ‘Flight Initiation Distance’ (FID) in response to human disturbances were quite variable, ranging from less than 5 m to 210 m (Flemming et al. 1990, Cross 1990, Loegering 1992, Hoopes 1993, Cross and Terwilliger 1993, all cited in USFWS 1994) depending on the context of the interaction. This variability in FID exhibited by Piping Plover in these different studies suggests a number of variables affect these birds’ responses to human activity (Jorgensen et al. 2016).

It has been demonstrated that nesting Piping Plovers respond differently to different types of stimuli, flushing more readily to passing pedestrians and dogs than to motorized vehicles (Jorgensen et al. 2016; McLeod et al., 2013). In a recent study using a 100 m buffer zone, nesting Piping Plovers flushed most readily to off-leash dog(s) (75% of the time) or a human(s) with a dog (70%) compared to only human pedestrian(s) (35%) and motorized vehicles (5.9%) (Jorgensen et al. 2016). Return times to the nest by flushed plovers was also greatest for off-leash dog(s) and a human(s) with a dog compared to only human pedestrian(s), and lowest for passing motorized vehicles.

In Canada, the only published literature available on recommended Piping Plover setback distances comes from the Alberta Ministry of Environment and Parks (AMEP 2011) and Environment Canada (EC 2009) and are primarily intended for use by the petroleum industry in the Prairie and Northern regions of Canada. In apparent recognition of the variability in response distances exhibited by Piping Plovers in previous studies, both documents recommend a range of setback distances for Piping Plover depending

4

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

on time of year and level of anticipated disturbance. Both documents recommend a lower limit setback distance of 50 m for 'low impact' activities, such as surveying, monitoring, or vehicular drive-by.

However, for 'high impact' activities, such as pipeline construction, operating oil or gas wells or pump stations, the AMEP 2011 document recommends an upper limit setback distance of 200 m, while the EC 2009 document recommends an upper limit of 250 m.

If we assume that the 'level of disturbance' caused by the routine operations of a marine shellfish aquaculture operation is similar to 'high impact' activities of the petroleum industry, than by the most stringent guideline available in Canada (EC 2009) an appropriate setback from Piping Plover critical habitat would be 250 m.

The proposed lease site (Site 3) is setback approximately 230 m from its nearest point to Dunn's Beach. However, as the routine operation of a marine shellfish aquaculture site would most appropriately be classified as having a lower overall impact than that of 'high impact' activities of the petroleum industry, the current setback of ~230 m is very likely to be sufficient to prevent the disturbance of any nesting Piping Plovers that may breed on Dunn's Beach.

Given that recent research indicates that nesting Piping Plovers respond to and are more readily disturbed from their nest by off-leash pets and humans' on-foot, than they are by passing terrestrial motorized vehicles, the disturbance impact to nesting Piping Plovers resulting from the routine operations of a neighbouring 'on-water' shellfish aquaculture lease are likely to be negligible.

4. Reference Marine Shellfish Aquaculture Sites in Nova Scotia

There are currently a number of marine shellfish aquaculture sites in operation (NSDFA 2019) that are located immediately adjacent Provincial Parks or other important ecological areas in Nova Scotia, including critical habitat for Piping Plover. While Provincial Parks and Protected Beaches are not the same, they do share some important similarities with respect to their stated purpose. The Acts governing both Provincial Parks (*Provincial Parks Act* R.S., 1989, c. 367, s. 1.) and Protected Beaches (*Beaches Act*) broadly state their purpose is to provide opportunities for outdoor recreation and to preserve significant and sensitive elements of the natural environment of Nova Scotia. In fact, Dunn's Beach (see Figure 3) is currently listed as a site for designation as a Provincial Park by the Province of Nova Scotia (NS 2013), however, the designation has not yet been made official.

Listed below are examples of marine shellfish aquaculture operations currently co-existing with neighbouring Provincial Parks and other important ecological areas in Nova Scotia:

i) Melmerby Beach Provincial Park

- a. Commercial Marine Shellfish Licence No.: #0177, #1224 and #1112
- b. Size of leased area: ~83.35 hectares
- c. Species: American Oyster, Bay Quahaug, Surf Clam and Bay Scallop
- d. Significant Habitat for Piping Plover?: Yes

5

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

ii) Powell's Point Provincial Park

- a. Commercial Marine Shellfish Licence No. #1350
- b. Size of leased area: ~17.33 hectares
- c. Species: American Oyster and Bay Quahaug
- d. Significant Habitat for Piping Plover?: No

- iii) Caribou-Munroes Island Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~12.77 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No
- iv) Waterside Beach Provincial Park
 - a. Commercial Marine Shellfish Licence No. #1347 and #1380
 - b. Size of leased area: ~17.26 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: Yes
- v) Wallace Bay National Wildlife Area
 - a. Commercial Marine Shellfish Licence No.: #0331
 - b. Size of leased area: ~2.17 hectares
 - c. Species: American Oyster
 - d. Significant Habitat for Piping Plover?: No

Although not within Nova Scotia, another comparable shellfish aquaculture arrangement occurs in a neighbouring jurisdiction, within the Darnley Basin of Malpeque Bay, Prince Edward Island. The Darnley Basin is approximately 536.3 hectares and is occupied by 39 marine shellfish aquaculture leases totalling approximately 229.0 hectares, or about 42.7% of the total area of the basin (see Figure 4). Similar to the mouth of the Antigonish Harbour, the mouth of Darnley Basin is protected by sandspits, one of which forms part of Cabot Beach Provincial Park. Both sandspits are known to be breeding beaches for Piping Plover (see Figure 5). Similar to Antigonish Harbour, there is a commercial fishing wharf within the Darnley Basin that supports lobster boats, among other vessels, that must traverse the narrow channel alongside the sandspit beaches daily. Despite the density of aquaculture-related activities within the basin and the numerous passing fishing vessels, Piping Plovers continue to show site fidelity and a pair of Piping Plovers were recorded to have successfully hatched three young at these beaches in 2019 (Kelly 2019).

6

Town Point Consulting Inc.

Piping Plovers and Marine Shellfish Aquaculture

January 2020

5. Proposed Shellfish Aquaculture Lease Area and Site-specific Context

There currently exists a commercial fishing wharf within the boundaries of the Protected Beach Area of Dunn's and Monks Head located at the northern end of Southside Harbour Road, immediately northwest from the mouth to Captain's Pond (see Figure 1). Vessels from this wharf must currently pass the proposed location of the proposed 'Site 3' lease area and navigate the channel into St. George's Bay. These vessels are predominantly powered by inboard or outboard motors (hundreds of horsepower (HP)) and the noise generated by their passing would be considerable. In contrast, the vessels proposed for the routine operations of the marine shellfish aquaculture lease would be powered by a 12 HP inboard motor with an additional muffling device installed to further mitigate any noise generated. Since the boundaries of the protected beach area extend between 800 and 1,700 m into St. George's Bay, it is probable that lobster pots are deployed and retrieved regularly within this protected area. This suggests that the noise disturbance caused by passing lobster vessels would not be limited to their departure and return to the harbour, but would be more persistent throughout the day. This is also in contrast to the proposed 'Site 3' aquaculture lease area, which is proposed to be located ~230 m behind the dune crest of Dunn's Beach.

Although lobster fishing occurs in near-shore coastal waters across much of the Maritime Provinces, there has been no suggestion or research that implicates passing lobster vessels with disturbing nesting Piping Plovers. Therefore, it would seem highly unlikely that the operation of a slower, quieter vessel behind the dune crest of Dunn's Beach would be considered a significant disturbance to nesting Piping Plovers.

6. Conclusions

Based on the research and associated assessment presented in this report, Dillon has concluded that the operation of a marine shellfish aquaculture lease in proximity to critical habitat for Piping Plover, located on Dunn's Beach, is highly unlikely to cause destruction of that habitat or cause a significant disturbance to any Piping Plovers that may breed at Dunn's Beach in the future. Furthermore, since there are many marine shellfish aquaculture leases currently in operation in proximity to Provincial Parks and other important ecological sites in Nova Scotia, the proposed lease site (Site 3) within the boundaries of the Protected Beach Area of Dunn's and Monks Head does not appear to be in conflict with the *Beaches Act*.

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Piping Plovers and Marine Shellfish Aquaculture

January 2020

Figure 1. Overview of the Protected Beach Area and the Proposed Site 3 Lease Area

~1,750 m ~1,000 m

~230 m

Commercial Wharf

*All locations are approximate

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January 2020

Figure 2. Observations of Piping Plover, as reported to eBird, in the Vicinity of the Protected Beach Area of Dunn's and Monks Head over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

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January 2020

Figure 3. Overview of Dunn's Beach Indicating the Area in Consideration for Development as a Provincial Park

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Figure 4. Overview of the Darnley Basin, Malpeque, PEI, Illustrating the Density of

Marine Shellfish Aquaculture Operations

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January 2020

Figure 5. Observations of Piping Plover, as Reported to eBird, in the Vicinity of the Darnley Basin Over the Last Ten Years (January 2010 – January 2020)

Image provided by eBird (www.ebird.org) and created January 7, 2020.

References

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Piping Plovers and Marine Shellfish Aquaculture

January 2020

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January 2020

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January 2020

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Other considerations regarding optimum use of marine resources should in part relate to existing harvest of native oysters from Antigonish Harbour. The present activity involves four licenced harvesters each with a helper. The collect market sized oysters by hand within a defined season and relay them to leases in Pictou County where they are sunk to cleanse for 21 days then taken to market. This is a valuable and sustainable use of the resource but is limited by what is naturally available.

Our proposed operation would potentially produce greater volume of product and because the animals will be subject to regular husbandry intended to improve suitability for the raw bar market the product will have the highest possible value. So, increased productivity along with increased quality.

Since the proposed farm does not coincide with areas used for wild harvest not reduction in harvestable area will result allowing the existing harvest operations to continue as they are. Furthermore, spat produced by oysters on the farm will be released to the harbour and will contribute to production of wild oysters throughout the harbour likely producing more oysters for the harvesters to collect. This synergistic

relationship will be a net benefit to the overall oyster resource in Antigonish Harbour. The oyster harvesters recognize these potential benefits and are supportive of this application.

Antigonish Harbour has value to those who use it recreationally but many of these individuals particularly those not aligned with FOAH support our proposal. It is common knowledge that the areas we have chosen are not popular boating areas and do not impede boaters from enjoying their activities. We feel some of our opponents just want there to be no changes but a harbour that is all play and no work does not contribute to the economic benefit of the community. We feel using 2% of the harbour for work and leaving 98% available for play is a compromise that is more than reasonable.

B) the contribution of the proposed operation to community and provincial economic development

During our door to door public engagement meetings one of the most frequent comments we heard related to the economic benefit the farm could provide. Twenty-nine respondents mentioned in their written comments interest in the potential of additional jobs and/or increased economic activity. There are too many examples of these comments to list them all, but a quick review of the responses, contained in [Appendix A](#), will confirm the prevalence of community interest related to the proposed farms potential contribution to community and provincial economic development.

Three examples of such responses are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: June 22nd/2019 Time: 11:30 am Location: [REDACTED]

Persons in attendance:
Garnie Porter, Ryan Shinozawa, Caitlin Shinozawa

Address: [REDACTED] Full time Resident: ☒
 Seasonal Resident: ☐
Antigonish NS

Project Outline reviewed:

Questions:
Many, we had an hour long conversations. Satisfied with all answers. Seems like a great addition to the harbour & community of Antigonish

Concerns:

Response: Answered during meeting

Date of response: June 22nd/2019

Residents own words:
I own a small business in Antigonish. It is a restaurant, The Townhouse, and would benefit from the oyster farm. The farm would add to Antigonish by bringing some jobs and creating an oyster unique to Antigonish! It sounds like the environment & surrounding community were thoroughly considered in preparation for the farm. This is an exciting opportunity for Antigonish!
Caitlin Shinozawa

In Person Meeting record regarding AQ#1424

Date of meeting: June 19-2019 Time: 5:30pm Location: [REDACTED]

Persons in attendance: Trene McLeod Ernie Porter
Brian MacLeod

Address: [REDACTED] Lanark ☒ Full time Resident:
☐ Seasonal Resident:

Project Outline reviewed: Town Pond Oysters

Questions: Den questions were answered.

Concerns:

Response: We are excited for this project to go forward!

Date of response:

Residents own words:

The opportunity to bring a sustainable, natural and water cleaning operation to our region is most welcome. Mr. Porter has done a tremendous amount of due diligence in his pursuit of this potential project. Oysters are an economic opportunity, we are excited to support Ernie + Town Pond Oyster Farm.

Gene MacLeod

In Person Meeting record regarding AQ#1424

Date of meeting: June 19/19 Time: 3:45 Location: [Redacted]

Persons in attendance: Jack Thomson Antigonish NS
Eric Porter [Redacted]

Address: [Redacted] Full time Resident: ☒
Antigonish NS Seasonal Resident: ☐
[Redacted]

Project Outline reviewed:

Questions: Nil

Concerns: Nil

Response:

Date of response:

Residents own words: I like to see a working landscape
As a business owner/operator, I encourage
any positive business development in the
area, and this proposal meets all the
criteria I look for. I am in full
support of this project and the economic
spin off it will create.

Jack Thomson

Representatives of the three levels of government we met with were also very interested in the economic opportunity associated with our proposed farm. Just as the Ivany Report indicates our rural community needs more employment opportunities particularly for young people to work and stay in the community instead of leaving by necessity to find employment elsewhere.

An example of this support is the meeting response form completed by Donnie MacDonald, the County Councillor for the district including Harbour Centre it is as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: June 13/19 Time: 1700 Location: Antigonish

Persons in attendance: Dennie Mac Donald

Address: [REDACTED]

Full time Resident:

Seasonal Resident:

Project Outline reviewed:

Questions:

1.5 hour discussion

Concerns:

Response:

Date of response:

Residents own words: Support the Project - economic Value to Community

Dennie Mac Donald

We met with the Antigonish Chamber of Commerce Board of Directors on Nov. 28 to brief them on our farm plan and equipment innovations. The group was very interested and supportive. Two responses from this group are as follows;

In Person Meeting record regarding AQ#1426

Date of meeting: November 28 Time: 7:30pm Location: Chamber - Beers Market Main Street

Persons in attendance: Chamber Board of Directors

BEANS LAZZARI

Address: [REDACTED]

Antigonish, NS

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions: [REDACTED]

Concerns: [REDACTED]

Response:

Date of response: [REDACTED]

Residents own words:

"I find that Mr. Lazzari has completed research and is addressing the environmental concerns raised. The project is innovative and is easily adopted for a new business in our community. One that is sustainable and able to create economic growth in a rural area."

Beers Lazzari

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>

Message Details:

Name: Peter Cameron

Email: [REDACTED] kelticford.com

Subject: Thank you

Message: Ernie, Thanks for the presentation at the chamber, very enlightening for sure. It looks very for promising, not just for your project but the industry as a whole. I am a resident of South Side Harbour, my children are the 6th generation of Camerons in our house, so I do have a vested interest our beautiful harbour. Some of my questions are as follows; What caused the decline in oysters from 100 to 10 million? Is it just water circulation that keeps the long tanks from freezing? Plus a personal item, I keep my boat at the Beaton wharf in the summer

time, you probably seen it going by it has that oversize bimini blue top. It has a tunnel drive (penn Yan) so it only requires 14" of water. I usually go north of Gooseberry Island direct to the harbours mouth during high tide. Will this access be cut off, or can I skirt the shoreline and still go out the harbours mouth? Thanks again, I wish you great success with this revolutionary project. Peter Cameron



Ernie Porter <ernieporter77@gmail.com>

Tue, Dec 10, 2019, 5:13 PM

to Peter

Hi Peter;

Thank you for attending our Chamber of Commerce presentation. I hope it wasn't too difficult to follow...it is hard to condense the whole story into just 30 minutes so when rushing through it I fear people might miss some of the facts. However, it seemed to me your group was very interested in what we propose to do.

Regarding your questions, I have the following answers:

1) The decline in native oyster population is not confined to just Antigonish Harbour, it has occurred worldwide. Studies indicate in general harvest of wild oysters is at 10% of past levels. This is largely due to two factors - over harvest and declining stocks due to human impact on oyster habitat. Water pollution, boat traffic, dredging, siltation due to clearcutting and irresponsible farming practices along with many other impacts from human activity are mainly the cause in general. There is also a natural fluctuation in population due to diseases that come and go.

In Antigonish Harbour the decline in oyster population, to my knowledge, has not been studied. However, there have been suggestions made that pre-settlement populations were vastly greater than current levels and one could easily connect the decline to what has changed around the harbour in the past 200 years. More people, farming, clearcutting, increased siltation, increased pollution, and so on. Kerry Prosper spoke about this at the Public panel Discussion regarding our application this summer at StFX.

There is a looming issue that may further impact native oyster populations which is ocean acidification. This is connected to climate change and is likely to affect all shellfish in the coming decades. There may be workable solutions to this challenge on a farm scale but not likely on a broader scale.

2) I'm not sure what you are referring to as "long tanks". If you mean our BOBR growth units, there are protected from freezing by sinking in October/November then refloating in April/May. If you are referring to

the upweller tanks in the land-based nursery, they too are seasonal and only operational from May to October otherwise they are empty.

3) I am familiar with your boat and have in the past chatted with you at the Beaton wharf. The proposed Gooseberry Island site does not go that close to shore. You will be able to go by the site either along Dunn's Beach or along Gooseberry Island. I would be glad to review this issue with you in detail if you like. Please just give me a call and we can arrange a time to meet.

I dropped by the Casket office to collect the meeting response forms but didn't see one from you. It would be appreciated if you could take time to fill it out and either give it to Inez or email it to me. As I mentioned, this form provides valuable feedback from which we can better understand the issues, concerns and questions important to area residents. Thanks.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

With regard to the contribution of the proposed operation to community and Provincial economic development we predict the production of 2-3 million high quality oysters per year after year three of operation. At wholesale prices this amounts to farm gate revenue of \$1-1.5million. However, we plan to collaborate with a marketing partner, Afishionato to access new markets in large centres outside the province and if successful our unit price will increase significantly resulting in a corresponding increase in revenue. This could be in the range of \$1.5-2.25 million.

While not directly related to this application, the sales of our oyster aquaculture equipment (BOBR and Oyster-Matic) will further add to economic activity flowing from the farm. Our farm will serve as both a development and a demonstration site for our innovative oyster farming system (first mechanized approach) and sales of this equipment may be significantly greater than the direct output of the farm.

C) Fishery activities in the public waters surrounding the proposed aquaculture operation;

To our knowledge, the only active commercial fishery within Antigonish Harbour involves the harvest of naturally occurring oysters by four licenced commercial harvesters each with a licenced helper plus one oyster lease approved for bottom collection. These harvesters are Stephen MacIntosh, Jamie Davison, Kenny Fraser and Michael MacIntosh all from Pictou County. Throughout this past summer we met with each harvester to dispel their concern regarding the scoping area, review our proposed farm plan, and learn what areas they use for harvest. We visited the three sites with Kenny Fraser and separately with Mike MacIntosh to examine boundaries and existing oyster beds.

Then, we met as a group in New Glasgow to come to an agreement regarding how the farm boundaries could be positioned to avoid their traditional harvest areas. This agreement is as follows;

Current Lease Application By Town Point Consulting for Antigonish Harbour WITH Commercial Oyster Harvesters.

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 7/19 Time: 1:00-2:00 Location: New Glasgow

Persons in attendance: KEN FRASER JAMIE DAVISON
MIKE MACINTOSH STEPHEN MACINTOSH

Address: _____ Full time Resident: EDWIN FRASER
 Seasonal Resident: TOWN POINT

Project Outline reviewed: Yes

Questions: _____

Concerns: WHEREAS THROUGH DIRECT CONSULTATION WITH ALL 4 HARVESTERS TPC HAS AGREED TO STAY OFF SHORE MINIMUM 50' AND AVOID ALL AREAS IDENTIFIED AS POST HARVEST AREAS.

Response: GENERALLY ANY AREA OF GROWER LOW TIDE DEPTH OF 3' WILL BE ACCEPTABLE.

Date of response: _____

Residents own words:

Stephen MacIntosh Aug 7/19
Jamie Davison Aug 7/19
Kenny Fraser
Michael MacIntosh Aug 7/19

The single existing oyster lease in Antigonish Harbour is owned by Sam McKinley. I spoke with Sam on September 11, 2019 to ask if he has any concerns regarding our application. He stated he is in full support of our application and plans to attend our public meeting later in the month. Sam provided a letter in support of our applications, as follows;

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re; Aquaculture Lease Application AQ#1424

Dear Mr. Porter;

Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley



For decades, Archie MacKenzie fished commercially within Antigonish Harbour for silver sides (lobster bait) and other species. He supports our proposed farm as indicated in the following response form;

In Person Meeting record regarding AQ#1424

Date of meeting: May 30 2019 Time: 6:30 Location: [REDACTED]

Persons in attendance:

Archie MacKenzie
Gavin PorterProject Outline Provided and reviewed: Yes

Questions:

No

Concerns:

No - Absolutely No Concerns, Really
Glad To See This Goin' Ahead

Response:

Date of response: May 30 2019

to whom it may concern. I am in favor of this oyster fishery, as it will clean up Ant. harbour waters, it will not impede any boat traffic, and will create jobs in this area. I am a commercial fisherman + hold licences in Ant harbour. I have been fishing commercially for over 50 years, and I hold an oyster licence + this system will create an opportunity to use this licence and sell product to this Enterprise

A.G. MacKenzie

There are several commercial lobster fishers operating out of Antigonish Harbour. They are members of the Beaton family and the Brophy family. All reside on the south east side of the harbour and keep their boats on that side of the harbour. Of course, their fishing grounds are outside of the harbour in St. Georges Bay, but they transit to and from their fishing grounds past the proposed Gooseberry Island grow site. While we made numerous attempts to meet with the fishers, they were reluctant. One, Darrell Beaton told me by phone that he did not have any concerns with our plans provided the farm did not impede his normal travel route and it doesn't. Another, Billy Brophy, attended the StFX Public Panel Discussion and preceding poster board display of our plans and is well informed as to our farm plan. Afterward I spoke to him by phone to ask for a meeting, he was reluctant to meet but expressed no concerns.

We wrote to each of these fishers to ask for feedback and provide the current version of our farm plan, copy below. No response has been received.

Town Point Consulting Inc.

September 22, 2019

Billy Brophy

Southside Harbour, NS

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

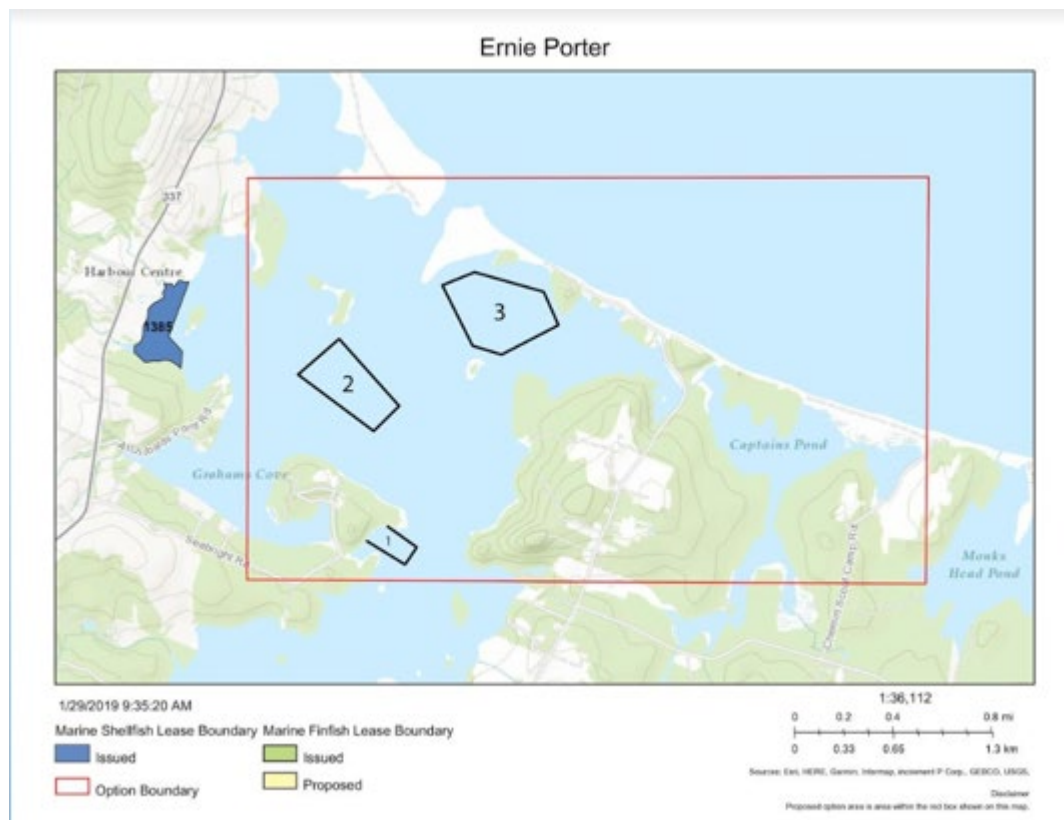
Best regards,
Town Point Consulting Inc.



Ernie Porter, P.Eng.
President

Town Point Consulting Inc.

370 Seabright Road
Harbour Centre, NS
B2G 2L2
Tel: (902) 471-3696



By our many years of observation we know recreational fishers are active in the channel, except for one person who recently has begun fishing in areas we hope to lease. Prior to our application he too fished only in the channel. Our activities will not impede these recreational fishers. We have spoken with several such fishers and all have either declined to mention any concern or concurred that their fishing activities will not be impacted. A few examples of this feedback are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: June 14/2019 Time: 10: AM Location: ANTIGONISH

Persons in attendance:

Address:

[REDACTED]

Full time Resident:

Joe Boudreau

Seasonal Resident:

Antigonish Harbour
NS [REDACTED]

Project Outline reviewed: yes.

Questions: NO

Concerns: NO

Response:

Date of response:

Residents own words:

I have no problem in ~~oyster~~ oysters
in Town point. I been in the fishing
business since 1969. I boat in Antigonish all
my life and think oyster would be good for
the area.
Joe Boudreau

In Person Meeting record regarding AQ#1424

Met on the water at
Channel inside HarboursDate of meeting: July 14/19 Time: 5:14 Location: Lower Seaboard RiverPersons in attendance: 1

Address:

Full time Resident: Y/N

Seasonal Resident:

Project Outline reviewed:

Questions: None at this timeConcerns: None at this time

Response:

Date of response:

Residents own words:

no questions at this time
Recreational fisherman.Herb Bonvis

AVID Recreational Facility - on Tide
HARBOR TRUST TRIPS IN SUMMER.

In Person Meeting record regarding AQR1424

Date of meeting: OCT 27/19 Time: 12AM Location: Home

Persons in attendance:
JASON STEWART

Address: [REDACTED] Time Resident: yes

LANARK, NS Seasonal Resident:

Project Outline reviewed: yes

Questions: ASKED MANY.

Concerns: cleared concerns

Response: HAVE HAD A FEW POSITIVE CHATS

Date of response: OCT 28/19

Residents own words:

STILL LEARNING AND LOOKS
EXCITING! WOULD VERY MUCH
LIKE \$ HOPE FOR EMPLOYMENT
IN THE COMPANY!

[Signature]

D) the oceanographic and biophysical characteristics of the public waters surrounding the proposed aquaculture operation;

Feedback from public engagement meetings, the two public meetings we participated in and from our website that is relevant to this factor has mainly focused on possible effects on eelgrass. The first mention of this concern was by Susan Vincent who on April 21, 2019 shared the following papers with us.

From: Susan Vincent <svincent@stfx.ca>

Date: April 21, 2019 at 1:14:27 PM ADT

To: 'Ernie Porter' <ernieporter77@gmail.com>

Subject: oysters

Hi Ernie;

Here are links to the articles I glanced at: <https://blogs.umass.edu/natsci397a-eross/7135-2/>
<https://www.omicsonline.org/open-access/ecological-consequences-of-oysters-culture-2332-2608-1000198.php?aid=83576>

Both outline dangers and suggest mitigating practices.

sv

Susan Vincent, PhD
 Professor, Department of Anthropology
 St. Francis Xavier University
 PO Box 5000
 Antigonish, NS B2G 2W5
 CANADA

Hi Ernie,

Thanks for your detailed and attentive response to the concerns raised in the articles. You have clearly investigated the different methods of oyster-growing and their implications. The approach you are suggesting sounds reasonable. I am glad you will check into the eel grass situation in the different areas, as my memory of what is where is fallible, and there are also annual changes in growth. We are very pleased that you are taking the environmental health of the area as a high priority and developing new technology that will further the environmental sustainability of the industry.

You have outlined a project that would not be noisy and would be visually low-impact. We hope that the development might prompt the province to revive the improvements to the road that were curtailed some years ago.

Thanks,

Susan and Marc

From: Ernie Porter <Ernie.Porter@lindsayconstruction.ca>

Sent: Sunday, April 28, 2019 7:25 PM

To: Susan Vincent <svincent@stfx.ca>

Subject: Oyster Aquaculture

Hi Susan and Mark;

Thanks again for sending me the two articles on environmental effects of oyster aquaculture. I've read both articles and found them to be very informative. While some of the possible effects apply to bottom culture and inter-tidal techniques which are not planned in our situation other concerns are indicated when surface culture is employed. The articles pointed out that the severity of possible adverse environmental effects are much lower with surface culture than bottom culture but are still worthy of consideration when siting any farm.

With inter-tidal techniques such as rack and bag farming, the articles point out there is usually vehicle and foot traffic which directly impacts the naturally occurring fauna particularly seaweed and eel grass growing in the area. A significant reduction in this fauna often results in these circumstances. A bottom culture approach that employs mechanical harvesting is also noted as being particularly disruptive to the native fauna due to its disturbance of the sediments in which the plants grow. We will not be using either of these farming techniques.

The articles indicate there may also be a reduction in eel grass coverage on surface culture farms in situations where wire cages are used and a lower incidence when longline techniques are employed. In these cases the articles point out the negative implications are a result of shading and prop wash rather than direct contact. Our plans are to use neither of the surface culture techniques addressed in the articles but instead a cylindrical cage that will have a cross section area much small than that of the referenced wire cages but larger than that of the longline approach. We expect, therefore, that the resulting shading effect of our approach will be less than that of the wire cage but more than the longlines.

The articles indicate longlines are the least disruptive technique followed by other surface culture approaches. Our farm will fall in the category of second least disruptive and will be less problematic than the farms using wire cages common in Atlantic Canada. Our growth unit called BOBR will cast a shadow of 4 square feet per unit as compared to 14 sf/unit for wire cages common to the region. Of course in both cases there are multiple cages but with BOBR the shadow cast is small enough that as the sun moves across the sky through each day the bottom below will receive direct sunlight part of the day. With the much larger shadow cast by the wire cages the portion of the day with direct sunlight will be correspondingly shorter. Therefore, the negative effect of shading resulting from our BOBR units will be significantly less than that of the common wire cages.

In our recent discussion of our oyster aquaculture initiative you pointed out that, based on your observations while kayaking the two grow-out areas we are considering, the area east of the harbour entrance has far less eel grass than the site west of the channel so possible negative effect of shading should be less on this site. While we have not yet conducted detailed scoping of either area, based on my own casual observations over the past decade I agree. In any case, we will take the density of present eel grass and the possible effect of shading into consideration during our scoping and farm design processes.

Thank you for your keen interest in both our plans and harbour health in general.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

We responded to this concern relating to eelgrass by raising the issue with NSDFA representatives who visited our site then arranged for a Federal scientist to come do an assessment. Dr. Jeffery Barrell viewed the three sites over the course of two hours and provided a reasonable response to Susan's concern. We passed this information on to Susan via the following emails;



Ernie Porter <ernieporter77@gmail.com>

Thu, May 16, 6:49
AM

to Susan, Gregor

Hi Gregor;

Thank you for the update. I look forward to whatever feedback you can provide.

The weather has not been cooperating and I've been busy putting our Bedford home on the market so I do not yet have my dock deployed or boat launched so visiting the areas in question, as we discussed, to date would have been difficult. I hope to get my boat in the water soon. When I can get to the sites and have a closer look I'll have a better understanding of water depth, eelgrass density and other factors. If after visiting the site in question it still seems viable I will get in touch to see if we can arrange a time to visit it together.

I hope you don't mind that I am sharing this response with one of my neighbours who, as I mentioned during your visit, shared with me two studies related to possible aquaculture impacts on eelgrass. This is the reason I raised to issue at our pre-application meeting two weeks ago.

Best regards,

Ernie

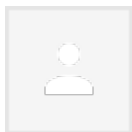
Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com



Reid, Gregor Kyle <Gregor.Reid@novascotia.ca>

Jul 3, 2019, 7:45
AM

to Lewis, me, Susan

Hello Ernie,

Sorry about the long delay between emails. With respect to the DFO position on eel grass and aquaculture, there appears to be some uncertainty at present, given recent changes to the Fisheries Act and the Canadian Environment Assessment Act. However, I believe I have finally tracked down the correct individuals in the Fisheries Protection Program (within DFO) that would assess this aspect and am a waiting for some further details from them. In the mean time, I have also been in touch with DFO Science (a separate entity), specifically Drs. Marc Ouellette and Jeffery Barrell, who have done a great deal of eel grass mapping and research over the last 10 years. While they will not be the DFO decision makers with respect to aquaculture, they are likely to provide advice. So, I think having them involved is a good thing as they are quite pragmatic and familiar with the dynamic nature of eel grass. I think it might be of value if they came up to your bay during peak eel grass season (late August?) and had a look, if they are available. Marc is also very familiar with shellfish culture and if there is extensive patchiness, I expect he would be able to recommend locations within your option area that would not impact eel grass.

Sincerely,

Gregor Reid, PhD

Acting Manager of Aquaculture Operations

Nova Scotia Department of Fisheries and Aquaculture

1575 Lake Road

Shelburne, NS

B0T 1W0

P: (902) 875-7434

F: (902) 875-7429

E: Gregor.Reid@novascotia.ca

This same concern was raised by the “Friends of Antigonish Harbour” during the StFX Public Panel Discussion. Their portrayal of the issue was very unscientific and so biased that some scientists in the room took exception to their approach and spoke out to correct for the public, misinformation contained in the “Friends” presentation. Dr. Garbary refuted the “Friends” claims of negative impact by stating that a farm such as the one proposed if properly managed and occupying less than 10% of the harbour would be at worst benign. Dr. Wyeth took exception to the sources of the “Friends” information saying that it was inconsistent with the preponderance of scientific opinion and asked for a list of their sources. None was provided.

Numerous responses during public engagement referenced general environmental concerns. Seventeen of these, pointed out positive environmental impacts of oyster farming one referenced general concern for unspecified negative impacts, one referenced specific concern related to eelgrass and fish, one stated a concern related to the disposal of heated seawater and one mentioned concern over a fear of shell debris accumulating on neighbouring beaches as occurs at certain sites in France.

We agree with those who mentioned positive environmental impacts of oyster aquaculture. We cannot respond to unspecified general concerns other than to say this was mentioned by a founding member of the “Friends” and she has been very negative all along so likely there is little we can do to assuage her concerns.

The specific concern related to eelgrass and fish was provided by Peter and Colleen Bowler in the email below. Our response follows.

Apologies Ernie and Jane, I attached a prior version of the file which was not complete. This one corrects a few typos and completes the final paragraph. I've copied it into this email and attached a Word version.

Peter

5/15/2019

Dear Ernie and Jane,

First, thanks for briefing us on your plans for potentially starting an oyster growing venture in Antigonish Harbour last fall, again this Friday evening over dinner and during Peter's walk with Ernie on 5/14.

Next, we are both impressed by the work you've put into this plan and especially by the new technology and techniques you've developed to improve efficiency and reduce the visual profile and environmental impact of oyster growing. The combination of Ernie's engineering and problem-solving skills and Philip's experience and practical insights and the Merigomish operation seem like a great combination. We are excited for you and hope that this aspect, in particular, of your venture (i.e., designing, selling/licensing, your technology and techniques) is a great success.

We do have concerns about the plan for oyster growing operations in Antigonish Harbour and in a structure on your property adjacent to our own properties. Our concerns can be grouped into a few categories: Environmental, Scale, Proximity, Risk of New Technology, Visual Impact/Aesthetics and Commercialization of Town Point.

We cover these concerns in more detail below but the short story is that our most preferred to least preferred scenarios are as follows

- 1) you concentrate on refining and selling the technology and techniques, leaving Antigonish Harbor unimpacted.
- 2) you limit your venture to the oyster seed growing operation you envisioned last fall.
- 3) you select one lease area on the east side of the cut and one winter storage only area in Graham's Cove and attempt to base your land based operation either near the wharf and buildings used by the lobster fisherman at Brophy's Point on the northeast shore of the harbor or in a new structure located in the forested area on the south shore of Graham's Cove.

Expanding beyond these activities, we believe will adversely effect the beauty and the value of our properties and our ability to enjoy them.

Environmental Impact

We are interested to hear your description of the oyster grow operation as improving the quality and clarity of harbour water. However, we're concerned about the potential impact on the eel grass and all the related migratory fin fish, bird life and other crustaceans in the harbor. Based on our experience, paddling and fishing in the areas you've designated, during low tide, portions of these areas are only a foot or two deep. I am concerned that the BOBBERS / oyster containers would be sitting on the floor of the harbour at these times, damaging vegetation and impeding movement of minnows and larger fish (salmon, sea trout, striped bass, mackerel, etc.) whose movements are not limited exclusively to the main channels. Placement of the lines of BOBBERS / oyster containers would also impede fishing, kayaking and other pleasure craft from operating in these areas.

We hope that a thorough environmental impact by a qualified and impartial expert would be completed.

Scale

The scale of the planned venture has grown substantially from the thoughts you discussed with us last fall, which entailed a small land based operation which you both would run out of a modest structure on your property and some land based holding pools.

The venture you describe in the AQ#1424 public engagement document and accompanying map, and which you discussed on Friday evening, entails prime and centrally located areas of the harbour covering surface areas multiple times the entire size of the Seabright Peninsula.

We know you indicated that the Dept of Fisheries officials encouraged you to apply for all the areas you might consider rather than just those you're certain you want to execute and that based on Ernie's comments to Peter on 5/14, you plan on using either the lease in front of your old cottage or the lease in Graham's Cove exclusively to contain fully submerged storage during the winter months. However, paragraph 4 of the document you gave us on Friday evening (AQ#1424 Public Engagement Document) says that you have an option to lease all of the four areas and that you are planning to use these specific locations ... and further that "the size, location and shape of these areas may change".

Further the land based operation has grown from a small structure to a building "roughly twice the size of your current barn" in addition to some number of silos/external upwelling tanks originally planned for growing the oyster seeds.

Proximity

The portions of the harbor which you've outlined literally surround our property

- to the north the two large leases (between our land and the central area of the harbor),

- to the east (between your point and the 10 acres we bought last year situated between your land and the cemetery—land purchased explicitly to prevent other commercial development potential)
- to the west (in Graham's Cove)

To the south, if the building referenced in your document (and which you described in our meeting as being roughly twice the size of your barn) is located where Ernie described on his walk with Peter (approx. 20 meters inland from the cove and roughly in line with the lighthouse). Aside from the aesthetics of having a large commercial structure on your property, the fact that the majority of your drive is close to or on our southern/southeastern property line, we hear every vehicle traversing your drive and the voices of people walking or working on this portion of your property. Additional traffic from employees, vendors, delivery or pick-up vehicles traveling on this road would increase frequency and possibly volume of noise from these operations.

A new or expanded dock (either in Graham's Cove or near your current dock) with 5 day a week boat and vehicle activity, would make our end of Town Point much more noisy than it is today

Risk of Unproven Technology

We are very impressed with the thoughtfulness of the new oyster growing technology/techniques you and Philip have developed. We hope they are successful and that you are able to build a growing and profitable business designing, licensing, selling etc., your new approach.

In the event that your new technology does not work as planned (e.g., the BOBBERS sit higher in the water than your plan calls for, the rafts require more secure footings/cables, the de-fouling operation does not work as planned, oysters don't grow well in the BOBBER, etc.) or takes longer to develop than planned, you will have secured a license to operate an oyster grow operation in this highly sensitive environment and one which as described above, surrounds our property and will dominate the harbour. Although not your current intention, you and/or your partner may be tempted to use traditional equipment and techniques which would exacerbate our concerns.

Visibility and Aesthetics

The two largest lease areas you've proposed will be highly visible to everyone using the harbour, living near the northern portion of the harbor or driving the #337. Even if the profiles of the BOBBERS are as modest as your plan calls for, they will present a man-made / grid shaped design on one of Northeast Nova Scotia's most beautiful natural harbors and estuary areas.

Commercialization of Town Point

At various points over the past 10 years, various people have attempted to create commercial ventures on Seabright Road which would have compromised the value of our properties and the objectives we both held when we selected our properties. Chris Galea bought land on Graham's Cove with the intention of building apartments. Manfred Goring built an illegal structure apparently with the intent of operating a commercial workshop. A St. F.X. professor wanted to buy the land between your property and the Town Point Cemetery with a vision of building many rental cottages claiming that he had connections which would enable him to skirt restrictions on building on environmentally sensitive portions of the property. In all of these cases we were aligned in preserving the non-commercial, natural setting of the Town Point area. We purchased the land between the cemetery and your property with the explicit intention of safe guarding your view and our view looking south/south east from our properties. The full implementation of

the plans outlined in the AQ#1424 document seems inconsistent with our shared objective of keeping Town Point as natural and special as possible.

Thanks again for seeking our input.

Peter and Colleen Bowler



Ernie Porter <ernieporter77@gmail.com>

Thu, May 16, 11:07
AM

to Peter, Jane

Dear Peter and Colleen;

Attached, please find our response to your letter. Thanks again for your time and consideration.

Best regards

Ernie and Jane

May 16, 2019

Dear Peter and Colleen;

Thank you for your thoughtful response to our discussions over the past couple of days and for a lovely dinner Friday evening. I am sure during your short visit you had plans to do things other than spending time on oyster aquaculture issues so sorry for the inconvenience and thank you for taking time both with me and following to articulate your concerns.

I appreciate your positive comments regarding our technology developments, it is a very exciting venture that has made great progress in a short time. As I mentioned, if for some reason the aquaculture venture does not work out at least DockPort Ltd will have made all the effort worthwhile. In this event, we would arrive at your most preferred scenario 1) but as I tried to explain, this outcome does not fulfill the broader objective of providing a business that would sustain our boys and keep them nearby.

With your scenario 2) I pointed out that the market for a seed only venture is too dependant on the variations in annual natural spat fall. Some years farmers may be self-sufficient in seed so no market for us, other years may be OK but as you more than most can appreciate this is not a great basis on which to establish a business.

Regarding your scenario 3), as I mentioned, I am willing to consider adjustments to the arrangement of our farm in part to accommodate some of the concerns raised through discussions with nearby residents. The proposal put forward is only a starting point meant to provide a reasonable basis for meaningful discussion. I felt it would be more productive and responsible to have something on paper than to only talk in generalities. This way, I hope there is greater understanding and more clarity on both sides of the conversation. After I have managed to meet with each of our immediate neighbours and have comments back I will carefully consider the feedback and likely revise the farm arrangement to best mitigate concerns.

The other major factor that will influence basic farm arrangement is information collected from scoping the desired sites. This process has not yet started but I hope to begin next week. You mention water depth as a concern and you are correct. This is one of the parameters examined during scoping. Areas that are too shallow are not suitable and would not be selected as grow sites.

Your concern regarding eelgrass is valid and is being considered. I invited DFA officials to my property to walk the shoreline and view the proposed lease areas for the particular reason of getting some feedback and guidance relating to eelgrass. We have been in contact since his visit and he has plans to meet with colleagues to discuss the matter. We plan to visit the proposed lease areas by boat together soon for a closer look. As I mentioned, I read two studies on the issue of eelgrass but they are inconclusive. I look forward to more decisive conclusions and direction from DFA.

Regarding your water depth concern, we will not select areas that have a low tide depth of less than 2.5 feet for grow sites. So, the BOBR growth units will not be sitting on the bottom at low tide during the growing season. They will not impede the movement of fish, but they may provide valuable protection from predation for smaller fish. Kayaks, canoes and the like will easily pass through the leased area, however power boats and sailboats would be impeded. The areas selected are not commonly used by power boats or sailboats.

Regarding scale, the Option to Lease we have been granted permits only scoping not aquaculture. This Option to Lease applies to the entire area enclosed by the red line on the GIS map I gave you. That just means no other firm may apply for a lease in that designated area during the term of the option. During the scoping and public engagement facets of the process, information will likely arise that influences the farm layout one way or another. Under the Option to Lease we may select any area within the red boundary to study and consider as part of our final application. I expect there to be numerous changes to the layout as more information is collected.

One factor influencing layout that I mentioned to you is scale, particularly as it relates to future productivity. We must consider how to right size the farm. On one hand there are economic pressures suggesting more is better, on the other hand there is a use it or lose it condition on these leases. Also, factoring in is the dilemma of do you choose a size that seems large enough now plus some accommodation for growth to avoid having to revisit the application process in the future or ignore that pain and apply for a smaller area then come back to the well down the road. Not an easy decision. Scale is also important to others who may feel impacted by the development, we need to also consider their (your) concerns.

Regarding proximity, yes with the initial "proposed" layout you are surrounded, and I think I understand how you feel about that. Please give me time to get further with the public engagement task and get some of the scoping done then I will be in a better position to consider alternate layouts. Your desire to limit traffic on our driveway is heard and understood. As we

discussed, I will attempt to explore the option of locating the building component near the existing commercial fishing operations in Southside Harbour directly across from Town Point. While this outcome presents some logistical challenges, it does make good sense from the perspective of concentrating these more commercial activities in one area. Perhaps, through your network of friends you could plant some well-placed seeds that might make my introduction of the notion more likely to fall on receptive minds? I am not expecting a warm reception, but I will give it an honest effort.

The fallback scenario of placing the building off Town Point but adjacent to Seabright Road is my preferred solution and I appreciate you being willing to live with that outcome...I think I'm interpreting your comment in scenario 3) correctly.

I understand your concern about our new BOBR growth units being "unproven". Please be assured they will be thoroughly tested prior to deployment on our farm. As I explained, they will be in use this summer, fall, winter and next spring prior to coming to our farm. You are welcome to come see them in action later this summer which will enable you to better understand how they work. I would be very pleased to take you to Philip's farm for a tour. Furthermore, I am not interested in using the competing gear on our farm for both aesthetic and economic reasons so please don't be concerned about us switching to "traditional gear" we are not going to do that.

Regarding visibility, in very calm conditions even though BOBR floats with only about 2" above water they will be visible from nearby, but normally they will lie within the wave pattern and will therefore be far less noticeable than existing gear common to this region. However, please consider for a moment that some other proponent chose this area before us or after us if we decline to proceed. That applicant would lack our commitment to better gear would not likely have equal vested interest in Town Point and may approach the process in a less congenial manner. Then we would be facing the same process but with a significantly worse outcome. So, I suggest, for many reasons it's better that we are the proponent than if any other party had come forward first.

Your comments regarding commercialization of Town Point are true and accurate and I don't disagree. I will continue to explore options for the building and dock components that could see those portions located elsewhere and if you have further suggestions for other locations please share them with me. I am in contact with two property owners that may provide some relief on this issue but its very early in the process and I cannot yet judge either the suitability of the sites or likelihood of success.

I trust we can move along through this process with open dialogue and shared interest in the most positive outcome.

Sincerely,
Ernie and Jane

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

The concern related to the disposal of heated seawater was raised by Manfred Goring also a resident of Town Point. We had met for a couple of hours to discuss our plans in detail Manfred then wanted some time to reflect of the matter before responding. We found his response particularly thoughtful and thanked him for taking the time to consider many implications. His concern about heated seawater came from our description of how our defouling process would function. It employs a common technique of defouling by immersing the growth units in a small tank of heated seawater for 12-15 seconds. The technique usually employed with Oyster Gro and similar units relies on desiccation by air drying for two days. Since this is a task performed every two weeks and oysters cannot feed or grow when out of water then our approach gains 15-20% productivity over the competing system and involves much less effort. This is an important aspect of our farm plan.

This dunk tank technology is readily available through Formutech using a product manufactured by Mulot. Their units are intended for use at the dock. Our innovation is to make this technology mobile so the task may be performed on the grow site thereby eliminating the labour cost and carbon inputs related to the many shore trips required by the Mulot system. Since ours will be used on the water and the tank water will require periodic replacement due to accumulation of debris from the cages then dumping of the heated water into the harbour will be necessary. This is the issue at the root of Mr. Goring's concern.

We explained to him that the volume of water is very small in comparison to the harbour, about 70 gallons and the frequency is about twice daily for a task that is done every two weeks. We mentioned the ability to temper the water prior to dumping by adding unheated seawater. We further committed to asking DFA if this would be a concern and if so, is there a related protocol. On September 12 I spoke with Lewis Clancey of NSDFA to ask if they have a concern or a protocol related to this task. His initial response was to say he felt it wouldn't be an issue but committed to seeking input from "Environment".

Heated seawater discharge.
Clancey, Lewis

10:29 AM (5
hours ago)

to me

Hi Ernie,

The Dept. of Env's response is below. It looks like it is outside of their realm but they advise that you contact DFO to be sure you aren't neglecting any of their regs. This is common practice in PEI though so may just be a simple permit to complete, if at all.

Lew

From: Sinclair, Andrew <Andrew.Sinclair@novascotia.ca>
Sent: September 13, 2019 9:12 AM
To: Kennedy, Elizabeth C <Elizabeth.Kennedy@novascotia.ca>; Lam, John C. <John.Lam@novascotia.ca>
Subject: RE: Heated sea water disposal.

Hello Elizabeth,

In the case of a marine discharge, if it was discharging into a watercourse that then discharged into a marine environment (no matter how small the watercourse), this would be considered a discharge into a freshwater environment. Details on this waste stream should be submitted to the Nova Scotia Department of Environment District Office for review to determine if an approval is required as per Section 7.2.a of the [Activities Designation Regulations](#). If the pipe is planned to directly discharge to a marine environment (and not first into a collection system or watercourse), NSE's wastewater discharge regulations would not apply, but we would suggest that Fisheries and Oceans Canada be contacted, as they may have an interest and requirements for direct discharges to a marine environment.

Cheers,

Andrew

The further concern related to oyster shells on beaches was explained during the engagement meeting where I explained how much more energetic the environment is for English Channel sites as compared to Antigonish Harbour. On one hand in France there are 5 meter tides and minimum 32 km fetch for wave propagation as compared to 1 meter tide and 2 km fetch on our proposed sites. Also explained the difference between intertidal sites as is common in France and our site which would utilize off bottom floating culture.

The oceanographic characteristic of the three proposed sites are as follows:

Site #1

• Annual maximum wind speed (km/hr)	96	Environment Canada
• Maximum wave height (m)	.7	Planetcalc online calculator, & observation
• Direction of maximum wave	from the south	
• Annual minimum tide (m)	0.37m	Tide Forecast.com
• Annual maximum tide (m)	1.37m	Tide Forecast.com
• Current speed range	0-25cm/s	measured on site
• Current speed average	12.5 cm/s	measured on site
• Annual minimum salinity (ppt)	3.9	Dr. Aaron Spares 12.5 measured on site
• Annual maximum salinity (ppt)	32.8	Dr. Aaron Spares 26.4 measured on site
• Annual minimum temperature (C)	-0.8	Dr. Aaron Spares
• Annual maximum temperature (C)	26.4	measured on site
• Depth of water each corner of site (m)	Point	Depth at low tide (m)
	0	0 (on shore at OHW)
	1	1.6
	2	1.5

3

0 (on shore at OHW)

- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification

Closed, Restricted

Site #2

- Annual maximum wind speed (km/hr) 96 Environment Canada
- Maximum wave height (m) .7 Planetcalc online calculator & observation
- Direction of maximum wave from the south
- Annual minimum tide (m) 0.37m Tide Forecast.com
- Annual maximum tide (m) 1.37m Tide Forecast.com
- Current speed range 0-22.2cm/s measured on site
- Current speed average 11.1 cm/s measured on site
- Annual minimum salinity (ppt) 4.0 Dr. Aaron Spares, 7.08 measured on site
- Annual maximum salinity (ppt) 32.8 Dr. Aaron Spares 26.8 measured on site
- Annual minimum temperature (C) -0.8 Dr. Aaron Spares
- Annual maximum temperature (C) 25.7 measured on site
- Depth of water each corner of site (m)

Point	Depth at low tide (m)
4	1.1
5	2.1
6	2.0
7	1.8
8	1.2

- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification Closed, Restricted

Site #3

- Annual maximum wind speed (km/hr) 96 Environment Canada
- Maximum wave height (m) .7 Planetcalc online calculator & observation
- Direction of maximum wave from the south
- Annual minimum tide (m) 0.37m Tide Forecast.com
- Annual maximum tide (m) 1.37m Tide Forecast.com
- Current speed range 0-20.6cm/s measured on site
- Current speed average 10.3 cm/s measured on site
- Annual minimum salinity (ppt) 4.0 Dr. Aaron Spares, 7.08 measured on site
- Annual maximum salinity (ppt) 32.8 Dr. Aaron Spares 26.8 measured on site
- Annual minimum temperature (C) -0.8 Dr. Aaron Spares
- Annual maximum temperature (C) 25.7 measured on site
- Depth of water each corner of site (m)

Point	Depth at low tide (m)
9	2.4
10	2.1
11	1.0
12	2.0

- Primary production info (if available) N/A
- Biotoxin information (if available) N/A
- Current location classification Closed, Restricted

E) the other users of the public waters surrounding the proposed aquaculture operation;

To our knowledge the other users include the following stakeholders; 1) commercial oyster harvesters, 2) commercial lobster fishers, 3) recreational fishers, 4) recreational power boaters, 5) recreational sail boaters, 6) kayakers, canoers, and paddle boarders, 7) one existing oyster leaseholder 8) float plane operator

- 1) We have engaged successfully with the commercial oyster harvesters to understand in detail the areas they use and provided them with full description of our farm plan including size, location, species, growth method, gear type and scale of the operation. We have reached a reasonable agreement that ensures we do not encroach on areas the harvesters use and they are satisfied with this agreement. There are possible synergies that could come into play that may be of mutual benefit. One obvious synergy is the potential of more wild oysters as a direct result of the reproduction of oysters on our farm. Another possible mutual benefit is direct sale of the harvester's product to our farm which would avoid the time and expense associated with their requirement to relay their harvest to leases they control in Pictou County. This scenario could also function on a fee for service basis whereby we would depurate the harvester's product without purchasing it.
- 2) The commercial lobster fishers do not fish within the harbour but must transit through to access St Georges Bay. Our proposed farm is not within their normal travel route and to our knowledge they do not object to our proposal. We have provided these fishers with information describing our farm plan and asked for their feedback.
- 3) The recreational fishers are active where the fish are...in the channel. Our proposed farm does not occupy space in this channel and will not impede this stakeholder group. Furthermore, there is evidence the growth units provide safe haven for juvenile fish which could be a benefit to recreational fishers.
- 4) Recreational power boaters have responded with both supporting and objecting views. The majority canvased do not object on the basis of the infrequent use of the areas we have chosen. Those power boaters who have objected are founding members of the "Friends" group and oppose our application in every manner possible. More objective views are from those not focussed on stopping the application at all costs such as Tony Corsten, Brian MacLeod, Joe Boudreau, Garrett Sears, Peter Cameron, Bill Chisholm, etc. Their responses to our engagement meetings are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: June 28 / 19 Time: 2 PM Location: _____

Persons in attendance: Anthony Costa

Address:

[REDACTED]

Antigonish Landing NS

[REDACTED]

Full time Resident: ☒

Seasonal Resident: ☒

Arcton. Bays Point

Project Outline reviewed: yes

Questions: no

Concerns:

Water Rates

Response:

Date of response:

Residents own words:

I think it's a good Project

Anthony Costa

In Person Meeting record regarding AQ#1424

Date of meeting: June 19/19 Time: 4:00pm Location: [REDACTED]

Persons in attendance: BRIAN + Julie MacLeod
Emile Porter

Address: [REDACTED] Full time Resident: [REDACTED]
Seasonal Resident: 3/4 year.
Am. N.S.

Project Outline reviewed: - Town Point Oysters Project.

Questions: all questions answered.

Concerns: No concerns.

Response: No responses required

Date of response: N/A

Residents own words:

This Project provides many benefits to the ecology/environment, provides a value add to a local Project, and will create a series of technological advances for the oyster industry. I am fully and enthusiastically supportive. Brian MacLeod

In Person Meeting record regarding AQ#1424

Date of meeting: June 18/2019 Time: 10: AM Location: ANTIGONISH

Persons in attendance:

Address:

[REDACTED]

Antigonish Harbour
NS [REDACTED]

Full time Resident:

Joe Boudreau

Seasonal Resident:

Project Outline reviewed: yes.

Questions: NO

Concerns: NO

Response:

Date of response:

Residents own words:

I have no problem in ~~oyster~~ oysters
in Town point. I been in the fishing
business since 1969. I boat in Antigonish all
my life and think oyster would be good for
the area.
Joe Boudreau

In Person Meeting record regarding AQ#1424

Date of meeting: 6/21/19 Time: 5 PM Location: Antigua

Persons in attendance: 3

Address:



Antigua

Full time Resident:



Seasonal Resident:

Project Outline reviewed: YRS

Questions: LOTS

Concerns: NONE

Response: I'm A LONG TIME BOATER IN THE HARBOR
AND THIS PROJECT WILL IS NOT IN BOATING LANE.

Date of response:

Residents own words: I support this project

KG SM
GARANT SIKAS

In Person Meeting record regarding AQ#1424

Date of meeting: 22 July 2019 Time: 3:PM Location: St. Georges Bay
 Persons in attendance: Ernie & Jane Porter
Mary & Bill Chisholm
 Address: [REDACTED] Full time Resident: ☒
Antigonish NS. Seasonal Resident: ☐

Project Outline reviewed: yes
 Questions: many

Concerns: All addressed.

Response: Satisfied with explanation

Date of response: 22 July 2019

Residents own words:
Satisfied with explanation & proposals.

W. Chisholm

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>

Message Details:

Name: Peter Cameron

Email: [REDACTED]@kelticford.com

Subject: Thank you

Message: Ernie, Thanks for the presentation at the chamber, very enlightening for sure. It looks very promising, not just for your project but the industry as a whole. I am a resident of South Side Harbour, my children are the 6th generation of Camerons in our house, so I do have a vested interest our beautiful harbour. Some of my questions are as follows; What caused the decline in oysters from 100 to 10 million? Is it just water circulation that keeps the long tanks from freezing? Plus a personal item, I keep my boat at the Beaton wharf in the summer time, you probably seen it going by it has that oversize bimini blue top. It has a tunnel drive (penn Yan) so it only requires 14" of water. I usually go north of Gooseberry Island direct to the harbours mouth during high tide. Will this access be cut off, or can I skirt the shoreline and still go out the harbours mouth? Thanks again, I wish you great success with this revolutionary project. Peter Cameron



Ernie Porter <ernieporter77@gmail.com>
to Peter

Tue, Dec 10, 5:13 PM (9 days ago)

Hi Peter;

Thank you for attending our Chamber of Commerce presentation. I hope it wasn't too difficult to follow...it is hard to condense the whole story into just 30 minutes so when rushing through it I fear people might miss some of the facts. However, it seemed to me your group was very interested in what we propose to do.

Regarding your questions, I have the following answers:

1) The decline in native oyster population is not confined to just Antigonish Harbour, it has occurred worldwide. Studies indicate in general harvest of wild oysters is at 10% of past levels. This is largely due to two factors - over harvest and declining stocks due to human impact on oyster habitat. Water pollution, boat traffic, dredging, siltation due to clearcutting and irresponsible farming practices along with many other impacts from human activity are mainly the cause in general. There is also a natural fluctuation in population due to diseases that come and go.

In Antigonish Harbour the decline in oyster population, to my knowledge, has not been studied. However, there have been suggestions made that pre-settlement populations were vastly greater than current levels and one could easily connect the decline to what has changed around the harbour in the past 200 years. More people, farming, clearcutting, increased siltation, increased pollution, and so on. Kerry Prosper spoke about this at the Public panel Discussion regarding our application this summer at StFX.

There is a looming issue that may further impact native oyster populations which is ocean acidification. This is connected to climate change and is likely to affect all shellfish in the coming decades. There may be workable solutions to this challenge on a farm scale but not likely on a broader scale.

2) I'm not sure what you are referring to as "long tanks". If you mean our BOBR growth units, they are protected from freezing by sinking in October/November then refloating in April/May. If you are referring to the upweller tanks in the land-based nursery, they too are seasonal and only operational from May to October otherwise they are empty.

3) I am familiar with your boat and have in the past chatted with you at the Beaton wharf. The proposed Gooseberry Island site does not go that close to shore. You will be able to go by the site either along Dunn's Beach or along Gooseberry Island. I would be glad to review this issue with you in detail if you like. Please just give me a call and we can arrange a time to meet.

I dropped by the Casket office to collect the meeting response forms but didn't see one from you. It would be appreciated if you could take time to fill it out and either give it to Inez or email it to me. As I mentioned, this form provides valuable feedback from which we can better understand the issues, concerns and questions important to area residents. Thanks.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

- 5) Recreational sailors have provided supportive feedback whereby they generally recognize the broader benefit of sharing the public resource while also recognizing the chosen locations are not frequently used and occupy only a small portion of the harbour. However, a few such stakeholders do object to the proposed farm based on inconvenience to their sailing. Most sailing in the harbour is associated with the Antigonish Boat Club which is not substantially impacted, and its executive are supportive. Sean Day, Fraser Summerfield and Rainer Wunn are all on the club executive, their responses are as follows;

In Person Meeting record regarding AQ#1424

Date of meeting: 21 July, 2019 Time: 13:30 Location: 370 Seabright Rd

Persons in attendance: Fraser Summerfield

Address:



Antigonish.

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: Yes

Questions: - water quality in harbour is suitable for oyster farming?
- area of proposed farming activities (on-water).

Concerns: - reduction of navigable
waterways in harbour area.

Response: Derek McEwen

Date of response:

Residents own words:

- Project has both pros and cons. Ernie seems to have the correct approach to limit the cons and maximize the pros. The technology is well thought out and hopefully will provide employment and local food opportunities. Provided that the farming activities are confined to areas of the harbour not frequented by fishermen, boats and especially those areas required to navigate the harbour under sail power, I believe the project is a net benefit for the harbour & community.

In Person Meeting record regarding AQ#1424

Date of meeting: June 25/19 Time: 8:00pm Location: 370 Seabright Rd.

Persons in attendance:

Sean Day,

Address:

[Redacted Address]

South Side Hbr.

Full time Resident:

Seasonal Resident:

Project Outline reviewed: YES

Questions: We asked a wide range of questions ranging from aesthetics to navigation & to environmental concerns.

Concerns: All concerns were addressed.

Response: All questions were responded to during the meeting to our satisfaction.

Date of response: Today

Residents own words:

The proponents have thought this all through in a systematic & thorough matter with consideration to all users of the harbour.

The new learnings from this should have profound positive impacts on the Oyster Farming Industry in Canada & abroad.

[Handwritten signature]

- 6) Kayakers, canoers and stand up paddle boarders are infrequent users of the areas in question, but we have told those who've expressed a concern related to access to the areas by such craft that they may continue to pass through. Mark Genuist, a resident of Town Point and avid kayaker submitted the following statement during the StFX Public Panel Discussion;

Statement By
MARC Genuist

SUBMITTED DURHAM
APR 13/19 PUBLIC
POWER DISCUSSION

Ernie and his family are neighbours. This spring Ernie came to describe his project as well as answer any questions we might have. He also made a short presentation at our annual road association meetings last fall.

Like many of the opponents I wanted to know if this was a good match for the harbour. The results from many sources were unanimous. Around the world oyster farming is described as a boon for anybody who cares about the water quality of an ecosystem.

I kayak a lot in the harbour. Some weeks I'm not just on the water but also in the water, every day, practicing rolling my kayak upside down and coming back up again. It bothers me that all across the harbour there are yellow sign put up by DFO. The signs warn people about the pollution levels in our less than pristine harbour.

In other location environmentalists are applauding oyster farming. Along the eastern seaboard oysters are a key component of efforts to clean up their bays. New York has a project to seed a billion oysters. In Ireland, the UK and France oyster farming is considered one of the most environmentally sustainable forms of aquaculture.

I think there are environmentalists among those opposed to this project. Their time might be better employed. Perhaps they could work with the proponent and the 2 other groups who are currently gathering oysters in the harbour to see how those efforts can improve our water.

As a resident and kayaker I'm surprised to hear that many of the current opponents are concerned about how this project will restrict access to the harbour. This is quite a turn of events. I remember 12 years ago when a proposal was made by many different residents of Antigonish Town and County to increase public use and access to the harbour. The plan was to upgrade Seabright road and the small park which houses the Antigonish boat club. Back then Friends of Antigonish harbour were ferociously opposed to that idea. For some, one major argument was a concern about road dust falling on certain people's homes if kayakers, sailors, fishers, canoers and others were encouraged to use Seabright road in order to gain access to the water. NIMBY'ism at its best. 12 years ago their veto was enough to kill that project. Given that history, I wonder just how seriously those same people really care today about public access to the water. Is this not just another way to hide their NIMBY'ism in order to keep dust off their windows?

- 7) Sam McKinley owns the only oyster lease in Antigonish Harbour, and he is in full support of our application. Sam has no concerns regarding our proposed farm and has written the following letter in support.

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re: Aquaculture Lease Application AQ#1424

Dear Mr. Porter;

Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley



- 8) There is one float plane active in the harbour which is kept directly across the harbour from our property. The owner was contacted, and he has become very keenly interested in our efforts to establish this farm. While Mr. Brown has corresponded with us frequently an excerpt from his July 21, 2019 email that best describes his feelings related to this factor of "other users of the public waters..." is as follows;

"I surveyed these areas from the air yesterday, and would have a hard time finding other harbour locations as inconspicuous to publics, as unvisited for recreation, as removed from navigation, commercial and recreational, as far from our Southside properties as the two Ernie has chosen. They meet my standards of scale and proportionality until shown otherwise."

f) the public right of navigation

The proposed lease areas are not within the marked navigation channels and do not impede public or commercial marine traffic within these channels. Furthermore, we have willingly provided right of passage around the grow sites even though there may be an operational benefit to the farm to have these sites go to shore.

g) the sustainability of wild salmon;

The proposed farm poses no risk to wild salmon.

h) The number and productivity of other aquaculture sites in the public waters surrounding the proposed aquacultural operation.

There is one oyster lease within Antigonish Harbour. It is lease number 1385 owned by Sam McKinley from Pictou County. This lease is 10.27 hectares in size and is licenced only for collection of naturally occurring oysters from the bottom. We spoke with Sam, he understands our farm plan and is in full support of our application. The following is the response record from our phone conversation on September 11, 2019;

LEASE# 1385
10.27 ha

In Person Meeting record regarding AQ#1424

Date of meeting: Sept 11, 2019 Time: 2:40 pm Location: By Phone
Persons in attendance: Sam McKinley - LEASE HOLDER
ANTIGONISH HARBOUR
Address: Hew Gerson Full time Resident:
Seasonal Resident:

Project Outline reviewed: - He says going to LEASE AREA
OR NSEDA WEBSITE. I DESCRIBED
QUESTIONS: LOCATION OF GROW SITES.
1) WHERE ARE GROW SITES?
Concerns: None

Response:

Date of response:

Residents own words:

Sam is in full support of our Application and wants to continue dialogue. He offered to sign a letter of support if I would draft one. He plans to attend our public consultation - Asked me to call him in advance to remind him of the date/location.

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re; Aquaculture Lease Application AQ#1424

Dear Mr. Porter;

Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley

A handwritten signature in blue ink, appearing to read "Sam McKinley", with a stylized flourish at the end.

In conclusion, we feel we have effectively and extensively engaged with the public and particularly those stakeholders who could be considered to be directly and substantially impacted. Our outreach totalling in excess of 500 community residents took many forms: door to door in person meetings totalling about 150, comprehensive presentations at public meetings attended by 326 area residents, meetings with representatives from all levels of government, meeting with the local chamber of commerce, engaging with representatives of the local first nations group reaching out to special interest groups like Ecology Action Centre, Birds Canada and Antigonish Rivers Association and our website. The vast majority of the encounters were welcome, respectful and beneficial to the process. Of those area residents who completed in person meeting response forms 87% were supportive of this application.

We approached our public engagement responsibilities as an iterative process whereby we developed a conceptual plan, presented it to nearby stakeholders and adjusted it in response to feedback received. Then presented the revised plan to a broader spectrum of the community and revised further repeating this process over and over until we had reached all stakeholder groups and arrived at a final farm plan. Throughout this process, we chose to ignore the attempts of a few vocal opponents to discourage and intimidate us, instead we remained focused on presenting the facts in an open and honest manner keeping personal issues out of the dialogue as they have no place in civil discussion regarding a community issue.

Unfortunately, our opponents newly formed “Friends of Antigonish Harbour” chose not to engage with us but instead cut off direct communication and waged a campaign of misinformation, fear mongering and personal attacks. This group deliberately misrepresented the purpose of the red box by telling residents we plan to occupy the whole area, they misrepresented the science related to the effects of oyster aquaculture to make false claims of detrimental effects and made claims the application process was flawed and biased. Throughout the summer this group tried repeatedly to enrage us to the point we would react negatively. They openly made false statements intended to malign our character, our intentions, and our abilities. This is shameful behavior that only serves to demonstrate the character of the perpetrators and is consistent with the increasingly caustic political climate now common where attacking the person has replaced civil debate of the issues.

We expect the details of the opponent’s acts are irrelevant to the adjudication of this application but if this is incorrect and it is worth examination then we will provide our side of this sad story.

APPENDIX A: PUBLIC ENGAGEMENT RECORD

	A	B	C	D	E	F	G	H	I	J
1	In Person Meetings									
2										
3	Person	Date	Residents Address	Local	Full Time	Seasonal	Support	Oppose	Undecided	Comments
4				Business	Resident	Resident				
5				Owner			121	10	8	
6	Richard Wilgenhof	20-Apr-19			*			*		
7	Alena Wilgenhof	20-Apr-19			*			*		
8										
9	Susan Vincent	21-Apr-19			*		*			Well informed Acedemic, Frequent kayaker
10	Marc Genuist	21-Apr-19			*		*			Former CBC reporter in NB, Familiar with the industry, ferquent kayaker
11	Peter Bowler	11-May-19				*		*		Seasonal resident, lives in Dallas Texas, Founder of FOAH
12	Colleen Bowler	11-May-19				*		*		American citizen, founding member of "Friends"
13	Rainer Wunn	27-May-19			*		*			
14	Birgit Wunn	27-May-19			*		*			
15	Mike MacDonald	13-May-19			*			*		Some Concerns
16		13-May-19			*		*		*	
17	Manfred Goring	24-Jun-19				*			*	Provided very thoughtful response to in person meeting. Lives in BC
18	Marie Claire Declerck	24-Jun-19				*			*	
19		19-May-19				*				
20	Ken Fraser	21-May-19	Millbrook Pictou County	*			*			Commercial Oyster harvester in Antigonish harbour
21	Lisa Flynn	27-May-19			*		*			
22	Rick Anderson	27-May-19	Antigonish	*	*		*			
23	Nancy Anderson			*	*		*			
24	Alex MacDonald	27-May-19	Robertson Electric		*		*			
25	Susan Beaton	27-May-19				*	*			Lobster Fisher, lives here during lobster season
26	Joerg Kanehl	27-May-19				*				Lobster Fisher, lives here during lobster season
27	Kelly Archibald	28-May-19	Millbrook Pictou County	*	*		*			Commercial Oyster harvester in Antigonish Harbour
28	Peter Bennett	30-May-19	Kings head	*	*		*			Owner of Stright Mackay, supplier of marine goods
29	Darrell MacDonald	30-May-19	Fairmont Ridge Road		*		*			
30	Tommy Parsons	30-May-19	Antigonish		*		*			
31	Steve Swick	30-May-19		*	*		*			Owner of Easten Bakery in Harbour Centre
32	Archie Mackenzie	30-May-19		*	*		*			Lobster Fisher, Holds Commercial Ifishing icenses for Antigonish harbour
33	Dr Dan Mackenna	01-Jun-19	Antigonish	*	*		*			Local dentist
34	Stephen MacIntosh	03-Jun-19	Little Harbour Pictour County	*			*			Commercial Oyster harvester in Antigonish harbour

	A	B	C	D	E	F	G	H	I	J
35	Mike MacIntosh	03-Jun-19	Little Harbour Pictou County	*			*			Commercial Oyster harvester in Antigonish harbour
36	Jamie Davison	03-Jun-19	Pictou County	*			*			Commercial Oyster harvester in Antigonish harbour
37	Gary Chisholm	06-Jun-19	South Side Harbour Road		*		*			
38	Rose Boudreau	06-Jun-19		*	*		*			
39	Robb Kell	06-Jun-19	Antigonish	*	*		*			owns Kell Enterprises, local civil contractor
40	Richard Cameron	08-Jun-19	antigonish		*		*			
41		09-Jun-19			*		*			
42		09-Jun-19			*		*			
43	Moses Coady	10-Jun-19	Antigonish	*	*		*			Has a consulting company that does lobbying.
44	Colin Chisholm	18-Jun-19	Antigonish		*		*			
45	Janice M. Ross	18-Jun-19	Antigonish		*		*			
46	Trina Chisholm	18-Jun-19	Antigonish		*		*			
47	Glenn Horne	13-Jun-19	Antigonish		*		*			Municipal Clerk/Treasurer for Antigonish County
48	Owen McCarron	13-Jun-19			*		*			County Warden
49	Donnie MacDonald	13-Jun-19	Antigonish		*		*			County Councilor for Antigonish County
50	Joe Boudreau	18-Jun-19		*	*		*			Owns Bio-Novations local supplier of live storage/shipping technology
51	Jack Thompson	19-Jun-19		*	*		*			Owns West River Holsteins Dairy farm, Direct view of farm sites.
52	Brian MacLead	19-Jun-19	Antigonish Co	*	*		*			Owns Maclead Group, Lives just off terra Tory Dr on Antigonish harbour
53	Irene MacLeod	19-Jun-19	Antigonish Co		*		*			
54	Debbie MacIsaac	21-Jun-19	, West River		*		*			
55	Charlie Benoit	21-Jun-19	Antigonish		*		*			Runs Andy's Tire location in Antigonish
56	Garrett Sears	21-Jun-19	Antigonish		*		*			Owns Eastern Auto and Town Tire business in Antigonish
57	Don Brown	21-Jun-19			*		*			
58	Ryan Shimosawa	22-Jun-19	Antigonish	*	*		*			Owns Town House Pub restaurant
59	Catlin Shimosawa	22-Jun-19	Antigonish	*	*		*			Owns Town House Pub restaurant
60	Mike MacEachern	22-Jun-19			*		*			Want a job on the farm. Graduate of StFX Aquatic Resources Program
61	Leonard Hanrahan	24-Jun-19	Seabright Lane	*	*		*			Has a direct view of farm sites. On Antigonish harbour for decades
62	Mario Swinkles	24-Jun-19	Antigonish	*	*		*			Owns Swinkles Bees operating out of Seabright Road
63		25-Jun-19		*	*		*			
64		25-Jun-19		*	*		*			
65	Sean day	25-Jun-19	Southside Harbour	*	*		*			Manages Antigonish Boat Club, avid boater on the harbour
66	Christine Day	25-Jun-19	Southside Harbour		*		*			
67	Connie Clement	24-Jun-19	, Lanark		*					None Commital, wont say if she supports or opposes.
68	Lou Bilik	26-Jun-19			*			*		Concerned about dust from the road.

	A	B	C	D	E	F	G	H	I	J
69	Tony Corston	28-Jun-19	Archibauld Point		*	*	*			Avid boater on the harbour, direct view from cottage at Archibauld Pt.
70	Dr. Paul Cameron	29-Jun-19	[REDACTED], Antigonish	*	*		*			
71	Ann Marie Cameron	29-Jun-19	[REDACTED], Antigonish		*		*			
72	Mari MacFarlane	30-Jun-19	[REDACTED], Antigonish		*		*			
73	Mark Gabrieau	30-Jun-19	[REDACTED] Antigonish	*	*		*			Wants our oysters for his restaurant
74	David Macfarlane	30-Jun-19	[REDACTED] Antigonish		*		*			
75	Karen Gabrieau	30-Jun-19	[REDACTED]		*		*			
76	Cathy Sears	30-Jun-19	[REDACTED] Antigonish		*		*			Also seasonal resident on waterfront property at 5172 HWY 337
77	Mark Sears	30-Jun-19	[REDACTED] Antigonish	*	*		*			Also seasonal resident on waterfront property at 5172 HWY 337
78	Noel Sampson	30-Jun-19	[REDACTED], Lanark			*	*			Some concerns but generally supportive, provided good advice
79	Mary Jo MacDonald	01-Jul-19	[REDACTED]			*			*	Has some concerns which are being addressed
80	Lucy MacDonald	01-Jul-19	[REDACTED]		*			*		Active member of FOAH
81	Pat MacDonald	01-Jul-19	[REDACTED]		*			*		Not sure, has some concerns.
82	Alyshia MacDonald	01-Jul-19	[REDACTED]			*			*	"Undecided, but feeling much more positive about it."
83	Chris Strickland	01-Jul-19	[REDACTED]	*	*		*			Oyster farmer since 1980's.
84	Bhupindar Singh	02-Jul-19	[REDACTED] Lanark			*	*			Seasonal Farm worker, here annually for 6 months per year.
85	Amorwipal Singh	02-Jul-19	[REDACTED], Harbour Centre			*	*			Seasonal Farm worker, here annually for 6 months per year.
86	John Corsten	03-Jul-19	[REDACTED], Antigonish	*	*		*			Owens property on Seabright Rd
87	Antonia Cracknell	04-Jul-19	[REDACTED]		*		*			Direct view of grow sites
88	Keith Cracknell	04-Jul-19	[REDACTED]		*		*			Direct view of grow sites
89	Kaye Cameron	05-Jul-19	[REDACTED] Harbour Centre		*		*			Own Land to the water on Archibauld Point
90	Leo Cameron	05-Jul-19	[REDACTED] Harbour Centre		*		*			Own Land to the water on Archibauld Point
91	Melias Boyd	08-Jul-19	[REDACTED] Harbour Centre		*		*			From family of lobster fishers
92	Anne Chisholm	08-Jul-19	[REDACTED] Lanark		*		*			
93	Donald Chisholm	08-Jul-19	[REDACTED] Lanark	*	*		*			Diesel mechanic, equipment repair business
94	[REDACTED]	08-Jul-19	[REDACTED], Harbour Centre	*	*		*			[REDACTED]
95	[REDACTED]	08-Jul-19	[REDACTED], Harbour Centre		*		*			
96	Allan MacDonald	09-Jul-19	[REDACTED], Harbour Centre		*		*			No direct view of sites from house but property goes to the harbour
97	Theresa MacDonald	09-Jul-19	[REDACTED] Harbour Centre		*				*	Concerned about boat access to their shoreline, lease site > 500m away.
98	Margret MacLellan	09-Jul-19	[REDACTED] Harbour Centre		*			*		Direct view of lease sites.
99	Darrel Beaton	09-Jul-19	[REDACTED]	*	*		*			Lobster Fisher. No concerns provided his travel route is not impeded.
100	Viola Baker	10-Jul-19	[REDACTED]	*	*				*	Some of her clients oppose our application.
101	Leonard Pettipas	10-Jul-19	[REDACTED]		*		*			Obstructed view of grow site.
102	Adam Ehler	10-Jul-19	[REDACTED], Harbour Centre		*		*			Direct View of lease sites.

	A	B	C	D	E	F	G	H	I	J
103	Mollie Morris	10-Jul-19	[REDACTED], Harbour Centre		*		*			Direct view of lease sites.
104	Amy Sears	13-Jul-19	[REDACTED], Antigonish			*	*			
105	Steven Sears	13-Jul-19	[REDACTED] Antigonish			*	*			
106	Murdoch MacLellan	13-Jul-19	[REDACTED] Harbour Centre		*		*			Owns Waterfront property on Archibauld Point
107	Boyke Turniawan	13-Jul-19	[REDACTED] Harbour Centre		*		*			Owns waterfront property with direct view of Gooseberry Island site
108	Paul Corsten	13-Jul-19	[REDACTED] Harbour Centre		*		*			Owns waterfront property with direct view of Captain's Island lease site
109	Herb Bonvie	14-Jul-19	[REDACTED]		*		*			Frequent recreational fisher in Antigonish Harbour
110	Pauline Liengme	19-Jul-19	[REDACTED]		*		*			Anglican Church, owners of waterfront property on Seabright Road
111	Rev. Susan Channeu	19-Jul-19	[REDACTED], Antigonish		*		*			Anglican Church, owners of waterfront property on Seabright Road
112	John Blackwell	19-Jul-19	[REDACTED] Antigonish		*		*			Anglican Church, owners of waterfront property on Seabright Road
113	Martin Corsten	20-Jul-19	[REDACTED] Harbour Centre			*	*			Owns waterfront property on Archibald Point
114	Karen Corsten	20-Jul-19	[REDACTED], Harbour Centre			*	*			Owns waterfront property on Archibald Point
115	Kingsley Brown	21-Jul-19	[REDACTED] Southside Harbour Road		*		*			Ardent environmental activist.
116	Paul MacLean	22-Jul-19	[REDACTED], Antigonish Co			*	*			
117	Heidi MacLean	22-Jul-19	[REDACTED] Antigonish Co			*	*			
118	Fraser Summerfield	22-Jul-19	[REDACTED] Antigonish		*		*			Antigonish Boat Club board member
119	Bill Chisholm	22-Jul-19	[REDACTED] Antigonish		*		*			Frequent boater, Waterfornt landowner on Southside Harbour Road
120	Ken Chisholm	22-Jul-19	[REDACTED] Harbour Road		*		*			Waterfornt landowner on harbour.
121	Dr Michael Silver	04-Aug-19	[REDACTED], Antigonish		*		*			
122	[REDACTED]	04-Aug-19	[REDACTED] Antigonish Co.			*	*			
123	Gena Silver	04-Aug-19	[REDACTED], Antigonish Co.			*	*			
124	Tim Silver	04-Aug-19	[REDACTED], Antigonish Co.		*		*			
125	Kevin Gillis	08-Aug-19	[REDACTED], Harbour Centre			*	*			
126	Andrea Gillis	08-Aug-19	[REDACTED], Harbour Centre			*	*			
127	Courtney Brillon	08-Aug-19	[REDACTED], Harbour Centre			*	*			
128	Peter Brillon	08-Aug-19	[REDACTED], Harbour Centre			*	*			
129	Neil Bryant	12-Aug-19	[REDACTED], Antigonish		*		*			
130	Ron MacGillivray	22-Aug-19	[REDACTED] Lanark	*	*	*	*			Owns local businesses, has cottage on the shore of the harbour.
131	Bill Hudon	05-Sep-19	[REDACTED], Southside Harbour			*		*		American, wouldn't fill out response form, Founding member of "FOAH"
132	Sam McKinley	11 Sept, 19	[REDACTED] Pictou County	*			*			Oyster Leaseholder - Antigonish Harbour
133	[REDACTED]	27-Aug-19	[REDACTED]		[REDACTED]		[REDACTED]			[REDACTED]
134	Peter Wade	24-Sep-19	[REDACTED], Mahoneys Beach		*		*			
135	Christine Almon	24-Sep-19	[REDACTED], Mahoneys Beach		*		*			
136	Lois Wazny	27-Sep-19	[REDACTED] Morristown		*		*			Attended Our Public Meeting

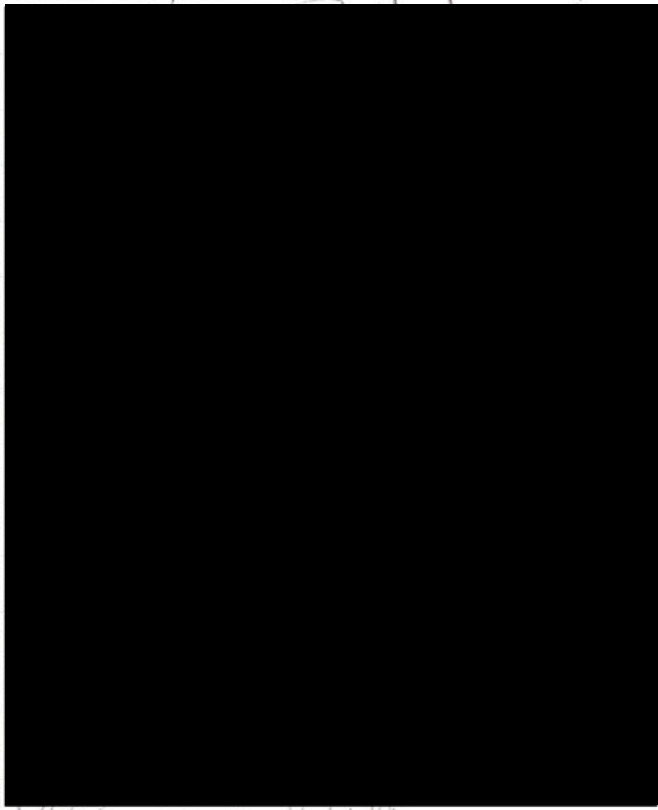
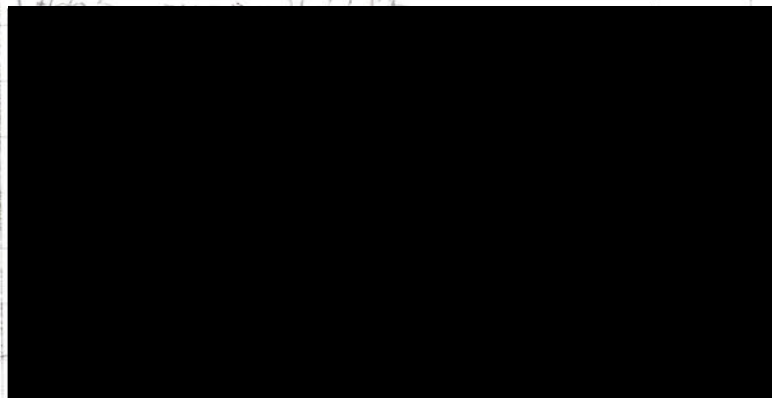
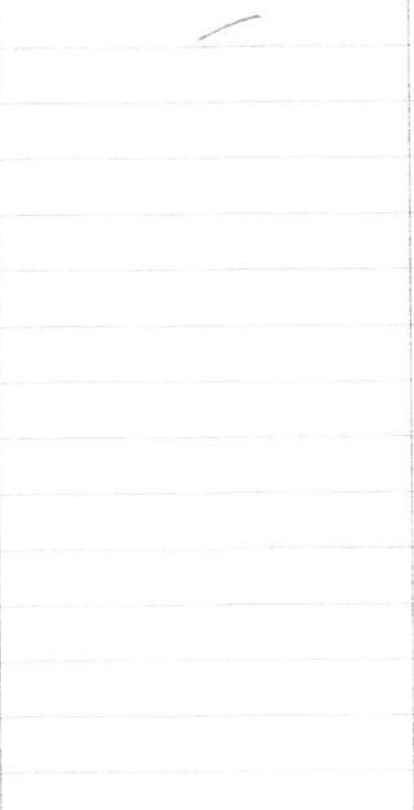
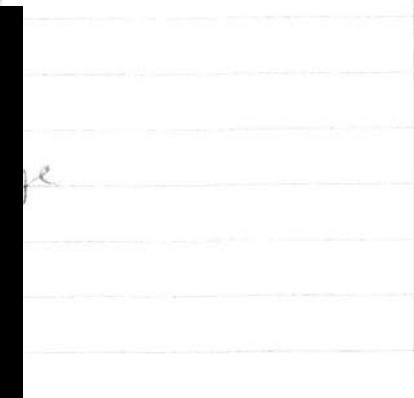
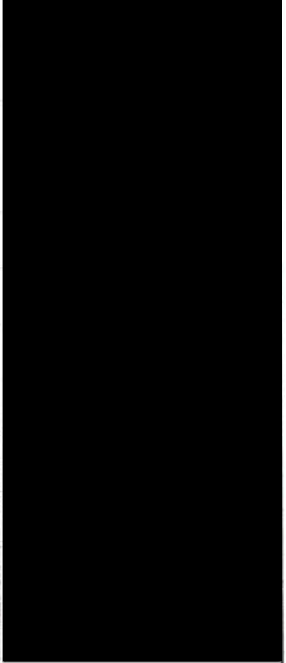

	A	B	C	D	E	F	G	H	I	J
137	Dawn Edgar	14-Oct-19	Archibauld Point		*				*	Plans to visit ShanDaph Oyster Farm to see BOBR growth units
138	Jason Stewart	27-Oct-19	[REDACTED] Harbour Centre		*		*			Wants a job on the farm. Avid recreational fisher, active most days
139	Dan Chisholm	10-Nov-19	[REDACTED], Harbour Centre		*		*			Direct view of Gooseberry Island Site
140	Mary Chisholm	10-Nov-19	[REDACTED], Harbour Centre		*		*			Direct view of Gooseberry Island Site
141	Suzi Synishin	10-Nov-19	[REDACTED], Harbour Centre		*		*			Direct view of Gooseberry Island Site
142	Brian Lazzuri	28-Nov-19	[REDACTED], Antigonish		*		*			Antigonish Chamber of Commerce Board member
143	Peter Cameron	10-Dec-19	Southside Harbour Road		*		*			Antigonish Chamber of Commerce Board member
144	Roger Porter	15-Dec-19	[REDACTED], Antigonish		*		*			Avid Duck Hunter, Bass Fisher on the harbour
145	Jim Lerikos	15-Dec-19	[REDACTED], Antigonish		*	*	*			Board Member Antigonish River Assoc. Avid duck Hunter, fisher

APPENDIX A: 1-OPEN HOUSE ATTENDANCE & FEEDBACK

Attendance Sheet

Name	Address	email address	phone number
Stephen Chesholm	Weston		
Susan Ross			
Robena Stewart	Terra Torq DR.		
Noel Sampson	ABENDEE AVE.		
Greg Macgillivray	Malaree Beach		
Teri Arsenault			
Johnnie MacDonald	211 North Grant		
Pat MacDonald	SEABRIGHT ROAD		
Mike MacDonald	SEABRIGHT ROAD		
Low Bilik.	SEABRIGHT ROAD		
Linda Bilik	SEABRIGHT ROAD		
Lucy Macdonald	SEABRIGHT ROAD		
Mairi Macdonald	HOWTHORNS ST		
Anna Syprick	HOWTHORNS ST.		
Peter Murphy	MALAREE BEACH		
Isabelle Tremblay	MALAREE BEACH		
Tom Smith	HEX		
Brad Smith	BRIDGEMOUTH		
John Caporale	Cape George		
	HEX		

Attendance Sheet

Name	Address	email address	phone number
BERNIE FALKENHAM King Brown John Courtin Joy Quarmann Dakota Coates Cornelia Clement Doreen Kuntzler Archie MacKay Kathy Baker Angela Bowdies Ann Dunlop Marilyn Wright Hugh Haley Beatrice Taylor SARAH TADOT Chris Mackenzie ROBERTA FORGER Valerie Chyngg Gary D. B. Orr Carroll Matherson SALLY WALKER	 	 	 

Name

email address

phone number

Barb Markington
Hazel Jenkins
Rosa Lee

Jimtown
Jintown

6

Attendance Sheet

Name	Address	email address	phone number
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Jay Ross			
Larry Wazny			
Sunny MacLean			
Joe Boudreau			
Helen Wilgenhof			
Richard Wilgenhof			
Laurie Oakes			
Peter Hoefling			
Patricia Delany			
David Walker			
Brian McLeod			
Anne MacFellon			
Aileen Nunn			
ASON STANHA			
Donald Christ			

Wednesday, September 25, 2019

or backpack initiative

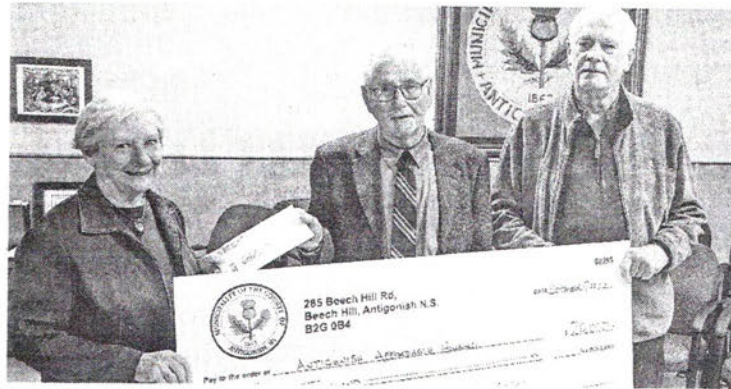


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The Municipality of the County of Antigonish has contributed \$20,000 to Antigonish Affordable Housing Society (AAHS), which will go toward the installation of solar panels at Riverside Estates. AAHS chair Colleen Cameron (left) and board member Shaun Chisholm (right) accepted the monies from Councillor Donnie MacDonald, who represents the county on the AAHS board. **COREY LEBLANC**

support," Cameron told council, adding Antigonish County has been "behind us all the way."

She noted AAHS will also receive funding from the provincial government (Efficiency NS) and the Antigonish Solar Co-op for the purchase of the solar panels.

"You should be commended for your work," Councillor

Donnie MacDonald, who represents council on the AAHS board, said after making the cheque presentation.

He noted efforts, such as the solar panel installation, are always "geared towards our tenants" and making things more affordable.

With files from Richard MacKenzie

OPEN HOUSE INFORMATION MEETING

WHERE: Lakevale Community Centre
4382 Hwy 337, Antigonish Co. B2G 2L2

WHEN: 7-9 p.m., Friday, September 27, 2019

HOSTED BY: Town Point Consulting Inc.

PURPOSE: to provide to the public information related to a proposed oyster aquaculture operation in Antigonish Harbour. This proposed oyster farm would be located in the outer harbour and produce 2 - 3 million oysters per year on about 48 hectares using suspended, off bottom growth units. Please visit our website for more information related to this application.

www.townpointconsulting.com

**6th Annual
HELPING
THE HELPER**

*'Coping and Dealing with PTSD
for Frontline Professionals
and Families'*

St. Francis Xavier

OPEN HOUSE

INFORMATION MEETING

WHERE: Lakevale Community Centre
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www.townpointconsulting.com



Ernie Porter <ernieporter77@gmail.com>

New message via your website, from cathmacp@yahoo.com

Ernie Porter <ernieporter77@gmail.com>

Mon, Nov 4, 2019 at 1:35 PM

Draft To: Catherine MacPherson [REDACTED]@yahoo.com>

Hi Catherine;

Thank you for your email. The meeting you were unable to attend was organized as an open house information session. We had poster board displays, computer video loops of oyster filtration and our website as well as a sample of our growth unit. AANS was there with general information regarding oyster aquaculture and representatives willing and able to answer relevant questions. Also, the owner/operator of ShanDaph Oyster farm was there to answer questions specific to oyster farming...and he had some of his product available to those so inclined.

There is no hand-out that I can provide you that would capture all of this information but if you spend some time on our website it will cover most of the subject matter.

The meeting transitioned into a Town Hall format at the request of a few attendees and for 1 1/2 hours I answered questions. If you wish to review these questions and my answers I suggest you contact Peter Murphy who filmed that portion of the meeting. Alternatively, I will be glad to come by your house to discuss our farm plan, oyster aquaculture, and any related issues. You are also welcome to visit our property to see the proposed lease sites and better understand how we plan to operate the farm.

Please call me at the number below if you would like to discuss this further.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

On Mon, Oct 28, 2019 at 11:27 AM <no-reply@parastorage.com> wrote:

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>

Message Details:

Name: Catherine MacPherson

Email: [REDACTED]@yahoo.com

Subject: Presentation at MTCC on Sept 27

Message: Hi Town Point Consulting. Unfortunately, I missed your community engagement presentation at the Mini Trail Community Centre on Sept 27, 2019. You gave only 2 days' notice in the local paper of the event. I am sure many missed it because of that, and I was out of province at the time, so I missed it as well. Would you please provide me with the materials that you presented to the public that evening in September? I would also be interested in seeing any questions that were submitted, and the answers you provided.

Thank you for your attention to my request.

Catherine MacPherson

Morristown, NS

To edit your email settings, go to your Inbox on desktop.



Ernie Porter <ernieporter77@gmail.com>

Carbon Sequestering

Ernie Porter <ernieporter77@gmail.com>
Draft To [REDACTED]@gmail.com

Thu, Oct 3, 2019 at 9:03 AM

Hi Susan;

Thank you for visiting our website and sending your question regarding carbon sequestering.

If I may paraphrase your question it asks will the carbon sequestered by oysters grown on our farm offset all the carbon inputs required to produce the oysters? Will the farm be better than carbon neutral?

This is an interesting question that would require considerable study to answer with confidence. We have not taken time to study the issue in detail as we are presently focused on completing the application portion of the farm development process.

However, we can reiterate our keen interest in establishing an operation that has at its core a commitment to sustainability. One of the important components of this commitment is our desire to work toward carbon neutrality. Key factors in this quest are localizing operations to limit carbon inputs related to transportation within the farm area, conversion of the land-based nursery to solar power, being an early adopter of Glas-Ocean technology for fully electric propulsion systems, employing DockPort technology to reduce shore trips and increase farm efficiency/productivity and building a culture of environmental awareness and responsibility in our operation.

Will this all add up to carbon neutrality? We hope so, but if not at least we will work hard to raise the bar of awareness, provide technology to the industry that is more sustainable and perhaps provide a model that others may adopt. If you too are concerned about our future and want to take action please consider working in cooperation with us to build a farm that better accomplishes these goals. There is no doubt in our minds oyster aquaculture is inherently very sustainable and eco-friendly. We want to leverage this fundamental quality by adding thoughtful, effective technology to an emerging industry so that it can be even more sustainable.

Please call me if you wish to further discuss this matter.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>

Message Details:

Name: Susan Ross

Email: [REDACTED]@gmail.com

Subject: carbon sequestering

Message: I am now wondering if your claim that 'Through carbon sequestering, oysters help to combat climate change' implies that your project will be better than carbon neutral. Will the sequestering by your oysters more than offset the oyster farm emissions related to equipment manufacture in and transport from China; plastic basket manufacture in and transport from central Canada; fuels and electricity needed for mechanization and depuration; transport of inputs to your facilities and of product to markets; etc. over the lifetime of the project? I am not debating that oysters sequester carbon and therefore 'help to combat climate change' but am simply asking if that sequestering is sufficient to offset the contribution of your project to emissions that cause the climate change oysters will help to combat.

I would appreciate a response/

Thank you. Cheers. Susan



Ernie Porter <ernieporter77@gmail.com>

New message via your website, from [REDACTED]@gmail.com

no-reply@parastorage.com <no-reply@parastorage.com>
Reply-To: Susan Ross <[REDACTED]@gmail.com>
To: ernieporter77@gmail.com

Wed, Sep 25, 2019 at 7:44 PM

A site visitor just submitted a new Contact Form
<https://www.townpointconsulting.com/>

Message Details:

Name: Susan Ross

Email: [REDACTED]@gmail.com

Subject: proposed project

Message: I take issue with a number of statements on your website, as follows:

1. It is not our role to defend the scientific facts supporting the benign/positive effects of oyster farming on estuaries. This is the role of government scientists and other relevant agencies, by whom the application will be vetted.

My understanding is that whereas it is up to the government of Nova Scotia to determine whether or not an environmental impact assessment (EIA), at whatever level, is required for a proposed aquaculture project it is not in fact the responsibility of government to undertake any EIA it determines is necessary. That is, if an EIA is deemed necessary, it would be up to the project proponent to undertake such. So yes, if there is potential for negative environmental impacts, as there seems to be, it would up to you to assess these and mitigate if negative effects are found to be significant.

2. We have found and cited several scholarly papers and articles on the subject within this website.

Your website originally included one citation, a DFO video about a research project to determine why oyster farms in bays appear to be correlated to an increase in eelgrass. First, correlation is not causation. Secondly, Antigonish Harbour is not a bay, and is reportedly (including by you in the past) not well flushed as a bay would be. The video also includes a statement that there are locations not suitable for oyster farming. As DFO has also documented negative effects on eelgrass in estuaries, that this video was your only citation, I may be forgiven for seeing this as a misrepresentation of the potential for negative oyster farm effects in Antigonish Harbour.

More recently you have added a number of other citations which you call 'scientific' but many are in fact industry supported and none are specific to Atlantic Canada estuaries, or in one case, even oysters. There are hundreds, literally, of peer reviewed papers documenting environmental effects of oyster farming, some indicating negative and some indicating positive effects. There are also review papers addressing both positive and negative effects. Since the consensus seems to be that impacts are operation and site specific, your cherry picking of industry supported papers and site specific papers in order to support your generalized statement that your oyster farm will be beneficial or at least benign is not at all convincing.

3. The proposed farm would necessitate an additional 8-10 employees.

You have not indicated what this employment consists of, or what 'additional' is additional to. Data from the Nova Scotia Fisheries and Aquaculture website indicates that about 50% of shellfish farm employees in Nova Scotia (less than 300 in total in 2016 and 2017) are seasonal and a further 30% are part time. There is anecdotal evidence that competition for seasonal employees is causing hardship to farm, fish, forest, tourism and construction sectors in Antigonish. You are also suggesting that your operation alone would increase shellfish

employment by about 3%, although it will represent less than 1% of shellfish acreage in Nova Scotia and be innovatively mechanized.

4. . . . the farm needs to be large enough to ensure sufficient revenue to cover all costs plus a reasonable margin.

Although your proposed farm will be the second largest of over 45 oyster farms (one lease holder of at least one lease), I don't suppose you are suggesting that the others will all fail as businesses or sources of income, as they cannot generate a reasonable margin. The statement is circular – if you are planning a large investment, then yes you need a large farm. If you planned a smaller investment, you would not need such a large farm.

5. The proposed farm will contribute significantly to the annual economic activity within Antigonish County. Wages, taxes, purchases, etc. all benefit the local economy.

First I am not sure what 'significantly' means in the context of Antigonish county but additionally this ignores the potential for costs to other economic users of the harbour (First Nations, wild oyster harvesters, eel fishers, providers of tourist accommodation, residential construction and sales businesses, etc.), to recreational users of the harbour and to tax payers.

6. A single oyster is capable of filtering anywhere from 25-50 gallons of water per day. Proposed farm size will filter approximately 60 million gallons of water per day.

While it is clear from the scientific literature that oyster filtering is beneficial to heavy metal contaminated water, to sediment heavy waters and to waters that have eutrophication problems (excessive nutrients, phytoplankton blooms and resultant low dissolved oxygen with negative effects on other species), none of these apply to Antigonish Harbour.

The filtering of pathogens is not well studied or understood however when pathogen counts are found or expected to be high, shellfish

harvesting is closed. It is clear however that oysters take nutrients out

of the water. As we do not know much about the nutrient loadings in Antigonish harbour waters, other than that they are not excessive (as evidenced by dissolved oxygen levels), how removing nutrients affects other species is not known. Perfectly clean water supports no aquatic life at all. How much 'cleaning' of the water is supportable by other species?

What oysters do is remove carbon and calcium from the water, and where their shells end up on land, the removal of calcium contributes to acidification of the water (a climate change problem already) and a withdrawal of the calcium that oysters themselves, as well as other shell fish, need to thrive. Also, the sequestering of carbon does happen, however depending on the fate of oyster shells such sequestering can be temporary.

How the 'new and innovative technology increases sustainability' is not explained. The full statement just addresses the visual profile, not a measure of sustainability. Further, the contention that the units will 'will blend in rather than stand out' is unsupported. If that is in fact the case, please show photographs of how your units will look, perhaps using the very lovely photo of the harbour your have on your website.

4/6

supported, simply asserted. Given the potential for negative environmental impacts, just how is your oyster farm sustainable and eco-friendly?

9. Myths: According to NSDOFA's most recent data, there is only one pure play oyster farm (combination of leases to one operator) that would be larger (123.5 acres) than yours, since your statement at the panel discussion that you are expecting to apply for a 120 acre lease, rather than 150. Yours would in fact be the 12th largest shellfish farm. I am presuming here that you, as an aspiring oyster farmer, know the difference between oyster and shellfish. It is possible that among the 11 shellfish farms larger than your proposed farm, only 6 of which include oysters among the multiple species licensed, oyster acreage is larger than 120 acres, but the data do not break this down.

The 10% rule of thumb on eelgrass comes from extensive research in New Brunswick, not Nova Scotia. Further, your farm would take up more than 10% of the northern harbour, from the choke point of Town Point and Ferry Point north. Effects on eelgrass are local, not harbour wide. There is a difference between small oyster farms scattered throughout the harbour and a very large oyster farm in one area. Further, I suspect your 2.7% figure is based on high tide harbour margins and includes islands as part of the harbour waters. My figure is closer to 4%.

Your contention now that the harbour is well flushed, and therefore that oyster poop is not a problem, contradicts your assertion in the past, in opposition to another's intent to do something in the harbour that you opposed, that the harbour is in fact not well flushed.

Part of your appeal for support is that yours will be a community based family business. If that is the case, then it should be no problem to commit to a Class B license that prohibits sale.

I have some experience with environmental assessment of projects. My experience is that in order to gain public trust, project proponents

describe to the public in some detail just what the proposed project is, what the potential is for both positive and negative impacts, and how they plan to enhance the positives and mitigate the negatives. While I am not surprised that you claim only benefits and do not acknowledge potential costs, I nevertheless will note that your website does not address i) issues of access by harbour users and related liabilities; ii) potential for a long list of negative environmental impacts (that shellfish farming is 'better' than fin fish farming does not make it necessarily good for the environment, just less bad); iii) effects on livelihoods of other economic users of the harbour, tax payers, competitors for seasonal labour, etc.; iv) public health and safety; v) resilience of gear to extreme weather events; vi) intents for consultation with the people of Antigonish County, including First Nations.

With regard to item vi above, I discovered yesterday that you are planning a public consultation in Lakevale (?) in Friday. You have selectively notified some, but not all, adjacent properties of this event. Today, you have a notice in the Casket, providing two days notice to the public, which best practice would consider insufficient.

Support for your proposed project depends on transparency, and some respect for people potentially affected. Your unsupported statements of only positive effects and your selective and short notice advising of a public meeting engender a mistrust in my view, and leads me to a position of non support.

To edit your email settings, go to your Inbox on desktop.

Public Open House Meeting record regarding AQ#1424 September 27, 2019

Location: Lakevale Community Centre

Person in Attendance: *Carleen Smith*
(please print)

Address: *Wagon Rd*

Full time Resident: ☒

Seasonal Resident:

Phone Number:

Email Address:

A) Questions you have arising from the open house that you would like answered: *- So many people no chance to see all displays*

B) Remaining concerns you have following the open house information session that you would like considered in the farm plan: *- Silt and infilling from discharge from oyster farming - Growth of industry - i.e. 40 people from Rusty Bay Pt. where so much in-filling happening due to oyster discharge like what happened in Rusty Harbour - Waterfront research - Change of eco system etc. etc.*

C) Residents own words, your thoughts regarding application #1424 and/or oyster farming in Antigonish Harbour...please write, date and sign. Thank you.

Trust of operational management - Property development has already limited access to harbour for residential use - walking - kayaking etc. Now presumably this will further restrict access - A Harbour is too precious to be "owned" and used by a small group or a single business ~~instead~~ The general public has little access as it is.

Signature: *Carleen Smith*

Date: *Sept 27, 2019*



Ernie Porter <ernieporter77@gmail.com>

AQ#1424**Ernie Porter** <ernieporter77@gmail.com>

Thu, Oct 3, 2019 at 7:44 AM

To: [REDACTED]@gmail.com

Hi Sarah

Further to my email from yesterday I have since received more information regarding your question about lease terms and conditions. Robert Ceschiutti, NSDFA Manager of Licensing and Leasing told me he is unable to provide any legal documentation listing terms and conditions of an Aquaculture License or Lease at this time. Under the current process these portions of such an agreement are only drafted after the Minister of Fisheries approves the lease.

Regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

AQ#1424

Ernie Porter <ernieporter77@gmail.com>

Draft To: [REDACTED]@gmail.com

Wed, Oct 2, 2019 at 9:35 AM

Hi Sarah;

Thank you for coming to our open house information session last Friday evening. You filled out one of our meeting record forms on which you asked questions and expressed some concerns. This is a vital component of public engagement that is important to both the process and the outcome so thank you for taking time to participate.

Some of your questions and concerns were addressed during the 11/2 hour long question & answer session at the meeting but I will recap below.

1) How are you going to protect the delicate ecosystem balance?

The activities associated with oyster aquaculture have been studied by and are monitored by government scientists and regulators. Our job as farm operators is to first propose an operation that is appropriate for the selected site then if approved we would be required to submit annually a farm management plan that provides detail that the regulators can use to ensure farm operations remain within expected parameters. We are not trained scientists but the operation will be monitored by such professionals.

2) Are you going to conduct site specific biological studies to quantify the potential impact based on the size of your oyster farm?

We have reached out to scientific sources for input to our application with regard to water quality issues, impact on eelgrass, possible effects of sea level rise, etc. which will be addressed in our application.

3) Will you be selling the business? If so what happens then?

We do not plan to sell the business and are not just going through the application process just to sell. If we were to sell then to other than a family member then the terms of the lease would govern the rights of the buyer.

4) What terms and conditions come with the potential lease? I have asked NSDFA for a copy of the lease terms and conditions but have not yet received this information. When I receive this information I will be better able to answer this question.

5) How are you going to contain the seeds?

The seed we collect from the harbour will be attached to collectors until we remove the collectors and thrash the seed off. Then it will be kept in our land-based nursery until large enough to be placed in growth units where it will remain until harvested.

Sperm and eggs produced by oysters on the farm will be released to the harbour where some will combine to form swimming larvae. These larvae form an important food source for small fish but those that survive the larval stage will attach somewhere to become juvenile oysters. This increase in oyster population is beneficial to the harbour ecosystem, to the existing oyster harvesters and potentially to our farm.

Regarding the concerns you expressed, we are very willing to discuss them further if you wish. Otherwise, be assured we will include them with our application.

Regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

Public Open House Meeting record regarding AQ#1424 September 27, 2019

Location: Lakevale Community Centre

Person in Attendance: SARAH JACOT
(please print)Address: [REDACTED]
Southside Harbour, NSFull time Resident: X (full time), <500m from
Seasonal Resident: Area 1 of the proposed
lease

Phone Number: [REDACTED]

Email Address: [REDACTED]

A) Questions you have arising from the open house that you would like answered:

- How are you going to protect the delicate ecosystem balance?
(besides quoting old, irrelevant info.)
- ~~Are~~ Are you going to conduct site specific biological studies to quantify the potential impact based on the size of your oyster farm? (eg. receiving water study to determine if nutrient loading has a negative effect)

B) Remaining concerns you have following the open house information session that you would like considered in the farm plan:

- will he be selling the business? If so, what happens then?
- what terms + conditions come with the potential lease? Does the public get to comment on them?

C) Residents own words, your thoughts regarding application #1424 and/or oyster farming in Antigonish Harbour...please write, date and sign. Thank you.

After nearly 20 years away we've finally moved home earlier this year and built our forever home. We didn't invest our life savings (and more) for the property value. We will never sell. Our investment is in our children's quality of life and upbringing, which is directly linked to the environmental health and recreational opportunities of the harbour. Do not approve application #1424. His family is not more important than mine and everyone else's who

Signature: Sarah JacotDate: Sept. 27/19live near and/or
use the harbour,

APPENDIX A: 2-ENGAGEMENT WITH TOWN POINT RESIDENTS

Ernie Porter

From: Ernie Porter
To: Peter Bowler; Rainer Wunn; Susan Vincent; Richard Wilgenhof; Mike MacDonald
[REDACTED]@ns.sympatico.ca)
Subject: Letter to TP residents May 25 2019
Attachments: Letter to TP residents May 25 2019.pdf

Dear Friends and Neighbours;

Please see the attached letter regarding our oyster aquaculture plans. We hope you find favor with the farm plan adjustments indicated. We will continue to communicate with you as further developments arise.

Sincerely,
Jane and Ernie

May 25, 2019

Dear Friends and Neighbours;

Thank you again for taking time to meet with me to review our oyster aquaculture plans. As discussed, we wanted to meet first with the residents of Town Point to provide you with a comprehensive description of our initial thoughts regarding farm layout, scale and function to enable early stages feedback from you. In our view this would permit us to understand your views and to receive your thoughts, suggestions, questions and concerns at a point in time when we can best factor them into the farm design.

As mentioned during each meeting, the plan we provided you was conceptual in nature because it was prepared prior to scoping the areas of interest and lacked the benefit of your input. Now that we have met with each of you and we have been able to conduct preliminary surveys of each site in questions we have revised the farm plan as follows.

Grahams Cove: We have removed this proposed lease area from consideration due to two factors...1) concerns expressed by a few of you and 2) shallow water depths in the areas desired for winter storage.

South of our property: We have moved this area eastward to a line extending southward from our barn. In this configuration the area of interest does not go to shore on the point south of the barn and it avoids the shallow area west of the barn. This modification is again a result of an expressed concern and water depth considerations. Please understand, this area is intended for winter storage of seed stock and marketable oysters. The stored product will not be visible and will be present only in fall, winter and spring months.

Captains Island: This area has been reduced in size by about one third which moves the south and west boundaries further from both Town Point and Archibald's Point. This modification is in response to concerns expressed by a few of you and general considerations of scale, output and water depth.

Cranberry Island: In the feedback we received from you this area was of least concern and there was no indication during initial scoping of any factor that would require adjustment of the site location or size, so it remains as presented.

Regarding concerns associated with increased traffic on the Seabright Road we will, as previously mentioned, increase our involvement in road maintenance on a proportional basis. Furthermore, we do not plan to sell our product to the public so added traffic will be limited to a few staff, and occasional deliveries/shipments.

Regarding location of the building that will house some of the farm activities we continue to explore options but have not yet found an ideal location. However, be assured wherever it goes it will be much smaller and far less obtrusive than the existing farm buildings common in the surrounding area.

Over the coming months we will be conducting much more detailed scoping of the desired areas and through this process further modifications may result. As explained, development of the farm plan is an

iterative process and many factors require consideration. We will follow up with you when a final design has been developed.

Please take note that we will be changing the date of the open house public meeting to some time in late August or early September so that we may include pictures/video of the growth units and the associated service boat we plan to use on the farm. Fortunately, I have only informed the few of you of the earlier date so no harm in making that change.

We assure you, we are approaching this venture as we have our other Town Point projects...with careful planning, a reasonable level of skill, and as responsible stewards of our beautiful area. We live here, we love the area and we have a wonderful view overlooking all the areas we wish to lease so please be assured we are not planning to do anything that will become a blight on this treasure.

Sincerely,

Jane, Ernie, John and Ted



Ernie Porter <ernieporter77@gmail.com>

Input and Questions

Ernie Porter <ernieporter77@gmail.com>

Sun, Sep 22, 2019 at 11:23 AM

To: Peter Bowler [REDACTED]@gmail.com>

Hello Peter;

That was quite a rain storm you had in Texas, I hope your new home wasn't damaged.

I'm glad Bill came to visit. I had reached out to him numerous times through the summer without success so now at least we've had an opportunity to discuss our plans. Bill didn't wish to go on record but he did share his principle concerns with me which is helpful.

You have voiced your concerns, I am aware of the issues important to you and we are taking them seriously.

1. You already brought up your concern related to any activity that may happen on our property including all possible farm related activities. You mentioned particular concern related to traffic on our driveway saying it is a bother because you hear the vehicle sound and think it may be a visitor to your property and you then look to see if someone is arriving. I understand the inconvenience this would cause and I suppose if the circumstances were reversed I would feel the same way. However, we have pointed out to you that, if approved, traffic will be limited to staff, occasional deliveries maybe a couple per week, similar level of shipments, and occasional visits from inspectors. We do not plan to run on a retail basis so visits by the public are not expected to be a factor.

The similar facilities we have visited are not as you describe. They do not smell, and are not noisy. We have also made this clear during our presentation August 13 and to anyone who has asked. Furthermore, we offered to determine if there are possible alternate locations for the farm support building (is is not a processing plant as there is no processing involved). We have done this and determined there are a few possible alternate sites that may be suitable.

a. As for the location of this building we have told you already that it is our preference to find a location other than our property and that we would look for such a site. We have done this and as mentioned above have determined there are a few possible alternate sites that seem to be suitable. We cannot commit to any particular location at this time simply because there first needs to be an approval of our application. We do not require this facility until there is product ready for market. It will take 3-4 years after approval to have oysters ready for market. So, if approved, we will deal with the building issue during year three. We hope that the best alternate sites remain available at that time but that is beyond our control. Of course there are many considerations that factor into the decision related to siting this facility. As you are aware, there are various business operation considerations related to cost and efficiency, there are factors that relate to the physical characteristics of the land and adjacent water depth, considerations related to adjacent land uses and no matter where this facility would be sited there will be neighboring property owners who may have concerns that will require consideration.

b. The similar facilities we visited do not use chemicals or detergents instead the facility is designed to function well in wet conditions. The daily routine is to rinse the grading/packaging area with water. Please understand, there is no processing involved so this rinsing is just dealing with whatever material may have been on the outside of the oyster shells. As for septic/sewage this will be designed and build to the standards and requirements of the national building code and municipal by-laws.

2. Our BOBR growth units have been designed to mitigate many disadvantages related to existing technology. One such improvement relates to the ease of sinking and re-floating the units. Existing systems in common use are very difficult and time consuming to sink and re-float, consequently farmers may choose to risk damage rather than work very hard to avoid it. We will be able to sink the entire farm within a couple of days and re-float in a similar time. Our system is mechanized so the effort to accomplish these tasks are largely performed by a machine rather than using manual labour which is the case with competing systems.

3. a. We have not ourselves studied the migratory habits of salmon trout or other species in Antigonish Harbour but a friend of mine has studied these fish in this harbour.

b. We have not ourselves studied the birds resident to or migratory in Antigonish Harbour but we have reached out to others who have done this.

c. Yes, we have evidence to support the common practice of sinking oyster cages to the bottom to avoid storms or ice.

4. We do plan to run this proposed farm as a family business and we do hope that it remains in our family for the long term maybe even becoming generational as is the case with some other farms in Antigonish County. You are asking for a further concession that, in this case, would restrict future flexibility related to ownership of our proposed farm. However, you have offered nothing nor have your tactics shifted in return for any concessions we have made to date related to other farm parameters. So, what are you putting on the table in exchange for this requested concession of "class B" license?

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

On Sat, Sep 14, 2019 at 9:01 PM Peter Bowler <[REDACTED]@gmail.com> wrote:
[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Input and Questions

Peter Bowler <[REDACTED]@gmail.com>

Sat, Sep 14, 2019 at 9:00 PM

To: ERNIE PORTER <ernieporter77@gmail.com>

Cc: Bill Hudon <[REDACTED]@gmail.com>, Colleen Marie Bowler <[REDACTED]@gmail.com>

Hello Ernie,

I spoke with Bill Hudon a few days ago. He mentioned that you said that those of us who oppose your plan are giving up our right to have input into your plan by not communicating directly with you.

I believe we've voiced our concerns about various aspects of your plan in many ways. However, given your comments to Bill and in hope that you will take our concerns seriously, here are a number of questions which I do not believe you addressed at the Panel Discussion, in any of the media or on your website.

1. We are concerned about the adverse effect a processing plant will have on Town Point, or many other areas of the Harbour. We are concerned about the impact it would have on traffic, especially if the access road is a narrow gravel road, the noise and smell of such a facility and impact such a facility would have on the values of surrounding properties and those that will view your plant. Your prior statements that the facility would be smaller than the large dairy barns along the #337 highway does not answer these questions or address these concerns. In light of these concerns
 - a. Where will you place your processing plant (i.e., the building which will house your depuration tanks, cold storage, areas for sorting, cleaning, packaging and shipping oysters?)
 - b. What chemicals, detergents and other materials will you use to keep the facility clean so that it does not smell and what septic/sewage arrangements will you use to ensure that these substances do not enter the harbour?
2. At your presentation on 8/13 you indicated that you will have approximately 300 oyster floats per acre and that your farm will cover approximately 120 acres. This means you will have approximately 36,000 oyster floats in the north end of the harbour bordering the channel and the cut to St. George's bay. How will you prevent sudden winds, storm surges, and other weather events from dislodging your gear and becoming navigational obstacles causing safety risks to boaters?
3. As my colleagues with The Friends of Antigonish Harbour stated at the Panel Discussion we have many environmental concerns about the impact of your oyster gear and farming activities will have on the harbour and the various species of plant, fish and bird life that live or migrate through the harbour. As a consequence of these environmental concerns, we have a range of specific questions. Here are just a few:
 - a. Have you conducted any analysis of the impact which your oyster farm will have on the migration of salmon, trout or other finfish species through the harbour to the South, West or other rivers?
 - b. Have you conducted any analysis of the impact which your oyster farm will have on resident or migratory birds which are prevalent in the areas you propose to lease?
 - c. Do you have any evidence to support your assertion that resting your oyster floats on the bottom of the harbour will not damage the harbour floor and life forms that live there during storms and during the winter when ice will be covering the floats?
4. One of our concerns is that that you will sell your oyster farming business after you have secured long term leases and commenced operations. You've said your plan is to run the Town Point Oyster Farm for the long term as a family business. In light of our concern and your intention to retain ownership, will you request a non-transferable-"B License" which would terminate the lease area if you or your family members do not continue to own and operate this lease? We understand that this kind of lease/license arrangement is used in Nova Scotia for licenses to fish other species.

Best regards,

Peter



Ernie Porter <ernieporter77@gmail.com>

Thu, May 16, 2019 at 11:07 AM

To: Peter Bowler [REDACTED]@gmail.com>

Cc: Jane Porter <[REDACTED]@gmail.com>

Attached, please find our response to your letter. Thanks again for your time and consideration.

[Quoted text hidden]



Peter and Colleen May 16.docx

18K

May 16, 2019

Dear Peter and Colleen;

Thank you for your thoughtful response to our discussions over the past couple of days and for a lovely dinner Friday evening. I am sure during your short visit you had plans to do things other than spending time on oyster aquaculture issues so sorry for the inconvenience and thank you for taking time both with me and following to articulate your concerns.

I appreciate your positive comments regarding our technology developments, it is a very exciting venture that has made great progress in a short time. As I mentioned, if for some reason the aquaculture venture does not work out at least DockPort Ltd will have made all the effort worthwhile. In this event, we would arrive at your most preferred scenario 1) but as I tried to explain, this outcome does not fulfill the broader objective of providing a business that would sustain our boys and keep them nearby.

With your scenario 2) I pointed out that the market for a seed only venture is too dependant on the variations in annual natural spat fall. Some years farmers may be self-sufficient in seed so no market for us, other years may be OK but as you more than most can appreciate this is not a great basis on which to establish a business.

Regarding your scenario 3), as I mentioned, I am willing to consider adjustments to the arrangement of our farm in part to accommodate some of the concerns raised through discussions with nearby residents. The proposal put forward is only a starting point meant to provide a reasonable basis for meaningful discussion. I felt it would be more productive and responsible to have something on paper than to only talk in generalities. This way, I hope there is greater understanding and more clarity on both sides of the conversation. After I have managed to meet with each of our immediate neighbours and have comments back I will carefully consider the feedback and likely revise the farm arrangement to best mitigate concerns.

The other major factor that will influence basic farm arrangement is information collected from scoping the desired sites. This process has not yet started but I hope to begin next week. You mention water depth as a concern and you are correct. This is one of the parameters examined during scoping. Areas that are too shallow are not suitable and would not be selected as grow sites.

Your concern regarding eelgrass is valid and is being considered. I invited DFA officials to my property to walk the shoreline and view the proposed lease areas for the particular reason of getting some feedback and guidance relating to eelgrass. We have been in contact since his visit and he has plans to meet with colleagues to discuss the matter. We plan to visit the proposed lease areas by boat together soon for a closer look. As I mentioned, I read two studies on the issue of eelgrass but they are inconclusive. I look forward to more decisive conclusions and direction from DFA.

Regarding your water depth concern, we will not select areas that have a low tide depth of less than 2.5 feet for grow sites. So, the BOBR growth units will not be sitting on the bottom at low tide during the growing season. They will not impede the movement of fish, but they may provide valuable protection from predation for smaller fish. Kayaks, canoes and the like will easily pass through the leased area, however power boats and sailboats would be impeded. The areas selected are not commonly used by power boats or sailboats.

Regarding scale, the Option to Lease we have been granted permits only scoping not aquaculture. This Option to Lease applies to the entire area enclosed by the red line on the GIS map I gave you. That just means no other firm may apply for a lease in that designated area during the term of the option. During the scoping and public engagement facets of the process, information will likely arise that influences the farm layout one way or another. Under the Option to Lease we may select any area within the red boundary to study and consider as part of our final application. I expect there to be numerous changes to the layout as more information is collected.

One factor influencing layout that I mentioned to you is scale, particularly as it relates to future productivity. We must consider how to right size the farm. On one hand there are economic pressures suggesting more is better, on the other hand there is a use it or lose it condition on these leases. Also, factoring in is the dilemma of do you choose a size that seems large enough now plus some accommodation for growth to avoid having to revisit the application process in the future or ignore that pain and apply for a smaller area then come back to the well down the road. Not an easy decision. Scale is also important to others who may feel impacted by the development, we need to also consider their (your) concerns.

Regarding proximity, yes with the initial "proposed" layout you are surrounded, and I think I understand how you feel about that. Please give me time to get further with the public engagement task and get some of the scoping done then I will be in a better position to consider alternate layouts. Your desire to limit traffic on our driveway is heard and understood. As we discussed, I will attempt to explore the option of locating the building component near the existing commercial fishing operations in Southside Harbour directly across from Town Point. While this outcome presents some logistical challenges, it does make good sense from the perspective of concentrating these more commercial activities in one area. Perhaps, through your network of friends you could plant some well-placed seeds that might make my introduction of the notion more likely to fall on receptive minds? I am not expecting a warm reception, but I will give it an honest effort.

The fallback scenario of placing the building off Town Point but adjacent to Seabright Road is my preferred solution and I appreciate you being willing to live with that outcome...I think I'm interpreting your comment in scenario 3) correctly.

I understand your concern about our new BOBR growth units being "unproven". Please be assured they will be thoroughly tested prior to deployment on our farm. As I

explained, they will be in use this summer, fall, winter and next spring prior to coming to our farm. You are welcome to come see them in action later this summer which will enable you to better understand how they work. I would be very pleased to take you to Philip's farm for a tour.

Furthermore, I am not interested in using the competing gear on our farm for both aesthetic and economic reasons so please don't be concerned about us switching to "traditional gear" we are not going to do that.

Regarding visibility, in very calm conditions even though BOBR floats with only about 2" above water they will be visible from nearby, but normally they will lie within the wave pattern and will therefore be far less noticeable than existing gear common to this region. However, please consider for a moment that some other proponent chose this area before us or after us if we decline to proceed. That applicant would lack our commitment to better gear would not likely have equal vested interest in Town Point and may approach the process in a less congenial manner. Then we would be facing the same process but with a significantly worse outcome. So, I suggest, for many reasons it's better that we are the proponent than if any other party had come forward first.

Your comments regarding commercialization of Town Point are true and accurate and I don't disagree. I will continue to explore options for the building and dock components that could see those portions located elsewhere and if you have further suggestions for other locations please share them with me. I am in contact with two property owners that may provide some relief on this issue but its very early in the process and I cannot yet judge either the suitability of the sites or likelihood of success.

I trust we can move along through this process with open dialogue and shared interest in the most positive outcome.

Sincerely,
Ernie and Jane

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

Ernie Porter

From: Peter Bowler <[REDACTED]@gmail.com>
Sent: May 16, 2019 8:36 AM
To: Ernie Porter; Jane Porter
Cc: Colleen Marie Bowler
Subject: Corrected version of Bowler Comments
Attachments: Copy of Response to AQ#1424.docx

Apologies Ernie and Jane, I attached a prior version of the file which was not complete. This one corrects a few typos and completes the final paragraph. I've copied it into this email and attached a Word version.

Peter

5/15/2019

Dear Ernie and Jane,

First, thanks for briefing us on your plans for potentially starting an oyster growing venture in Antigonish Harbour last fall, again this Friday evening over dinner and during Peter's walk with Ernie on 5/14.

Next, we are both impressed by the work you've put into this plan and especially by the new technology and techniques you've developed to improve efficiency and reduce the visual profile and environmental impact of oyster growing. The combination of Ernie's engineering and problem-solving skills and Philip's experience and practical insights and the Merigomish operation seem like a great combination. We are excited for you and hope that this aspect, in particular, of your venture (i.e., designing, selling/licensing, your technology and techniques) is a great success.

We do have concerns about the plan for oyster growing operations in Antigonish Harbour and in a structure on your property adjacent to our own properties. Our concerns can be grouped into a few categories: Environmental, Scale, Proximity, Risk of New Technology, Visual Impact/Aesthetics and Commercialization of Town Point.

We cover these concerns in more detail below but the short story is that our most preferred to least preferred scenarios are as follows

- 1) you concentrate on refining and selling the technology and techniques, leaving Antigonish Harbor unimpacted.
- 2) you limit your venture to the oyster seed growing operation you envisioned last fall.
- 3) you select one lease area on the east side of the cut and one winter storage only area in Graham's Cove and attempt to base your land based operation either near the wharf and buildings used by the lobster fisherman at Brophy's Point on the northeast shore of the harbor or in a new structure located in the forested area on the south shore of Graham's Cove.

Expanding beyond these activities, we believe will adversely effect the beauty and the value of our properties and our ability to enjoy them.

Environmental Impact

We are interested to hear your description of the oyster grow operation as improving the quality and clarity of harbour water. However, we're concerned about the potential impact on the eel grass and all the related migratory fin fish, bird

life and other crustaceans in the harbor. Based on our experience, paddling and fishing in the areas you've designated, during low tide, portions of these areas are only a foot or two deep. I am concerned that the BOBBERS / oyster containers would be sitting on the floor of the harbour at these times, damaging vegetation and impeding movement of minnows and larger fish (salmon, sea trout, striped bass, mackerel, etc.) whose movements are not limited exclusively to the main channels. Placement of the lines of BOBBERS / oyster containers would also impede fishing, kayaking and other pleasure craft from operating in these areas.

We hope that a thorough environmental impact by a qualified and impartial expert would be completed.

Scale

The scale of the planned venture has grown substantially from the thoughts you discussed with us last fall, which entailed a small land based operation which you both would run out of a modest structure on your property and some land based holding pools.

The venture you describe in the AQ#1424 public engagement document and accompanying map, and which you discussed on Friday evening, entails prime and centrally located areas of the harbour covering surface areas multiple times the entire size of the Seabright Peninsula.

We know you indicated that the Dept of Fisheries officials encouraged you to apply for all the areas you might consider rather than just those you're certain you want to execute and that based on Ernie's comments to Peter on 5/14, you plan on using either the lease in front of your old cottage or the lease in Graham's Cove exclusively to contain fully submerged storage during the winter months. However, paragraph 4 of the document you gave us on Friday evening (AQ#1424 Public Engagement Document) says that you have an option to lease all of the four areas and that you are planning to use these specific locations ... and further that "the size, location and shape of these areas may change".

Further the land based operation has grown from a small structure to a building "roughly twice the size of your current barn" in addition to some number of silos/external upwelling tanks originally planned for growing the oyster seeds.

Proximity

The portions of the harbor which you've outlined literally surround our property

- to the north the two large leases (between our land and the central area of the harbor),
- to the east (between your point and the 10 acres we bought last year situated between your land and the cemetery—land purchased explicitly to prevent other commercial development potential)
- to the west (in Graham's Cove)

To the south, if the building referenced in your document (and which you described in our meeting as being roughly twice the size of your barn) is located where Ernie described on his walk with Peter (approx. 20 meters inland from the cove and roughly in line with the lighthouse). Aside from the aesthetics of having a large commercial structure on your property, the fact that the majority of your drive is close to or on our southern/southeastern property line, we hear every vehicle traversing your drive and the voices of people walking or working on this portion of your property. Additional traffic from employees, vendors, delivery or pick-up vehicles traveling on this road would increase frequency and possibly volume of noise from these operations.

A new or expanded dock (either in Graham's Cove or near your current dock) with 5 day a week boat and vehicle activity, would make our end of Town Point much more noisy than it is today

Risk of Unproven Technology

We are very impressed with the thoughtfulness of the new oyster growing technology/techniques you and Philip have developed. We hope they are successful and that you are able to build a growing and profitable business designing, licensing, selling etc., your new approach.

In the event that your new technology does not work as planned (e.g., the BOBBERS sit higher in the water than your plan calls for, the rafts require more secure footings/cables, the de-fouling operation does not work as planned, oysters don't grow well in the BOBBER, etc.) or takes longer to develop than planned, you will have secured a license to operate an oyster grow operation in this highly sensitive environment and one which as described above, surrounds our property and will dominate the harbour. Although not your current intention, you and/or your partner may be tempted to use traditional equipment and techniques which would exacerbate our concerns.

Visibility and Aesthetics

The two largest lease areas you've proposed will be highly visible to everyone using the harbour, living near the northern portion of the harbor or driving the #337. Even if the profiles of the BOBBERS are as modest as your plan calls for, they will present a man-made / grid shaped design on one of Northeast Nova Scotia's most beautiful natural harbors and estuary areas.

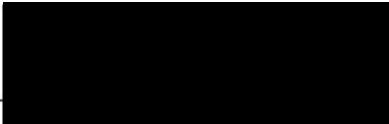
Commercialization of Town Point

At various points over the past 10 years, various people have attempted to create commercial ventures on Seabright Road which would have compromised the value of our properties and the objectives we both held when we selected our properties. Chris Galea bought land on Graham's Cove with the intention of building apartments. Manfred Goring built an illegal structure apparently with the intent of operating a commercial workshop. A St. F.X. professor wanted to buy the land between your property and the Town Point Cemetery with a vision of building many rental cottages claiming that he had connections which would enable him to skirt restrictions on building on environmentally sensitive portions of the property. In all of these cases we were aligned in preserving the non-commercial, natural setting of the Town Point area. We purchased the land between the cemetery and your property with the explicit intention of safeguarding your view and our view looking south/south east from our properties. The full implementation of the plans outlined in the AQ#1424 document seems inconsistent with our shared objective of keeping Town Point as natural and special as possible.

Thanks again for seeking our input.

Peter and Colleen Bowler

In Person Meeting record regarding AQ#1424

Date of meeting: May 11/19 Time: 9:16pm Location: 

Persons in attendance:

Peter & Corinne Bowler
Jessie LIGHTSTONE.

Project Outline Provided and reviewed:

Questions:

Concerns:

- 1) SCALE
- 2) Bought Land To Avoid Commercial Dev.

Response: 3) Visibility From House.

Date of response:

Will Go Together To Walk Sites For
building

Town Point Oyster Farm

AQ#1424 Public engagement hand-out:

Town Point Consulting Inc.

Town Point Consulting Inc. is a family business located at 370 Seabright Road, Harbour Centre. Our family (Ernie, Jane, John and Ted) hope to establish an oyster farm in Antigonish Harbour to produce high quality oysters for the raw bar market.

To date, we have applied for a licence to operate a small land-based oyster nursery on our property that will produce premium oyster seed. If approved, this nursery will supply our farm and excess seed would be sold to other oyster farmers.

We have also applied for and received approval of an Option to Lease within a designated area of Antigonish Harbour. This is the first step in the process of establishing the grow-out portion of an oyster farm. Under this Option to Lease, Town Point Consulting will complete an extensive scoping procedure to establish the physical characteristics of the sites we wish to occupy. Also, during this Option period we are required to engage with local residents to inform them of our intentions and describe the nature of the farm. The following is a brief description of expected farm layout and operation.

The attached GIS Map shows the area approved for scoping under our Option to Lease Application. We have indicated on this map the specific locations we hope to lease and the purpose of each leased area. Please note, the size, location and shape of these areas may change as we gather more information specific to the sites.

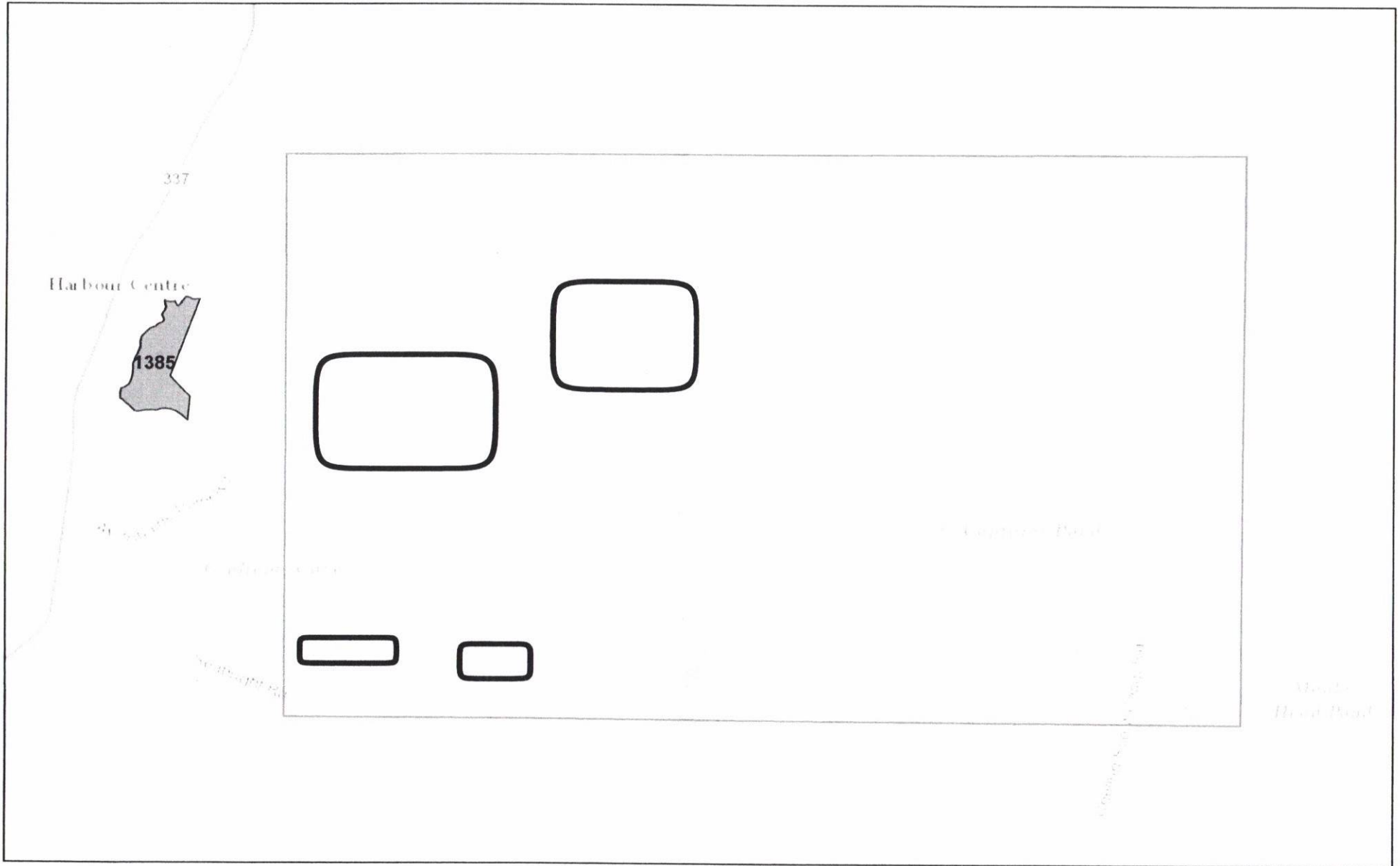
We are very conscious of the beautiful vistas many properties have overlooking Antigonish Harbour and we have taken significant steps to ensure our operations do not detract from the value of this feature. Unlike many farms that use floating cages, we will be using oyster growth units that have a very low profile, floating with only an inch or two above water. This low profile combined with their dark color will allow the units to blend in with the normal wave pattern in the harbour.

We plan to select lease areas that are not adjacent to existing homes or to land that is likely to be developed in the future.

The location of the leases do not coincide with known boat routes or the harbour channel.

We plan to have the following farm components: Land-Based Nursery for oyster seed with adjacent lease for seed storage, two grow-out leases, another lease for winter storage of mature oysters, a dock and an adjacent building that will serve as office, locker room, depuration process, packaging, cold storage and shipping.

Development of the farm will occur over the course of about five years. When fully operational it will produce several million oysters annually and employ 10-15 staff.



1/29/2019 9:35:20 AM

Marine Shellfish Lease Boundary Marine Finfish Lease Boundary

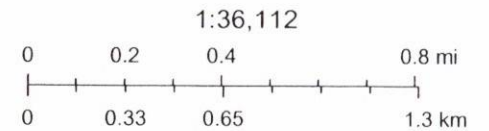
Issued

Issued

Proposed Lease Areas (Approximate)

Option Boundary

Proposed



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Disclaimer

Proposed option area is area within the red box shown on this map.



Ernie Porter <ernieporter77@gmail.com>

Re: AQ#1422 & #1424

Colleen M Bowler <[REDACTED]@gmail.com>

To: ERNIE PORTER <ernieporter77@gmail.com>, [REDACTED]@gmail.com

Cc: Peter Bowler <[REDACTED]@gmail.com>

Mon, Jul 15, 2019 at 3:30 PM

Ernie & Jane...

After our conversation on Friday evening, July 12th, with Ernie, we wanted to be very clear about where we stand now in regards to any oyster farming in Antigonish Harbour.

We shared concerns and immediate thoughts during that meeting and in our memo of 5/15/19. We found your message of 5/16/19 to be dismissive of our concerns and incorrectly assuming that we were supportive of your plan.

Since that time we have spoken with many concerned residents and users of Antigonish Harbour and have concluded that we can not support your plan. In fact we are joining a large and growing group of residents and users of the harbour who are actively opposing your plan.

Please ensure that any information shared with the NS Dept of Fisheries and Aquaculture regarding your discussions with us reflects our strong disagreement with your applications AQ1422 and AQ1424.

Sincerely

Colleen and Peter Bowler



Ernie Porter <ernieporter77@gmail.com>

Mud whole and BellAlient

Peter Bowler <[REDACTED]@gmail.com>

Wed, May 22, 2019 at 6:31 PM

To: "wilgenhof2 auracom.com" <[REDACTED]@auracom.com>

Cc: ernieporter77 <ernieporter77@gmail.com>, [REDACTED]@me.com" <[REDACTED]@me.com>, Susan Vincent <svincent@stfx.ca>, Marc Genuist <[REDACTED]@gmail.com>, Jayne Chisholm <[REDACTED]@gmail.com>

Hi Alena and Richard,

Apologies for taking such a long time to comment on the message you sent to Ernie and copied to our neighbors and us.

Colleen and I had the chance to talk with Ernie while we were at Town Point earlier this month. Ernie gave us copies of the Public Engagement Form (AQ#1424) and explained his plans.

Like you, we have a range of concerns regarding the plans, or potential plans, for Town Point Oyster Farm and the impact these plans would have on, our properties and our enjoyment of Town Point and Antigonish Harbour. We've shared these concerns with Ernie in person and via letter. We also agree that a meeting of the Town Point community to discuss this potential development would be worthwhile. We're sure Ernie and Jane will take our concerns into consideration but believe that the sooner we can have a broad ranging discussion among everyone impacted the better, and that waiting until late July seems too long. Although we don't currently plan to be back in town for several weeks, we would be happy to participate via phone or video conference at a time that works for everyone.

Thanks, and we hope the weather improves soon in NE Nova Scotia.

Peter and Colleen

[Quoted text hidden]

In Person Meeting record regarding AQ#1424

Date of meeting: 13 Sept 2019 Time: 12:30 Location: [REDACTED]

Persons in attendance:

Susan Vincent

Address: [REDACTED]

Harbour Centre

Full time Resident: ☐

Seasonal Resident: ☐

Project Outline reviewed: ☒

Questions:
 - eelgrass impact?
 - wear & tear on road? road condition?
 - impact of processing plant on Seabright property
 re noise, odour, etc.

Concerns: as above

Response:

Date of response:

Residents own words:

Susan Vincent

SUBMITTED DURING
AUG 13/19 PUBLIC PANEL
365
DISCUSSION.

Panel discussion organized by David Garbary, AQUA
Schwartz Auditorium, Tuesday 13 August 2019

I am a Town Point resident, a kayaker, and environmentalist. I am neutral with respect to this project – in favour because of the environmental positives and local community development, slightly against on what I confess are NIMBY grounds. Given the positives, I don't feel NIMBYism is a legitimate position.

My kayaking friends and I have paddled among oyster beds – no big deal. Not always great to look at, but they break waves when it is rough. There has been some discussion about “privatizing the commons,” but is this really an argument for maintaining access for the leisure activities of privileged white people – like me -- as opposed to permitting a broad range of activities, some economic and some for recreation?

The Porters approached us about the project and have been meticulously transparent with us, so I am surprised about FOAH claims to the contrary. Our initial concerns were about the environmental impact so I independently researched the scientific literature. This generally tends toward oysters as beneficial, particularly for filtering water, something the harbour desperately needs. I like untouched wilderness, but also want to live in a house, have roads, electricity and so on. So do others and I am not hypocritical enough to try to prevent them from enjoying services I have or want. Collectively we pay taxes and for services, and community-based economic development supports those services. Because the environmental research shows oysters to be positive, I am puzzled by the FOAH position, especially when they present their arguments in environmental terms. It is exceedingly dangerous to misuse environmentalist discourse as that can undermine legitimate science-based environmentalism.

It is especially concerning when a large network has been mobilized, using alarmism around the environment. This is a textbook case of the downside of the powerful social bonds that characterize Maritime culture: they can offer fast effective assistance in times of crisis, but are also exclusionary and resistant to change. In this case, supporting one's friends and family appears frequently to have taken priority over evaluating the real advantages and disadvantages of the situation. My question to those who have joined FOAH or signed their petitions is whether, having heard the evidence presented here tonight, if someone in your own social network had put forward this project, would you still be against it? Or would you then praise its environmental, locavore and community development benefits?

Statement By
MARC Genuist

SUBMITTED DURING
AUG 13/14 PUBLIC
POWER DISCUSSION

Ernie and his family are neighbours. This spring Ernie came to describe his project as well as answer any questions we might have. He also made a short presentation at our annual road association meetings last fall.

Like many of the opponents I wanted to know if this was a good match for the harbour. The results from many sources were unanimous. Around the world oyster farming is described as a boon for anybody who cares about the water quality of an ecosystem.

I kayak a lot in the harbour. Some weeks I'm not just on the water but also in the water, every day, practicing rolling my kayak upside down and coming back up again. It bothers me that all across the harbour there are yellow sign put up by DFO. The signs warn people about the pollution levels in our less than pristine harbour.

In other location environmentalists are applauding oyster farming. Along the eastern seaboard oysters are a key component of efforts to clean up their bays. New York has a project to seed a billion oysters. In Ireland, the UK and France oyster farming is considered one of the most environmentally sustainable forms of aquaculture.

I think there are environmentalists among those opposed to this project. Their time might be better employed. Perhaps they could work with the proponent and the 2 other groups who are currently gathering oysters in the harbour to see how those efforts can improve our water.

As a resident and kayaker I'm surprised to hear that many of the current opponents are concerned about how this project will restrict access to the harbour. This is quite a turn of events. I remember 12 years ago when a proposal was made by many different residents of Antigonish Town and County to increase public use and access to the harbour. The plan was to upgrade Seabright road and the small park which houses the Antigonish boat club. Back then Friends of Antigonish harbour were ferociously opposed to that idea. For some, one major argument was a concern about road dust falling on certain people's homes if kayakers, sailors, fishers, canoers and others were encouraged to use Seabright road in order to gain access to the water. NIMBY'ism at its best. 12 years ago their veto was enough to kill that project. Given that history, I wonder just how seriously those same people really care today about public access to the water. Is this not just another way to hide their NIMBY'ism in order to keep dust off their windows?



Ernie Porter <ernieporter77@gmail.com>

Thu, May 16, 2019 at 6:49 AM

Cc: Susan Vincent <svincent@stfx.ca>

Thank you for the update. I look forward to whatever feedback you can provide.

I hope you don't mind that I am sharing this response with one of my neighbours who, as I mentioned during your visit, shared with me two studies related to possible aquaculture impacts on eelgrass. This is the reason I raised to issue at our pre-application meeting two weeks ago.

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

<https://mail.google.com/mail/u/0?ik=de770c3fd8&view=pt&cc=rob@all&cc=mar...>

Ernie Porter

From: Susan Vincent <svincent@stfx.ca>
Sent: May 2, 2019 1:46 PM
To: Ernie Porter
Subject: RE: oysters and StFX

Sounds good. By the way, it occurred to me that there are occasional rumours of natural gas extraction in St. George's Bay, so your oyster operation, in addition to the lobster fishing, might be good reasons to keep that at bay. I have given Lynn the information about the open house. The Aquatic Resources program is being or has been updated, so this might land at a very good time.

SV

From: Ernie Porter <Ernie.Porter@lindsayconstruction.ca>
Sent: Thursday, May 02, 2019 1:32 PM
To: Susan Vincent <svincent@stfx.ca>
Subject: Re: oysters and StFX

Hi Susan

Thank you very much. I would like to make a such a connection with StFX. It is still too early to arrange a placement but it would be great to make contact. I hope Lynn comes to the open house.

Regarding eel grass, I met with a DFA biologist with interest in the issue. He came to my property and I was able to describe our plans. He committed to returning in the coming weeks after my boat is launched so we can go to the site for a closer look. He may assist me with making a video baseline of the site bottom.

Turns out there are no particular guidelines but there is a growing interest in the subject so related regulations may follow.

Regards
 Ernie

Sent from my iPhone

On May 2, 2019, at 1:23 PM, Susan Vincent <svincent@stfx.ca> wrote:

Hi Ernie,
 I talked to Lynn Patterson, who is the administrative assistant of the Aquatic Resources program and organizes their internships. Students must do an internship in their third year in preparation for an analytical report in their fourth year, as I understand it. She was quite excited by the possibility that there might be placements with your operation in the future. I may be misunderstanding your idea about a connection with StFX. If you would like to discuss it further with her, she is at lpatterson@stfx.ca. I will also let her know about your open house in July.

SV



Reid, Gregor Kyle <Gregor.Reid@novascotia.ca>
To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Wed, May 15, 2019 at 4:11 PM

Thanks for the tour of your property the other week and for showing Brennen and I the potential culture areas of interest. I just wanted to let you know that I have not forgotten about the eel grass questions. My group is meeting with DFO Gulf region next week to try to get some clarification on the matter. I will keep you apprised.

Gregor Reid, PhD
Acting Manager of Aquaculture Operations
Nova Scotia Department of Fisheries and Aquaculture
1575 Lake Road
Shelburne, NS
B0T 1W0

F: (902) 875-7429

E: Gregor.Reid@novascotia.ca

Ernie Porter

From:
Sent:
To:
Cc:
Subject:

Susan Vincent <svincent@stfx.ca>
 May 1, 2019 9:52 AM
 Ernie Porter
 'Marc Genuist' [REDACTED]@gmail.com)
 RE: Oyster Aquaculture

Hi Ernie,

Thanks for your detailed and attentive response to the concerns raised in the articles. You have clearly investigated the different methods of oyster-growing and their implications. The approach you are suggesting sounds reasonable. I am glad you will check into the eel grass situation in the different areas, as my memory of what is where is fallible, and there are also annual changes in growth. We are very pleased that you are taking the environmental health of the area as a high priority and developing new technology that will further the environmental sustainability of the industry.

You have outlined a project that would not be noisy and would be visually low-impact. We hope that the development might prompt the province to revive the improvements to the road that were curtailed some years ago.

Thanks,

Susan and Marc

From: Ernie Porter <Ernie.Porter@lindsayconstruction.ca>
Sent: Sunday, April 28, 2019 7:25 PM
To: Susan Vincent <svincent@stfx.ca>
Subject: Oyster Aquaculture

Hi Susan and Mark;

Thanks again for sending me the two articles on environmental effects of oyster aquaculture. I've read both articles and found them to be very informative. While some of the possible effects apply to bottom culture and inter-tidal techniques which are not planned in our situation other concerns are indicated when surface culture is employed. The articles pointed out that the severity of possible adverse environmental effects are much lower with surface culture than bottom culture but are still worthy of consideration when siting any farm.

With inter-tidal techniques such as rack and bag farming, the articles point out there is usually vehicle and foot traffic which directly impacts the naturally occurring fauna particularly seaweed and eel grass growing in the area. A significant reduction in this fauna often results in these circumstances. A bottom culture approach that employs mechanical harvesting is also noted as being particularly disruptive to the native fauna due to its disturbance of the sediments in which the plants grow. We will not be using either of these farming techniques.

The articles indicate there may also be a reduction in eel grass coverage on surface culture farms in situations where wire cages are used and a lower incidence when longline techniques are employed. In these cases the articles point out the negative implications are a result of shading and prop wash rather than direct contact. Our plans are to use neither of the surface culture techniques addressed in the articles but instead a cylindrical cage that will have a cross section area much smaller than that of the referenced wire cages but larger than that of the longline approach. We expect, therefore, that the resulting shading effect of our approach will be less than that of the wire cage but more than the longlines.

371
The articles indicate longlines are the least disruptive technique followed by other surface culture approaches. Our farm will fall in the category of second least disruptive and will be less problematic than the farms using wire cages common in Atlantic Canada. Our growth unit called BOBR will cast a shadow of 4 square feet per unit as compared to 14 sf/unit for wire cages common to the region. Of course in both cases there are multiple cages but with BOBR the shadow cast is small enough that as the sun moves across the sky through each day the bottom below will receive direct sunlight part of the day. With the much larger shadow cast by the wire cages the portion of the day with direct sunlight will be correspondingly shorter. Therefore, the negative effect of shading resulting from our BOBR units will be significantly less than that of the common wire cages.

In our recent discussion of our oyster aquaculture initiative you pointed out that, based on your observations while kayaking the two grow-out areas we are considering, the area east of the harbour entrance has far less eel grass than the site west of the channel so possible negative effect of shading should be less on this site. While we have not yet conducted detailed scoping of either area, based on my own casual observations over the past decade I agree. In any case, we will take the density of present eel grass and the possible effect of shading into consideration during our scoping and farm design processes.

Thank you for your keen interest in both our plans and harbour health in general.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com



Ernie Porter <ernieporter77@gmail.com>

oysters

4 messages

Susan Vincent <svincent@stfx.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Sun, Apr 21, 2019 at 1:14 PM

Hi Ernie;
Here are links to the articles I glanced at: <https://blogs.umass.edu/natsci397a-eross/7135-2/>
<https://www.omicsonline.org/open-access/ecological-consequences-of-oysters-culture-2332-2608-1000198.php?aid=83576>
Both outline dangers and suggest mitigating practices.
sv

Susan Vincent, PhD
Professor, Department of Anthropology
St. Francis Xavier University
PO Box 5000
Antigonish, NS B2G 2W5
CANADA

 **winmail.dat**
13K

Ernie Porter <ernieporter77@gmail.com>
To: Susan Vincent <svincent@stfx.ca>

Sun, Apr 21, 2019 at 1:16 PM

Hi Susan

Thanks a lot. I'll read them while we're away this week.

Regards
E.

Sent from my iPhone
[Quoted text hidden]
> <winmail.dat>

Susan Vincent <svincent@stfx.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Sun, Apr 21, 2019 at 3:44 PM

They will likely make more sense to you. I think Marc said you were having your mother visit -- say hi for me, and happy easter to all.

sv
[Quoted text hidden]

Ernie Porter <ernieporter77@gmail.com>
To: Jane Porter <janepor2014@gmail.com>

Sun, Apr 28, 2019 at 5:51 PM

Sent from my iPhone

Begin forwarded message:

In Person Meeting record regarding AQ#1424

Date of meeting: April 26, 2019 Time: 11:30 Location: [REDACTED]

Persons in attendance:

Susan Vincent
Marc Genest

Project Outline Provided and reviewed: Yes

Questions: Susan Asked About Kel Grass - Has Read Articles That Suggest Possible Effect of Shading - Said She Would Send The Articles.

Concerns: Marc was very positive and was familiar with such farms through his CBC Reporter work in N.B.

Food Supply? Is there enough to provide for both Native & Farming?

Response:

Invited Dr. Gregor Reid - DFA To Site To Discuss Kel Grass Concerns.

Date of response:

Read Articles & Replied To Susan April 26

Dr Reid Visited Site May 1 with Brennan Graham - DFA. He offered To Give Back After my boat is launched To Take A Tour of The Lease Sites.

Town Point Oyster Farm

AQ#1424 Public engagement hand-out:

Town Point Consulting Inc.

Town Point Consulting Inc. is a family business located at 370 Seabright Road, Harbour Centre. Our family (Ernie, Jane, John and Ted) hope to establish an oyster farm in Antigonish Harbour to produce high quality oysters for the raw bar market.

To date, we have applied for a licence to operate a small land-based oyster nursery on our property that will produce premium oyster seed. If approved, this nursery will supply our farm and excess seed would be sold to other oyster farmers.

We have also applied for and received approval of an Option to Lease within a designated area of Antigonish Harbour. This is the first step in the process of establishing the grow-out portion of an oyster farm. Under this Option to Lease, Town Point Consulting will complete an extensive scoping procedure to establish the physical characteristics of the sites we wish to occupy. Also, during this Option period we are required to engage with local residents to inform them of our intentions and describe the nature of the farm. The following is a brief description of expected farm layout and operation.

The attached GIS Map shows the area approved for scoping under our Option to Lease Application. We have indicated on this map the specific locations we hope to lease and the purpose of each leased area. Please note, the size, location and shape of these areas may change as we gather more information specific to the sites.

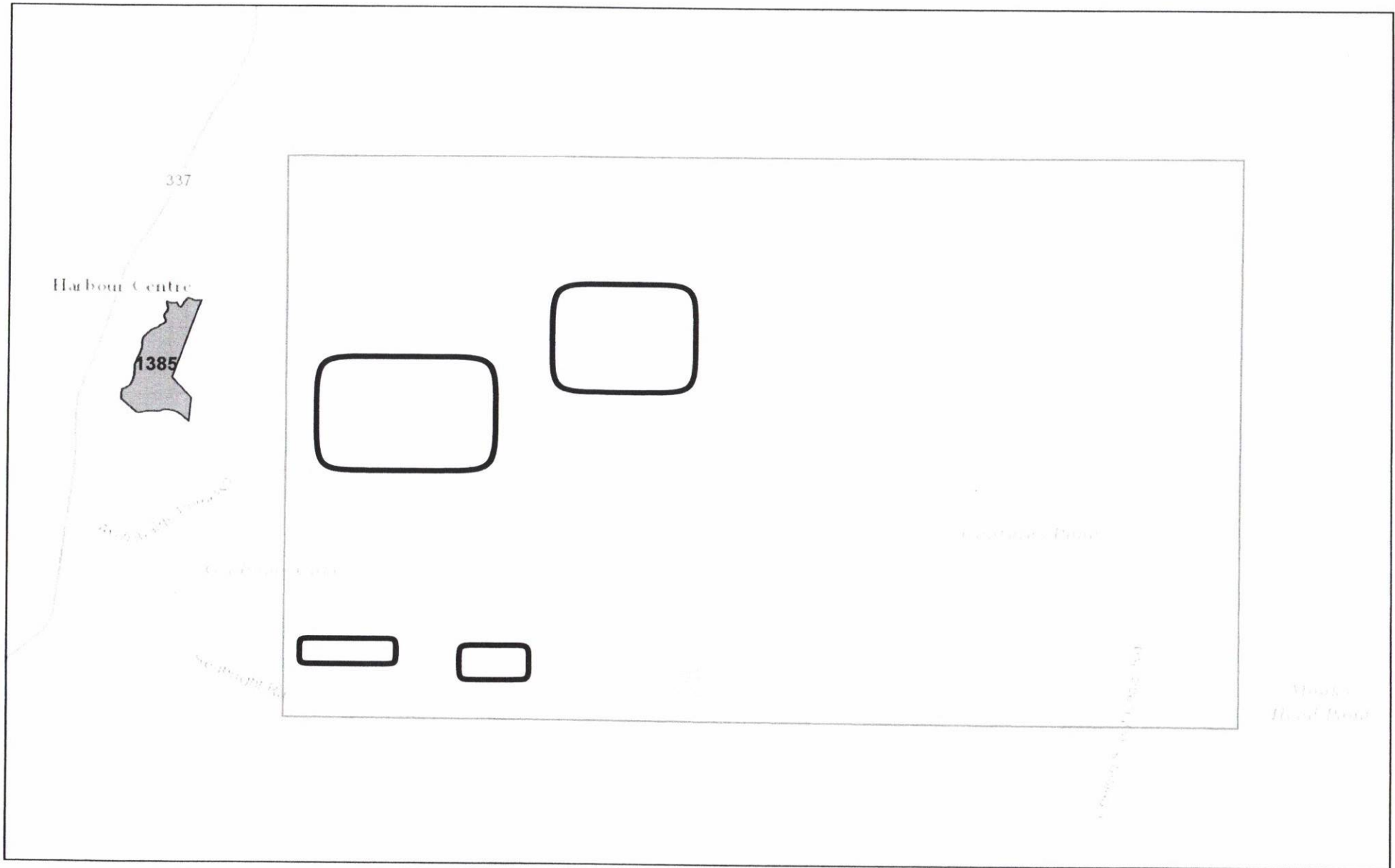
We are very conscious of the beautiful vistas many properties have overlooking Antigonish Harbour and we have taken significant steps to ensure our operations do not detract from the value of this feature. Unlike many farms that use floating cages, we will be using oyster growth units that have a very low profile, floating with only an inch or two above water. This low profile combined with their dark color will allow the units to blend in with the normal wave pattern in the harbour.

We plan to select lease areas that are not adjacent to existing homes or to land that is likely to be developed in the future.

The location of the leases do not coincide with known boat routes or the harbour channel.

We plan to have the following farm components: Land-Based Nursery for oyster seed with adjacent lease for seed storage, two grow-out leases, another lease for winter storage of mature oysters, a dock and an adjacent building that will serve as office, locker room, depuration process, packaging, cold storage and shipping.

Development of the farm will occur over the course of about five years. When fully operational it will produce several million oysters annually and employ 10-15 staff.



1/29/2019 9:35:20 AM

1:36,112

Marine Shellfish Lease Boundary Marine Finfish Lease Boundary

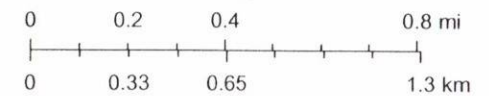
Issued

Issued

Proposed Lease Areas (Approximate)

Option Boundary

Proposed



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Disclaimer

Proposed option area is area within the red box shown on this map.



Ernie Porter <ernieporter77@gmail.com>

Mud whole and BellAlient

Peter Bowler <[REDACTED]@gmail.com>

Wed, May 22, 2019 at 6:31 PM

To: "[REDACTED] <[REDACTED]@auracom.com>

Cc: ernieporter77 <ernieporter77@gmail.com>, "[REDACTED] <[REDACTED]@me.com>", Susan Vincent <svincent@stfx.ca>, Marc Genuist <[REDACTED]@gmail.com>, Jayne Chisnoim <[REDACTED]@gmail.com>

Hi Alena and Richard,

Apologies for taking such a long time to comment on the message you sent to Ernie and copied to our neighbors and us.

Colleen and I had the chance to talk with Ernie while we were at Town Point earlier this month. Ernie gave us copies of the Public Engagement Form (AQ#1424) and explained his plans.

Like you, we have a range of concerns regarding the plans, or potential plans, for Town Point Oyster Farm and the impact these plans would have on, our properties and our enjoyment of Town Point and Antigonish Harbour. We've shared these concerns with Ernie in person and via letter. We also agree that a meeting of the Town Point community to discuss this potential development would be worthwhile. We're sure Ernie and Jane will take our concerns into consideration but believe that the sooner we can have a broad ranging discussion among everyone impacted the better, and that waiting until late July seems too long. Although we don't currently plan to be back in town for several weeks, we would be happy to participate via phone or video conference at a time that works for everyone.

Thanks, and we hope the weather improves soon in NE Nova Scotia.

Peter and Colleen

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Mud whole and BellAlient

wilgenhof2 auracom.com [REDACTED]@auracom.com>

To: ernieporter77 <ernieporter77@gmail.com>

Wed, May 1, 2019 at 9:18 AM

Cc: [REDACTED]@me.com" [REDACTED]@me.com>, Susan Vincent <svincent@stfx.ca>, Marc Genuist

<[REDACTED]@gmail.com>, Jayne Chisholm <[REDACTED]@gmail.com>, peter bowler <[REDACTED]@gmail.com>, Richard

Wilgenhof <[REDACTED]@auracom.com>

Good morning all:

Ernie:

At the last meeting we had at Mike and Jayne's, we discussed your Oyster venture. I believe at that time there was a general consensus of being positive to your initiative. When you came to visit us about 2 weeks ago, it seems your venture has now tripled, from seeding to a full blown oyster farm operation with instead of one area of the harbour near your place with a possible section near Dunns Beach to now being four sections of the Harbour, which would include your wintering various pots etc., in Graham's Cove. I thought I must have missed a meeting where this had been discussed in the community and I was just hearing about it when you came to visit. Richard does not remember ever discussing the scope of your project like you discussed that day before.

One concern of ours is that when in "x" number of years, you decide to sell or move on and another owner takes over, which at some time would be inevitable, what kind of grief would we be facing then?

As well, it concerns us that having an enterprise as you are suggesting could possibly reduce our property value, for one, causing excess traffic on a road we are responsible for maintaining, when you mention a workforce of possibly 12 to 15 in perhaps 5 years time. While we are in favour of promoting economic growth in our area, there would be no value added to the residents of Town Point but I can see anxiety on the horizon.

There are always pros and cons in every venture undertaken, I think we should have another community meeting where we can sit and address the changes you have made, we personally thought it was an Ernie Porter venture but we find out it is now a Company with at least one partner. This is not what we had envisioned. We enjoy our small close knit community and the privacy we now have, and while we do not want to rock your apple cart, the time to address this is now and not at your public meeting in July.

I think it is safe to say that in the least, we do not want our beloved Graham's Cove disturbed or added to your venture. We would never have agreed to that. We have a legal mooring located off our dock and have fought various obstacles to keep the navigational waterway open to our anchorage. We have discussed this with you already.

Thanks for considering our feelings on this and we await your response. Hopefully we can reach an amicable solution on this as due to health issues we do not wish any more stress to come our way.

Regards,

Alena and Richard Wilgenhof

----- Original Message -----

From: "ernieporter77" <ernieporter77@gmail.com>

To: [REDACTED]@me.com" [REDACTED]@me.com>

Cc: "Susan Vincent" <svincent@stfx.ca>, "Marc Genuist" [REDACTED]@gmail.com>, "Richard Wilgenhof"

[REDACTED]@auracom.com>, "Jayne Chisholm" [REDACTED]@gmail.com>, "peter bowler" [REDACTED]@gmail.com>, "seagardenretreating" [REDACTED]@gmail.com>

Sent: Thursday, April 25, 2019 5:08:04 PM

Subject: Re: Mud whole and BellAlient

[Quoted text hidden]

In Person Meeting record regarding AQ#1424

Date of meeting: 10/10/18 Time: 10:00 Location: 1000 1st St N

Persons in attendance:

John & Barbara (Laurie)

Project Outline Provided and reviewed: Yes

Questions:

What is the timeline for the project?
How much money is needed?

Concerns:

How much money is needed?
How much money is needed?
How much money is needed?

Response:

How much money is needed?

Date of response:

10/10/18

- Asked Anna for support on the private bond
show issue I committed to provide my support
this was the only request she made and
indicated that with this support she would be
OK with the venture.

- Mentioned her morning in Grassie Cove
I told her we would not have product in
the Cove during booting season so no
conflict with the morning.

- I left this meeting believing they were
acceptance of the plan.

Town Point Oyster Farm

AQ#1424 Public engagement hand-out:

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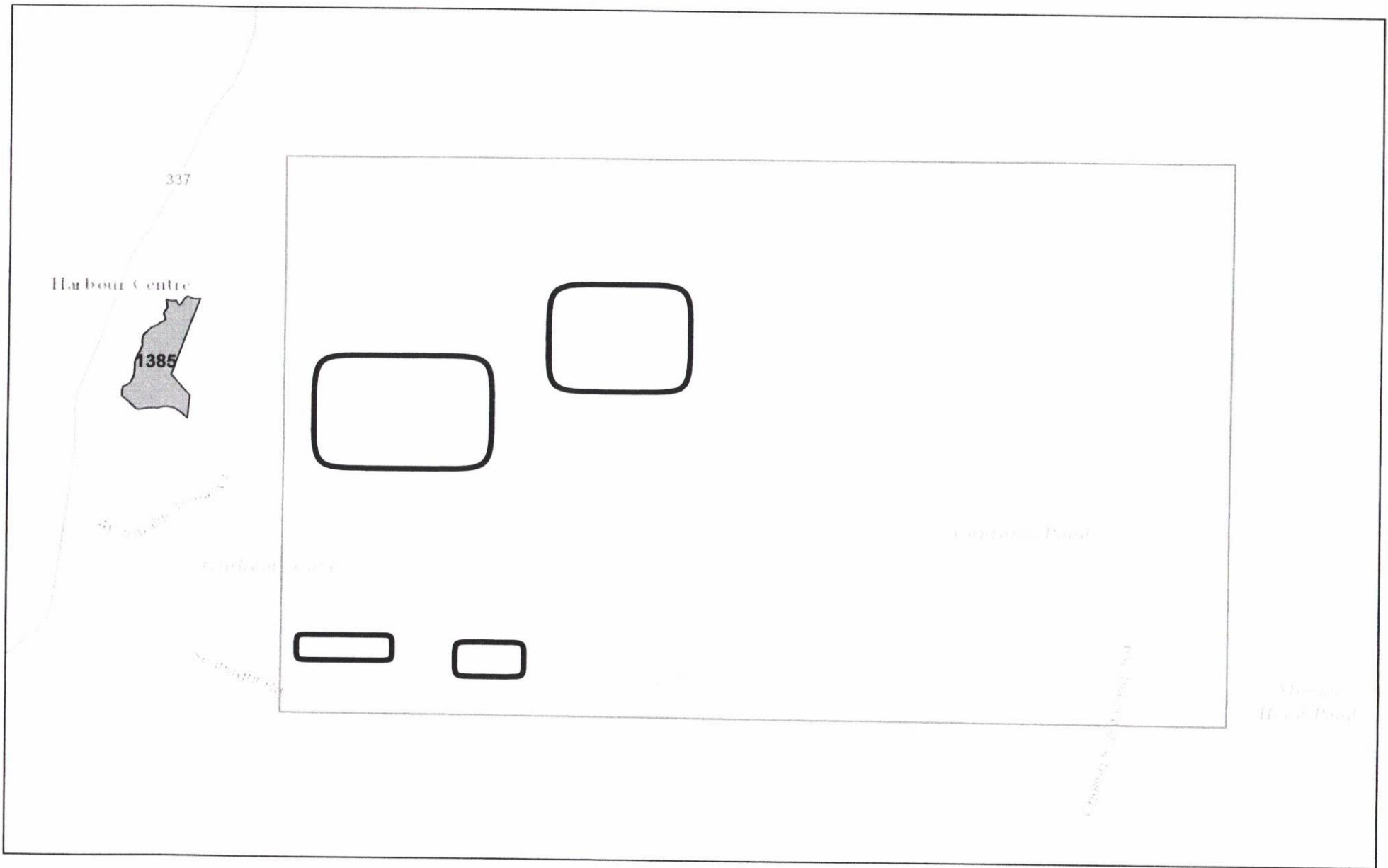
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1/29/2019 9:35:20 AM

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Marine Shellfish Lease Boundary

Marine Finfish Lease Boundary

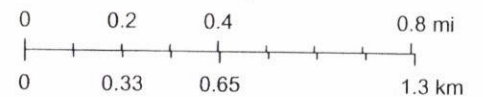
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Proposed Lease Areas (Approximate)

Option Boundary

Proposed



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS.

Disclaimer

Proposed option area is area within the red box shown on this map.



Ernie Porter <ernieporter77@gmail.com>

In Person record regarding AQ#1424

Rainer Wunn [REDACTED]@me.com>
To: ernieporter77@gmail.com
Cc: Birgit Wunn [REDACTED]@mac.com>

Sat, Sep 14, 2019 at 12:20 PM

In Person record regarding. AQ#1424
Date of meeting Friday Sept 13,2010 @

[REDACTED]
Antigonish Harbour ,
[REDACTED] Nova Scotia

Attending Ernie Porter, Birgit and Rainer Wunn

full time Residents: Yes

Project Outline Reviewed : oyster farming application

Questions : no current questions

Concerns/Response :

No noise, smell or direct traffic concerns on land nor water are expected by details and facts as presented during the most recent panel discussion.

Residents own words:

I hv followed the application process from a very early point on. This offered me a highly unique opportunity to listen and learn from Ernie as his project grew from an idea through the various stages . His thoroughness and concerns towards nature as well as neighborhood impressed me from the beginning.

On a more general note I like to highlight that I know Ernie since almost 16 years by now. I hv never seen him to cut corners or to over simplify things, not in building his various constructions on the family homestead nor in our steady relation which has improved over the time from a " just a neighbor" to a solid friendship.

I am a founding board member from day one of the resurrection of The Antigonish Boat Club. I also served proudly in the capacity of Treasurer until end of 2018 when I asked to stand down due to health issues. I continue to be active as Vice President thereafter.

Today's ABC could not have survived without Ernies voluntary activities with his know how plus his heavy equipment . Many of his positive structural improvements helps the ABC to look forward to a growing membership towards the future. The Antigonish Harbour will remain open and accessible to all kind of boating activities since the oyster farming license will only affect approximately 4 % of the overall water surface.

I trust Ernie to not only listen to any complaints coming forward regarding this oyster farm project but rather to take a proactive approach towards finding overall acceptance as much as possible .

[REDACTED] is our home where we plan to live out our lives. We do not anticipate nor feel any direct impact from this oyster farming project towards our plan.

I am very hopeful that our little 'SeaBright or Townpoint' community will mend and come together as one strong group again to go forward .

Pls let me know if you hv any questions.

Rainer Wunn

Sent from my iPad

In Person Meeting record regarding AQ#1424

Date of meeting: 27 May 2019 Time: 12:30 pm Location: 370 SEABRIGHT RD

Persons in attendance:

Ramona Wilson

Project Outline Provided and reviewed:

Questions:

Concerns:

Response:

Date of response:

Ramona & I went by boat to visit each of the three proposed lease sites. I needed to collect GPS coordinates of lease center points to give to Benjamin Graham to aid his GIS map technician in producing a list of property owners within 500m of the sites.

We spent an hour or so cruising the sites. Ramona was very impressed with the choice of sites and did some sampling to measure substrate water depth.

In Person Meeting record regarding AQ#1424

Date of meeting: 26 May 2019 Time: 1:00 Location: 370 Sargeant Road

Persons in attendance:

Rainer Wilson

Project Outline Provided and reviewed:

Questions:

Concerns:

Response:

Date of response:

Rainer Come To The BARN To Thank Me
For A well Considered Letter - The one
Dated May 25.

He said it was very well written and
was offered good solutions to the concerns
expressed by a few of our neighbors.

Ernie Porter

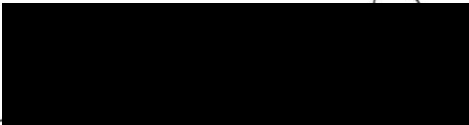
From: Ernie Porter
To: Peter Bowler; Rainer Wunn; Susan Vincent; Richard Wilgenhof; Mike MacDonald
[REDACTED]ns.sympatico.ca)
Subject: Letter to TP residents May 25 2019
Attachments: Letter to TP residents May 25 2019.pdf

Dear Friends and Neighbours;

Please see the attached letter regarding our oyster aquaculture plans. We hope you find favor with the farm plan adjustments indicated. We will continue to communicate with you as further developments arise.

Sincerely,
Jane and Ernie

In Person Meeting record regarding AQ#1424

Date of meeting: 18 May 19 Time: 5:20 pm Location: 

Persons in attendance:

RANNE & BIRGIT WILSON

Project Outline Provided and reviewed: Yes.

Questions:

Is Dock part Part of IT - No

No From UNTIL Next year

Concerns:

No ISSUE WITH STATE SIZE.

ROAD — will do Pro Rata Maintenance Cost.

Date of response:

During Meeting

Minimize Visual impact.

May 25, 2019

Dear Friends and Neighbours;

Thank you again for taking time to meet with me to review our oyster aquaculture plans. As discussed, we wanted to meet first with the residents of Town Point to provide you with a comprehensive description of our initial thoughts regarding farm layout, scale and function to enable early stages feedback from you. In our view this would permit us to understand your views and to receive your thoughts, suggestions, questions and concerns at a point in time when we can best factor them into the farm design.

As mentioned during each meeting, the plan we provided you was conceptual in nature because it was prepared prior to scoping the areas of interest and lacked the benefit of your input. Now that we have met with each of you and we have been able to conduct preliminary surveys of each site in questions we have revised the farm plan as follows.

Grahams Cove: We have removed this proposed lease area from consideration due to two factors...1) concerns expressed by a few of you and 2) shallow water depths in the areas desired for winter storage.

South of our property: We have moved this area eastward to a line extending southward from our barn. In this configuration the area of interest does not go to shore on the point south of the barn and it avoids the shallow area west of the barn. This modification is again a result of an expressed concern and water depth considerations. Please understand, this area is intended for winter storage of seed stock and marketable oysters. The stored product will not be visible and will be present only in fall, winter and spring months.

Captains Island: This area has been reduced in size by about one third which moves the south and west boundaries further from both Town Point and Archibald's Point. This modification is in response to concerns expressed by a few of you and general considerations of scale, output and water depth.

Cranberry Island: In the feedback we received from you this area was of least concern and there was no indication during initial scoping of any factor that would require adjustment of the site location or size, so it remains as presented.

Regarding concerns associated with increased traffic on the Seabright Road we will, as previously mentioned, increase our involvement in road maintenance on a proportional basis. Furthermore, we do not plan to sell our product to the public so added traffic will be limited to a few staff, and occasional deliveries/shipments.

Regarding location of the building that will house some of the farm activities we continue to explore options but have not yet found an ideal location. However, be assured wherever it goes it will be much smaller and far less obtrusive than the existing farm buildings common in the surrounding area.

Over the coming months we will be conducting much more detailed scoping of the desired areas and through this process further modifications may result. As explained, development of the farm plan is an

iterative process and many factors require consideration. We will follow up with you when a final design has been developed.

Please take note that we will be changing the date of the open house public meeting to some time in late August or early September so that we may include pictures/video of the growth units and the associated service boat we plan to use on the farm. Fortunately, I have only informed the few of you of the earlier date so no harm in making that change.

We assure you, we are approaching this venture as we have our other Town Point projects...with careful planning, a reasonable level of skill, and as responsible stewards of our beautiful area. We live here, we love the area and we have a wonderful view overlooking all the areas we wish to lease so please be assured we are not planning to do anything that will become a blight on this treasure.

Sincerely,

Jane, Ernie, John and Ted



Ernie Porter <ernieporter77@gmail.com>

Tue, Jun 25, 2019 at 1:16 PM

To: Mike MacDonald <[REDACTED]@gmail.com>

Thank you very much for being so considerate. I am ok with the oyster topic coming up but would rather it be secondary to other community topics.

Thank you also for taking time to organize the meeting.

All the best
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Road meeting**Mike MacDonald** <[REDACTED]@gmail.com>

Tue, Jun 25, 2019 at 10:43 AM

To: Ernie Porter <ernieporter77@gmail.com>

Hi Ernie,

I am going to send an email to see if there is interest in a road meeting. I am wondering if you are okay with that considering that oysters could become part of the conversation.

If you would prefer that the oysters are not part of the meeting, then I will make a deliberate effort to keep focused on the issue of the road.

Let me know what you think.

Cheers

Mike

Ernie Porter

From: Ernie Porter
To: Peter Bowler; Rainer Wunn; Susan Vincent; Richard Wilgenhof; Mike MacDonald
[REDACTED]@ns.sympatico.ca)
Subject: Letter to TP residents May 25 2019
Attachments: Letter to TP residents May 25 2019.pdf

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Sincerely,
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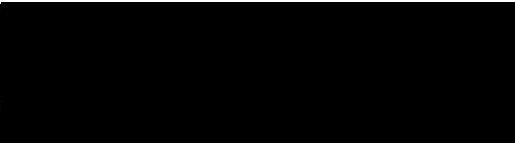
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Sincerely,

Jane, Ernie, John and Ted

In Person Meeting record regarding AQ#1424

Date of meeting: 13 May 19 Time: 7:09 pm Location: 

Persons in attendance:

Mike & Joyce.

Project Outline Provided and reviewed:

Questions:

Tracked About Location of Wharf
And Building. Mike & Joyce Have Some Concerns

Concerns: Over Boat Traffic By Their House.

They Are OK With Our Cove And Behind
Response: Gooseberry Island Less Supportive of
Captains Island And Gracious Cove.

Date of response:



Ernie Porter <ernieporter77@gmail.com>

Town Point Consulting Oyster Farm Application

1 message

Ernie Porter <ernieporter77@gmail.com>

Fri, Sep 13, 2019 at 4:43 PM

To: seagardenretreating [REDACTED]@gmail.com>

Dear manfred and Marie Claire;

This is in response to your eight questions noted on your in person meeting response form dated July 18, 2019. First of all, please accept my apologies for taking so long to get back to you...as you are aware there have been a few other tasks to deal with in the meantime. Also, I would like to thank you for taking time to meet with me both at your home and later at our property. Your response was one of the most thoughtful and thorough we have received, it is helpful to the application process when feedback of this type is available.

The answers to your questions are as follows;

1) Effect of the project on the local marine environment/

You attended the StFX Public Panel Discussion where Dr. Garbary stated that for a farm of this type if properly managed and occupying not more than 10% of the estuary area the environmental effect will be at worst benign. Our proposed farm would occupy only 2.7% of the harbour.

2) Visual & acoustic impact of the farm in Antigonish Harbour?

During both your visit to our property and the StFX meeting we described the extraordinary lengths we have gone to reduce the visual profile of the farm. From cages that float 8"-16" above water to ones that extend only a couple of inches. We have also designed noise control into our equipment where the engines in normal operation are contained within enclosures that will reduce noise. We expect normal noise levels to be similar to a lawn mower but it will be about 1/2 km away.

3) Response of licenced harvesters?

We have met with all the licenced harvesters to understand and accommodate their concerns and they are in full support of our application.

4) Scale of the project for Antigonish Harbour?

We plan to apply for three lease areas totalling about 120 acres and capable of producing about 2-3 million oysters per year.

5) Will there be a study made of the effect of the heated seawater (60-70 C) treatment of the traps (BOBR) on the local water quality?

No, we have asked NSDFA if this discharge is a concern and they have provided feedback indicating that if the discharge were to a freshwater watercourse it would be a concern but as it will be direct to a marine environment NSDOE regulations do not apply. Their response indicated this practice is commonplace in PEI and is therefore likely compliant with Fisheries and Oceans Canada regulations. I will confirm this in due course.

6) Will the cleansing (treatment) affect the turbidity of the harbour water?

No, there may be very localized short term increase in suspended solids but this material is all natural biological material that came from the harbour and is just being returned to it. The net effect of the farm will be to reduce turbidity through the much more pronounced and ongoing filtering of about 60 million gallons per day.

7) Schedule, duration and frequency of treatment?

Defouling is necessary only when water temperatures are high enough to permit rapid marine growth. Roughly mid June to mid September. During this period defouling of each growth unit would be done on a bi-weekly basis.

8) Emergency protocol for workers on the motorized barges?

NS Department of labour and NSDFA both require comprehensive safe work protocols. They are compiled in a farm management plan required for every farm. This farm management plan is submitted annually and is monitored by the regulators. Each work task has a written safe work practice that is intended to provide guidance to farm workers to ensure safe working conditions.

I trust the meetings we've had, the knowledge gained from your attendance at the StFX Public Panel Discussion and the answers above are satisfactory. Please feel free to contact me anytime should another concern arise.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

In Person Meeting record regarding AQ#1424

Date of meeting: July 18 Time: noon Location: Ernie Porters shop on Town Point

Persons in attendance: Ernie Porter & his business
Manfred E. Goring, partner
Marieclaire Declerck

Address: [REDACTED]

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: under construction oystermatic

Questions:

prototype -
see back of page

Concerns:

see back of page.

Response: Proposed function of Oyster matic machine
including oyster cylinder traps.

Date of response:

July 18/2019

Residents own words:

- Interesting concept at a very early state of development.
- It should be further explored.

M Goring
Marieclaire

t.o.p.

In Person Meeting record regarding AQ#1424

Date of meeting: 14 June 19 Time: 7:00pm Location: [REDACTED]

Persons in attendance:

Theresa Gornier
Marie Claire

Marie Claire Son

Address:

472 S. 2nd St. Rd

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: Yes

Questions: to many - we discussed this for
almost 2 hours

Concerns: They are - they occasionally soil
in the general area of Site 1. in a
center former dig

Response: We discussed the issue but didn't come
to a resolution,

Date of response:

During the meeting.

Residents own words:

They seemed to find out a form saying
they prefer to think about issues before
commitment. During the meeting
they were very keen on the new gear
and the few environmental benefits of
systems in the area.



Ernie Porter <ernieporter77@gmail.com>

Oysters

Ernie Porter <ernieporter77@gmail.com>

Sun, Jan 12, 2020 at 9:52 AM

Draft To: May Goring <[REDACTED]@gmail.com>

Hi May;

Thank you for the email and sorry to have missed you. Our absence is partly because we have been busy moving residences in Halifax but are now settled in our new place.

We had a second public meeting September 27 which was advertised in the Casket and notices were posted in local shops and public buildings. If I offered to inform you directly please accept my apologies. The meeting went quite well and 67 area residents attended. Our application is nearly complete and we hope to submit it soon.

Regarding our equipment, I haven't called you yet simply because we still haven't launched the boat. My partners father died and a few other issues got in the way of completing the remaining details. Our BOBR growth units have been performing well and so far seem to do what we expected.

If you want to see the boat I will be glad to take you there, just let me know when works for you.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

On Sat, Jan 11, 2020 at 11:44 AM May Goring <[REDACTED]@gmail.com> wrote:

Greetings Ernie and Jane,

Happy New Year ! I hope you will be able to escape the NS winter - maybe you already have !

I stopped by a couple times in the fall/ early winter but you were not home.

I'm wondering how the oyster farm activities are going. Did you ever have another community meeting since the once in the Schwartz Auditorium at STFX ?

I was expecting to get a call from you with respect to checking out your boat and system on Merigomish Harbour - I am still interested but suspect things are shut down for the winter !

Regards
May Goring



Ernie Porter <ernieporter77@gmail.com>

Oysters

May Goring [REDACTED]@gmail.com>

Sat, Jan 11, 2020 at 11:44 AM

To: Ernie Porter <ernieporter77@gmail.com>

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I was expecting to get a call from you with respect to checking out your boat and system on Merigomish Harbour - I am still interested but suspect things are shut down for the winter !

Regards
May Goring



Ernie Porter <ernieporter77@gmail.com>

oyster farm questions

Ernie Porter <ernieporter77@gmail.com>

Sun, Aug 11, 2019 at 2:10 PM

To: May Goring <[REDACTED]@gmail.com>

Hi May;

Thanks again for coming to our house today to discuss in detail your questions and concerns. We appreciate your willingness to have constructive dialogue especially when others have chosen to cut off such interaction in favor of social media railing and public displays of their objections.

The following summarizes the hour long discussion;

1) The size of proposed grow sites are 43.75 and 65.25 acres.

2) No lights on the grow sites.

3) The work boat will not normally be operating after dark so no need for work area illumination lighting.

It will have navigation lights and if it does need to go out to the sites after dark would have some form of lighting like a flashlight or hand held spot light but not the sort of lighting common on lobster boats.

4) Defouling water will be heated by on board propane boiler.

5) The boiler is not noisy, sounds like a residential propane water heater.

6) The wash water will be returned to the harbour.

7) There will be no treatments added to the wash water, it is just heated harbour water.

8) We believe there will be no negative effect on the harbour environment resulting from the wash water given the low volume and infrequent replenishing, however, we will find out if there are required protocols for such activity.

9) Similarly with the land-based nursery, no treatments. It is a flow through system, harbour water in, cleaner harbour water expelled.

10) Dead oysters will be placed back in the harbour from where they originated. We are aware of no detrimental effect from this practice but if best practices or regulation dictate a different approach then we will follow the prescribed approach.

11) We will continue to maintain the road as we have for a decade. The largest size of truck we anticipate is a cube van similar to the local courier trucks. Frequency of shipment is expected to be at most one trip weekly but is more likely bi-weekly or monthly.

12) As discussed, noise is a concern of ours as well. We will need the farm to fit in with the normal sounds in the area and to be less noticeable than the more prominent noises like the limestone quarry and some farming activities. We have already gone to some exceptional lengths to mitigate noise issues such as having the outboard engine off most of the day and having on board auxiliary power units in enclosed cabinets to control noise. We welcome you to come to our demonstration site to be aboard our service boat prototype, see it in operation and provide any constructive feedback you may offer. I will contact you when it is available for demonstration.

13) There are no metal components of the BOBR growth units so no resulting metal on metal clanging sounds.

14) The noise issue is one of the more commonly held concerns among area residents and we have taken seriously this feedback. Of course the farm cannot operate in silence but we will make every effort to have our operation fit in to the existing ambient noise profile of the area.

Thanks again for your thoughtful questions and for providing useful feedback.

Sincerely,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

oyster farm questions

Ernie Porter <ernieporter77@gmail.com>

Sat, Aug 10, 2019 at 2:23 PM

To: May Goring <[REDACTED]@gmail.com>

Hi May

I should be here all day today and tomorrow so please come when it suits you.

Thanks

Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

oyster farm questions

May Goring [REDACTED]@gmail.com>

Sat, Aug 10, 2019 at 12:36 PM

To: Ernie Porter <ernieporter77@gmail.com>

Hi

I'm in town today (and have internet access for a couple hours) and then heading to Town Point until tomorrow PM. So I might be able to drop by if you are not too busy. Any particular day/time better for you ?

May

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Ernie Porter <ernieporter77@gmail.com>

oyster farm questions

Ernie Porter <ernieporter77@gmail.com>

Fri, Aug 9, 2019 at 8:26 PM

To: May Goring [REDACTED]@gmail.com>

Hi May

Thank you so much for the great questions. I'm wondering if it would be more efficient to meet you again in order to address your questions given the number of questions you have and my desire to be sure I address them to your satisfaction?

If this doesn't work for you then I hope you don't mind if I take a few days to respond as I'm am very busy preparing for the upcoming public panel discussion. I hope you can come to this meeting on Tuesday.

Regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

oyster farm questions

May Goring [REDACTED]@gmail.com>
To: ernieporter77@gmail.com

Fri, Aug 9, 2019 at 12:12 PM

Greetings Ernie

After your presentation and our discussion about the oyster farm I always think of additional questions and issues afterwards ! You might not even have all the answers yet to my questions !

What are the actual dimensions of the 2 proposed "lots" ?

Will there be any type of lights on the two proposed lots ?

I suspect/hope that the boat (s) will be out rarely in the dark- but they will require regular navigation lights but might need more powerful lights to light up a work area ?

The oysters will be regularly washed on the boat in a warmer/hot water -I'm presuming this will be harbour water ? How will that water be heated ? Will the heater be noisy ? What happens with the wash water ? What kind of materials etc will be in the wash water and what impact will that have on the harbour water – presuming it will be returned there "untreated"? I suppose this is also somewhat relevant for your "on land" based operation.

I'm assuming there will be dead oysters that will be in your "cages" - what will be done with those ? Will the shells be thrown overboard and settle on the harbour floor ? If that is the case – will that prevent eelgrass from growing ?

Oyster processing – this is presuming that the mature oysters will have to land on your property to be taken elsewhere - will mean transport by large trucks – what about the road from the "Nuns" to your driveway ?

Noise – My biggest issue/worry due to previous experience – noise carries very well over water.

Will there be any metal on the ropes that the cages are attached to and will guide the system over the "guide rollers" on the boat ? Metal on metal clanging.

You indicated that the power unit – which will be the only thing running when the cages are being cleaned – will sound like a lawn mower. I don't mind the sound of a small lawn mower – because it might only be run once a week for a fairly short time. Also depends on how many lawn mowers around ! But now I hear the lawn mowers to the west – one sounds like a small airplane !

But the boat(s) will be out there I presume every day – running an outboard to get there – a short time period, but then the power unit will be running pretty well all day (9am-5 pm). You indicated that the unit will be in a box – but the exhaust must exit – I would really like to hear all that out on the water. I suspect there are all kinds of potential solutions but probably fairly expensive which businesses usually can't justify. The effects of noise pollution are underestimated.

I don't have internet at home but check it when I can !

1/12/2020

Gmail - oyster farm questions

Thanks
May Goring

405

In Person Meeting record regarding AQ#1424

Date of meeting: July 28, 2019 Time: 5PM- Location: Town Point

Persons in attendance: May Goring, Ernie Porter, Jane Porter (past time)

Address

Antigonish, County
N.S.

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: yes

Questions: yes - but all answered during meeting.

Concerns: - visual aspect
water / boating access
noise

Response: minimal visual aspect due to
oyster "cage" design, non powered boats allowed

Date of response: July 28, 2019

Residents own words:

I wasn't sure what an oyster farm entailed and how
it would impact use of the harbour - I suspected it would not have
the same water quality etc impact of a fish farm. I am somewhat
mostly reassured that the impact would be minimal. I am still
somewhat concerned about motor noise etc. but assume this will be less
than most operations due to the new system / technology. And noise can
always be reduced by various means - which I assume the owners will be
open to.



Ernie Porter <ernieporter77@gmail.com>

More pictures

Ernie Porter <ernieporter77@gmail.com>

To: Dan Fougere <[REDACTED]@themarthas.com>

Tue, Aug 6, 2019 at 9:07 PM

Hi Dan

No problem, PowerPoint it is. See you at Mount Carmel. My wife, Jane plans to accompany me.
Regards,
E.

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

More pictures**Ernie Porter** <ernieporter77@gmail.com>

Mon, Aug 5, 2019 at 11:27 AM

To: Dan Fougere <[REDACTED]@themarthas.com>

Hi Dan

Yes, definitely still on for your meeting Wednesday at 10:00. I hope the misinformation campaign circulating hasn't closed minds within your group before facts, science and good sense can be brought to light.

I am not trying to comparing for support, only want to present our plan and seek constructive feedback. Thanks for your continued interest.

Ernie
Sent from my iPhone

On Aug 5, 2019, at 11:20 AM, Dan Fougere <[REDACTED]@themarthas.com> wrote:

Ernie,

We have a Grounds Committee meeting on Wednesday at 10:00 am at Bethany Resource Centre.

Are you still on to provide us with an information briefing.

Dan

From: Ernie Porter <ernieporter77@gmail.com>**Sent:** June 24, 2019 11:54 AM**To:** Dan Fougere <[REDACTED]@themarthas.com>**Subject:** More pictures

<IMG_1175.JPG>

<IMG_1174.JPG>

<IMG_1173.JPG>

Sent from my iPhone

APPENDIX A: 3-ENGAGEMENT WITH AREA RESIDENTS

ALSO MET WITH MR. PORTER 410
2X IN JULY.

In Person Meeting record regarding AQ#1424

Date of meeting: Dec 15, 2019 Time: 10:00 AM - 12:45 Location: 370 S. 3rd St. Rd

Persons in attendance: Dr. Rous - PORTER.

Address:

Full time Resident: ☒

Seasonal Resident: ☐

Antigonish NS

Project Outline reviewed:

Questions:

CONTAMINATION - EFFECT ON OTHER SPECIES
ESTHETIC, NOISE, INTERFERENCE TO BOATING

Concerns:

OPENERS ON PART OF PROPOSER TO
PROVIDE VOLUN INFORMATION

Response:

Date of response:

HIS DESIRE TO MEET WITH
INDIVIDUALS TO EXPLORE THIS PROJECT
IS EXCEPTIONAL.

Residents own words:

I MET WITH MR. PORTER ON THREE
DIFFERENT OCCASIONS and in total spent
5-6 hours asking questions & getting his
response. He has answered all my questions,
and they were many and detailed, to
my satisfaction, completely. I suppose
this project 100% we are fortunate to
have people like Mr Porter who are innovative
and progressive.

In Person Meeting record regarding AQ#1424

Dec.
Date of meeting: ~~14~~ 15, 2019 Time: 11 AM Location: 370 Seabright Rd.

Persons in attendance:

Jim Lerikos

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident: ☒

Antigonish, N.S.

Project Outline reviewed:

Questions:

several

Concerns:

none since my exposure to all the facts

Response:

project was well defined + explained. I
now support this project.

Date of response:

Dec 15, 2019

Residents own words:

There is nothing that troubles me
about this project. There is no
environmental issues that I
can see that affect the harbour.
so much misinformation out there!

[Signature]

Message Details:

Name: Peter Cameron

Email: [REDACTED]@kelticford.com

Subject: Thank you

Message: Ernie,

Thanks for the presentation at the chamber, very enlightening for sure. It looks very for promising, not just for your project but the industry as a whole.

I am a resident of South Side Harbour, my children are the 6th generation of Camerons in our house, so I do have a vested interest our beautiful harbour. Some of my questions are as follows;

What caused the decline in oysters from 100 to 10 million? Is it just water circulation that keeps the long tanks from freezing? Plus a personal item, I keep my boat at the Beaton wharf in the summer time, you probably seen it going by it has that oversize bimini blue top. It has a tunnel drive (penn Yan) so it only requires 14" of water. I usually go north of Gooseberry Island direct to the harbours mouth during high tide. Will this access be cut off, or can I skirt the shoreline and still go out the harbours mouth?

Thanks again, I wish you great success with this revolutionary project.

Peter Cameron

To edit your email settings, go to your Inbox on desktop.



Ernie Porter <ernieporter77@gmail.com>

New message via your website, from [REDACTED]@kelticford.com

1 message

no-reply@parastorage.com <no-reply@parastorage.com>

Tue, Dec 10, 2019 at 12:27 PM

Reply-To: Peter Cameron <[REDACTED]@kelticford.com>

To: ernieporter77@gmail.com

A site visitor just submitted a new Contact Form

<https://www.townpointconsulting.com/>



Ernie Porter <ernieporter77@gmail.com>

New message via your website, from [REDACTED]@kelticford.com**Ernie Porter** <ernieporter77@gmail.com>

Tue, Dec 10, 2019 at 5:12 PM

Draft To: Peter Cameron [REDACTED]@kelticford.com>

Hi Peter;

Thank you for attending our Chamber of Commerce presentation. I hope it wasn't too difficult to follow...it is hard to condense the whole story into just 30 minutes so when rushing through it I fear people might miss some of the facts. However, it seemed to me your group was very interested in what we propose to do.

Regarding your questions, I have the following answers:

1) The decline in native oyster population is not confined to just Antigonish Harbour, it has occurred worldwide. Studies indicate in general harvest of wild oysters is at 10% of past levels. This is largely due to two factors - over harvest and declining stocks due to human impact on oyster habitat. Water pollution, boat traffic, dredging, siltation due to clearcutting and irresponsible farming practices along with many other impacts from human activity are mainly the cause in general. There is also a natural fluctuation in population due to diseases that come and go.

In Antigonish Harbour the decline in oyster population, to my knowledge, has not been studied. However, there have been suggestions made that pre-settlement populations were vastly greater than current levels and one could easily connect the decline to what has changed around the harbour in the past 200 years. More people, farming, clearcutting, increased siltation, increased pollution, and so on. Kerry Prosper spoke about this at the Public panel Discussion regarding our application this summer at StFX.

There is a looming issue that may further impact native oyster populations which is ocean acidification. This is connected to climate change and is likely to affect all shellfish in the coming decades. There may be workable solutions to this challenge on a farm scale but not likely on a broader scale.

2) I'm not sure what you are referring to as "long tanks". If you mean our BOBR growth units, there are protected from freezing by sinking in October/November then refloating in April/May. If you are referring to the upweller tanks in the land-based nursery, they too are seasonal and only operational from May to October otherwise they are empty.

3) I am familiar with your boat and have in the past chatted with you at the Beaton wharf. The proposed Gooseberry Island site does not go that close to shore. You will be able to go by the site either along Dunn's Beach or along Gooseberry Island. I would be glad to review this issue with you in detail if you like. Please just give me a call and we can arrange a time to meet.

I dropped by the Casket office to collect the meeting response forms but didn't see one from you. It would be appreciated if you could take time to fill it out and either give it to Inez or email it to me. As I mentioned, this form provides valuable feedback from which we can better understand the issues, concerns and questions important to area residents. Thanks.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

On Tue, Dec 10, 2019 at 12:27 PM <no-reply@parastorage.com> wrote:

A site visitor just submitted a new Contact Form
<https://www.townpointconsulting.com/>

In Person Meeting record regarding AQ#1424

Date of meeting: November 28 Time: 7:30am Location: Chamber Board Meeting Main Street

Persons in attendance: Chamber Board of Directors

Brian LAZZARI

Address:

Antigonish, NS

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions: ~~None~~

Concerns: ~~None~~

Response:

Date of response: 10/10

Residents own words:

"I find that Mr. Parker has completed research and is addressing the environmental concerns raised. The project is innovative and is greatly potential for a new business in our community. One that is sustainable and able to create economic growth in a rural area."

Brian Jones

In Person Meeting record regarding AQ#1424

Date of meeting: Nov 10, 2019 Time: 11:00 am Location: Home of Mr. Porter

Persons in attendance: Suzi Synishin

Address: 

Full time Resident: ☒

Seasonal Resident: ☐

Harbour Centre, Antigonish

Suzisynishin@gmail.com

Project Outline reviewed: Cycle Farm

Questions: Will it make harbor cleaner?

- Any long term negative effects?
- Very curious about the entire operation.

Concerns: All addressed in detail.

Response:

- Explained, in detail, the process of farming; innovative mechanism to improve Labor & time.

Date of response:

Immediate

Residents own words:

Suzi Synishin

- * Lucrative.
- * Evidence based science that reinforces the safety of the farm.
- * well researched in many angles -> Community centered and very engaged
- * No invasive sounds or visual obstructions.
- * Employment opportunities for local residents.
- * I fully support this venture as a long time resident of The Harbour
- * It does not interfere with current use of the harbour.

In Person Meeting record regarding AQ#1424

Date of meeting: Nov 10-19 Time: 10:00 Location: Porter ResidencePersons in attendance: 3Mary Chisholm

Address:

Full time Resident: ☒

Seasonal Resident:

Harbour Centre Ant N.J

Project Outline reviewed:

Questions:

Cleanliness, employment, noise
Will the Harbour be in better shape.

Concerns:

✓ Pros and Cons

Response:

Date of response: Nov 10 19

Residents own words:

Sounds like a very viable healthy
industry. Very knowledgeable meeting
and quite satisfied with all answers.
Good luck with your venture.Mary Chisholm

In Person Meeting record regarding AQ#1424

Date of meeting: Nov 10 Time: 11:00 am Location: Mr. Porter's Home

Persons in attendance: Dan Chisholm

Address: Harbour Centre

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Oyster Farm.

Questions:

Concerns:

Response:

Date of response:

Residents own words:

Had a long conversation about the proposed Oyster Farm and I am supportive of the venture.

Dan Chisholm

ADD RECREATIONAL FISHER **419** ON THE
HARBOR TRUST DAYS IN SUMMER.

In Person Meeting record regarding AQ#1424

Date of meeting: OCT 27/19 Time: 12 AM Location: Home

Persons in attendance:

JASON STEWART

Address:

[REDACTED]

Home Resident:

yes

Seasonal Resident:

LANARK, NS

[REDACTED]

Project Outline reviewed: yes

Questions: ASKED MANY.

Concerns: cleared concerns

Response: HAVE HAD A FEW POSITIVE CHATS

Date of response: OCT 28/19

Residents own words:

STILL LEARNING AND LOOKS
EXCITING! WOULD VERY MUCH
LIKE \$ HOPE FOR EMPLOYMENT
IN THE COMPANY!

JA

In Person Meeting record regarding AQ#1424

Date of meeting: OCT 14/19 Time: 3:10 Location: [REDACTED]

Persons in attendance:

Down 20082

Address

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

Harbour Centre

Project Outline reviewed: yes

Questions:

Many

Concerns:

Perman. - will visit SHANDAPT
OYSTER FARM TO GET 70082

Response:

Down Martin

Date of response:

Residents own words:

I invited Down to come to
370 SEPARGENT ROAD TO LAUREN TAPERS
ABOUT THE PROPOSED FARM. LEFT MY
PHONE # & ADDRESS.

Public Open House Meeting record regarding AQ#1424 September 27, 2019

Location: Lakevale Community Centre

Person in Attendance:
(please print)

Address:

Full time Resident:

Seasonal Resident:

Phone Number: 224-1585

Email Address:

A) Questions you have arising from the open house that you would like answered:

increase in water level boat in May
no to products

time of opening a new area for oyster farming
support oyster farming

B) Remaining concerns you have following the open house information session that you would like considered in the farm plan:

C) Residents own words, your thoughts regarding application #1424 and/or oyster farming in Antigonish Harbour...please write, date and sign. Thank you.

Called Lois Moraw Sep 30. To Answer Her
Questions. Spoke with her for 25 minutes.
She was satisfied with the answers and wished
the luck with the venture.

Signature: _____ Date: _____

In Person Meeting record regarding AQ#1424

Date of meeting: Sept 24th Time: 4:40pm Location: [REDACTED]

Persons in attendance: Christine Almon, Peter Wade, Gene Porter.

Address: [REDACTED]

Full time Resident: Yes.

Seasonal Resident:

Project Outline reviewed:

Yes Areas of cultivation, Methods of Harvesting and cleaning. Scientific studies.

Questions:

1st Grass discussed and Answered
Use of Commons for a family business. - Discussed and Answered.

Concerns:

no concerns
Community opinions are very divided. Those who don't like it, don't like it a lot.

Response:

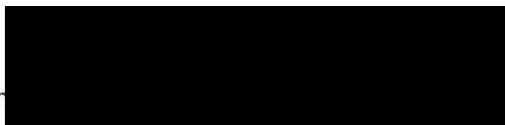
Date of response:

Residents own words:

nice to see a project providing rural development in Antigonish County. it seems that Gene is taking concerns seriously and taking measures to quantify and later address the issues.

Peter Wade.

In Person Meeting record regarding AQ#1424

Date of meeting: Sept 24 Time: 4:30 Location: 

Persons in attendance:

Christene Almon
Peter Wade

Address:



Full time Resident:

Seasonal Resident:

Mahoneys Beach

Project Outline reviewed: yes

Questions:

Many asked - eg. ~~see~~ grass, location, parts of the project, studies done.

Concerns:

Biological effects on Harbour.
Expansion of project in years to come

Response:

Ernie responded knowledgeably to our questions. Research seems to have been done by experts in the field to allay concerns at least at this point.

Date of response:

Sept. 24

Residents own words:

Interesting project.

Christene Almon

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 27th/19 Time: 6:00 Location: Municipality bd room

Persons in attendance:

Remi Devesu

Full time Resident:

Seasonal Resident:

Aut. N.S.

Project Outline reviewed:

Questions:

Concerns:

Response:

Date of response:

Residents own words:

Very good presentation by Ernie Porter, he explained all aspects of the operation, answered all questions with facts and data.

In Person Meeting record regarding AQ#1424

Date of meeting: Sept 5, 2019 Time: 1:30 Location: 370 SEABRIGHT RD

Persons in attendance:

Bill Hudson, Ernie Parker, Ted Parker, Rachel Oberer

Address

South Side Harbour
Antigonish Co.

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: NO - DECLINED BUT DID ATTEND

Questions: THE STFX PUBLIC PARK DISCUSSION
WHERE THE FARM PLAN WAS PRESENTED.

Concerns:

- 1) DATE OF PUBLIC MEETING?
- 2) SIZE OF BUILDING?
- 3) HOW MANY POOL?
- 4) HOW HIGH DOES POOL FLOW?

Response:

- 1) NOT YET DETERMINED BUT AS SOON AS POSSIBLE
- 2) DOUBLE OUR FARM IN SIZE

Date of response:

- 3) EXPLAINED AT PUBLIC MEETING
- 4) $\pm 2'$ OUT OF WATER

Residents own words:

Bill said He DOESN'T WANT TO SEE
THREE BUILDINGS ON OUR PROPERTY. AND
HE DOESN'T WANT RESTRICTIONS TO HIS
BUILDING.

I REPLIED - THE LOCATION OF THE BUILDING
IS YET TO BE DETERMINED AND I'M WORKING HARD
TO FIND AN ALTERNATE LOCATION FOR IT.
- WE BOTH KNOW VERY LITTLE
+ TRAFFIC USING THE PROPOSED SITES.

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 22/19 Time: 11:30 AM Location: By Phone

Persons in attendance: Ron MacGillivray - Local Business Man.

Address:



LEMARK.

Full time Resident: ☒ ← Antigonish

Seasonal Resident: ☒ ← Territory Dr.

Project Outline reviewed: Yes.

Questions:

Many - Answered during call which lasted 1/2 hour.

Concerns:

- Ask where farm would be located
- Wrong minded opposition ... just people who oppose everything

Response:

Date of response:

Residents own words:

- Supports Economic Development
- Encouraged us to persevere through the process and file the application
- Offered possible location for building on land for sale by Corsten Brothers. Which is within view of his cottage.

In Person Meeting record regarding AQ#1424

Date of meeting: 12 April Time: 9.00 Am Location: 370 Seabright Rd

Persons in attendance:

Neil Bryant

Address:

Full time Resident: ☒

Seasonal Resident: ☐

Antigonish Nova Scotia

Project Outline reviewed:

Yes Reviewed Farm Plan

Questions:

Concerns:

Out of area Residents prevention of local Economic Growth.

Response:

Date of response:

Residents own words:

Well thought out business + Environmental plan
with highly Beneficial outcomes for local
Environment and Economy

In Person Meeting record regarding AQ#1424

Date of meeting: 8/8/19 Time: 4:00 Location: Porter's HousePersons in attendance: KEVIN GILLIS, ANDREA GILLIS, COURTNEY BRILW, PETER BRILW, JRAddress: [REDACTED]

Full time Resident:

ANTIGONISH, NS

Seasonal Resident:

Project Outline reviewed: YesQuestions: How loud will it be? What is environmental impact?
How will boating be affected?Concerns: Effect on eel grass; possible expansion beyond
initial plan; Effects on water-fowl population;
Noise pollution; impact on property values

Response:

Date of response:

Residents own words:

We don't oppose the installation of an oyster farm as long as it is in keeping with environmental balance. We also respond to scientific facts, rather than hearsay and alarmist claims.

Ramon D. Brilw

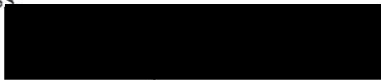
In Person Meeting record regarding AQ#1424

Date of meeting: Aug 4/19 Time: 13:00 Location: 370 Sagsville

Persons in attendance:

Jim Scher

Address:



Full time Resident: ☒

Seasonal Resident: ☐

Lake Lake, N.S.

Project Outline reviewed:

Questions:

Process of Oyster Aquaculture
and environmental impact

Concerns:

NIL AFTER extensive questions.

Response:

Date of response:

Aug 4/19

Residents own words:

We need more ~~more~~ projects like
this. Economics, environment are all
enhanced!

[Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: _____ Time: _____ Location: _____

Persons in attendance:

Address:

Full time Resident:

Seasonal Resident:

Project Outline reviewed:

Questions:

Concerns:

Response:

Date of response:

Residents own words:

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 4, 2019 Time: 1:00pm Location: 370 SeaBright

Persons in attendance:

Sandy Silver

Address:



Hnt. N.S.

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: Yes

Questions: No

Concerns: NO

Response:

Date of response:

Residents own words: Fantastic attention to detail,
Environmental considerations, and local
enterprise.

Snf

In Person Meeting record regarding AQ#1424

Date of meeting: AUG 4/19 Time: 1700 Location: 370 SEABRIGHT.

Persons in attendance:

Dr. MICHAEL SILVER

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

ANTICOWISH N.S.

Project Outline reviewed:

Questions:

INTERESTED IN THE PROCESS AND
ECONOMICS

Concerns:

NIL

Response:

DEMONSTRATION OF THE PROCESS

Date of response:

AUG 4/19

Residents own words:

THIS PROJECT WILL PROVIDE
INCOME AND FOOD WITH MINIMAL
ENVIRONMENTAL IMPACT.

- [Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: July 22 Time: 3 4 Location: Antigonish Harbour

Persons in attendance: Ernie + Jane Porter
Bill Chisholm Ken Chisholm

Address:



South Side Hbr. N.S
B2G 2L4

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: Yes

Questions: Many questions, answered during meeting.

Concerns: Environmental

Response:

Date of response:

Residents own words:

Project explained well. All questions were answered. Concerns were alleviated.
If regulations are followed and science is adhered to, project appears viable.

In Person Meeting record regarding AQ#1424

Date of meeting: 22 July 2019 Time: 3:30 PM Location: St. Georges Bay

Persons in attendance: Ernie & Jane Porter
Hoppy & Bill Chisholm

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Antigonish NS.

Project Outline reviewed: yes

Questions: many

Concerns: All addressed.

Response: Satisfied with explanation

Date of response: 22 July 2019

Residents own words:

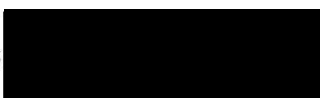
Satisfied with explanation & proposals.

W. Chisholm

In Person Meeting record regarding AQ#1424

Date of meeting: 21 July 2019 Time: 13:30 Location: 370 Seabright RdPersons in attendance: Fraser Summerfield

Address

Full time Resident: ☒

Seasonal Resident:

AntigonishProject Outline reviewed: YesQuestions: - water quality in harbour is suitable for oyster farming?
- area of proposed farming activities (on-water)Concerns: - reduction of navigable
waterways in harbour areaResponse: During Meeting

Date of response:

Residents own words:

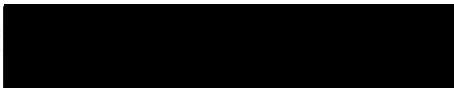
- Project has both pros and cons. Ernie seems to have the correct approach to limit the cons and maximize the pros. The technology is well thought out and hopefully will provide employment and local food opportunities. Provided that the farming activities are confined to areas of the harbour not frequented by fishermen, boaters and especially those areas required to navigate the harbour under sail power, I believe the project is a net benefit for the harbour & community.

In Person Meeting record regarding AQ#1424

Date of meeting: July 22 / 19 Time: 10:41^{AM} Location: 370 SEABRIGHT RD.

Persons in attendance:

Address:



Full time Resident:

Seasonal Resident: —

Antioch Co.

Project Outline reviewed: YES

Questions: WHY ALL THE FUSS

Concerns:

NO

Response:

Date of response:

Residents own words:

AFTER PERUSING WHAT ERNIE IS CONSIDERING REGARDING OYSTER FARM, I THINK IT IS A FABULOUS IDEA. I ESPECIALLY LIKE THE IDEA THAT HE WILL BE USING THE HARBOUR'S NATURALLY OCCURRING SHALLOWS IN THE PROCESS.

A Paul MacLean

Ernie MacLean

In Person Meeting record regarding AQ#1424

Date of meeting: 7/20/19 Time: 1300h Location: Mr. Porter's House.

Persons in attendance: MARIN CORSTEN
KAREN CORSTEN

Address:

Full time Resident:

Seasonal Resident:

Antiprison Co, NS.

Project Outline reviewed: YES.

Questions: No

Concerns: No

Response:


Date of response:

Residents own words:

Was explained very well about project.
I have no objections.

Karen Corsten

In Person Meeting record regarding AQ#1424

Date of meeting: ~ July 13 2019 Time: 3:00 Location: 

Persons in attendance: Paul Corston, His Son
EDMIE (Dillon?) HAROLD CTR

Address: 

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions:

Many - 45 minute Discussion

Concerns:

VIEW WILL CHANGE BUT ITS OK

Response:

Drawn To Me.

Date of response:

Residents own words:

Paul Said He was OK WITH
THE PLAN & FARMHOUSE GENERAL.

HE ASKED IF HIS SON - GARDENER
OF DAE A.C. COULD BE CONSIDERED FOR
GRAPING MANT.

DISCUSSED DAMEL CHASTON - PAUL SAID
HE WILL BE FINE.

In Person Meeting record regarding AQ#1424

Date of meeting: 13 July 2019 Time: 9:00 a.m. Location: [REDACTED]

Persons in attendance: Boyle Turman

Address: [REDACTED]

Harbour Centre
N.S. [REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: YES

Questions: NONE

Concerns: NONE

Response: Positive

Date of response: 13 July 2019

Residents own words: wonderful project for the community which
would be beneficial economically + ecologically.

31 Turman

In Person Meeting record regarding AQ#1424

Date of meeting: July 13/19 Time: 2:30 Location: At His House

Persons in attendance:

HARROCK MacLELLAN

Address:



ANTIGONISH
HARBOUR CENTRE

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions: No

Concerns: No

Response:

Date of response:

Residents own words:

ITS A GOOD IDEA! LAND GOES TO
THE HARBOUR WITHIN SITE OF THE LEASE
AREAS.
Harro MacLeLLan

In Person Meeting record regarding AQ#1424

Date of meeting: July 13/19 Time: 11:00am Location: Antigonish (Humphrey St)

Persons in attendance:

Steven Seaton

Address:



Antigonish, NS

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: *Yes*

Questions: *NO*

Concerns: *NO*

Response:

Date of response: *July 13/19*

Residents own words:

Ernie's technology & proposed business sounds like a positive & potentially great opportunity for the community. Bringing in & retaining income in Antigonish, providing employment opportunities & helping to boost the local economy. The environmentally "friendliness" of the new technology is also extremely appealing. I would fully support this venture & think it would be great for the community.

SA Seaton

In Person Meeting record regarding AQ#1424

Date of meeting: July 13/19 Time: 11:45 am Location: Antigonish NS

Persons in attendance:

Address



Antigonish NS

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: Yes

Questions: No

Concerns: No

Response:

Date of response: July 13/19

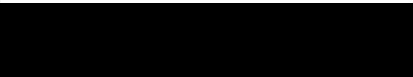
Residents own words:

I support this business venture in our community. I think it would be good for the economy and the environment.

A. Sears

Amy Sisson

In Person Meeting record regarding AQ#1424

Date of meeting: July 10th, 2019 Time: 8:00 Location: 

Persons in attendance: Adam Ehler & Mollie Morris

Address:

Full time Resident: ☒

Seasonal Resident: ☐


HARBOR CENTER

Project Outline reviewed: ☒

Questions:

None

Concerns:

None.

Response:

Date of response:

Residents own words:

More fresh seafood!



In Person Meeting record regarding AQ#1424

Date of meeting:

July 19 / 19

Time:

1:30

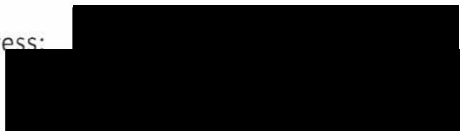
Location:

South Side Harborm

Persons in attendance:

LEONARD J PETTIPAS

Address:



Full time Resident:



Seasonal Resident:

Project Outline reviewed:



Questions:

No

Concerns:

No

Response:

Date of response:

Residents own words:

Sounds good

A handwritten signature, likely of Leonard J. Pettipas.

In Person Meeting record regarding AQ#1424

Date of meeting: Jun 9/19 Time: 2:30 Location: At Their Greenhouse

Persons in attendance:

Sandy & Viola Linkletter

Address:

Viola Linkletter -

Full time Resident: ☒

Seasonal Resident: ☐

Argonath Co.

Project Outline reviewed: Yes.

Questions:

Concerns:

Response:

Date of response:

Residents own words:

- Sandy Has No Concerns And Supports The Plan.
- Viola Said She Needed More Time To Think About It.

In Person Meeting record regarding AQ#1424

Date of meeting: July 9/12 Time: 9:30 PM Location: [REDACTED]

Persons in attendance:

Gene Porter, Monica "Miss" MacLellan, Roseanne Santos

Address:

Full time Resident: ☒

Seasonal Resident: ☐

Humboldt Co

Project Outline reviewed:

No

Questions:

No

Concerns:

Concerned About Boat Access
to Humboldt But Said She Doesn't

Response:

Have A Boat.

Date of response:

Residents own words:

Mrs MacLellan said she is a friend
of Pat MacDonald who is circulating
a petition in opposition to our
application. I left a form with her
to fill out along with my business card.
She said she would be coming to the
meeting.

In Person Meeting record regarding AQ#1424

Date of meeting: July 9/19 Time: 8:45pm Location: [REDACTED]

Persons in attendance:

ALLAN T. McDONALD
TERESA T. McDONALD

Address:

[REDACTED]

HARBOR CENTRE
ANTHONY.

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: Yes.

Questions: Yes

Concerns:

No. - Anne
Boat Access - Teresa.

Response:

Dennis Tolson

Date of response:

Residents own words:

I left forms for them to fill out - They said they would leave them with their son BRIAN who asked me to return another evening.

Mr. McDONALD said several times he had no concerns about our application. Mrs. McDONALD said some of their children may have noticed on their property and she was concerned about boat access - I explained the fence did not block access - I explained the fence did not block access - I explained the fence did not block access.

In Person Meeting record regarding AQ#1424

Date of meeting: July 8, 2019 Time: 8:30pm Location: Harbour Centre, Ant. Co.

Persons in attendance: 3

Address:



Ant. NS

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: yes.

Questions: Multiple questions asked & answered during hour long discussion regarding oyster aquaculture.

Concerns: No Concerns.

Response: During meeting

Date of response:

Residents own words: Oyster aquaculture is an interesting idea. I support this business opportunity in our community. I think that supporting a family business in our area is important.

- Amanda MacDougall

In Person Meeting record regarding AQ#1424

Date of meeting: July 8, 2019 Time: 8:30 pm Location: Harbour Centre, Ant. Co

Persons in attendance:

Address:

[REDACTED]

Antigonish N.S.

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: yes

Questions:

hour long discussion, no concerns

Concerns:

No concerns

Response:

During meeting

Date of response:

Residents own words:

As a small business owner (HarbourMac Construction Limited) I think this is a great opportunity for this area.

Brian MacDonnell

In Person Meeting record regarding AQ#1424

Date of meeting: April 2 Time: 4:00 Location: my Home

Persons in attendance:

Donald J. Chisholm

Address:

Full time Resident: YES

Seasonal Resident:

Antigonish NS.Project Outline reviewed: YES

Questions:

NO

Concerns:

NO

Response:

Date of response:

Residents own words:

I have no problems with and if this is workable. It could have good benefits for the area. It would be nice to have something done in this area. This area had many Oyster fishermen many years ago and it would be nice to see a return of oysters in the area.

W. Donald Chisholm

In Person Meeting record regarding AQ#1424

Date of meeting: July 8 2019 Time: 6:30 pm Location: my home

Persons in attendance:

Anne Chickolm

Address:



Lanark, Ont. Jonish
28

Full time Resident:

yes

Seasonal Resident:

no

Project Outline reviewed:

yes

Questions:

no

Concerns:

no

Response:

Date of response:

Residents own words:

No problem -
Benefit for the area

Anne Chickolm

In Person Meeting record regarding AQ#1424

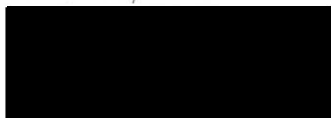
Date of meeting: July 8 Time: 7:00 Location: Lanark

Persons in attendance: Melissa Boyd

Address:



Lanark, NS



Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: yes

Questions: No

Concerns: No

Response:

Date of response:

Residents own words:

Sounds like he has a good plan
and explained environment benefits!

Melissa Boyd

In Person Meeting record regarding AQ#1424

Date of meeting: July 13 Time: 1:00 Location: at the meeting house

Persons in attendance:

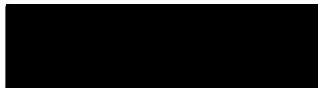
Address:



Full time Resident:

yes

Charles



Seasonal Resident:

Antigonia

Project Outline reviewed: yes

Questions:

Concerns: no

Response:

Date of response:

Residents own words:

it is a very good project

John Costen

In Person Meeting record regarding AQ#1424

Date of meeting: July 5/19 Time: 2:00pm Location: Harbour Centre

Persons in attendance:

Leo & Kaye Cameron

Address:

[REDACTED]

Full time Resident: yes

Seasonal Resident:

Project Outline reviewed: yes

Questions:

Concerns:

NO CONCERNS

Response:

Date of response:

Residents own words:

Sound like a great idea
Leo Cameron

In Person Meeting record regarding AQ#1424

Date of meeting: July 5/19 Time: 2:00 Location: [REDACTED]

Persons in attendance: 2

Address:



Full time Resident:

yes

Seasonal Resident:

Project Outline reviewed: Yes

Questions: No

Concerns: No

Response:

Date of response:

Residents own words:

Best of luck

Haye Cameron

In Person Meeting record regarding AQ#1424

Date of meeting: July 4, 2019 Time: 9:00 Location: 370 Seabright

Persons in attendance:

Ernie Porter, Antonia Cracknell, Keith Cracknell

Address:



Harbour Centre



Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: YES

Questions:

not at this time

Concerns:

No

Response:

Date of response:

Residents own words:

Very interesting & informative
innovative & environmentally conscious!

for a
small group

In Person Meeting record regarding AQ#1424

Date of meeting: July 4/19 Time: 9:00 Location: 370 SEABRIGHT ROAD

Persons in attendance:

KEITH CRACKNELL

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

HARBOR CENTRE
NS [REDACTED]

Project Outline reviewed: Yes

Questions:

NONE AT THIS TIME

Concerns:

NONE AT THIS TIME

Response:

LOOK GOOD.

Date of response:

July 4/19

Residents own words:

LOOKS GOOD.

[Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: July 11, 2012 Time: 5:30pm Location: Home

Persons in attendance:

Address:

[Redacted Address]

Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed: Yes

Questions:

No

Concerns:

No

Response:

Date of response:

Residents own words:

Amrit Pal Singh

In Person Meeting record regarding AQ#1424

Date of meeting: 2/07/2019 Time: 3.47pm Location: [REDACTED]

Persons in attendance:

Address:



Lanark

Full time Resident:

Seasonal Resident: Yes

Project Outline reviewed: Yes

Questions:

No

Concerns:

No

Response: its good Project which can save time and make easy for worker and good for sea, bird

Date of response:

2/07/2017

Residents own words:

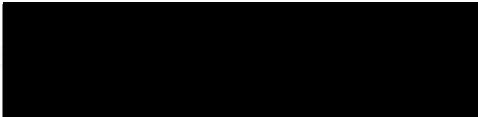
Bhupinder Singh

In Person Meeting record regarding AQ#1424

Date of meeting: 25077 2019 Time: 20.45 Location: Antigua Costa

Persons in attendance:

Address:



Full time Resident:

Seasonal Resident: ☒

10000 Strella tonk

Project Outline reviewed: Yes

Questions:

no questions

Concerns:

no

Response:

Date of response:

Residents own words:

Maripat Smith

In Person Meeting record regarding AQ#1424

Date of meeting: July 1 2019 Time: 10 am Location: Antigonish - Town pt.

Persons in attendance:

Philip Docker.

Chris Strickland

[REDACTED]

Trenton, N.S.

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes

Questions:

No Questions.

Concerns:

No Concern's.

Response:

Date of response:

Residents own words:

[Signature]

Ernie's project of developing an Oyster Lease would be a positive for both Industry and Community. I have been involved in the NS aquaculture industry since the 1980's, Ernie seems to have a good understanding of what needs to be done and has resources in place to make this happen.

In Person Meeting record regarding AQ#1424

Date of meeting: 5/1/2013 Time: 1:00 PM Location: 3010 1st Avenue

Persons in attendance:

John Smith, Jane Doe, Bob Johnson

Address:

3010 1st Avenue
San Francisco, CA 94107

Full time Resident:

John Smith, Jane Doe

Seasonal Resident:

Bob Johnson

Project Outline reviewed:

Questions:

John Smith asked about the timeline for the project. Jane Doe explained that the project would be completed by the end of the year. Bob Johnson asked if there would be any public hearings.

Concerns:

John Smith expressed concern about the impact of the project on the neighborhood. Jane Doe explained that the project would be designed to minimize impact. Bob Johnson expressed concern about the cost of the project.

Response: John Smith was assured that the project would be designed to minimize impact. Jane Doe explained that the project would be completed by the end of the year. Bob Johnson was assured that the cost of the project would be covered by the city.

Date of response: 5/1/2013

Residents own words:

John Smith: I am concerned about the impact of the project on the neighborhood. Jane Doe: I explained that the project would be designed to minimize impact. Bob Johnson: I expressed concern about the cost of the project.

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 1 Time: 2:00 Location: [REDACTED]

Persons in attendance:

Paula M. Dumas

Address:

[REDACTED]

Full time Resident:

Yes

Seasonal Resident:

Project Outline reviewed:

Questions:

Yes, Many

Concerns:

Yes, Many

Response:

Yes Many

Date of response:

Aug 1/19

Residents own words:

How I feel ABOUT ALL THE RAMIFICATION
FROM THIS PROJECT & HOW IT WILL
AFFECT MY WAY OF LIFE

In Person Meeting record regarding AQ#1424

Date of meeting: 01/07/2019 Time: 3:00pm Location: Town Point

Persons in attendance:

MacDonald Family
Lucy MacDonald

Address:

[REDACTED]

Antigonish NS

[REDACTED]

Full time Resident: Yes

Seasonal Resident:

Project Outline reviewed:

Questions:

Hour long discussion of proposed oyster farm

Concerns:

Environmental
Property Values
Use + enjoyment of Harbour
social consequences

Future development
Existing Industries

Response:

Date of response:

same day

Residents own words:

Undecided

Lucy MacDonald

In Person Meeting record regarding AQ#1424

Date of meeting: 01/07/2019 Time: 3:00pm Location: Town Point

Persons in attendance: MacDonald Family

Address: [REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed:

Questions:

Many questions discussed

Concerns:

→ First Nations burial grounds → effect on community
→ view of Harbor etc. → ecological
→ access to Harbor

Response:

These are all being considered / attempts to be addressed

Date of response:

01/07/2019

Residents own words:

Many of ~~my~~ my concerns were addressed,
~~that~~ ~~my~~ ~~concerns~~ Hopefully community will be
kept up-to-date on developments

Nancy MacDonald

In Person Meeting record regarding AQ#1424

Date of meeting: JUN 29 Time: 3:00 Location: _____

Persons in attendance:

- ERIC PORTER, Brian Macheo, Jane Porter,

Address:

[REDACTED]

Full time Resident:

Seasonal Resident:

- HALIFAX, NS -

Project Outline reviewed:

Questions:

- Site locations
- Navigations
- Visibility

Concerns:

- Look for BATS
- ENVIRONMENTAL EFFECTS on Harbour

Response:

- Low profile Equipment.
- No introduction of food/chemicals into harbour.
- Ongoing Monitoring.

Date of response:

Residents own words:

- Concern about Expansion / barrel-based Industrialization
- Porter answered all questions
- Open to suggestions.
- Well-monitored, cottage-scale local oyster farm is good.

Noel Sampson

In Person Meeting record regarding AQ#1424

Date of meeting: June 30/19 Time: 10 AM Location: 370 SEABRIGHT RD
Ant NS.

Persons in attendance:

MARK SEARS - CPA - small business owner

Cathy SEARS

Address:

[REDACTED]

Full time Resident: ☒ Hawthorne St

Seasonal Resident:

Ant. NS

[REDACTED]

☒ Cape George

[REDACTED]

Project Outline reviewed: yes, in detail

Questions:

All questions answered

Concerns:

No concerns

Response:

Full Support - good for environment, employment
and new technology is always good, remote
site

Date of response:

Residents own words: Support project.

Mark Sears
June 30-19

In Person Meeting record regarding AQ#1424

Date of meeting: June 30/19 Time: _____ Location: 370 SeaBight Rd

Persons in attendance: Cathy & Mark Sears

Address: [REDACTED]

Full time Resident: Hawthorne St

Seasonal Resident: Cape George

Antigonish

Project Outline reviewed:

Questions: All have been addressed by E. Porter very competently.

Concerns: No

Response:

Date of response: June 30/19

Residents own words: Sounds like a well thought out plan that could bring new employment opportunities to our community.

Cathy Sears

In Person Meeting record regarding AQ#1424

Date of meeting: June 30/19. Time: 10 AM. Location: 370 Seabright Rd.

Persons in attendance:

Karen + Mark Gabrielle.

Address:

[REDACTED]

Antigonish, NS.

[REDACTED]

Full time Resident: Italy Rd.

Seasonal Resident: - Bayfield, NS.

Project Outline reviewed: yes.

Questions: none.

Concerns: none.

Response:

Date of response:

Residents own words: I am in full support of this project.

Karen Gabrielle

In Person Meeting record regarding AQ#1424

Date of meeting: June 30 Time: 10:00 Location: 370 Seabright Rd

Persons in attendance:

David W. Farlane

Address:

[REDACTED]

177 TILGONISH RD

[REDACTED]

Full time Resident: yes

Seasonal Resident:

Project Outline reviewed: yes

Questions:

Concerns: no

Response:

Date of response:

Residents own words:

A positive for our community. This would bring local industry along with cleaning the estuary. It gives opportunity for local students involved

in the C2 program in High School (Options and Opportunities.)

[Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: June 30 Time: 11:00 Location: Home

Persons in attendance: Mark Gabriëer

Address:



Full time Resident: Full

Seasonal Resident:

Project Outline reviewed: yes

Questions: Benefits Many.

Concerns: None

Response:

Date of response:

Residents own words: I am all for it beneficial for the Area
and the economy Plus I would sell them at my Restaurant
owner operator of Gabriëers Bistho

A handwritten signature in cursive script, appearing to read "M. Gabriëer".

In Person Meeting record regarding AQ#1424

Date of meeting: _____ Time: _____ Location: _____

Persons in attendance:

Address:

Full time Resident:

Seasonal Resident:

Project Outline reviewed:

Questions:

Concerns:

Response:

Date of response:

Residents own words:

Kevin [Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: June 29, 2019 Time: 3 pm Location: 370 Seabright Rd.

Persons in attendance: Ann Marie Cameron

Address:



Full time Resident: ☒

Seasonal Resident: ☐

Antiganish NS

Project Outline reviewed: ☒

Questions: Where are the lease sights going?

Concerns: No concerns.

Response:

Love the idea - Exciting industry

Date of response:

During the meeting

Residents own words:

I think the industry with the
oysters ~~is~~ is Definitely Exciting
! Worthwhile. 😊

Ann Marie Cameron

In Person Meeting record regarding AQ#1424

Date of meeting: June 29 / 19 Time: 3 PM Location: 370 Seabright Rd

Persons in attendance: Ernie Porter PAUL ANTONARIS Cameron
SAKE

Address:

[REDACTED]

Full time Resident:

Seasonal Resident:

Antigonish NS.

Project Outline reviewed: Yes

Questions:

- Infrastructure Required

Concerns:

- NONE

Response: - Great Idea!

Date of response:

June 29 / 2019

Residents own words:

Exciting proposal - Love to see it happen
It will be great for our community



June 29 / 2019

In Person Meeting record regarding AQ#1424

Date of meeting: June 28 / 19 Time: 2 PM Location: _____

Persons in attendance: Anthony Costa

Address:

[REDACTED]

Antigonish Landing NS

[REDACTED]

Full time Resident: ☒

Seasonal Resident: ☒

→ Antigonish Point

Project Outline reviewed: yes

Questions: no

Concerns:

Water Rates

Response:

Date of response:

Residents own words:

I think it's a good Project

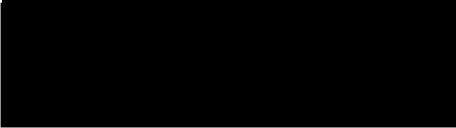
Anthony Costa

In Person Meeting record regarding AQ#1424

Date of meeting: June 25/19 Time: 8:00 Location: 370 Seabright Rd.

Persons in attendance: CHRISTINE Don.

Address:



Full time Resident:

Seasonal Resident: ☒

Project Outline reviewed:

Questions:

Some questions were raised over a 2 hr. meeting but were answered satisfactorily

Concerns:

None

Response:

Responses were offered during the meeting

Date of response:

no follow up required
June 25/19

Residents own words:

I think this oyster farm venture is beneficial for Antigonish Harbour.

C. A. J.

In Person Meeting record regarding AQ#1424

Date of meeting: June 25/19 Time: 8:00pm Location: 370 Seabright Rd.

Persons in attendance:

Sean Day.

Address:

[REDACTED]

Full time Resident:

☒ Seasonal Resident:

South Side Hbr.

Project Outline reviewed: YES

Questions: We asked a wide range of questions ranging from aesthetics to navigation & to environmental concerns.

Concerns: All concerns were addressed.

Response: All questions were responded to during the meeting to our satisfaction.

Date of response: Today

Residents own words:

The proponents have thought this all through in a systematic & thorough matter with consideration to all users of the harbour.

The new learnings from this should have profound positive impacts on the Oyster Farming Industry in Canada & abroad.

[Handwritten signature]

In Person Meeting record regarding AQ#1424

Date of meeting: 25/06/19 Time: 11:00 Location: 370 Seabright Road.

Persons in attendance: Ernie Porter, Jane Porter, Susannah Murphy,
William Frankland.

Address: [REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Antigonish

Project Outline reviewed: Yes

Questions: Impact of farm on water quality in the harbour.
Benefits of farm on the local community.
Scale of the operation

Concerns: See above

Response: I received a full and satisfactory response to all my questions and concerns.

Date of response: 25/06/19.

Residents own words: To this point, on what I have heard today, I fully support the setting up of an oyster farm in Antigonish Harbour.

William Frankland

W. Frankland

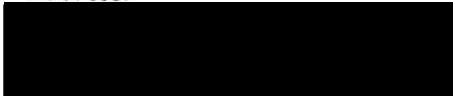
In Person Meeting record regarding AQ#1424

Date of meeting: June 25/2019 Time: 11:00 Location: 370 Seabright Rd.

Persons in attendance:

Susie Murphy, Will Frankland, Ernie and
Jane Porter

Address:



Full time Resident: yes.

Seasonal Resident:

Project Outline reviewed:

yes.

Questions:

What is the visual profile?

Concerns:

Mostly environmental concerns on any long-term effects on the harbour.

Response:

Very minimal visual, and very positive

Date of response:

June 25/2019

Residents own words:

response on environmental responsibility and even anticipate a positive impact.

al feel confident that this ^{could be} a positive asset to an area.

Susie Murphy

In Person Meeting record regarding AQ#1424

Date of meeting: June 14, 2019 Time: 11:00 Location: Town Point

Persons in attendance:

Address:



Antigonish N.S.

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed:

Questions:

Area to be used?

Concerns:

No concerns

Response:

Map showed of potential sites

Date of response:

June 6, 2019

Residents own words:

Allways good to see new initiatives for
employment in N.S.

In Person Meeting record regarding AQ#1424

Date of meeting: 27 June 19 Time: 11:10 Location: Town Point

Persons in attendance: Leonard Henriksen

Address: [REDACTED] Antigonish

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: yes

Questions: Like the idea

Concerns: No concerns

Response:

Date of response:

Residents own words:

Approve of idea and hope it is a
success

[Signature]

In Person Meeting record regarding AQ#1424

Date of meeting: 06/22/18 Time: 4:31pm Location: 370 Sea bright Rd

Persons in attendance:

mike m. E. ch

Address:

[REDACTED]

H. T. G. onis

N. J.

[REDACTED]

Full time Resident: Yes

Seasonal Resident:

Project Outline reviewed: Yes

Questions:

Concerns:

no

Response:

Date of response:

Residents own words:

good idea, well ~~can~~ planned out.

Mike M. E. ch

In Person Meeting record regarding AQ#1424

Date of meeting: JUNE 22, 2019 Time: 1130 Location: 370 SEABRIGHT

Persons in attendance: RYAN SHIMOZAWA

Address:

[REDACTED]

Full time Resident: ☒

ANTIGONISH, NS

Seasonal Resident:

[REDACTED]

Project Outline reviewed:

Questions:

MANY
HR LONG CONVERSATION MANY TOPICS DISCLOSED

Concerns:

NONE AT THIS TIME.

Response:

DURING MEETING.

Date of response: JUNE 22, 2019.

Residents own words:

AS A SMALL BUSINESS OWNER IN ANTIGONISH,
I THINK THE PROPOSED PROJECT WOULD
BE A GREAT ADDITION TO OUR COMMUNITY
BRINGING BOTH JOBS AN EXCITING NEW INDUSTRY
TO ANTIGONISH. AS A RESTAURANT OWNER
BEING ABLE TO OFFER PRODUCT FROM OUR REGION
IS ALWAYS BEST PRACTICE. OYSTERS FROM OUR
OWN HARBOUR WOULD BE GREAT FOR OUR
RESTAURANT!

RA

In Person Meeting record regarding AQ#1424

Date of meeting: June 22nd / 2019 Time: 11:30 am Location: 775 Seabright Road

Persons in attendance:

Eamie Porter, Ryan Shimosawa, Caitlin Shimosawa

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident: ☐

Antigonish NS

[REDACTED]

Project Outline reviewed:

Questions:

Many, we had an hour long conversations. Satisfied with all answers. Seems like a great addition to the harbour & community of Antigonish.

Concerns:

Response:

Answered during meeting

Date of response:

June 22nd / 2019

Residents own words:

I own a small business in Antigonish. It is a restaurant, The Townhouse, and would benefit from the oyster farm. The farm would add to Antigonish by bringing some jobs and creating an oyster unique to Antigonish! It sounds like the environment & surrounding community were thoroughly considered in preparation for the farm. This is an exciting opportunity for Antigonish!

Caitlin Shimosawa

In Person Meeting record regarding AQ#1424

Date of meeting: June 4 / 19 Time: 6pm Location: Antigonish

Persons in attendance:

Address:

[REDACTED]

Full time Resident: YES (county)

Seasonal Resident:

Pleasant Valley
Antigonish County.

Project Outline reviewed: YES

Questions:

NO

Like that the oysters. filter the
harbour.

Concerns:

NO

D. P. P.

Response:

Date of response:

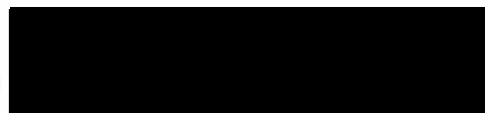
Residents own words:

In Person Meeting record regarding AQ#1424

Date of meeting: June 21/19 Time: 5:30pm Location: Antigonish

Persons in attendance: 2

Address:



Pleasant Valley NS



Full time Resident: Yes

Seasonal Resident:

Project Outline reviewed: yes

Questions: → prototype / technical progress

Concerns: → environmental impact.

Response: Very Satisfactory.

Date of response: June 21/19 during meeting.

Residents own words:

An interesting project, worth pursuing.

D. M. H. H. H.

In Person Meeting record regarding AQ#1424

Date of meeting: 6/21/19 Time: 5 PM Location: Antigonish

Persons in attendance: 3

Address:



Antigonish

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Y121

Questions: LOTS

Concerns: NONE

Response: I'm A LONG TIME BOATER IN THE HARBOR
AND THIS PROJECT ~~WILL~~ IS NOT IN BOATING LANDS.

Date of response:

Residents own words: I support this project

KC Sen

GARANT SENES

In Person Meeting record regarding AQ#1424

Date of meeting: JUNE 21, 2019 Time: 4:30 Location: Amy's Tree Anticonis

Persons in attendance:

CHARLIE BENNETT

Address:



Full time Resident: ☒

ANTI-COVID

Seasonal Resident: ☐

Project Outline reviewed: YES

Questions:

WHAT ABOUT BOAT TRAFFIC?

Concerns:

Response: NO BOATS CROSS THE LEASE AREAS DUE
TO SHADOWS BETWEEN LEASE AREAS AND
Date of response: THE CHANNEL

DURING MEETING,

Residents own words:

GREAT IDEA

Charlie Bennett

In Person Meeting record regarding AQ#1424

Date of meeting: June 21/19 Time: 6:00pm Location: Town House Pub

Persons in attendance:

Address:



Full time Resident:

Yes

Seasonal Resident:

West River/Antigonish

Project Outline reviewed:

Yes

Questions:

No

Concerns:

No

Response:

Date of response:

Residents own words:

Interesting project - all positive for
community

Debbie MacIsaac

In Person Meeting record regarding AQ#1424

Date of meeting: June 18/19 Time: 4:00pm Location: [REDACTED]

Persons in attendance: BRIAN + Irene MacLeod
Emile Porter

Address: [REDACTED]

Full time Resident:

Seasonal Resident:

3/4 year.

Am. N.S.

Project Outline reviewed: - Town Point Oysters Project.

Questions: all questions answered.

Concerns: No concerns.

Response: No responses required

Date of response: N/A

Residents own words:

This project provides many benefits to the ecology/environment, provides a value add to a local project, and will create a series of technological advances for the oyster industry. I am fully and enthusiastically supportive. Brian MacLeod

In Person Meeting record regarding AQ#1424

Date of meeting: June 19-2019 Time: 5:30pm Location: [REDACTED]

Persons in attendance: Irene McLeod Ernie Porter
Brian MacLeod

Address: [REDACTED]

Lanark

Full time Resident:

Seasonal Resident:

Project Outline reviewed: Town Point Oysters

Questions: Our questions were answered.

Concerns:

Response: We are excited for this project to go forward!

Date of response:

Residents own words:

The opportunity to bring a sustainable, natural and water cleaning operation to our region is most welcome. Mr. Porter has done a tremendous amount of due diligence in his pursuit of this potential project. Oysters are an economic opportunity, we are excited to support Ernie + Town Point Oyster Farm.

Irene MacLeod

In Person Meeting record regarding AQ#1424

Date of meeting: June 19/19 Time: 3:45 Location: [REDACTED]

Persons in attendance: Jack Thomson
Ernie Porter

Antigonish NS

Address: [REDACTED]

Antigonish NS

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed:

Questions: Nil

Concerns: Nil

Response:

Date of response:

Residents own words: I like to see a working landscape
As a business owner/operator, I encourage
any positive business development in the
area, and this proposal meets all the
criteria I look for. I am in full
support of this project and the economic
spin off it will create.

John Dineen

In Person Meeting record regarding AQ#1424

Date of meeting: June 13/19 Time: 1700 Location: Ady/190118

Persons in attendance: Danina Mae Donald

Address:



Full time Resident:

Seasonal Resident:

Project Outline reviewed:

Questions:

1.5 hour discussion

Concerns:

Response:

Date of response:

Residents own words:

Support the Project - economic
Value to Community

Danina Mae Donald

In Person Meeting record regarding AQ#1424

Date of meeting: JUNE 13/19 Time: 6:32 Location: Antigonish

Persons in attendance:

Owen Mc Caron

Address:

Antigonish NS.

Full time Resident: •

Seasonal Resident:

Project Outline reviewed:

YES

Questions:

We had a discussion on the Scope of project for 1 1/2 hours
one on one

Concerns:

No concerns but very Informative

Response:

Date of response:

Residents own words:

Exciting project. Great potential



In Person Meeting record regarding AQ#1424

Date of meeting: June 13 Time: 5pm Location: Antigonish Co
Persons in attendance: Glenn Horne Mun. Office

Address



Full time Resident: Yes

Seasonal Resident:

Project Outline reviewed: Yes

Questions: Waste, employment, gen concept.

Concerns: None

Response:

Date of response:

Residents own words: Good luck!

A large, stylized handwritten signature in black ink.

In Person Meeting record regarding AQ#1424

Date of meeting: June 18 / 14 Time: 11:00 Location: [REDACTED]

Persons in attendance:

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: yes, reviewed plan

Questions: No

Concerns: None

Response:

Date of response:

Residents own words:

Always interested in more local jobs

Lina Chert

In Person Meeting record regarding AQ#1424

Date of meeting: June 18 Time: 10:50 Location: Haw Street

Persons in attendance: yes

Address:



Full time Resident: yes

Seasonal Resident:

B2G 1B6

Project Outline reviewed: Great

Questions:

none

Concerns: none

Response:

Date of response:

Residents own words:

Great

Daniel M. Ross

In Person Meeting record regarding AQ#1424

Date of meeting: June 18th 2019 Time: 10:52 Location: Robertson Electric

Persons in attendance:

Address:



Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: ☒

Questions: none

Concerns: none

Response: ☒

Date of response: June 18th

Residents own words: It will be good to Create more jobs for
our Community & the environment

Colin Chisom

In Person Meeting record regarding AQ#1424

Date of meeting: June 10 2019 Time: 2:30 Location: 370 S. 2nd St. LD

Persons in attendance:

Moses Cooney

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

Arizonicist

[REDACTED]

Project Outline reviewed: Yes.

Questions:

Many - we had a 2 hour discussion

Concerns:

No.

Response:

Date of response:

Dr. M. Cooney

Residents own words:

Exciting opportunity on two fronts - FARMING + MANUFACTURING
in a local environment.

In Person Meeting record regarding AQ#1424

Date of meeting: June 9 2019 Time: 7:30pm Location: [REDACTED]

Persons in attendance:

Clark Beiswenger

Florence MacDonald

Ernie Porter, Danny Porter.

Project Outline Provided and reviewed:

Questions: 1) How long to grow to Market Size?
2) Do you need to hold a Commercial Fishing
Licence To Do Custom Harvesting?

Concerns:

No Concerns

Response: 1) 3-4 years.

2) No.

Date of response:

Live over looking the harbour for 37 years.


Great idea. Good To See activity in the harbour.

There will be no harm done to our harbour
by this man

Florence MacDonald

Clark Beiswenger

In Person Meeting record regarding AQ#1424

Date of meeting: 8 June 2019 Time: 2:20 Location: 

Persons in attendance:

Richard Cameron
Ernie Tortor

Project Outline Provided and reviewed: Yes

Questions:

Concerns:

~~Has~~ Any INTERFERENCE WITH ICE
FISHING?

Response: No - ICE IS NOT SET IN THE AREA.
GOOD DISCUSSION ABOUT THE FARM.

Date of response:

I BELIEVE THAT AN OYSTER FARM OPERATION
IN OUR LOCAL AREA - WILL HAVE A POSITIVE
IMPACT ON OUR LOCAL ECONOMY. IT WILL
CREATE JOBS AND BENEFIT OTHER SPINOFFS
ASSOCIATED WITH IT.

Richard Cameron

In Person Meeting record regarding AQ#1424

Date of meeting: June 6/19 Time: 1:40 Location: Kaus.

Persons in attendance:

Rob Kaus

Project Outline Provided and reviewed: Yes

Questions:

NO - UNDERSTANDS THE FARM
SET-UP

Concerns:

NO CONCERNS.

Response: AS

Date of response:

AS A LOCAL BUSINESS OWNER WHO WILL BE AFFECTED BY THIS PROJECT, I FEEL THERE IS AN OPPORTUNITY HERE FOR A GROWTH INDUSTRY THAT DOES NOT HARM THE ENVIRONMENT. IT WILL GIVE EMPLOYMENT IN BOTH THE CONSTRUCTION PHASE AND IN THE RUNNING OF THE FARM. I AM HOPEFUL THE PROJECT PROCEEDS AND IS SUCCESSFUL.

R. Kaus.

In Person Meeting record regarding AQ#1424

Date of meeting: June 6 / 19 Time: 11:30 Location: BIOHOUTING

Persons in attendance:

Rose Boudreau.

Project Outline Provided and reviewed: yes

Questions:

1)

Concerns:

1) Will there be debris on shore
as been on shores in France.

Response:

No — From less energetic environment
Date of response: Lower TIDES sheltered estuary

My only concern is the debris build up that
may accumulate along the shoreline that could
possibly affect property values and may lead to eddies.
Any project resulting in economic development
for Antigonish and area is a plus.

Rose Boudreau

In Person Meeting record regarding AQ#1424

Date of meeting: June 6 / 19 Time: 1:30 Location: KZCL

Persons in attendance:

Gary Christopher

Project Outline Provided and reviewed: Yes

Questions:

No

Concerns:

No

Response:

Date of response:

Gary Thinks its A Good Idea - Go
Ahead. WITH IT

Gary Christopher



May 30, 2019

Town Point Consulting Inc.
370 Seabright Road,
Harbour Centre, Antigonish NS
B2G 2L2

Attention: Ernie Porter, President

Dear Ernie;

Thank you for dropping in today to discuss your oyster aquaculture plans. As you know, I live on Merigomish Harbour where there are several such operations. I am an avid boater and have not had any issues or concerns associated with the farms. Several of the farmers are good clients and we appreciate their business.

I wish you success with both your lease application and your equipment product launch, best of luck.

Sincerely,
Peter Bennett, P.Eng, President


Stright-Mackay Ltd.

In Person Meeting record regarding AQ#1424

Date of meeting: June 1 2019 Time: 4:25 Location: 370 Seaburg Rd

Persons in attendance:

Dr. Don TACKENNA
JANE PORTER ERNIE PORTER

Project Outline Provided and reviewed: Yes.

Questions: 1) Why Do you select these particular sites

Concerns:

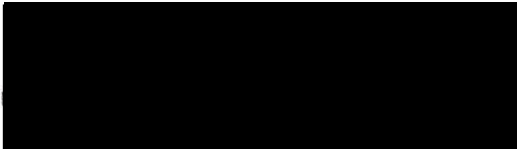
Response: Flow, FEED, WATER DEPTH Proximity Lack of
Proper Land owners

Date of response: During Meeting

I feel this is a great opportunity
to create local jobs and start a new
SEAFOOD industry for this area. There
will be minimal environmental impact.
The creation of a local oyster
product will bring tourism and
exposure to the area. As local
business owner the economic
impact should be very positive.



In Person Meeting record regarding AQ#1424

Date of meeting: May 30 2019 Time: 6:30 Location: 

Persons in attendance:

Azelle T. McKenzie

Ernie Porter

Project Outline Provided and reviewed: Yes

Questions:

No

Concerns:

No - Absolutely No Concerns, Really
Glad To See This Going Ahead

Response:

Date of response: May 30 2019

to whom it may concern. I am in favor of this oyster fishery, as it will clean up ant. harbor waters. it will not impede any boat traffic, and will create jobs in this area. I am a commercial fisherman + hold Licenses in ant harbor. I have been fishing commercially for over 50 years, and I hold an oyster License + this system will create an opportunity to use this license and sell product to this Enterprise

A. D. Mae Kenzie

In Person Meeting record regarding AQ#1424

Date of meeting: 30 May 2019 Time: 3:15 Location: [REDACTED]

Persons in attendance:

STEVEN SWICK
ERIN BOYER JONAS PORTER

EASTON BAY AREA

Project Outline Provided and reviewed:

Questions: 1) ARE THE OYSTERS FED OR ARE THERE TREATMENTS

2) WILL THE LEASE AREAS IMPEDER KAYAKS

Concerns: 3) DISCUSSED CLOSED STATUS OF THE HARBOR,

EXISTING LEASE & HARVESTING OPERATIONS & REEF/DEPOSIT
NO CONCERNS

Response: 1) NO
2) NO - BUT WILL IMPEDER POWER BOATS & SAIL BOATS

Date of response: During Meeting

Stephen Swick

In Person Meeting record regarding AQ#1424

Date of meeting: MAY 30 Time: 11:30 Location: Antigua

Persons in attendance:

Darrel McPhail
Ernie Porter
Tommy Brown

HIGHLAND BUILDING
SUPPLIES

Project Outline Provided and reviewed:

Questions:

Concerns:

I have no questions or any concerns

Response:

I live in Antigua and see this
as a good opportunity for jobs

Date of response:

Tommy

In Person Meeting record regarding AQ#1424

Date of meeting: May 30 Time: 11.29 Location: Antigonish

Persons in attendance:

Daniel McDougall
Ernie Paton

Therese Boudreau
Supplies

Project Outline Provided and reviewed:

Questions:

NO question

Concerns:

NO concern

Response:

NO response

Date of response:

May 30/2011

Good for every body (John, needed)



In Person Meeting record regarding AQ#1424

Date of meeting: May 30th Time: 10:30am Location: New Glasgow

Persons in attendance:

Ernie Porter, Peter Bennett

Project Outline Provided and reviewed:

Questions:

Concerns:

Response:

Date of response:

I see nothing that would cause any adverse effects, with oyster farming on the proposed sites in Antigonish Harbour.

PJ Bennett

In Person Meeting record regarding AQ#1424

Date of meeting: May 27 2019 Time: 5:20 Location: [REDACTED]

Persons in attendance:

Susan Beaton

JOSEPH KANEHL

Antigonish Co.

Project Outline Provided and reviewed:

Questions:

Concerns:

Is there treatment of the oysters
that could effect other species particularly
LOBSTERS?

Response:

No treatment & no feeding.

Date of response:

IMMEDIATE

We are Seasonal Resident here in Seabright -
during our Lobster season (I am an owner/operator of a
Lobster operation) and we were pleased to hear of
a venture which would contribute to the local
economy and contribute to the positive image of
the maritimes (Antigonish specifically) as a
Seafood producing region. We feel this project will
have largely positive effects - with little to
no negative effect on the area. We support
any venture which is local, sustainable and creates
jobs.

Susan Beaton +

Joseph Kanehl

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 27/19 Time: 3:20 Location: Robertson Inc. office

Persons in attendance:

Alex McDonald

Project Outline Provided and reviewed: Yes

Questions: No

Concerns: No

Response: None Led

Date of response:

Local Fishing Industry is great and this idea will help with
the off season Fishing.



In Person Meeting record regarding AQ#1424

Date of meeting: May 27/19 Time: 4pm Location: [REDACTED] Antigoni

Persons in attendance: Andersens Auto Care
Rick Anderson
Nancy Anderson (owners/operators)

Project Outline Provided and reviewed:

Questions:

How many will you employ

How will this support the community?

Concerns:

What concerns have been brought up?

Response:

Date of response:

We welcome another small business
 and are glad to ^{see} someone trying
 to keep work for their families.

We wish Mr. Porter and his family
 the best.

Nancy Anderson Rick Anderson

In Person Meeting record regarding AQ#1424

Date of meeting: May 27/19 Time: 2:05 pm Location: Kans Office

Persons in attendance:

Lisa Fypp - Lives 1191 Lower Springfield Road
San Antonio
Boh XO

Project Outline Provided and reviewed: Yes.

Questions:

No

Concerns:

No

Response:

Date of response:

NOVA B&D.

Ernie Porter presented to me the Oyster
Aquaculture farm in Antigonish Harbour. He
talked about his plan, the spin-offs and the
economic benefits of his project and the ecological
benefits of forming oysters in Antigonish Harbour.
I think it would be a great benefit to Antigonish
country, financially and would be great to
employ locals and have them stay + live in
Antigonish.

J. Flynn

APPENDIX A: 4-ENGAGEMENT WITH FIRST NATIONS



Ernie Porter <ernieporter77@gmail.com>

(no subject)

1 message

[REDACTED]@txt.bell.ca [REDACTED]@txt.bell.ca>
To: ernieporter77@gmail.com

Tue, Jul 30, 2019 at 3:16 PM

Hi Robin, thank you for taking time to chat with me. As discussed, Dr. Garbary's public panel discussion regarding our application will be Aug 13 at the Schwartz Business School on campus 6:09-9:00. I hope you are able to attend.

Also, please drop by to see our innovations in oyster aquaculture gear. I'm sure you will find it of interest. We are hoping you will share your impression of it with your First Nations contacts.
Our address is 370 Seabright Road, Harbour Centre, Antigonish.

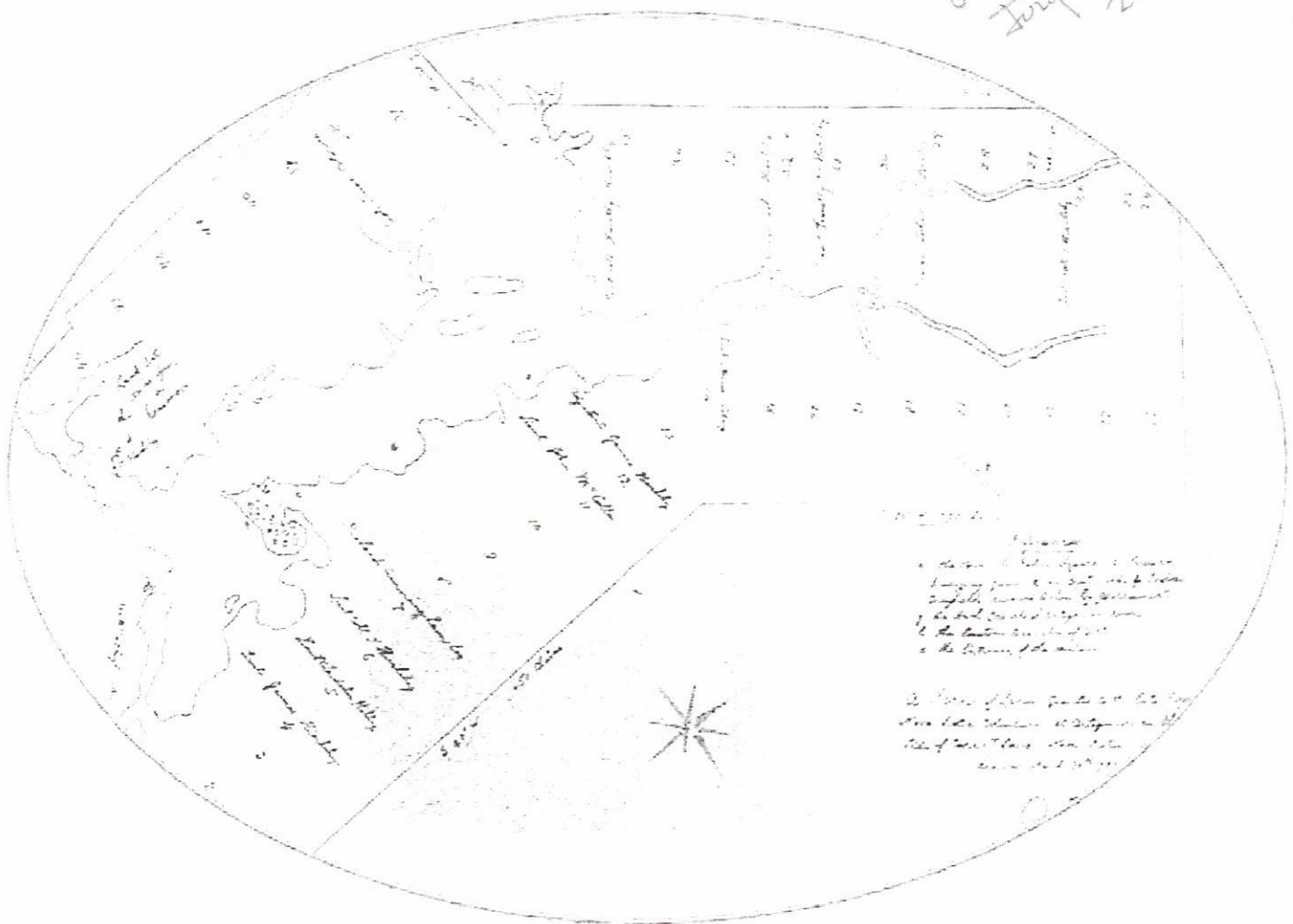
Best regards,
Ernie. 902-471-3696

This message was sent from a Bell mobile phone.

Bell

 noname.txt
1K

Julia Gibbs
July 25/19
 519
2:00 pm



HIERLIHY TOWN POINT SITE, TOWN POINT MAP, 1787

This 1787 map shows the original site of the Hierlihy settlement at Town Point on a small peninsula on the west side of Antigonish Harbour. The tract of land granted to this group stretched from the harbour's mouth as far inland as Salt Springs on the West River. Here, Lt. Col. Timothy Hierlihy and a group of Royal Nova Scotia Volunteers, along with some wives and children, erected log cabins and planted crops. The land grant called the "Soldiers' Grant" comprised a generous 21,600 acres (8,740 hectares). Hierlihy received 2,200 acres (890 hectares) for himself. Officers were assigned an amount in proportion to their rank, while privates were allotted 100 or 200 acres (40 or 80 hectares). They were also given an assortment of agricultural implements and provisions for three years. Some land was set aside to be used as a commons and town square for the settlement. There were also areas reserved for the local Mi'kmaq population for corn fields, a burying ground, and an oyster bed.

In Person Meeting record regarding AQ#1424

Date of meeting: ~~June 3/19~~ June 3/19 Time: 10:30 am Location: Best Western - Glenview Hotel

Persons in attendance:

NORMA PROSPER

KERRY PROSPER - COUNCIL MEMBER PATRICK F.N.

Project Outline Provided and reviewed:

Questions:

Discussed offer to involve Bank in our open house activities.

Concerns:

Response:

Date of response:

Kerry mentioned his Band has some old leases in Arlington Heights dating from the 1700's.

I told him I'd like to learn more about these leases - He said he didn't know where the documents were.

He suggested we get together to cooperate in developing a sister Area - Culture in the Area. I agreed.

Ernie Porter

From: Ernie Porter
Sent: May 28, 2019 12:24 PM
To: Norma Prosper
Subject: RE: Meeting

Hi Norma;

Thanks for the quick response. Its no problem, I'm in no hurry just thought I would touch base with you.

Best regards,
Ernie

From: Norma Prosper [REDACTED]@paqtnkek.ca>
Sent: May 28, 2019 9:09 AM
To: Ernie Porter <Ernie.Porter@lindsayconstruction.ca>
Subject: Re: Meeting

Good morning Ernie,

No i haven't been able to nail down a date with the cheif and council as of yet, I will let you know as soon as i am successful.

thanks for the reminder,

Norma

On Tue, May 28, 2019 at 8:30 AM Ernie Porter <Ernie.Porter@lindsayconstruction.ca> wrote:

Sent from my

Hi Norma

I'm just following up on our recent telephone conversation and subsequent email to see if the offer to meet has been presented to Chief and Council and if there is interest in arranging a time to meet?

Best regards,
Ernie

Sent from my iPhone
Sent from my iPhone

--

Norma J. Prosper
Oyster Project Administrator

Paqtnkek Mi'kmaw Nation
7 Dillon St., Antigonish Co., NS
B0H1A0

Phone: 902-386-2781
Cell: 902-714-4681

Ernie Porter

From: Ernie Porter
Sent: May 28, 2019 8:30 AM
To: [REDACTED]@paqtnkek.ca
Subject: Meeting

Sent from my

Hi Norma

I'm just following up on our recent telephone conversation and subsequent email to see if the offer to meet has been presented to Chief and Council and if there is interest in arranging a time to meet?

Best regards,
Ernie

Sent from my iPhone
Sent from my iPhone

Ernie Porter

From: Ernie Porter
Sent: May 16, 2019 9:20 PM
To: [REDACTED]@paqtnkek.ca
Subject: Oyster Aquaculture

Hi Norma;

I was nice to meet you by phone today. Thank you for taking time to chat with me. As discussed, the following is a brief outline of my initial thoughts regarding possible collaboration we may undertake to our mutual benefit.

1) Public engagement/public meeting:

We have been granted an Option to Lease within a designated area of Antigonish Harbour which permits us to do scoping of the area to determine suitable lease sites. As you are surely aware, part of the lease application process involves public engagement and a public meeting. It is my understanding that your oyster aquaculture activities are associated with an experimental lease area. I believe, you too would be required to do the public engagement and public meeting tasks should you wish to advance your lease from experimental to fully active.

My suggestion is that you consider participating in my open house public meeting by having an information station that would convey positive messages regarding your oyster aquaculture activities, the benefits of oyster aquaculture to the community and the environment and in some way show support for my desire to develop a similar operation. I see benefits to your efforts by getting some good exposure to the process of conducting the public meeting task and perhaps some promotion of your oyster brand. For us, it is always helpful to have support from within our industry, and especially from first nations groups.

If you agree that this is a good thing to do, I will gladly reciprocate when the time comes for your public meeting.

2) Seed supply:

As part of our farm development plan we have designed and hope to build this summer a land-based nursery for oyster seed. We think it will have an annual production capacity of up to 10 million seed. We will be focussed on producing premium seed that is well shaped, and available in larger sizes to reduce grow-out time on the farm. I would be pleased to discuss with you any supply arrangements that would be of interest.

3) New gear:

In collaboration with Philip Docker we have developed the first and only mechanized system for oyster aquaculture which you mentioned this afternoon. We will have the system deployed on Philip's farm later on this summer and plan to invite local farmers to come for a demonstration where you will be able to operate the system in actual farm conditions. We would welcome your participation and would be glad to reach out to you when we are ready. Our system will, conservatively, double production without adding labour or lease area and your farm staff will no longer provide all the physical effort they will instead operate the machine.

Please let me know if you are interested in meeting to discuss these issues or others related to oyster aquaculture.

Best regards,
 Ernie

Town Point Consulting Inc.
 Ernie Porter, P.Eng.
 President

APPENDIX A: 5-ENGAGEMENT WITH OYSTER HARVESTERS

October 3, 2019

Town Point Consulting Inc.
370 Seabright Road
Harbour Centre, NS
B2G 2L2

Re; Aquaculture Lease Application AQ#1424

Dear Mr. Porter;

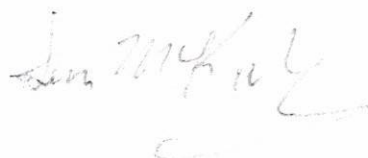
Thank you for informing me of your lease application and associated proposed farm plan. As you know, I own an oyster lease not far from your proposed operation which is licenced for bottom harvest. I believe if your application is successful then it will be beneficial to the productivity of my lease due to more oyster larvae in the harbour. Some of this larva will very likely set within my lease area and eventually result in an increased harvest.

Also, when you are in operation there may be ways we can cooperate to our mutual benefit. One way that comes to mind is if you build a depuration facility. I would consider cleansing my harvest by depuration rather than relaying to my lease in Pictou County. This would save me time to market and the extra work of sinking/recovery. I would also consider selling my harvest to you, if the price is right.

Antigonish Harbour produces great oysters and I think your proposed farm will be very successful. Best of luck with your application.

Sincerely,

Sam McKinley

A handwritten signature in dark ink, appearing to read "Sam McKinley", with a small flourish underneath.

LEASE # 1385
10.27 ha

529

In Person Meeting record regarding AQ#1424

Date of meeting: Sept 11, 2019 Time: 2:40 pm Location: By Phone

Persons in attendance: Sam McKinnon - LEASE HOLDER
ANTICOSTA HARBOUR

Address: New Glasgow

Full time Resident:

Seasonal Resident:

Project Outline reviewed: - He saw option to lease area
or NSTDA website. I described
location of Grow Sites.

Questions:
1) Where
are Grow
Sites?

Concerns: None

Response:

Date of response:

Residents own words:

Sam is in full support of our
Application And wants to continue
Dialogue. He offered to sign a
Letter of Support if I would Draft
one. He plans to attend our
public meeting. - Asked me to
con him in advance to remind him of
meeting?

CURE & LEASE APPLICATION BY TOWN POINT COAST GUARD 530 LITTON
FOR ANGLONISH HARBOR
WITH COMMERCIAL OYSTER
HARVESTERS.

In Person Meeting record regarding AQ#1424

Date of meeting: Aug 7/19 Time: 1:00-2:00 Location: New Glasgow

Persons in attendance:

KEN FRASER

JAMIE DAVISON

MIKE MACINTOSH

STEPHEN T. MACINTOSH

Address:

Full time Resident:

ERNE FORGER

Seasonal Resident:

JOHN FORGER

Project Outline reviewed:

YES

Questions:

Concerns:

WHEREAS THROUGH DIRECT CONSULTATION
WITH ALL 4 HARVESTERS TPC HAS AGREED TO
STAY OFF SHORE MINIMUM 50' AND AVOID ALL

Response:

AREAS IDENTIFIED AS POST HARVEST AREAS.

Date of response:

GENERALLY ANY AREA OF GREATER LOW TIDE DEPTH
OF 3' WILL BE ACCEPTABLE.

Residents own words:

Stephen M. MacIntosh Aug 7/19

Jamie Davison Aug 7/19

Kenny Fraser

Michael MacIntosh Aug 7/19

Outlook

Search

S [Icons]

+ New message

Reply [Icons] Delete [Icon] Archive [Icon] Junk [Icon] Sweep [Icon] Move to [Icon] Categorize [Icon] [Icons]

Favorites

(No subject)

Inbox 16

SM Stephen Macintosh <a1oyster@icloud.com>

[Icons]

Add favorite

Mon 2019-05-05 4:09 PM
pristine.bay@hotmail.com

Folders

Inbox 16

Junk Email

Drafts

Sent Items

Deleted Items 1

Archive

Bell mobility

Barry George

bio food tech

central statements

Tracy Gowan

Conversation Hist...

Fishing licenses

Frandon

Fundy appliances

Isabelle vibrio tes...

james miller

Junk

MBW

north west laborat...

Notes

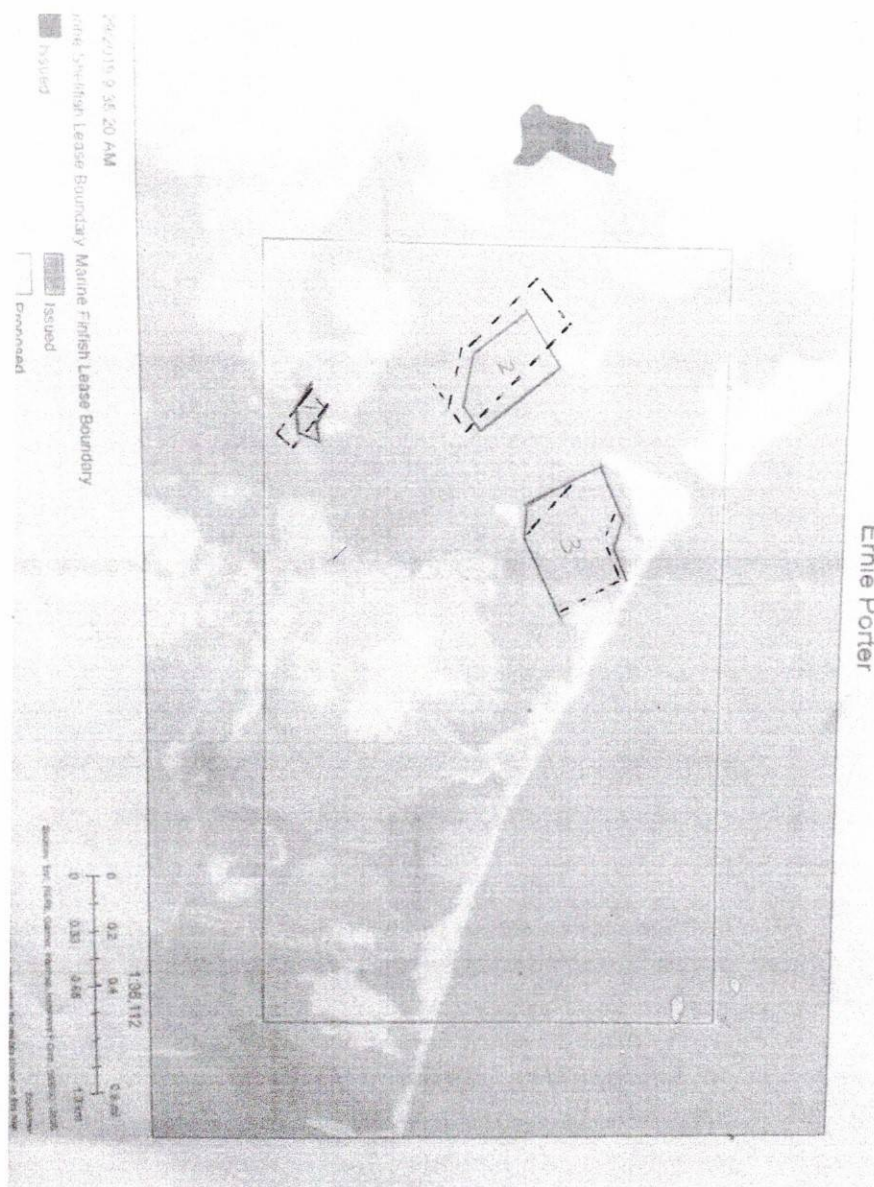
NS Power bills

oysters

press gang 1

QMP Forms

Seacore



Sent from my iPhone

June 19, 2019

Ken Fraser, oyster harvester, came to Town Point around 5:00 pm to collect oysters. I was able to meet him around 6:20. We chatted about our lease application and the adjustments to farm layout we made to accommodate the harvester's activities. We went to the Captain's Island site in my boat and examined the revised layout looking closely at shore conditions for productive oyster beds. I explained how we avoided three such beds at Captain's Island, he agreed the new layout works for him.

We then went to the Cranberry Island site where we again examined the revised layout. I explained how we are avoiding beds on the shores of Cranberry Island by staying about 50 yards offshore. We examined the revised shore portion along a wooded portion of Dunn's Beach. I explained why we needed to extend the shore part to include the small cove east of the wooded area to have the shelter but that there were oysters visible in the area. We examined this condition and he was unconcerned that this area would be within the lease.

The adjustments made to area 3 to avoid the oyster bed at the point of Town Point was acceptable to Ken.

He said he didn't think others would have any concerns with the revised layout.

We then viewed our DockPort equipment prototypes in my barn and Ken asked to be included early in our planned invitations to area farmers after the system is deployed on Philips farm. Ken's lease is very near Philip's and he wants to move into more surface culture and is keen to see if our system would be suitable for his lease. He is concerned he hasn't sufficient water depth. I agreed to invite him early in the program.

Ken then asked advice regarding helical anchors. I showed him samples I had made and gave him coordinates of a supplier in Antigonish. He asked how to install them, and I gave him direction regarding that task.

Ken went back to harvesting after thanking me for taking time to show him our adjustments.

June 18, 2019

Mike MacIntosh and his wife Amanda were traveling by Town Point by Boat at around 1:00 pm, I was outside, and they came to shore to meet me. We chatted about our lease application and our new gear. They wanted to see the gear, so they came to our barn to view Oyster-Matic and BOBR. There was a half hour discussion about service boats, gear, oyster aquaculture and our lease application.

I had to cut the discussion short at 1:30 because I had a commitment for 2:00 at Park Falls for scattering of ashes of my late uncle. Mike did say that if we had made the adjustments we discussed earlier in Truro then he would be OK with the application. We didn't have time to examine the adjustments as I had to leave.

June 17, 2019

Stephen MacIntosh called me today in response to my latest text message to him. He was driving to Antigonish at the time (1:00pm). We spoke for about 10 minutes and he made the following comments;

- 1) Their group of harvesters active in Antigonish harbour are very busy so the prospect of them all being available to meet at once seems unlikely. He did have the chance to discuss the matter with Jamie Davison and he was feeling fine with our application provided the minor adjustments are made.
- 2) Stephen said he is at Antigonish Harbour most days and will drop by our house when he has a chance. I reinforced the importance of going together to the sites to discuss in detail the areas of interest to them. He agreed.
- 3) I described the adjustments we made at the Captain's Island site to avoid three locations with plentiful oysters...he felt this was going to be ok.
- 4) I then described the need to apply for more shoreline along the Dunn's Beach side of the Cranberry Island site because the shore we had originally planned to claim is too rocky to beach a boat. He said that would be fine because they don't harvest there.
- 5) Stephen said, several times that the sites we have identified are really good and he had considered applying for them in the past.
- 6) He said these sites have a strong potential to be classified as "open" which would eliminate the need for depuration. He described how he was successful in having a portion of his lease in Pictou County reclassified and his knowledge of Antigonish Harbour is that its water quality, particularly of our sites is quite superior to where his lease is located.
- 7) We discussed the potential of members of his group seeking leases in Antigonish Harbour and the positive effect our success may provide to those future applications.
- 8) He brought up the benefit our operation will provide to their harvesting activities in that the oysters in our growth units will add seed within the harbour that can only add to the native population. He advised that we limit seed supply to only that which will be available from collecting native set from within the harbour. He believes the oysters from Antigonish Harbour are superior to those from other areas and he doesn't want this trait diminished by importing seed from outside the harbour.
- 9) He said he personally and their group are not going to oppose our application, instead they plan to support it. I asked if they, either individually or as a group, would write a letter of support. He said they likely will but first want to view the minor adjustments to the farm layout I suggested.
- 10) He said that we did choose the best sites and Philip Docker was helpful in that regard but suggested that I should have asked them for that assistance because they know the harbour best and they would have provided it. I said that at the time I didn't know them but thank him for the offer.
- 11) We talked about opposition...he had choice words for some of the seasonal residents that opposed his application in the past. He also offered that the opinions of those who are non-residents of this country should not be considered.
- 12) We discussed the scale of the harvesting operation and I reinforced my commitment to avoid causing any negative effects on this activity.
- 13) He again voiced his support and offered his opinion that my application will be successful.

Hi Stephen, I am wondering if we could get together again sometime soon as a group? You, Mike, Jamie and Ken to discuss more details regarding farm layout and bigger picture issues regarding oyster aquaculture in Antigonish Harbour. It would be great if we met at my place just so we could go out to the sites to be clear about areas you currently use. However, if that doesn't work for you then I can meet wherever is convenient for you. I don't have contact coordinates for the others so please either share them with me so that I can contact them directly or please pass on my request to them.

Thanks
Ernie

Yesterday 12:23 PM

(June 16/19)

Hi Ernie. Yes we should discuss further these issues. I'll talk to guys and see if we can get together sometime soon. Busy times for all.

June 17, 2019

Thanks Stephen. There is a broader issue that will likely be of interest to your group so I think it will be time well spent.

Ok

Testing my oysters tomorrow for MSX. If that shows up. It's all for nothing. It's over. A lot of dead in Antigonish this year.

Ok, I wasn't aware of that issue. Fingers crossed.

If that moves in. It's over. CFIA is coming for a sample.

✓

add in Antigen test this year.

537

June 17, 2019

If that moves in. It's over. CFIA
is coming for a sample.

Ok, do they suspect MSX?

No I don't think. But I am
wondering why they are
checking.

Could be just routine I
suppose. I'll ask Philip what he
knows.

Today 12:55 PM

Philips plant is also being
tested. He said he was told all
plant are being done just to see
if MSX has spread.

Read 12:55 PM

In Person Meeting record regarding AQ#1424

Date of meeting: June 3, 2019 Time: 11:00 Location: Best Western Glenora Hotel

Persons in attendance:

Mike MacIntosh Chris Porter

Steve MacIntosh

Jamie Douglas

Project Outline Provided and reviewed: Yes.

Questions:

1) Asked if I would adjust lease (was to avoid our point and those Eastern boundary of Captain's Island site slightly westward)

Concerns:

— They are supportive

Response:

1) I agreed to the layout adjustments

Date of response:

1) They pointed out that they have an association and their support of our application could be important. We agreed to meet again to find more ways to collaborate/cooperate.

2) They are very interested in our DockPort Oyster Aquaculture Gear and I ~~offer~~ invited them to visit our property when they wish to see the gear. Also to discuss the gear to the farmer at Douglas Farm.

In Person Meeting record regarding AQ#1424

Date of meeting: May 23, 2018 Time: 1:30pm Location: Town Point 370
@ The Point

Persons in attendance:

Kenny Archibald) oyster Harvester
Ken Fossie

Project Outline Provided and reviewed:

Questions:

Concerns:

Response:

Date of response:

- Chatted About Their Catch
- Offered Again To Allow Them To
 Continue Harvesting @ our point
 After we have A Lease in the
 Area.
- Ken Said He was Talking To Mike Macintosh
 About our plan.
- It was A pleasant And Friendly Chat.

In Person Meeting record regarding AQ#1424

Date of meeting: May 21 2009 Time: 9:40 AM Location: Town Point - on the
Point

Persons in attendance:

Ken Fraser - Oyster Harvester
from Milbrook near Westville
 Project Outline Provided and reviewed: NO

Questions:

Discussed my plans and offered
excise feed and continued use of ~~the~~ point

Concerns:

Said he only harvests along the shore
so no problems if leases don't go to shore

Response:

Date of response:

APPENDIX A: 6-ENGAGEMENT WITH GOVERNMENT



Ernie Porter <ernieporter77@gmail.com>

Potential Commercial Data information request by prospective aquaculturist

Ernie Porter <ernieporter77@gmail.com>

Mon, May 27, 2019 at 9:31 AM

To: "Lemay, Gaëlle" <Gaëlle.Lemay@dfo-mpo.gc.ca>

Cc: "Hudson, Jolene" <Jolene.Hudson@dfo-mpo.gc.ca>, "Goreham, Brennan CD" <Brennan.Goreham@novascotia.ca>

Hi Gaelle;

Thank you for reaching out to me. I apologize for not communicating sooner. The attached map shows areas within Antigonish Harbour for which I am applying for oyster aquaculture leases. As part of the lease application process it is required that applicants understand the possible impact their operation may have on other users of the aquatic resource. One such other user may be commercial fishers but we are unaware of any such activity within the areas we wish to lease.

It would be very helpful if you could confirm whether there is commercial fishing conducted within these areas and if so the scale, species fished, seasons and any other pertinent data you may have.

Thank you very much for your assistance.

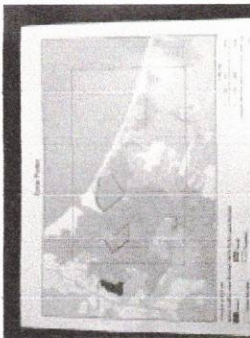
Sincerely,
Ernie Porter

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

[Quoted text hidden]



IMG_1153.JPG
97K



Ernie Porter <ernieporter77@gmail.com>

Potential Commercial Data information request by prospective aquaculturist

Lemay, Gaëlle <Gaelle.Lemay@dfo-mpo.gc.ca>

Mon, May 27, 2019 at 7:30 AM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Cc: "Hudson, Jolene" <Jolene.Hudson@dfo-mpo.gc.ca>, "Goreham, Brennan CD" <Brennan.Goreham@novascotia.ca>

Good morning Mr. Porter,

I was expecting an email from you with a request for information but since I haven't received word, I thought I'd follow up. Can you tell me what you are looking for?

Kind regards,

Gaëlle Lemay

Regional Manager, Statistics Division, Strategic Services, Gulf Region
Fisheries and Oceans Canada/Government of Canada
gaelle.lemay@dfo-mpo.gc.ca/Tel: 506-851-7822/Fax: 506-851-7732

Gestionnaire régionale, Division des statistiques, Services Stratégiques, Région du Golfe
Pêches et Océans Canada/Gouvernement du Canada
gaelle.lemay@dfo-mpo.gc.ca /Tél: 506-851-7822/Télécopieur: 506-851-7732

If you have received this communication by mistake, please notify the sender immediately and delete the communication without printing, copying or forwarding it. Thank you. / Si vous avez reçu cette communication par erreur, veuillez en aviser l'expéditeur immédiatement et la supprimer sans l'imprimer, la copier, ou la faire suivre. Merci.

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

RE: antigonish harbour (take 2)

CHS ATL Data Centre / Centre de Données CHS ATL <DFO.CHSATLDataCentre-CentreDeDonneesCHSATL.MPO@dfo-mpo.gc.ca>

Fri, Aug 9, 2019 at 12:19 AM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Cc: CHS ATL Data Centre / Centre de Données CHS ATL <DFO.CHSATLDataCentre-CentreDeDonneesCHSATL.MPO@dfo-mpo.gc.ca>, "NCR CHS Info English / Info Anglais SHC RCN(DFO/MPO)" <CHSINFO.XNCR@dfo-mpo.gc.ca>

Hi Ernie,

I can confirm that my numbers were in fact wrong – the issue was the chart is in a polyconic projection and it throws off the measurement – I should've checked this first – we don't do this function very often. The value of 15.095 km² is more reasonable – using google, I see that this is closer to the value you obtained of ~4400 acres. Sorry about that – that's for bringing it to my attention – it was a learning opportunity.

area

Unknown Area Type

15587 vertices, 27 island(s), Perimeter: 62 299 km, Area: 15 905 sq km, Island Area: 0 4713 sq km, Bounds: (581439 997, 5052

antigonish KMZ [Index in Layer: 0]

Unknown Area Type

an entry for more options (i.e. open URL, etc.)

Jon

Jon R. Griffin, M. Eng.

Supervisor, Hydrographic Data Centre

Canadian Hydrographic Service (Atlantic Region)

Box 1006 - 1 Challenger Drive

Dartmouth, NS

B2Y 4A2

Canada

(902) 802-8047 cell

(902) 426-1893 fax

Jonathan.Griffin@dfo-mpo.gc.ca

2 attachments



antigonish.jpg
45K



antigonish.KMZ
201K



Ernie Porter <ernieporter77@gmail.com>

Fri, Aug 9, 2019 at 8:44 AM

To: CHS ATL Data Centre / Centre de Données CHS ATL <DFO.CHSATLDataCentre-CentreDeDonneesCHSATL.MPO@dfo-mpo.gc.ca>

Cc: "NCR CHS Info English / Info Anglais SHC RCN(DFO/MPO)" <CHSINFO.XNCR@dfo-mpo.gc.ca>

Thank you for checking. I will use your 4400 acre number. Do you mind if I reference CHS and you as the source of this data?

Best regards,
Ernie

Sent from my iPhone

[Quoted text hidden]

<antigonish.jpg>

<antigonish.KMZ>



Ernie Porter <ernieporter77@gmail.com>

Funding research

Sean.Fraser.C1@parl.gc.ca <Sean.Fraser.C1@parl.gc.ca>
To: ernieporter77@gmail.com

Fri, Jun 21, 2019 at 4:59 PM

Dear Ernie and Jane,

I have the results of the funding search we asked for from the Library of Parliament – please see below.

I sent the meeting notes and details of your project to MP Fraser and his Ottawa staff. Is the July 22nd open house still on? If you can confirm the date we will add it to MP Fraser's calendar.

We both enjoyed the meeting immensely – please keep us updated as to the progress of the oyster farm!

All the best,

Betty

Further to your request to the Library of Parliament, here is information regarding funding for Town Point Oyster Farm near Antigonish, Nova Scotia. The business is a start-up with interest in building of infrastructure, sustainable innovation, trade (domestic and international), marketing, and scaling up once the initial site is fully operational.

Government programs often have specific requirements, including eligibility, application procedures and deadlines. As well, programs can change, be replaced or terminated without notice. Visiting a program's website regularly for details and updates is recommended.

FEDERAL PROGRAMS

- Fisheries and Oceans Canada (DFO) supports the following fisheries funds:
 - Fisheries and Aquaculture Clean Technology Adoption Program – The program “encourages Canadian fisheries and aquaculture industries to reduce the potential environmental impacts of their activities. This is done by implementing clean technologies and measures.”
 - Aquaculture Collaborative Research and Development Program - This program teams industry representatives with DFO researcher, thereby promoting collaborative research and development activities.
 - Canadian Fish and Seafood Opportunities Fund – This is a federal, territorial and provincial program that “will advance a national approach to key cross-cutting market access issues and branding opportunities to maximize the

value of our fish and seafood sector. This is a cost-shared program, wherein 70% of each project will be federal funding, and 30% will be provincial or territorial funding."

- Atlantic Fisheries Fund – As with the Canadian Fish and Seafood Opportunities Fund, the federal government provides 70% of the funding with 30% of the funding coming from the Atlantic provinces. The fund focuses on innovation, infrastructure and science partnerships.
- Agriculture and Agri-Food Canada (AAFC) supports:
 - AgPal, a "one-stop shop for Canadian farmers and agri-businesses looking for information about government resources, programs, services, market intelligence and research." There is a database to search programs and services. You will note that you can use the filters on the left side of the screen to narrow results. There is a category for fishing and aquaculture industries under client type, with results that include market intelligence and trade.
 - Programs and services for "innovation, sustainable farming, business development, managing risk, trade and market development." Detailed information is linked for programs accepting applications, as well as for Canadian agricultural partnership programs.
 - The Canadian Agricultural Partnership is an "investment by federal, provincial and territorial governments to strengthen the agriculture and agri-food sector." There are agriculture programs that are cost-shared with Nova Scotia and some of these funds may support aquaculture.
- Innovation, Science and Economic Development Canada
 - A searchable database to Grow your business includes funding, advice, tax credits, and loans. The database can be manipulated based on an individual's circumstances.
 - Plastics Challenge – Sustainable fishing and aquaculture gear – While this challenge is currently closed, it may be of interest to monitor the site.
 - Funding and incentive programs for greening your business – A number of resources are listed that may assist a business in becoming more environmentally friendly and energy efficient.
 - Depending on the ownership of the company, information for Women entrepreneurs may be of use.
 - Business grants and financing provides details on "grants, loans, private and public sector financing and leveraging personal assets." One example, the Canada Small Business Financing Program, "may assist start-ups and for-profit businesses with gross revenue of \$10 million or less with financing. The program is delivered by banks, credit unions and other financial institutions who work in partnership with the federal government." It is possible to find participating lenders using an interactive map.
- Atlantic Canada Opportunities Agency (ACOA) – Information is provided on starting or expanding a business, as well as doing business abroad. ACOA is one of the funders of the Quality Oyster Aquaculture Program. This program is currently closed but once again, may be worth monitoring.
- Employment and Social Development Canada
 - Funding Programs for jobs, training, and social development – Some programs are currently closed but may be available annually.
 - The Canada Job Grant "offers funding toward the cost of training provided by eligible third-party trainers."
- Business Development Bank of Canada (BDC)

- BDC offers business loans and advisory services to entrepreneurs.
- Futurpreneur, for business owners from 18 to 39 years of age, partners with BDC and may be of interest.
- Export Development Canada (EDC)
 - Information about exporting is provided to "Canadian businesses of all sizes that are finding success by growing their customer base and finding new opportunities internationally."
- Natural Resources Canada (NRCan)
 - A search tool provides Financial incentives related to energy efficiency by province, major municipalities, and electric and gas utilities. There is also a searchable Directory of Energy Efficiency and Alternative Energy Programs in Canada.
 - Financial assistance for energy management projects – This financial assistance may include up to 50% of the cost of an energy management project, to a \$40,000 maximum.

PROVINCIAL PROGRAMS

- Aquaculture Loan Program
- Nova Scotia Aquaculture Research and Development Funding Information
- Nova Scotia Business Inc.

Constituents may also wish to consult the *Canadian Subsidy Directory*, which should be available at their local public library.



Betty MacDonald

Constituency Assistant

Office of Sean Fraser M.P.,

Member of Parliament for Central Nova

200-155 Main Street

Antigonish, Nova Scotia B2G 2B6

8/22/2019

Gmail - Funding research

550

Tel. (902) 867-2919 Fax. (902) 735-7103
sean.fraser.c1@parl.gc.ca
@SeanFraserMP



Ernie Porter <ernieporter77@gmail.com>

Potential Commercial Data information request by prospective aquaculturist1 message

Goreham, Brennan CD <Brennan.Goreham@novascotia.ca>

Thu, May 9, 2019 at 12:06 PM

To: "Gaelle.Lemay@dfo-mpo.gc.ca" <Gaelle.Lemay@dfo-mpo.gc.ca>

Cc: "ernieporter77@gmail.com" <ernieporter77@gmail.com>, Jolene Hudson <Jolene.Hudson@dfo-mpo.gc.ca>

Hi Gaelle

I hope all is well. By way of this email, I'm introducing you to Ernie Porter who currently holds an option to lease to explore shellfish aquaculture in the Antigonish area. Jolene Hudson (also copied) was also a part of a meeting with Mr Porter last week and suggested I put Mr Porter in touch with you to discuss the ability to access information on commercial fish landings in that area to support his application.

Brennan Goreham
Nova Scotia Director, Atlantic Fisheries Fund
Aquaculture Administrator
Registrar of Fisheries Licensing
Nova Scotia Department of Fisheries and Aquaculture
(902)-874-2719



Ernie Porter <ernieporter77@gmail.com>

Appointment with MP Fraser

1 message

Sean.Fraser.C1@parl.gc.ca <Sean.Fraser.C1@parl.gc.ca>
To: ernieporter77@gmail.com

Mon, May 6, 2019 at 6:51 PM

Dear Ernie and Jane,

Would you be able to meet with MP Fraser the afternoon of Friday, May 10th?

Thank you!

Betty MacDonald

**Betty MacDonald**

Constituency Assistant

Office of Sean Fraser M.P.,

Member of Parliament for Central Nova

200-155 Main Street

Antigonish, Nova Scotia B2G 2B6

Tel. (902) 867-2919 Fax. (902) 735-7103

sean.fraser.c1@parl.gc.ca

@SeanFraserMP



Ernie Porter <ernieporter77@gmail.com>

antigonish harbour

Ernie Porter <ernieporter77@gmail.com>

Sat, Jul 27, 2019 at 7:46 AM

To: "chsinfo@dfo-mpo.gc.ca" <chsinfo@dfo-mpo.gc.ca>

I would like to know the total surface area of Antigonish Harbour. Please let me know at your earliest convenience if you have this information.

Thank you,

Ernie Porter 902-471-3696

Ernieporter77@gmail.com

Sent from Mail for Windows 10



Ernie Porter <ernieporter77@gmail.com>

antigonish harbour

CHS ATL Data Centre / Centre de Données CHS ATL <DFO.CHSATLDataCentre-CentreDeDonneesCHSATL.MPO@dfo-mpo.gc.ca>

Tue, Aug 6, 2019 at 2:24 AM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

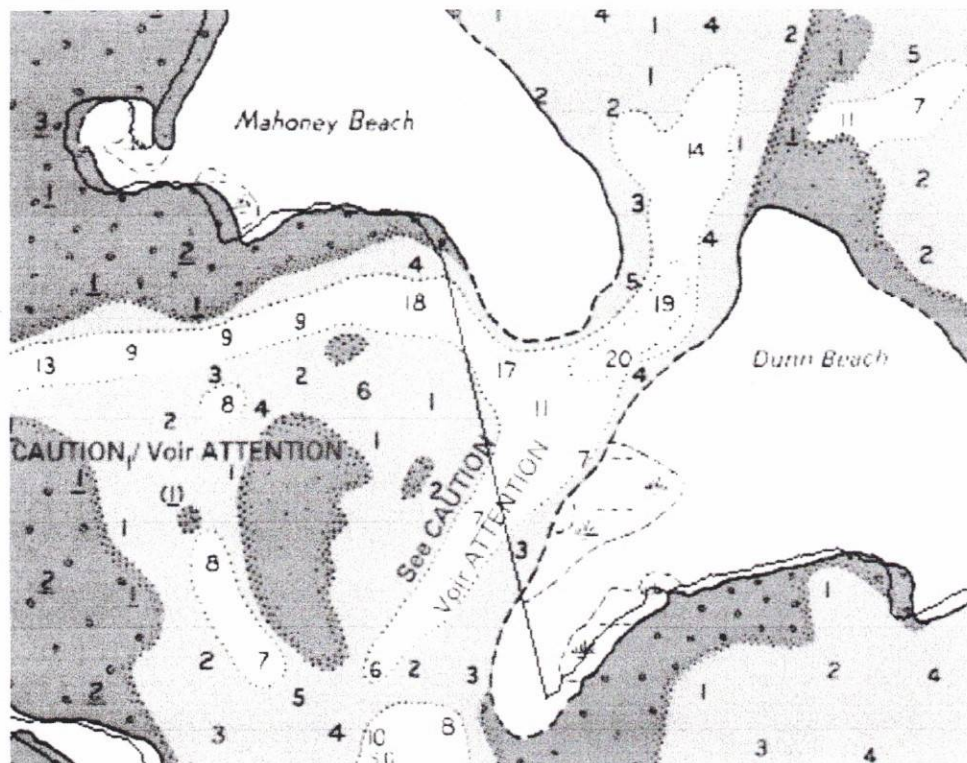
Cc: CHS ATL Data Centre / Centre de Données CHS ATL <DFO.CHSATLDataCentre-CentreDeDonneesCHSATL.MPO@dfo-mpo.gc.ca>, "NCR CHS Info English / Info Anglais SHC RCN(DFO/MPO)" <CHSINFO.XNCR@dfo-mpo.gc.ca>

Hello there,

Digitizing the high water line, I have determined that the approximate area of the harbour is 68.869 km²-16.4 km² in islands in the harbour resulting in an approximate area of 52.47 km² +/-

Given the shoreline has changed significantly over the past years this number is approximate. It should not be used for navigation or for where any high degree of precision is required.

I hope that helps. I joined the approximate shoreline as shown at the mouth of the harbour and measure the shoreline to the extent we chart.



Jon

Jon R. Griffin, M. Eng.

Supervisor,

Hydrographic Data Centre

Canadian Hydrographic Service (Atlantic Region)

Box 1006 - 1 Challenger Drive

Dartmouth, NS

B2Y 4A2

Canada



Ernie Porter <ernieporter77@gmail.com>

Emailing: AntigonishHarbour.zip

Deagle, Nick <Nicholas.Deagle@novascotia.ca>

Thu, Jul 25, 2019 at 3:01 PM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Copy of the harbour shapefile in case you can use it.

Nick

Your message is ready to be sent with the following file or link attachments:

AntigonishHarbour.zip

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

**AntigonishHarbour.zip**

85K



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Ernie Porter <ernieporter77@gmail.com>

Mon, Jul 22, 2019 at 7:16 AM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

Thanks for letting me know your ETA. See you late morning.

Regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Mon, Jul 22, 2019 at 7:13 AM

Hi Ernie,

Just leaving Moncton now, I'll give you an ETA after I drop off my colleague in Pictou. I'd guess I'll be there around 11, I have my cell if anything comes up, [REDACTED]

Jeff

From: Ernie Porter [ernieporter77@gmail.com]
Sent: Thursday, July 18, 2019 10:41 AM
To: Barrell, Jeffrey
Subject: Re: visit tomorrow

Hi Jeff

Yes, Monday works for us. I have been speaking with Dr David Garbary, head of Aquatic Resources at StFX and mentioned our interest in understanding possible effect on eelgrass. Do you mind if I let him know that you plan to be here Monday? He may wish to come along.

Thanks
Ernie

Sent from my iPhone

On Jul 18, 2019, at 10:19 AM, Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca<mailto:Jeffrey.Barrell@dfo-mpo.gc.ca>> wrote:

Hi Ernie,

I can visit on Monday, does that work for you?

Thanks,
Jeff

From: Ernie Porter <ernieporter77@gmail.com<mailto:ernieporter77@gmail.com>>
Sent: Monday, July 15, 2019 11:10 AM
To: Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca<mailto:Jeffrey.Barrell@dfo-mpo.gc.ca>>
Subject: Re: visit tomorrow

Hi Jeff

Ok, no problem. I will be around so please just let me know what day you are coming

Thanks
Ernie
Sent from my iPhone

On Jul 15, 2019, at 10:02 AM, Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca<mailto:Jeffrey.Barrell@dfo-mpo.gc.ca>> wrote:
Hi Ernie,

Something has come up and my colleague is no longer planning work in Pictou this week, and as a result I won't be able to visit tomorrow. He's planning the trip for next week now; would it be possible to reschedule? I'm not sure which day(s) yet, should know in a few days. Sorry for the last-minute hiccup,

Cheers,
Jeff

Jeffrey Barrell, PhD
Physical Scientist, Science Branch, Gulf Region
Fisheries and Oceans Canada / Government of Canada
Jeffrey.Barrell@dfo-mpo.gc.ca<mailto:%20Jeffrey.Barrell@dfo-mpo.gc.ca> / Tel: 506-851-2868

Spécialiste des Sciences Physiques, Direction des Sciences, Région du Golfe
Pêches et Océans Canada / Gouvernement du Canada
Jeffrey.Barrell@dfo-mpo.gc.ca<mailto:%20Jeffrey.Barrell@dfo-mpo.gc.ca> / Tél: 506-851-2868



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Ernie Porter** <ernieporter77@gmail.com>

Fri, Jul 5, 2019 at 2:24 PM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

Thanks, I look forward to chatting Monday.

E.

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Fri, Jul 5, 2019 at 1:58 PM

Hi Ernie,

I saw I had missed your call, sorry about that. I just came off the water and have some samples to process, I'll plan to give you a call Monday morning if that works for you. I still have some time available July 15-19, even if just to look at the eelgrass, which would give us a bit more flexibility. Chat soon,

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Ernie Porter** <ernieporter77@gmail.com>

Fri, Jul 5, 2019 at 6:49 AM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

I called you and left a message on July 3 please give me a call so we can discuss details.

Our timeline is governed by the lease application constraints. We have until end Sept to submit our application and we must hold the public meeting prior to submitting.

At the public meeting and as we are doing community engagement, which is ongoing, we are showing a farm plan with preferred lease sites. If the eelgrass issue is going to alter the lease site size/location it will cause significant difficulties with regard to getting back to the great number of people we have contacted. So sooner is better. And since you offered to come here it just seems logical that you see the equipment at the same time.

As for seeing the gear in action, we plan to invite interested parties to operate the system on Philip's farm after we complete sea trials. We expect to be ready sometime next month. I see this as a separate event.

Regards

Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 4:25 PM

Hi Ernie,

I'll have to check with my colleague and see if Monday the 15th is workable from our end, though I suspect not due to the nature of the work in Pictou (i.e. time-sensitive water sampling). Is there a particular benefit to seeing the gear on land as opposed to deployed? I would be interested to see it in action if possible. Given that this is an exceptionally busy time of year for us, perhaps waiting until a later date would be preferable. Outside of the week in question, I'm mostly booked through to September.

With respect to eelgrass in the option area, we would get a much better picture of eelgrass habitat using our equipment, though of course it would only be a cursory survey given the time available. I think there would be benefit in chatting more about your goals and concerns prior to planning actual work. Thoughts?

Cheers,

Jeff

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Ernie Porter** <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 1:18 PM

Draft To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Cc: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>, "Ouellette, Marc" <Marc.Ouellette@dfo-mpo.gc.ca>

Hi Jeff;

Thank you for reaching out to me. Our gear is here on land now but will be moved to Merigomish Harbour and deployed at a lease held by ShanDaph Oysters later this month. It would be best if you can be here before it leaves. The location is 370 Seabright Road, Harbour Centre, Antigonish B2G 2L2. Your proposed date may work but we plan to move the gear as soon as we complete the final component of our system which should be within two weeks. So, if you could come here on the 15th before doing your work in Pictou it would suit our timing better.

As for your boat, I assume you follow proper disinfection protocols when moving your vessel from bay to bay. If that is the case then I have no issue with using your boat, otherwise please consider using my boat.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

On Wed, Jul 3, 2019 at 11:37 AM Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca> wrote:

Hi Ernie,

I think it's time to initiate direct communication, thanks Gregor for putting us in touch. We (DFO Science, Gulf Region) have been conducting research into aquaculture-eelgrass interactions for some time, and would be interested in learning more both about your gear and potential sites. We also conduct a fair bit of work looking at different gear types and the influence on hydrodynamics, bay carrying capacity, and other aspects of coastal ecology.

As discussed earlier this morning, if possible I'd like to arrange a time to visit; could you please provide a few more details about when/where? We're planning other work in the Pictou area during the week of July 15-19, and could make a detour to stop by if you're available. We'll have a boat with us, and could arrange to take a quick look at eelgrass within the option area using a few different tools (e.g. sonar, video). I understand the gear is at your property currently and for the next two weeks; is it in the water or on land?

Either way, please let me know if that time window is appropriate, and don't hesitate to call or write if you have any questions or other considerations you'd like to discuss,

Cheers,

Jeff

Jeffrey Barrell, PhD

Physical Scientist, Science Branch, Gulf Region
Fisheries and Oceans Canada / Government of Canada
Jeffrey.Barrell@dfo-mpo.gc.ca / Tel: 506-851-2868

Spécialiste des Sciences Physiques, Direction des Sciences, Région du Golfe
Pêches et Océans Canada / Gouvernement du Canada
Jeffrey.Barrell@dfo-mpo.gc.ca / Tél: 506-851-2868



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Barrell, Jeffrey** <Jeffrey.Barrell@dfo-mpo.gc.ca>

Wed, Jul 3, 2019 at 11:37 AM

To: Ernie Porter <ernieporter77@gmail.com>

Cc: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>, "Ouellette, Marc" <Marc.Ouellette@dfo-mpo.gc.ca>

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Either way, please let me know if that time window is appropriate, and don't hesitate to call or write if you have any questions or other considerations you'd like to discuss,

Cheers,

Jeff

Jeffrey Barrell, PhD

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Jeffrey.Barrell@dfo-mpo.gc.ca / Tél: 506-851-2868



Ernie Porter <ernieporter77@gmail.com>

Eel grass**Reid, Gregor Kyle** <Gregor.Reid@novascotia.ca>

Wed, Jul 3, 2019 at 7:45 AM

To: Ernie Porter <ernieporter77@gmail.com>

Cc: Susan Vincent <svincent@stfx.ca>, "Clancey, Lewis" <Lewis.Clancey@novascotia.ca>

Hello Ernie,

Sorry about the long delay between emails. With respect to the DFO position on eel grass and aquaculture, there appears to be some uncertainty at present, given recent changes to the Fisheries Act and the Canadian Environment Assessment Act. However, I believe I have finally tracked down the correct individuals in the Fisheries Protection Program (within DFO) that would assess this aspect and am waiting for some further details from them. In the mean time, I have also been in touch with DFO Science (a separate entity), specifically Drs. Marc Ouellette and Jeffery Barrell, who have done a great deal of eel grass mapping and research over the last 10 years. While they will not be the DFO decision makers with respect to aquaculture, they are likely to provide advice. So, I think having them involved is a good thing as they are quite pragmatic and familiar with the dynamic nature of eel grass. I think it might be of value if they came up to your bay during peak eel grass season (late August?) and had a look, if they are available. Marc is also very familiar with shellfish culture and if there is extensive patchiness, I expect he would be able to recommend locations within your option area that would not impact eel grass.

Sincerely,

Gregor Reid, PhD

Acting Manager of Aquaculture Operations

Nova Scotia Department of Fisheries and Aquaculture

1575 Lake Road

Shelburne, NS

B0T 1W0

P: (902) 875-7434

F: (902) 875-7429

E: Gregor.Reid@novascotia.ca

From: Ernie Porter <ernieporter77@gmail.com>**Sent:** May 16, 2019 6:49 AM**To:** Reid, Gregor Kyle <Gregor.Reid@novascotia.ca>



Ernie Porter <ernieporter77@gmail.com>

Eel grass**Ernie Porter** <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 8:10 AM

To: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>

Cc: Susan Vincent <svincent@stfx.ca>, "Clancey, Lewis" <Lewis.Clancey@novascotia.ca>

Hi Gregor;

Thank you for your email and for taking time to seek input from your colleagues. We look forward to meeting on site to make a proper assessment of present conditions with respect to eelgrass and to understand possible impacts that may result from our operation. We are in the final stages of launching our innovations in oyster aquaculture equipment and farming approach. We believe they will have very positive implications regarding reduction of possible negative effects of off bottom culture practices particularly with regard to eelgrass. It would be useful if you and your colleagues could examine what we've developed so that you can assess the likely reduction in both possible shading and disturbance from prop wash. The system is at our property now and will be here for another two weeks so if you could come by within this time it would be best. Please let me know if a visit is possible.

Best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

On Wed, Jul 3, 2019 at 7:45 AM Reid, Gregor Kyle <Gregor.Reid@novascotia.ca> wrote:

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Sincerely,

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Acting Manager of Aquaculture Operations
Nova Scotia Department of Fisheries and Aquaculture
1575 Lake Road
Shelburne, NS
B0T 1W0

P: (902) 875-7434

F: (902) 875-7429

E: Gregor.Reid@novascotia.ca

568

From: Ernie Porter <ernieporter77@gmail.com>
Sent: May 16, 2019 6:49 AM
To: Reid, Gregor Kyle <Gregor.Reid@novascotia.ca>
Cc: Susan Vincent <svincent@stfx.ca>
Subject: Re: Eel grass

Hi Gregor;

Thank you for the update. I look forward to whatever feedback you can provide.

The weather has not been cooperating and I've been busy putting our Bedford home on the market so I do not yet have my dock deployed or boat launched so visiting the areas in question, as we discussed, to date would have been difficult. I hope to get my boat in the water soon. When I can get to the sites and have a closer look I'll have a better understanding of water depth, eelgrass density and other factors. If after visiting the site in question it still seems viable I will get in touch to see if we can arrange a time to visit it together.

I hope you don't mind that I am sharing this response with one of my neighbours who, as I mentioned during your visit, shared with me two studies related to possible aquaculture impacts on eelgrass. This is the reason I raised to issue at our pre-application meeting two weeks ago.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

On Wed, May 15, 2019 at 4:12 PM Reid, Gregor Kyle <Gregor.Reid@novascotia.ca> wrote:

Hi Ernie,

Thanks for the tour of your property the other week and for showing Brennen and I the potential culture areas of interest. I just wanted to let you know that I have not forgotten about the eel grass questions. My group is meeting with DFO Gulf region next week to try to get some clarification on the matter. I will keep you apprised.

Sincerely,



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Ernie Porter <ernieporter77@gmail.com>
To: David Garbary <dgarbary@gmail.com>

Thu, Jul 18, 2019 at 11:01 AM

Hi David

Thank you for calling today. Your concept of a public panel discussion is very good and we are in full support provided there are suitable controls to ensure the session stays on topic and cannot be overtaken by those in opposition. Below are communications I've had with Dr. Jeffrey Barrell as mentioned, perhaps you would like to join us on Monday. If so, please let me know.

Thanks,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 18, 2019 at 10:45 AM

Hi Ernie,

Sure please let David know... I attended a meeting with him a few weeks ago, and considered asking him about eelgrass in your area, I'm familiar with his past work on eelgrass (particularly around green crab).

Cheers,

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 18, 2019 at 10:41 AM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

Yes, Monday works for us. I have been speaking with Dr David Garbary, head of Aquatic Resources at StFX and mentioned our interest in understanding possible effect on eelgrass. Do you mind if I let him know that you plan to be here Monday? He may wish to come along.

Thanks
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 18, 2019 at 10:19 AM

Hi Ernie,

I can visit on Monday, does that work for you?

Thanks,

Jeff

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Ernie Porter <ernieporter77@gmail.com>

Mon, Jul 15, 2019 at 11:09 AM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

Ok, no problem. I will be around so please just let me know what day you are coming

Thanks
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

visit tomorrow

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Mon, Jul 15, 2019 at 10:02 AM

Hi Ernie,

Something has come up and my colleague is no longer planning work in Pictou this week, and as a result I won't be able to visit tomorrow. He's planning the trip for next week now; would it be possible to reschedule? I'm not sure which day(s) yet, should know in a few days. Sorry for the last-minute hiccup,

Cheers,

Jeff

Jeffrey Barrell, PhD

Physical Scientist, Science Branch, Gulf Region
Fisheries and Oceans Canada / Government of Canada
Jeffrey.Barrell@dfo-mpo.gc.ca / Tel: 506-851-2868

Spécialiste des Sciences Physiques, Direction des Sciences, Région du Golfe
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Ernie Porter <ernieporter77@gmail.com>

eelgrass

Ernie Porter <ernieporter77@gmail.com>
To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Tue, Jul 9, 2019 at 12:19 PM

Hi Jeff

Thanks, that works.

Regards,
Ernie

Sent from my iPhone
[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Tue, Jul 9, 2019 at 11:34 AM

Hi Ernie,

Quick follow up on our conversation yesterday, I will plan to visit on Tuesday, most likely arriving late-morning, though that might change. My cell phone # is [REDACTED] please keep me posted if anything changes,

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Fri, Jul 5, 2019 at 1:58 PM

Hi Ernie,

I saw I had missed your call, sorry about that. I just came off the water and have some samples to process, I'll plan to give you a call Monday morning if that works for you. I still have some time available July 15-19, even if just to look at the eelgrass, which would give us a bit more flexibility. Chat soon,

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Ernie Porter** <ernieporter77@gmail.com>

Fri, Jul 5, 2019 at 6:49 AM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

I called you and left a message on July 3 please give me a call so we can discuss details.

Our timeline is governed by the lease application constraints. We have until end Sept to submit our application and we must hold the public meeting prior to submitting.

At the public meeting and as we are doing community engagement, which is ongoing, we are showing a farm plan with preferred lease sites. If the eelgrass issue is going to alter the lease site size/location it will cause significant difficulties with regard to getting back to the great number of people we have contacted. So sooner is better. And since you offered to come here it just seems logical that you see the equipment at the same time.

As for seeing the gear in action, we plan to invite interested parties to operate the system on Philip's farm after we complete sea trials. We expect to be ready sometime next month. I see this as a separate event.

Regards

Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 4:29 PM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Hi Jeff

Thanks, I'll give you a call so we can communicate more efficiently.

Regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>
To: Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 4:25 PM

Hi Ernie,

I'll have to check with my colleague and see if Monday the 15th is workable from our end, though I suspect not due to the nature of the work in Pictou (i.e. time-sensitive water sampling). Is there a particular benefit to seeing the gear on land as opposed to deployed? I would be interested to see it in action if possible. Given that this is an exceptionally busy time of year for us, perhaps waiting until a later date would be preferable. Outside of the week in question, I'm mostly booked through to September.

With respect to eelgrass in the option area, we would get a much better picture of eelgrass habitat using our equipment, though of course it would only be a cursory survey given the time available. I think there would be benefit in chatting more about your goals and concerns prior to planning actual work. Thoughts?

Cheers,

Jeff

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass

Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 1:22 PM

To: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Cc: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>, "Ouellette, Marc" <Marc.Ouellette@dfo-mpo.gc.ca>

Hi Jeff;

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As for your boat, I assume you follow proper disinfection protocols when moving your vessel from bay to bay. If that is the case then I have no issue with using your boat, otherwise please consider using my boat.

Best regards,

Ernie

Town Point Consulting Inc.

Ernie Porter, P.Eng.

President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

eelgrass**Barrell, Jeffrey** <Jeffrey.Barrell@dfo-mpo.gc.ca>

Wed, Jul 3, 2019 at 11:37 AM

To: Ernie Porter <ernieporter77@gmail.com>

Cc: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>, "Ouellette, Marc" <Marc.Ouellette@dfo-mpo.gc.ca>

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As discussed earlier this morning, if possible I'd like to arrange a time to visit; could you please provide a few more details about when/where? We're planning other work in the Pictou area during the week of July 15-19, and could make a detour to stop by if you're available. We'll have a boat with us, and could arrange to take a quick look at eelgrass within the option area using a few different tools (e.g. sonar, video). I understand the gear is at your property currently and for the next two weeks; is it in the water or on land?

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Cheers,

Jeff

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Spécialiste des Sciences Physiques, Direction des Sciences, Région du Golfe
Pêches et Océans Canada / Gouvernement du Canada
Jeffrey.Barrell@dfo-mpo.gc.ca / Tél: 506-851-2868



Ernie Porter <ernieporter77@gmail.com>

Eel grass

Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 3, 2019 at 9:10 AM

To: "Reid, Gregor Kyle" <Gregor.Reid@novascotia.ca>

Cc: "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>, Susan Vincent <svincent@stfx.ca>, "Clancey, Lewis" <Lewis.Clancey@novascotia.ca>

Hi Gregor

Thank you. I look forward to meeting Dr Barrell.

Best regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Eel grass**Reid, Gregor Kyle** <Gregor.Reid@novascotia.ca>

Wed, Jul 3, 2019 at 8:47 AM

To: Ernie Porter <ernieporter77@gmail.com>, "Barrell, Jeffrey" <Jeffrey.Barrell@dfo-mpo.gc.ca>

Cc: Susan Vincent <svincent@stfx.ca>, "Clancey, Lewis" <Lewis.Clancey@novascotia.ca>

Hi Ernie

I was just speaking to Dr. Jeffery Barrell from DFO Gulf Region and he is going to try to make arrangements to come up to you over the next two weeks. He has your contact information.

Cheers,
Gregor

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Eel grass

Reid, Gregor Kyle <Gregor.Reid@novascotia.ca>
To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Wed, May 15, 2019 at 4:11 PM

Hi Ernie,

Thanks for the tour of your property the other week and for showing Brennen and I the potential culture areas of interest. I just wanted to let you know that I have not forgotten about the eel grass questions. My group is meeting with DFO Gulf region next week to try to get some clarification on the matter. I will keep you apprised.

Sincerely,

Gregor Reid, PhD
Acting Manager of Aquaculture Operations
Nova Scotia Department of Fisheries and Aquaculture
1575 Lake Road
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B0T 1W0

P: (902) 875-7434

F: (902) 875-7429

E: Gregor.Reid@novascotia.ca



Ernie Porter <ernieporter77@gmail.com>

Oyster Aquaculture

Ernie Porter <ernieporter77@gmail.com>

Fri, Jul 12, 2019 at 12:47 PM

To: Sadie Beaton <Sadie@ecologyaction.ca>

Cc: Shannon Arnold <sarnold@ecologyaction.ca>, Brittany MacIsaac <coastaloutreach@ecologyaction.ca>

Hi Sadie

Thanks for getting back to me. I'll be glad to come by your office on July 17. Would 1:00 work for you. Then, depending on your interest a visit to our property when you are in Antigonish would be great.

Best regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Oyster Aquaculture

Sadie Beaton <Sadie@ecologyaction.ca>

Fri, Jul 12, 2019 at 12:43 PM

To: Ernie Porter <ernieporter77@gmail.com>

Cc: Shannon Arnold <sarnold@ecologyaction.ca>, Brittany MacIsaac <coastaloutreach@ecologyaction.ca>

Hello Ernie-

Apologies for my delayed reply. I am only working part time through the summer. I would be happy to meet up on July 17th to hear more about your operation. I should note that I am not a technical expert but would be interested to learn more about your plans and to share them with my colleagues in order to better understand how best to support responsible seafood enterprises in your community.

What is a good time for you? Alternatively, my family lives just outside Antigonish and we could wait until I can come see the site in person?

Please let me know what works best on your end.

Best,

Sadie

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Oyster Aquaculture

Ernie Porter <ernieporter77@gmail.com>

Wed, Jul 10, 2019 at 6:38 AM

To: "sadie@ecologyaction.ca" <sadie@ecologyaction.ca>

Hi Sadie;

I am contacting you regarding our family's desire to begin a modest oyster farm in Antigonish Harbour. We would like to engage with your organization to better understand your point of view regarding the sustainability of the operation we hope to begin. There is more to our story than is appropriate for this form of communication and our plans would be best understood through a visit to our property and planned lease sites.

Please let me know if you are the correct person within your organization to involve in this issue and if a meeting is possible. I plan to be in Halifax July 17 and could come by your office to meet you if that is desired. Please feel free to call me at 902-471-3696.

I am a member of EAC but not actively involved.

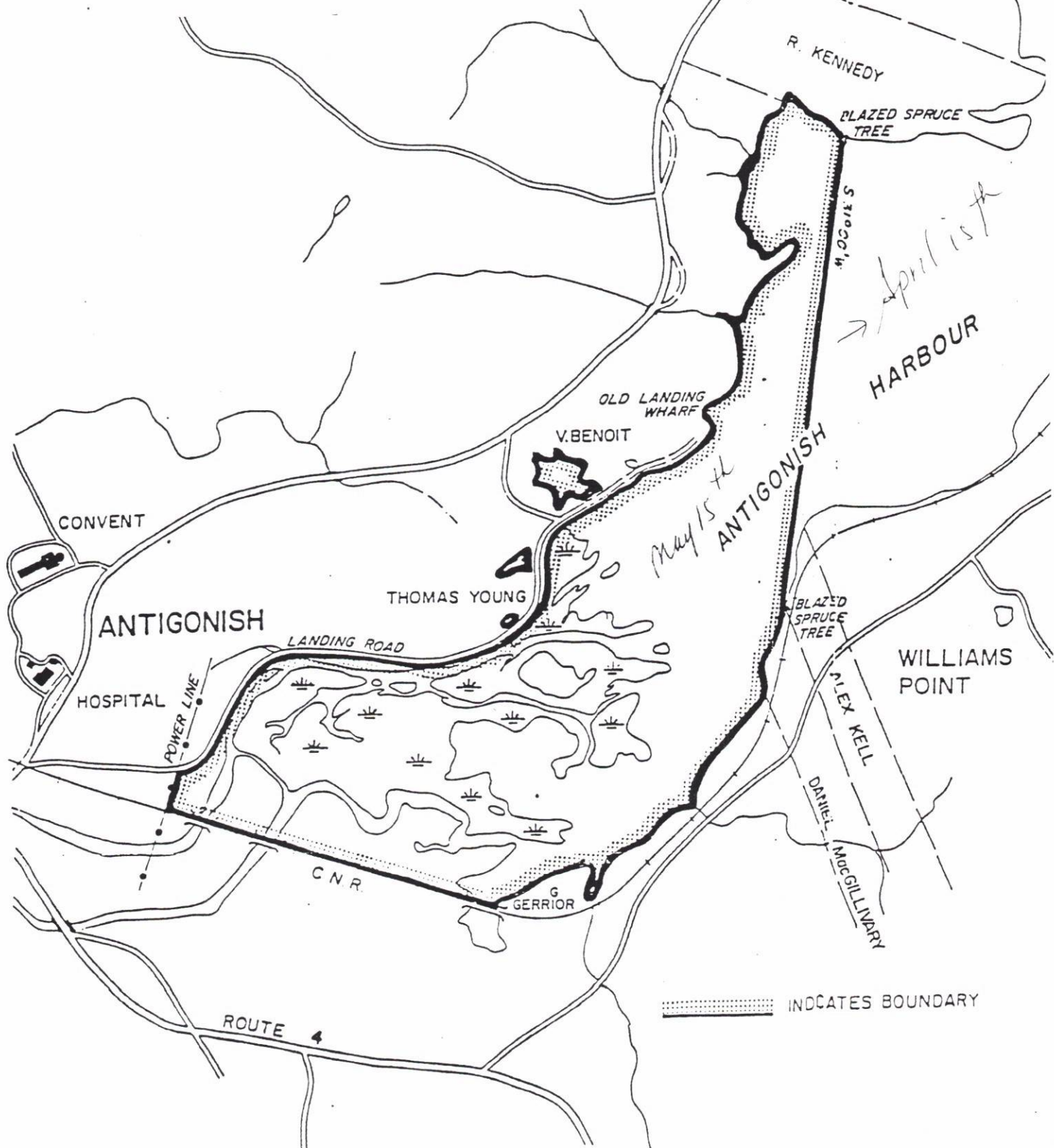
Best regards,

Ernie

Sent from Mail for Windows 10

ANTIGONISH LANDING

Wildlife Management Zone



Ernie Porter

From: Ernie Porter
Sent: July 18, 2019 4:51 PM
To: Goreham, Brennan CD
Subject: Re: AQ#1424

Hi Brennan

I wanted to talk with you regarding a request by Dr David Garbary (the head of Aquatic Resources Program at StFX) that he organize a public panel discussion which he would moderate. The panel would include scientific authorities familiar with the harbour ecosystem, a member who could speak to the socio-economic impacts, a member from DFA who can address the application process and particularly our adherence to this process and myself to describe our plans with regard to the farm. Maybe there were one or two others, not sure.

I gave David your contact coordinates and he will be in contact. I hope you can participate so that you can share first hand experience regarding our approach to the application process. No other DFA representative would have this level of knowledge.

David wants to push back on the opponents rhetoric so that the community hears facts and valuable information on which to base their opinion of oyster aquaculture in Antigonish Harbour.

He is looking at Aug 12 as a target date with a prior meeting of only the panel that I offered to host before the end of July. Please get back to me to discuss the merits of this approach and your involvement.

Thanks
Ernie

Sent from my iPhone



Search mail

Good afternoon Ernie, I had a look at my data and unfortunately we do not have relational data (ex. (

Ernie Porter <ernieporter77@gmail.com>

to Gaëlle", Jolene, Brennan

Hi Gaëlle;

Thanks for trying. It seems to me, other than oyster harvesting there is no organized commercial fishery licence and he's no longer active. I spoke with several fishers with eel licences but they too are no longer active. Maybe there are others but I cannot find them and haven't seen them fishing.

I met with the four oyster harvesters operating in the harbour. They had some question regarding my lease areas are no conflicts between my proposed lease areas and commercial fishers operating within the harbour.

Best regards,

Ernie

Sent from my iPhone

<IMG_1153.JPG>

No r
ch
Start
c

Reply

Reply all

Forward



Search mail

Lemay, Gaëlle

to me, Jolene, Brennan

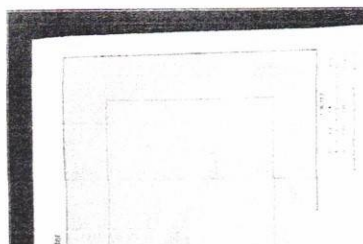
Good afternoon Ernie,

I had a look at my data and unfortunately we do not have relational data (ex. Coordinates) for fisheries and silversides in the Antigonish area and Antigonish Statistics District but it is not possible for me to be collected.

Jolene may have additional information at the area office around silversides, oyster relay fisheries, et al and Port Authorities could help as well.

I'm sorry I could not be of more help.

Sincerely,



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c

APPENDIX A: 7-ENGAGEMENT WITH ANGLICAN CHURCH



Ernie Porter <ernieporter77@gmail.com>

In-Person Meeting record regarding AQ#1424

John Blackwell <[REDACTED]@ns.sympatico.ca>

Sun, Jul 21, 2019 at 10:35 AM

To: ernieporter77@gmail.com

Cc: Pauline Liengme <[REDACTED]@outlook.com>

In-Person Meeting record regarding AQ#1424

Date of Meeting: 19 July 2019 Time: 3 pm Location: 370 Seabright Road

Persons in Attendance: Ernie Porter, Pauline Liengme, Rev. Sue Channen, **John Blackwell** (we met with Mr. Porter at his invitation, as representatives of the Anglican Parish of Three Harbours, which has title to the historic site of the early church and burial ground at Town Point)

Address: P.O. Box 1524, Antigonish, NS, B2G 2L8

Full-time Resident: Yes

Seasonal Resident: No

Project Outline reviewed: Yes

Questions: We asked numerous questions about the background of the project and how it would move forward

Concerns: We were concerned about environmental impact and whether or not the Mi'kmaw community had been consulted.

Response: Mr. Porter explained that the project would have no significant negative environmental impact and that an environmental study was not required by the government. He also assured us that he had already spoken with representatives of the Mi'kmaw community.

Date of response: During our meeting on 19 July 2019

Resident's own words (the following comments reflect my *personal perspective*): From our discussions with Mr. Porter, who has many years of experience and extensive expertise as a professional engineer and owner of a construction firm, it is clear that he is extremely knowledgeable about oyster farming and is keen to address any community concerns in an *honest and forthright manner*. He has travelled around the world to learn about the oyster farming industry. He has also formed a close working relationship with an oyster farmer with many years' experience. Together, they have developed innovative new technology that has the potential to become the new standard in the oyster farming industry. His goal is to

develop a small family-based oyster farming operation in our community. We asked many questions, which were answered in a frank and knowledgeable manner, and I am satisfied that this operation would not have any significant negative impact on Antigonish Harbour; in fact, this operation would probably improve the ecological health of the Harbour, as a mature oyster filters 50 gallons of water each day. Mr. Porter plans to participate in a community information session at St. Francis Xavier University; this public forum will be chaired by Dr. David Garbary, a senior professor of Biology at the University. In my opinion, we are fortunate to have someone in our community who is dedicated to developing a new and innovative oyster farming operation. This business will offer employment and provide spin-off economic benefits to the local economy. Moreover, it has the potential to make oysters a significant tourist draw for the Antigonish area. I strongly support this initiative.

John Blackwell

[I retired a year ago as Director of the Research Grants Office at StFX]

In Person Meeting record regarding AQ#1424

Date of meeting: July 19 2019 Time: 3pm Location: 307 Seabright Rd.

Persons in attendance:

Pauline Leung

Address:

Laurel

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: fully

Questions:

re type of cultivation, environmental impact. Mike wants
consultation. All answered openly or in detail.

Concerns:

All found to be unwarranted.

Response:

Everything freely discussed.

Date of response:

19 July 2019

Residents own words:

Re Town Point settlement — no impact on this
property which we hold in trust for the Anglican
Church.

Personally — the project seems attractive, well thought
out & researched and should be of benefit to the
Town & County.



Ernie Porter <ernieporter77@gmail.com>

Our visit today

Ernie Porter <ernieporter77@gmail.com>
To: Pauline Liengme <[REDACTED]@outlook.com>

Fri, Jul 19, 2019 at 5:41 PM

Hi Pauline;

It was so nice to meet you today. It is very encouraging when people understand the benefit of gathering facts then making an informed decision. I am grateful you took time to visit and to come with an open mind. I hope you are successful in convincing Frank and Heather to also visit, I would be glad to explain our intentions and answer any questions that arise.

Best regards,
Ernie
Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Visit to Ernie Porter

Pauline Liengme [REDACTED]@outlook.com>
To: Ernie Porter <ernieporter77@gmail.com>

Fri, Jul 19, 2019 at 9:59 PM

Thanks Ernie. I will correct that to Frank.

All the best

Pauline

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Visit to Ernie Porter

Ernie Porter <ernieporter77@gmail.com>

Fri, Jul 19, 2019 at 6:07 PM

To: Pauline Liengme <[REDACTED]@outlook.com>

Hi Pauline;

Thank you for sharing your correspondence to Frank with me. I appreciate your efforts to encourage him to visit. I noticed an error in your email regarding my work on Philip's farm...it has not been "several years" I met him last summer and have been engaging with him since then. The two years relates to the duration of my research into oyster aquaculture including traveling to many sites in various countries. I am sorry if I was unclear during our discussion. I am very concerned about incorrect information because it can be misleading and our opponents are quick to pounce on any inconsistencies in our message and then try to use it against us.

Best regards,
Ernie
Ernie
Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Visit to Ernie Porter

Pauline Liengme <[REDACTED]@outlook.com>
To: Frank Gallant <[REDACTED]@peak.ca>

Fri, Jul 19, 2019 at 5:43 PM

Dear Frank:

I have just returned from the visit to Ernie Porter, which was most enlightening.

On a Parish note, we did not find anything that would impact our property.

On a personal note, before I went I did a lot of research on Oyster Farming, its types, problems and impact on the area in which it happens.

I used this research to question Mr. Porter about the many facets and problems that such a venture COULD involve. I was pleasantly surprised to find that he has spent several years working in the industry, with a qualified aqua-culturist, and is fully aware of these possible problems. He has also used his engineering expertise to produce a patented solution to two of the major problems; that of excreta deposited by birds and seals perching on the cages and the unsightly look of the cages and floats.

I know that you would have had many other questions to ask in other areas, but I would truly suggest that you call him and go and see (and hear) for yourself what is proposed and his solutions. It is entirely possible that you will find some of your fears allayed and I am sure that any left can be solved by you both **working together** for the benefit of everyone. This is not to be a huge, industrial farm but more a family run, local business, which will provide local oysters for all of Antigonish, right from our harbour and not from Pictou as is now the case. Additionally, there is the prospect of 5 or so new jobs being created. This is farming, of which we have a lot, in a new and sustainable way.

I have submitted my response to the application, explaining my minor concerns, and I sincerely hope you make the time to visit Mr. Porter to get his facts in good time for the meeting in August, which Dr Garbary is arranging.

Thank you for bringing this to my attention. It has been a very worthwhile exercise.

Blessings

Pauline

In Person Meeting record regarding AQ#1424

Date of meeting: July 19, 2019 Time: 3:00 PM Location: 370 Seabright Rd
 Persons in attendance: Rev. Sue Channea rector@threeharbours.net

Address:

Full time Resident: ☒Antigonish NS

Seasonal Resident:

Project Outline reviewed: yes

Questions:

- consultation with Pag'tukek
- environmental impact
- employment impact

Concerns:

- none remaining
- not likely to impact our land.

Response:

Date of response:

Residents own words:

I am supportive of local aquaculture. Ernie is knowledgeable and thorough. He has reached out to Pag'tukek, so there is consultation and this is not in the area they fish / farm oyster

Susan Channea



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Rev. Sue Channen <rector@threeharbours.net>

Thu, Jul 11, 2019 at 4:37 PM

To: John Blackwell <[REDACTED]@ns.sympatico.ca>

Cc: Ernie Porter <ernieporter77@gmail.com>, Pauline Liengme <[REDACTED]@outlook.com>

Fine with me. John, we could meet at St. Paul's and drive out together, possibly picking up Pauline on the way.

On Thu, Jul 11, 2019, 10:31 AM John Blackwell, <john.blackwell@ns.sympatico.ca> wrote:

Hi Ernie,

Yes, I think that would be best, if everyone else is fine with that.

John

From: Ernie Porter [mailto:ernieporter77@gmail.com]

Sent: Thursday, July 11, 2019 10:26 AM

To: John Blackwell

[Quoted text hidden]

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

John Blackwell <[REDACTED]@ns.sympatico.ca>

Thu, Jul 11, 2019 at 10:23 AM

To: "Rev. Sue Channen" <rector@threeharbours.net>, Ernie Porter <[REDACTED]@gmail.com>

Cc: Pauline Liengme <[REDACTED]@outlook.com>

Hi Everyone,

Shall we say around 3 pm on Friday, July 19th?

John

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Rev. Sue Channen <rector@threeharbours.net>

Thu, Jul 11, 2019 at 10:00 AM

To: John Blackwell <[REDACTED]@ns.sympatico.ca>

Cc: Ernie Porter <ernieporter77@gmail.com>, Pauline Liengme <[REDACTED]@outlook.com>

I'm only available in the daytime on Friday next week or on Tuesday evening.

On Thu, Jul 11, 2019 at 9:56 AM John Blackwell <[REDACTED]@ns.sympatico.ca> wrote:

Hello Ernie and Pauline,

My schedule is fairly flexible next week, except for Thursday morning.

Best regards,

John

From: Ernie Porter [mailto:ernieporter77@gmail.com]**Sent:** Thursday, July 11, 2019 9:48 AM**To:** Pauline Liengme**Cc:** Rev. Sue Channen; John Blackwell

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

John Blackwell <[REDACTED]@ns.sympatico.ca>

Thu, Jul 11, 2019 at 9:56 AM

To: Ernie Porter <ernieporter77@gmail.com>, Pauline Liengme <[REDACTED]@outlook.com>

Cc: "Rev. Sue Channen" <rector@threeharbours.net>

Hello Ernie and Pauline,

My schedule is fairly flexible next week, except for Thursday morning.

Best regards,

John

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 11, 2019 at 9:47 AM

To: Pauline Liengme <[REDACTED]@outlook.com>

Cc: "Rev. Sue Channen" <rector@threeharbours.net>, John Blackwell <[REDACTED]@ns.sympatico.ca>

Hi Pauline

Thank you for the prompt response. I will be available anytime next week except Daytime Tuesday and all day Wednesday. We will be able to provide more detail regarding our farm plans if we were to meet at our property but if that is not possible we will be glad to meet wherever is convenient for you.

Best regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Pauline Liengme <[REDACTED]@outlook.com>

Thu, Jul 11, 2019 at 9:30 AM

To: "Rev. Sue Channen" <rector@threeharbours.net>, John Blackwell <[REDACTED]@ns.sympatico.ca>

Cc: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Dear Sue and John (and Ernie);

I will be back in Antigonish on Sunday evening and available for a meeting next week any daytime, but not Wednesday or Thursday evening.

I am happy to meet at any other suggested time.

Pauline

From: Rev. Sue Channen <rector@threeharbours.net>

Sent: July 11, 2019 9:00 AM

To: Pauline Liengme; John Blackwell

Cc: ernieporter77@gmail.com

Subject: Our Property on Seabright Road

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Rev. Sue Channen <rector@threeharbours.net>

Thu, Jul 11, 2019 at 9:00 AM

To: Pauline Liengme [REDACTED]@outlook.com>, John Blackwell [REDACTED]@ns.sympatico.ca>

Cc: ernieporter77@gmail.com

I received a call yesterday from Ernie Porter, regarding a proposal for oyster aquaculture in Antigonish Harbour which his family is preparing. As we own the Town Point site, they have contacted us and would like to meet with us to inform us about the proposal. I spoke to him and said that I would refer this to you as parish wardens.

His phone number is 902-471-3696. He'd like to hear back from us sometime in the next week or so.

--

Rev. Sue Channen, Rector
Parish of Three Harbours
46 Archie Street
Antigonish, NS
office & rectory: 902-863-5089
cell: 902-318-0576



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 11, 2019 at 10:03 AM

To: John Blackwell [REDACTED]@ns.sympatico.ca>

Cc: Pauline Liengme [REDACTED]@outlook.com>, "Rev. Sue Channen" <rector@threeharbours.net>

Hi John;

OK, great...how about meeting Friday mid-afternoon at our property (370 Seabright Road)? Does this work for everyone?

Thanks,
ErnieTown Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

On Thu, Jul 11, 2019 at 9:56 AM John Blackwell [REDACTED]@ns.sympatico.ca> wrote:

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Rev. Sue Channen <rector@threeharbours.net>

Thu, Jul 11, 2019 at 10:00 AM

To: John Blackwell <[REDACTED]@ns.sympatico.ca>

Cc: Ernie Porter <ernieporter77@gmail.com>, Pauline Liengme <[REDACTED]@outlook.com>

I'm only available in the daytime on Friday next week or on Tuesday evening.

On Thu, Jul 11, 2019 at 9:56 AM John Blackwell <[REDACTED]@ns.sympatico.ca> wrote:

Hello Ernie and Pauline,

My schedule is fairly flexible next week, except for Thursday morning.

Best regards,

John

From: Ernie Porter [mailto:ernieporter77@gmail.com]**Sent:** Thursday, July 11, 2019 9:48 AM**To:** Pauline Liengme**Cc:** Rev. Sue Channen; John Blackwell

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

John Blackwell <[REDACTED]@ns.sympatico.ca>

Thu, Jul 11, 2019 at 9:56 AM

To: Ernie Porter <ernieporter77@gmail.com>, Pauline Liengme <[REDACTED]@outlook.com>

Cc: "Rev. Sue Channen" <rector@threeharbours.net>

Hello Ernie and Pauline,

My schedule is fairly flexible next week, except for Thursday morning.

Best regards,

John

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Ernie Porter <ernieporter77@gmail.com>

Thu, Jul 11, 2019 at 9:47 AM

To: Pauline Liengme [REDACTED]@outlook.com>

Cc: "Rev. Sue Channen" <rector@threeharbours.net>, John Blackwell [REDACTED]@ns.sympatico.ca>

Hi Pauline

Thank you for the prompt response. I will be available anytime next week except Daytime Tuesday and all day Wednesday. We will be able to provide more detail regarding our farm plans if we were to meet at our property but if that is not possible we will be glad to meet wherever is convenient for you.

Best regards,
Ernie

Sent from my iPhone

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Pauline Liengme [REDACTED]@outlook.com>

Thu, Jul 11, 2019 at 9:30 AM

To: "Rev. Sue Channen" <rector@threeharbours.net>, John Blackwell [REDACTED]@ns.sympatico.ca>

Cc: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Dear Sue and John (and Ernie);

I will be back in Antigonish on Sunday evening and available for a meeting next week any daytime, but not Wednesday or Thursday evening.

I am happy to meet at any other suggested time.

Pauline

From: Rev. Sue Channen <rector@threeharbours.net>

Sent: July 11, 2019 9:00 AM

To: Pauline Liengme; John Blackwell

Cc: ernieporter77@gmail.com

Subject: Our Property on Seabright Road

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Our Property on Seabright Road

Rev. Sue Channen <rector@threeharbours.net>

Thu, Jul 11, 2019 at 9:00 AM

To: Pauline Liengme [REDACTED]@outlook.com>, John Blackwell [REDACTED]@ns.sympatico.ca>

Cc: ernieporter77@gmail.com

I received a call yesterday from Ernie Porter, regarding a proposal for oyster aquaculture in Antigonish Harbour which his family is preparing. As we own the Town Point site, they have contacted us and would like to meet with us to inform us about the proposal. I spoke to him and said that I would refer this to you as parish wardens.

His phone number is 902-471-3696. He'd like to hear back from us sometime in the next week or so.

--

Rev. Sue Channen, Rector
Parish of Three Harbours
46 Archie Street
Antigonish, NS
office & rectory: 902-863-5089
cell: 902-318-0576

APPENDIX A: 8-ENGAGEMENT WITH LOBSTER FISHERS

September 22, 2019

Shane Beaton
[REDACTED]

Southside Harbour, NS
[REDACTED]

Dear Mr. Beaton;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

Best regards,
Town Point Consulting Inc.


Ernie Porter, P.Eng.
President

September 22, 2019

Timothy Brophy
[REDACTED]
Southside Harbour, NS
[REDACTED]

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

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There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

Best regards,
Town Point Consulting Inc.



Ernie Porter, P.Eng.
President

September 22, 2019

Huntly Brophy

Southside Harbour, NS

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

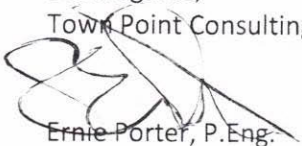
If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

Best regards,
Town Point Consulting Inc.



Ernie Porter, P.Eng.
President

September 22, 2019

Billy Brophy
[REDACTED]
Southside Harbour, NS
[REDACTED]

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.

If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community centre from 7-9 pm. We hope you can attend.

Thank you.

Best regards,
Town Point Consulting Inc.



Ernie Porter, P.Eng.
President

September 22, 2019

Mr. Darrell Beaton
[REDACTED]

Southside Harbour, NS
[REDACTED]

Re: Oyster Aquaculture lease application AQ#1424

Dear Mr. Brophy;

I am writing to you and each of the other lobster fishers operating out of Antigonish Harbour to provide you our proposed farm layout plan. Please review this enclosed plan to ensure it does not impede your normal transit route. If you feel this layout may be a concern, please let us know.


If you have other comments, questions, concerns or suggestions please include them in your response. As mentioned earlier, we are available to meet with you should this be of interest. If our application is approved there may be interesting opportunities for cooperation relating to both farm operation and location/use of the planned farm support building. This facility would house our grading, sorting, packaging, depuration, cold storage, shipping and receiving operations. We would like to discuss possible synergies this facility may provide to your fishing operations and whether there is a possibility of working together to our mutual benefit. You may call me anytime at 902-471-3696 or email me at ernieporter77@gmail.com.

Further information regarding our application is available on our website at www.townpointconsulting.com.

There will also be an open house public meeting this Friday, September 27 at the Lakevale Community Centre from 7-9 pm. We hope you can attend.

Thank you.

Best regards,
Town Point Consulting Inc.


Ernie Porter, P.Eng.
President

In Person Meeting record regarding AQ#1424

Date of meeting: July 9 / 19 Time: 3:00 Location: on Road in front of

Persons in attendance:

His House

Tim Brogan

Address:

South Side Horse Road

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed:

Questions:

Concerns:

Response:

Date of response:

Residents own words:

Left Business Card And Asked To Meet.
He Seemed Available.

In Person Meeting record regarding AQ#1424

Date of meeting: July 9/19 Time: 2:40 Location: Her House

Persons in attendance:

Armonda Brophy

Address:

South Side Harbour Rd

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: No

Questions:

Concerns: Said she had reviewed our outline in the mailbox. - Circulated by Arma WILGEMOF.

Response:

Date of response:

Residents own words:

Left Business Card for Husband who is a Lobster Fisher. Told her I had been in contact with Daniel Beaton Re: Discussion of our Plans. She suggested we try to all meet together.

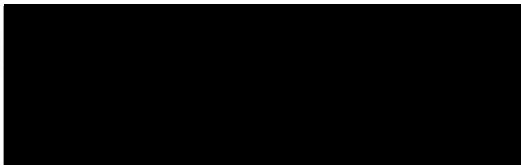
In Person Meeting record regarding AQ#1424

Date of meeting: 18 July 18 Time: 8:20 pm Location: By Phone

Persons in attendance:

DARREL BEATON

Address:



Full time Resident:

✓ LOBSTER FISHER

Seasonal Resident:

FROM SOUTH SIDE
HARBOUR - TRANSITS
BY AREA 2.

Project Outline reviewed: HE WAS AWARE OF IT

Questions: NO

Concerns:

~~Just As~~

Response:

Date of response:

Residents own words:

I ASKED AGAIN IF HE WOULD BE
AVAILABLE TO MEET IN ORDER TO REVIEW
OUR PLANS. HE SAID HE IS VERY BUSY
AND DOESN'T HAVE A PROBLEM WITH WHAT
WE WISH TO DO. I ASKED IF IT WOULD BE OK
TO STATE THAT IN OUR PERSONAL CONTACT FROM
HE AGREED.

In Person Meeting record regarding AQ#1424

Date of meeting: July 9, 2019 Time: 8:15pm Location: By Phone

Persons in attendance:

DARRELL BERTON

Address:

[REDACTED]

Full time Resident: ☒

Seasonal Resident:

SOUTH SIDE HARBOUR
Antigonish

Project Outline reviewed: No - He was Aware of our plans

Questions: No

Concerns: - Darrell said ~~the~~ you know ~~the~~ the route
we travel with fishing lobster and as
long as that is not impeded then he has no

Response: objections.

He explained we would not occupy the route
he uses.

Date of response:

during phone call.

Residents own words:

Darrell is working construction on a
bridge project in Boylston Guysborough and
doesn't have much free time. Also there is a
funeral for a relative so he asked that I get
back to him in 2 weeks to arrange a meeting.
Darrell is a lobster fisher.

I Had Left Phone Messages & 1 Text Message
 Asking For A Meeting. Billy Returned My Call
 In Person Meeting record regarding AQ#1424

Date of meeting: Call Aug 19/19 Time: 9:05 Location: _____

Persons in attendance: Billy Brophy - SPOKESMAN FOR BROPHY
FAMILY OF LOBSTER FISHERS

Address: SOUTH SIDE HARBOUR
ROAD

Full time Resident: ☒

Seasonal Resident: ☐

Project Outline reviewed: Yes — Billy ATTENDED THE

Questions: No. PUBLIC PANEL DISCUSSION TUESDAY
AUG 13.

Concerns: NOW STATED

Response:

Date of response:

Residents own words:

Billy Said He UNDERSTANDS OUR
FARM PLAN AND SEES NO NEED TO HAVE A
MEETING. I SAID IT IS IMPORTANT TO
STAKEHOLDERS TO EXPRESS THEIR CONCERNS SO
THE APPLICANT CAN UNDERSTAND THEM.

I SAID, AS FAR AS I'M AWARE THE KEY ISSUE FOR
THE FISHERS WOULD BE TRANSIT ROUTES — HE SAID
THEIR ARE THE SAME AS AN OTHER PORTERS —
THEY USE THE CHANNEL.

In Person Meeting record regarding AQ#1424

Date of meeting: July 26 2019 Time: 9:30 Location: Mouth of Ant. Harbour

Persons in attendance:

Address: Somers RD
Ant.

Full time Resident: ☒

Seasonal Resident:

Project Outline reviewed: yes

Questions:

Concerns:

Response:

Date of response:

Residents own words:

going to info meeting

In Person Meeting record regarding AQ#1424

Date of meeting: July 26 Time: 0934 Location: Harbor

Persons in attendance: Will Lantry

Address: Lower South River

Full time Resident: yes

Seasonal Resident:

Project Outline reviewed: yes

Questions:

where planned location is

Concerns:

Response: shown map and projected location

Date of response: July 26

Residents own words: No opinion as of now.

In Person Meeting record regarding AQ#1424

*Area on the water at
Channel inside Harbour*

Date of meeting: July 14/19 Time: 5:14 Location: Lower SeabL River

Persons in attendance: 1

Address:



Full time Resident: Yes

Seasonal Resident:

Project Outline reviewed:

Questions: None at this time

Concerns: None at this time

Response:

Date of response:

Residents own words:

no questions at this time
Recreational fisherman.

Herb Bonvie

In Person Meeting record regarding AQ#1424

Date of meeting: June 18/2019 Time: 10:AM Location: ANTIGONISH

Persons in attendance:

Address:

Full time Resident:

Joe Boudreau

Seasonal Resident:

Antigonish Harbour
NS

Project Outline reviewed: yes.

Questions: NO

Concerns: NO

Response:

Date of response:

Residents own words:

I have no problem in ~~oyster~~ oysters
in Town point. I been in the fishing
business since 1969. I live in Antigonish all
my life and think oyster would be good for
the area.
Joe Boudreau

APPENDIX A: 9-ENGAGEMENT WITH ST.FX



ST. FRANCIS XAVIER UNIVERSITY

P.O. BOX 5000
ANTIGONISH, NOVA SCOTIA
CANADA B2G 2W5
Website: <http://www.stfx.ca>

Interdisciplinary Studies
in Aquatic Resources (ISAR)

November 12, 2019

Dear Mr. Porter (Ernie),

I am writing this letter in my position as a professor in the Biology Department and as the co-ordinator of Interdisciplinary Studies in Aquatic Resources (AR). I have canvassed my colleagues in the Department of Biology, and there is a strong interest in collaborating with you with respect to research opportunities that might become available when your oyster farm is approved and becomes operational.

To this end, Dr. Russell Wyeth and I would be interested in pursuing research on the ecological impacts of the farm both as baseline and once it is in place. This would require some field work when the exact locations and extent of the farm components are known.

Another colleague, Dr. Cory Bishop, has expertise with invertebrates and runs a molecular biology laboratory. He would be interested in carrying out genetic work. This could potentially allow for a branding of the 'Antigonish' oyster. Another colleague, Dr. A. Reunov, runs our electron microscope facility, and he has expertise working with oysters from the perspective of fertilization.

I suspect that you have ideas on the research lines that you would like to see pursued. To the extent that we have the expertise and the interest, a mutually beneficial research program could be initiated that would solve some of your problems and supply summer employment for our students.

Regards,

David J Garbary
Professor of Biology
Co-ordinator of Aquatic Resources.

DG/lp



Ernie Porter <ernieporter77@gmail.com>

Fwd: Update from Friends of Antigonish Harbour - Sunday's BBQ at Town Point and Tuesday's Panel Discussion at STFX (information attached)

Birgit Wunn [REDACTED]@mac.com>
To: ernieporter77@gmail.com

Sun, Aug 11, 2019 at 12:28 PM

Sent from my iPad

Begin forwarded message:

From: Frank Gallant [REDACTED]@peak.ca>
Date: August 11, 2019 at 10:59:03 AM ADT
To: Frank Gallant <[REDACTED]@peak.ca>
Subject: Update from Friends of Antigonish Harbour - Sunday's BBQ at Town Point and Tuesday's Panel Discussion at STFX (information attached)

Hi Friends and Neighbours,

Good Morning. I am writing on behalf of Friends of Antigonish Harbour to invite you to two upcoming community information gatherings.

Today, Sunday August 11th: (notice attached)

Friends of Antigonish Harbour is sponsoring a BBQ at Seabright Road Entrance, RR # 337 - Sunday August 11th, 2019 (1:00 - 3:00 pm)

Tuesday, August 13th: (flyer attached)

STFX Dept of Aquatic Resources is hosting a Panel Discussion on the proposed commercial oyster farming operation on the public waters of Antigonish Harbour - StFX's Schwartz Auditorium - Tuesday August 13th, 2019 (7:00 - 8:45 pm) (flyer attached)

These are not public consultations sessions and are open to the public. Thank you for your interest and support.

Frank Gallant
on behalf of the Friends of Antigonish Harbour

--

You received this message because you are subscribed to the Google Groups "ABC Enthusiasts" group. To unsubscribe from this group and stop receiving emails from it, send an email to enthusiasts+unsubscribe@antigonishboatclub.ca.

2 attachments

Oyster Farm Panel Discussion Poster.pdf
924K

8/22/2019

Gmail - Fwd: Update from Friends of Antigonish Harbour - Sunday's BBQ at Town Point and Tuesday's Panel Discussion at STFX (inform...



Friends of Antigonish Harbour - BBQ at Seabright.pdf

48K

634



Ernie Porter <ernieporter77@gmail.com>

Letter in the paper

Ernie Porter <ernieporter77@gmail.com>
To: David Garbary <[REDACTED]@gmail.com>

Sun, Aug 11, 2019 at 9:07 AM

Hi David

Ok, please let me know when you plan to come just so I can be sure to be here.

Thanks
E.

Sent from my iPhone
[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Letter in the paper

David Garbary <[REDACTED]@gmail.com>

To: Ernie Porter <ernieporter77@gmail.com>

Sun, Aug 11, 2019 at 8:54 AM

Hi Ernie,

Thank you for the advance warning. I have lots of things to do and may even have made a start on my presentation.

Cheers,

David

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>
To: David Garbary [REDACTED] gmail.com>

Sun, Aug 11, 2019 at 8:49 AM

Thank you for your well reasoned position, I appreciate your insistence on this event being fair and to the extent possible unbiased.

Please note that the "friends" have planned a gathering on Seabright Road for this afternoon 1:00-3:00. It might be best if you avoid this time. So maybe you should come either this morning or this evening.

Sent from my iPhone
[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Letter in the paper

David Garbary <[REDACTED]@gmail.com>

Sun, Aug 11, 2019 at 8:41 AM

To: Ernie Porter <ernieporter77@gmail.com>

Hi Ernie,

I actually saw Billik's letter in the paper last night. Based on that, I can NOT have him participate in formally in any aspect of the panel discussion. The appearance of bias is just too great. I will ask another colleague to help out.

I have been unable to track Tony down. I will come out this afternoon. Even without your apparatus, it will give me a better picture of how I am going to frame my part in the whole thing.

See you then,

David

[Quoted text hidden]

--

David J. Garbary FLS
Professor of Biology
St. Francis Xavier University
Antigonish, Nova Scotia, Canada, B2G 2W5
tel: 902 867-2164 (office)
902 867-2194 (lab)
fax: 902 867-2389

TS Elliot: "Only those who will risk going too far can possibly find out how far one can go."

Publications:

<http://publicationslist.org/dgarbary>

<http://www.algaebase.org/> (search: Literature - Garbary)



Ernie Porter <ernieporter77@gmail.com>
To: David Garbary <[REDACTED]@gmail.com>

Sat, Aug 10, 2019 at 2:44 PM

The letter in Saturday's Herald is nothing but a tactic to influence those who would assess our application. I did not say anything about a forgone conclusion or anything like that. I did say that there is an economic imperative to grow the GDP, that development of ocean enterprises are critical and that oyster aquaculture is identified as an important component of this required growth. All facts presented at the aquaculture conference in Halifax last January.

Mr Bilik has twisted my words to support his agenda. Because he has exposed his willingness to depart from honesty and any form of civility I will have to insist he not be involved in vetting questions on Tuesday. Sorry to cause you more challenges in your effort to provide a very valuable service to the community but Mr Bilik's actions are intolerable. Especially when his accomplices are using his narrative to make public claims that I have lied!

I am still willing to participate in the panel discussion but I will not accept further manipulation of the forum for the benefit of my opponents. Using their version of the advertisement is already a step too far. I hope you understand, please call to discuss if you wish.

I look forward to seeing you tomorrow.

Thanks
Ernie

Sent from my iPhone



Ernie Porter <ernieporter77@gmail.com>

Hi Ernie - copy of the poster re: Panel Discussion

Lynn Patterson <lpatters@stfx.ca>

Thu, Aug 8, 2019 at 2:16 PM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>



Sponsored by the Aquatic Resources Program, Biology Department, Faculty of Arts and
Faculty of Science.

PANEL DISCUSSION

Chaired by David Garbary, Aquatic Resources Program Coordinator

Proposed commercial oyster farming operation on the public waters of Antigonish Harbour



OPEN TO THE PUBLIC

Tuesday 13 August 2019

7 – 9:00 pm

**Schwartz Auditorium
StFX Campus**

Panelists include:

 NOVASCOTIA Fisheries and Aquaculture Representative TBA	 Dr. Tony Miller StFX Biologist	Indigenous Panel Member TBA	 Town Point Consulting. Ernie Porter Proponent	 Friends of Antigonish Harbour TBA
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Question and answer to follow panel discussion

Additional information and displays at event



PANEL DISCUSSION POSTER.docx

1015K



Ernie Porter <ernieporter77@gmail.com>

Oyster publication**Ernie Porter** <ernieporter77@gmail.com>

Wed, Aug 21, 2019 at 7:21 PM

To: Arkadiy Reunov <areunov@stfx.ca>

Hi Dr. Renov;

Thank you very much for taking time to speak with me. When we met in the corridor I recognized you from Dr. Garbary's public panel discussion on August 13 and I just wanted to thank you for coming. I had no idea you are scientist who studies oysters!

Your interest in exploring the possibility of working together to develop greater knowledge relevant to oysters, oyster farming and the impacts this activity may have on an estuary such as Antigonish Harbour is well aligned with our interest in both learning more about the possible effects this form of farming may have and in finding ways our proposed farm may provide broader benefit to our community and the industry. We welcome further discussions with both you and Dr. Garbary.

After deciding to pursue this venture, one of the first points of contact we made was with your colleague Dr. Russell Wyeth just to make him aware of our plans and to suggest if we are successful in our application then our farm may present an interesting and conveniently located opportunity to interact with the biology department at StFX. I'm glad this notion may have some merit. I know universities such as LSU and others do benefit from similar collaboration.

I read the abstract of your paper and while it is scientifically above my pay grade I will take time to read the paper. I may have a few questions. After our application is filed this fall I will contact you to take the matter further. Until then I must focus on completing the tasks required by the application process. If an issue arises that requires some scientific input I will be in touch earlier.

Thank you and best regards,
Ernie

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com

[Quoted text hidden]



Ernie Porter <ernieporter77@gmail.com>

Oyster publication

Arkadiy Reunov <areunov@stfx.ca>

Wed, Aug 21, 2019 at 5:18 PM

To: "ernieporter77@gmail.com" <ernieporter77@gmail.com>

Dear Mr. Ernie Porter,

We met recently in the Department of Biology and I told that have publication concerning method for the identification of the ecologically better place for oyster plantations. I attached this publication. It would be honorable if you may look at this.

Potentially it would be nice to study local oysters at better level using genetic and cell biology methods in the Antigonish harbor and the other bays around. It would be valuable to identify species name of the local oysters, check if they may undergo (or not) genetic alterations, create commercial voucher showing genetic DNA sequence, shell features and sperm types allowing geo-authentication of the exactly Antigonish oysters. This would be a great chance to monitor further impact of the oyster plantations in the harbor using a study of the neighbouring marine organisms.

At present stage nobody can be sure if oyster plantation is harmful or useful in the Antigonish harbor from ecological perspective. It looks like a basis for application aimed some years of experimental scientific program.

Professor David Garbary told me that he also would be interested in such a study to inspire your initiative with more scientific spirit.

I would be always glad to discuss scientific side of the oyster reproductive biology and ecology.

All the best,
Arkadiy

Dr. Arkadiy Reunov,
Research and Teaching Support Technologist,
Department of Biology,
St. Francis Xavier University.

https://www.researchgate.net/profile/Arkadiy_Reunov



Arkadiy A Reunov | PhD | St. Francis Xavier University, Antigonish | Department of Biology - ResearchGate | Share and discover research

Arkadiy A Reunov of St. Francis Xavier University, Antigonish | Read 84 publications, 1 answers, and contact Arkadiy A Reunov on ResearchGate, the professional network for scientists.

www.researchgate.net



Ernie Porter <ernieporter77@gmail.com>

Oyster Aquaculture in Antigonish Harbour

Ernie Porter <ernieporter77@gmail.com>

Draft To: drisk@stfx.ca

Cc: lpatters@stfx.ca

Tue, Jul 16, 2019 at 10:53 AM

Dear Dr. Risk;

Susan Vincent suggested I contact you regarding our plans to establish an oyster aquaculture operation in Antigonish Harbour. We would be very interested in meeting with you to gain insight into your views of such an enterprise especially with regard to sustainability as well as possible environmental and economic effects.

We invite you to visit our property to examine the oyster growth system we have developed, visit the proposed lease sites and review our draft farm plan. It would be best if this could happen by the end of this month as our gear will be moving soon thereafter to be deployed on an established farm for further trials.

Please contact us at your earliest convenience.

Best regards,
Ernie & Jane Porter

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696

Email Address: ernieporter77@gmail.com

PROGRAM E-MAIL: AQUA_RES@STFX.CA

Dr. David (Dave) Risk, Aquatic Resources Program Co-ordinator (2018 - 2019)
Tel: + 1 (902) 867- office
Fax: + 1 (902) 867-2389
E-mail: drisk@stfx.ca

Lynn Patterson, Program Assistant
Tel: + 1 (902) 867-3905
Fax: + 1 (902) 867-2389
E-mail: lpatters@stfx.ca



Ernie Porter <ernieporter77@gmail.com>

Oyster Aquaculture

Ernie Porter <ernieporter77@gmail.com>

Tue, Jul 16, 2019 at 10:32 AM

Draft To: dgarbary@gmail.com

Hi Mr. Garbary;

Susan Vincent told me you would like my contact coordinates so you can reach out to me regarding our application for an oyster aquaculture farm in Antigonish Harbour. We would be very glad to to discuss our plans with you. We invite you and any of your colleagues who may be interested to come to our property so that we can show you the new growth system we have developed and to review our farm plan.

We are keenly interested in putting forth a farm plan that takes into consideration all concerns of area residents and particularly those most interested in the wellbeing of the harbour. Your input would be very valuable in this regard. Please call me at your earliest convenience.

Sincerely,
Ernie Porter

Town Point Consulting Inc.
Ernie Porter, P.Eng.
President

Cellular: 902-471-3696
Email Address: ernieporter77@gmail.com



Ernie Porter <ernieporter77@gmail.com>

David Garbary's contact information

Susan Vincent <svincent@stfx.ca>

Mon, Jul 15, 2019 at 5:29 PM

To: "Ernie Porter (ernieporter77@gmail.com)" <ernieporter77@gmail.com>

David is a highly respected senior biology professor. He asked for your contact information to be able to arrange a meeting to find out more about your plans. His contact information is:

416/410 J. Bruce Brown Hall

(902) 867-2164

dgarbary@gmail.com

The other two I talked to were Tony Miller (who was very much concerned about eel grass and the amount of surface area to be used in the harbour) and Jim Williams. David mentioned that Leslie Buckland-Nicks was also to be at a meeting tomorrow.

SV

Susan Vincent, PhD

Professor, Department of Anthropology

St. Francis Xavier University

PO Box 5000

Antigonish, NS B2G 2W5

CANADA

APPENDIX A: 10-ENGAGEMENT THROUGH LOCAL NEWSPAPER

Wednesday, September 25, 2019

r honoured for backpack initiative



municipality of the County of Antigonish Warden Owen McCarron gives Kenzie Gormley some gifts during a Sept. 17 presentation. County council honoured the youngster for her initiative Kenzie's Backpacks, which provides school supplies for children in need. **COREY LEBLANC**

ember, was on hand for a presentation by county council that initiative. Warden Owen McCarron handed over \$20,000 to Chisholm and AAHS chair

Colleen Cameron, which will go toward the installation of solar panels at Riverside Estates, an affordable housing complex in Antigonish.

"We are so grateful for your



The Municipality of the County of Antigonish has contributed \$20,000 to Antigonish Affordable Housing Society (AAHS), which will go toward the installation of solar panels at Riverside Estates. AAHS chair Colleen Cameron (left) and board member Shaun Chisholm (right) accepted the monies from Councillor Donnie MacDonald, who represents the county on the AAHS board. **COREY LEBLANC**

support," Cameron told council, adding Antigonish County has been "behind us all the way."

She noted AAHS will also receive funding from the provincial government (Efficiency NS) and the Antigonish Solar Co-op for the purchase of the solar panels.

"You should be commended for your work," Councillor

Donnie MacDonald, who represents council on the AAHS board, said after making the cheque presentation.

He noted efforts, such as the solar panel installation, are always "geared towards our tenants" and making things more affordable.

With files from Richard MacKenzie

OPEN HOUSE INFORMATION MEETING

WHERE: Lakevale Community Centre
4382 Hwy 337, Antigonish Co. B2G 2L2

WHEN: 7-9 p.m., Friday, September 27, 2019

HOSTED BY: Town Point Consulting Inc.

PURPOSE: to provide to the public information related to a proposed oyster aquaculture operation in Antigonish Harbour. This proposed oyster farm would be located in the outer harbour and produce 2 - 3 million oysters per year on about 48 hectares using suspended, off bottom growth units. Please visit our website for more information related to this application.

www.townpointconsulting.com


ST. FRANCIS XAVIER
UNIVERSITY

Call for Nominations...

Outreach Award

St. Francis Xavier University

The recipient will be a member of the University faculty or staff who has demonstrated a long and consistent involvement in activities which have brought his/her

**6th Annual
HELPING**

*'Coping and Dealing with PTSD
for Frontline Professionals
and Families'*

St. Francis Xavier

Strong turnout for discussion on oyster farm 649

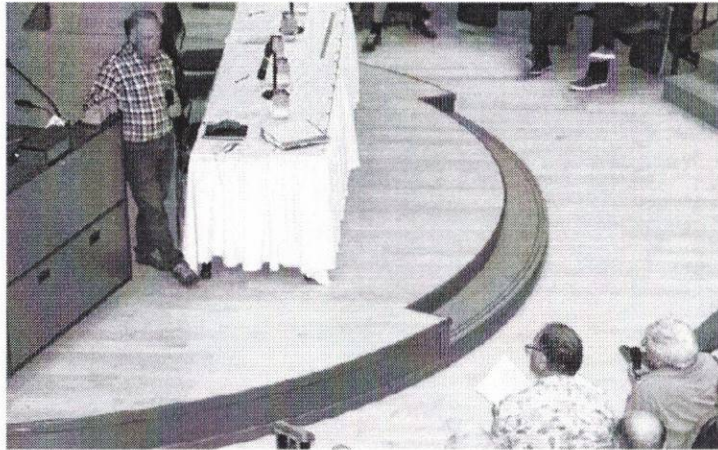
RICHARD MACKENZIE

✉ richardmac@thecasket.ca
🐦 @casket_news

It was a public engagement session which involved a lot of public — a virtually full Schwartz School of Business auditorium — and strong engagement, considering the scheduled two-hour event went closer to three hours.

The Aug. 13 event was a panel discussion regarding the proposed commercial oyster farming operation on Antigonish Harbour, and was sponsored by St. F.X.'s aquatic resource program, faculty of arts and faculty of science.

The discussion was chaired by aquatic resources program co-ordinator David Garbary and featured as panelists; the proponent of the operation Ernie Porter from Town Point Consulting, Friends of Antigonish Harbour representatives Frank Gallant and Greg MacGillivray who expressed grave concerns about the proposed farm, St. F.X. biologist Tony Miller who spoke to the natural history of the harbour, and Paqtnkek Mi'kmaw Nation Elder Kerry Prosper who provided not only a First Nations' perspective but a



The proponent of the proposed oyster farm operation on Antigonish Harbour, Ernie Porter, listens to a question from Friends of Antigonish Harbour representative Greg MacGillivray, during the panel discussion session held Aug. 13 at the Schwartz School of Business auditorium.

RICHARD MACKENZIE

broader one as well.

Garbary started the evening out with noting the provincial regulations in place regarding such a proposal and then both Porter and the Friends of Antigonish Harbour representatives were given a half-an-hour to state their sides, followed by Miller's and Prosper's words. All panelists maxed out their allotted time and the evening concluded with a lively question-

and-answer session, with most questions selected to be read and answered during the session — selected due to time restraints — directed to Porter.

"I was really pleased with the turnout; it's really important that the public has an opportunity to hear the details straight up without any monkey business," Porter said at the conclusion of the event.

"I thought the crowd was very

attentive and wanted to learn the details. I thought the questions were great and I was particularly pleased Kerry Prosper came and gave us some guidance in a broader way; his words were very wise and we should all take heed in thinking more globally."

Being pleased with the turnout was one area Friends of Antigonish Harbour representative Gallant agreed with Porter.

"We were really pleased, for sure, to see so many people come out," Gallant said.

"The goal of the evening was to have a panel discussion to allow people to have information which is now going to allow them to go back to their homes and to their neighbours and friends to continue the conversation about what they like or dislike about this whole situation; and to see where they can gain some more information because, clearly, there are some things, as was stated tonight, some contradictory evidence."

As for where Porter and his proposal goes from here, he said the public engagement continues.

"It's a big process," he said. "We're trying to reach out to every stakeholder we should talk

to. We still need more feedback, engagement with the lobster fishers; they've been very busy, even after the lobster season when they went into other work.

"And still we have more data to collect from the sites in order to craft the final farm design and write the whole development plan, fill in the application, hold a public meeting and get our application in."

Porter talked about dealing with questions that are speculative in nature, like many during the evening, and might only be answerable once a farm is operational.

"I'm not frustrated by that; I expected there to be questions that are unanswerable. That's partly a strategy by opponents to throw off an applicant and partly some questions are difficult to answer at this stage of the game. So not frustrated, not surprised, it's par for the course," he said, noting his goal is to be as open and transparent as possible.

"Not only is that a requirement of the process, but we need to, along the way, earn social license to operate this

CONTINUED ON L21

FROM PAGE L3: OYSTER

facility in harmony with the other stakeholders and we can only earn that if we're respected, if we're seen to be open and honest," he said. "And, right now, it's a high hill to climb because of all the misinformation which has gone out and the strident attempts by our opponents to stand in our way."

Gallant said it's important that, during public consultations, the information and reporting isn't just provided by the proponent.

"We have 12 to 15 points we have put together for the minister about aspect of the process that makes it too bias; this is evidence that the government of Nova Scotia wants to do aquaculture," he said, noting their group is "in favour of that."

"But do a better analysis of all of the harbours; where should they [farms] exist? Don't let a guy pick out a spot in front of his home and say here is a good spot. Let's think about where these things could be, create the economic development where they're safe to be, and as my colleague [MacGillivray] said tonight, we would love to see oyster aquaculture, we would like to see it in certain spots, we would like to see and continue to see the harvesting of small leases on the harbour because it's more sustainable."

Gallant noted his group is using their Facebook page to gather as much scientific information as they can on the proposal.

"We have three or four well connected people in our group who are linked to scientists from all over Atlantic Canada, and we certainly want to make sure we're using Atlantic Canada based evidence because it's no good going to the States or somewhere else," he said. "We have our own special eco-system here and that has been a concern of ours."



AQUATIC RESOURCES

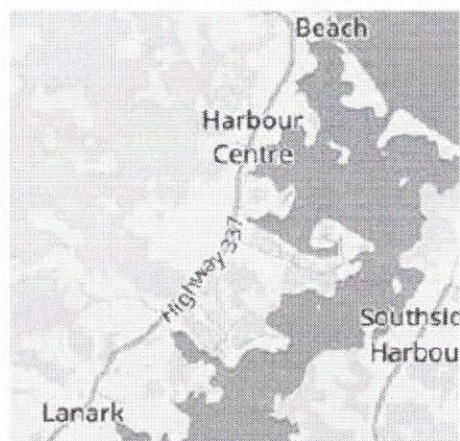
St. Francis Xavier University

*The Aquatic Resources Program, along with the Faculty of Arts
and the Faculty of Science at StFX, are hosting a*

PANEL DISCUSSION

Proposed commercial oyster farming operation on the public waters of Antigonish Harbour

Tuesday 13 August, 2019 | 7 – 9 pm
Schwartz Auditorium @ StFX



The event will be Chaired by David Garbary, Coordinator of the Aquatic Resources Program, and panelists will include:



**TOWN POINT
CONSULTING**
Ernie Porter
Proponent



**Indigenous
Representative**
(TBA)



**Friends of
Antigonish
Harbour**
(TBA)



Dr. Tony Miller
StFX
Biologist



**NS Fisheries
& Aquaculture
Representative**
(TBA)

QUESTION AND ANSWER TO FOLLOW PANEL DISCUSSION

Additional information and displays at event.

Proposed oyster farm sparks concern

New facility could bring negative impact to Antigonish Harbour: advocacy group

AARON BESWICK
THE CHRONICLE HERALD

A proposed oyster farm for Antigonish Harbour is raising eyebrows.

Behind it is former Lindsay Construction chairman Ernie Porter, his wife Jane and two sons.

The largely retired engineer resides with Jane in a house they built themselves on Town Point, looking out over the harbour.

"The normal trajectory is that you raise your kids, they start a career, go away and come home at Christmas," said Porter on Monday.

"This for us is an opportunity to be together as a family."

But the Porters aren't the only residents on Antigonish Harbour.

"The seizing of the commons for the benefit of one family is very distasteful to me," said his neighbor on Town Point Peter Bowler.

"And the notion that shellfish aquaculture is all good news is wrong."

Bowler is a member of the group Friends of Antigonish Harbour which was formed to fight the proposed oyster farm by the Porter family's company, Town Point Consulting.

They argue the farm could have a negative environmental impact on the harbour, would restrict recreational boaters out of areas being farmed, will be an eye sore and depress land values.

Porter proposes to use two shallow water sites, outside of the main channel but near the mouth of Antigonish Harbour, to raise oysters in floating one metre by 35 cm plastic mesh cylinders. The cylinders will be roped together one to two metres apart in long rows held fast by moorings on either end. The rows of black floating cylinders will be on a six metre spacing.

The technology for the floating oyster cylinders was developed by Porter and Merigonish oyster farmer Philip Docker.

A third site is a small cove beside his house on Town Point that will be used to hold oysters



Ernie Porter with the oyster harvester he built in his shop for a proposed aquaculture operation on Antigonish Harbour.

AARON BESWICK • THE CHRONICLE HERALD

in the winter so that they can be easily accessed for harvesting and sale.

The three sites encompass 57 hectares of the harbour.

"You would be able to kayak or row or standup paddleboard through the leases but not use a power boat or sail boat through them," said Porter.

The marine element would work in conjunction with two landbased facilities:

- A 31 metre long by waste height concrete nursery that circulates harbor water through a series of cylinders containing juvenile oysters.

- A 5,000 square foot building where harvested oysters would be flushed with filtered harbour water, sorted, packaged and put into cold storage.

Porter wanted to put the latter building on his property

along with the nursery but is looking at other potential properties on the harbour due to concerns raised by his neighbours.

He has been going door-to-door describing his proposed project around the wide harbour and claims to have now spoken with 120 area residents.

"The vast majority have been supportive," said Porter.

The group Friends of Antigonish Harbour also claim broad support for their position.

Heather Mayhew, a member of the group and a biologist, lives farther up the harbour and worries about potential environmental impact of the project.

"I look at the harbour as a delicate ecosystem that is quite shallow and has already suffered significant human impact," said

Mayhew.

"The eel grass beds are just starting to recover from that impact."

She argues that the impact of shellfish aquaculture on estuaries is poorly studied.

Jon Grant, NSERC-Cooke Industrial Research Chair in Sustainable Aquaculture, meanwhile argues that shellfish aquaculture has been shown to have a net positive impact on estuaries.

Unlike fin fish farms, oysters don't get fed or treated. They are filter feeders that consume the phytoplankton in the water column.

"It's not to say they have zero impact," said Grant of the farms.

"But they're filter feeders so they clean the water."

Watching the debate occur

over the proposed oyster farm and confusion over what it would look like, St. F.X. biology professor David Garbary decided to host a public discussion.

The event will be held on Aug. 13 at 6:30 p.m. in St. F.X.'s Gerald Schwartz School of Business auditorium and will include both Mayhew and Porter on a panel discussion that will be followed by public questions.

"I'm hoping this panel discussion will clear the air in terms recognizing people do have legitimate concerns but on the other hand here we have a legitimate commercial proposal to utilize a portion of the harbour," said Garbary.

Porter hopes to file his final application with the province, including the public consultation portion, in September.

your investment that much better. And they always go up."

Photovoltaic (PV) solar uses the photons of light to create electricity.

"As soon as light hits the panel, it starts making power."

Oyster farm proponent launches website

Town Point Consulting Inc., the business looking to create an oyster farm operation on Antigonish Harbour, has launched a new website.

The site went live late last month and can be found at www.townpointconsulting.com.

Farm proponent Ernie Porter said the goal is for people to go on the site to obtain information about the proposal.

Sub-sections on the site include; application process (the process, the red box, public engagement, lease locations), economic effects (One Nova Scotia, local jobs, local products, local economy, related article), environmental effects (cleaner water, eelgrass and estuary, carbon sequestering, harbour clean-ups, scientific articles), farming process (seed collection, growth units, harvesting, cleansing, packing/shipping) and myths (red box, eelgrass, oyster poop, expansion and ownership, largest farm in NS).

A public engagement event on the proposal took place last month at the Schwartz School of Business auditorium on the campus of St. F.X., and a public information session is being arranged for some time in the fall — date and site to be announced.

The group opposing the proposed farm — the Friends of Antigonish Harbour — have had a Facebook page operating since July 18.

653



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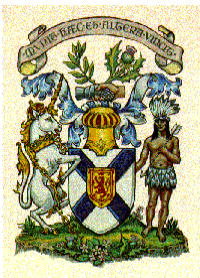


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BEACHES ACT



Beaches Act

CHAPTER 32

OF THE

REVISED STATUTES, 1989

amended 1993, c. 9, s. 9

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An Act to Preserve and Protect the Beaches of Nova Scotia

Short title

1 This Act may be cited as the *Beaches Act*. R.S., c. 32, s. 1.

Dedication of beaches

2 (1) The beaches of Nova Scotia are dedicated in perpetuity for the benefit, education and enjoyment of present and future generations of Nova Scotians.

Purpose of Act

(2) The purpose of this Act is to

- (a) provide for the protection of beaches and associated dune systems as significant and sensitive environmental and recreational resources;
- (b) provide for the regulation and enforcement of the full range of land-use activities on beaches, including aggregate removal, so as to leave them unimpaired for the benefit and enjoyment of future generations;
- (c) control recreational and other uses of beaches that may cause undesirable impacts on beach and associated dune systems. R.S., c. 32, s. 2.

Interpretation

3 In this Act,

(a) "beach" means that area of land on the coastline lying to the seaward of the mean high watermark and that area of land to landward immediately adjacent thereto to the distance determined by the Governor in Council, and includes any lakeshore area declared by the Governor in Council to be a beach;

(b) "Minister" means the Minister of Lands and Forests;

(c) "peace officer" includes a member of the Royal Canadian Mounted Police, a police officer appointed by a city, incorporated town or municipality of a county or district and a conservation officer as defined in the *Crown Lands Act*, *Forests Act* and *Wildlife Act*;

(d) "vehicle" means a vehicle propelled or driven otherwise than by muscular power, whether or not the vehicle is registered pursuant to the *Motor Vehicle Act*, and includes an airplane;

(e) "vessel" means a means of conveyance of a kind used on water and includes an accessory to the vessel. R.S., c. 32, s. 3.

Administration

4 (1) The administration, management and control of beaches shall be under the direction of the Minister.

Natural Resources Advisory Council

(2) The Minister may refer matters relating to beaches to the Natural Resources Advisory Council established pursuant to the *Natural Resources Advisory Council Act* and the Council shall advise the Minister on such matters.

Other services

(3) The Minister may utilize, upon such terms and conditions as the Minister deems fit, the services of such persons as the Minister considers necessary for the efficient carrying out of the purpose of this Act and the regulations.

Agreements

(4) The Minister may, for the effective management of beaches, enter into agreements with the Government of Canada or an agency thereof, with a provincial or municipal government or an agency thereof or with a person for the purposes of this Act or the regulations.

Agreements to manage or preserve land

(5) Without restricting the generality of subsection (4), the Minister may enter into an agreement with the owner or occupier of land adjacent to a beach to manage or preserve that land so that it complements the beach.

Acquisition of land

(6) The Minister, with the consent of the Governor in Council, may acquire land or an interest in land to provide public access to and from a beach and to provide facilities there.

Authorized services

(7) The Minister may authorize lifeguard and other services on a beach.

Studies and research

(8) The Minister may undertake studies and carry out research on beaches in the Province.

Educational programs

(9) In an effort to create greater public awareness and understanding of the beaches in the Province, the Minister may promote educational programs that emphasize the importance of conserving beaches and using them for recreational and other purposes in such a manner as to maintain their environmental integrity. R.S., c. 32, s. 4; 1993, c. 9, s. 9.

Determination of beach area

5 (1) The Governor in Council, on the recommendation of the Minister, may determine what area of land to the landward of mean high watermark and immediately adjacent thereto and what lakeshore area is a beach within the meaning of this Act.

Notice of beach area

(2) When the Governor in Council determines pursuant to subsection (1) that an area of land to the landward of mean high watermark is a beach, the Minister shall

- (a) publish a notice containing a description of the beach in the Royal Gazette and in a newspaper circulated in the county or counties to which the beach is contiguous;
- (b) deposit a description and plan of the beach in the office of the registrar of deeds for the registration district in which the beach is situate, signed either by him or the Deputy Minister of Lands and Forests or by a Nova Scotia Land Surveyor;
- (c) give notice to the owner of the beach if the owner is known, by serving upon him or by mailing by registered post addressed to him at his last known place of abode, a notice containing a description of the beach and notifying him that the beach is a beach under this Act; and
- (d) post signs about the beach indicating that it is a beach and that no sand, gravel, stone or other material may be removed from it without the consent of the Minister.

Evidence of sign as prima facie proof

(3) Evidence that a sign has been posted is *prima facie* proof that the sign has been posted pursuant to clause (d) of subsection (2).

Certified description as prima facie proof

(4) A description and plan of a beach, appearing to be certified by the Minister or the Registrar of Crown Lands appointed pursuant to the *Crown Lands Act*, shall be received as evidence without proof of the signature of the Minister or Registrar of Crown Lands and the designation of any lands on the plan as a beach is *prima facie* proof that the lands so designated are a beach. R.S., c. 32, s. 5.

Prohibited removal of sand

6 (1) No person shall wilfully take or remove any sand, gravel, stone or other material from a beach without the permission of the Minister.

Ballast for lobster pot

(2) Nothing in this Section shall prevent or restrict a fisherman from removing from a beach rocks for ballast for his lobster pots. R.S., c. 32, s. 6.

Powers of peace officer

7 (1) A peace officer may

- (a) search without a warrant and seize a vehicle including an off-highway vehicle, vessel or other property where the peace officer has reasonable and probable grounds to believe that an offence has been committed pursuant to this Act or any other enactment, if the offence is committed on a beach, and may detain the same for a period not exceeding twenty-four hours where the peace officer has reasonable and probable grounds to believe the seizure and detention is necessary to prevent the continuation or repetition of the offence;
- (b) order a person removing or displacing sand, gravel, stone or other material from a beach without a permit or lawful authorization to return it to the general area from where it was removed;
- (c) arrest without warrant a person a peace officer finds committing an offence pursuant to this Act or the regulations or any other enactment if the offence is committed on a beach;
- (d) exercise all the powers of a peace officer as defined in the *Criminal Code* (Canada).

Costs of impounding and storing

- (2) Where a vehicle, vessel or other property is seized and detained pursuant to this Act, the costs of impounding and storing it shall be paid by the person to whom the seized property is to be released before it is released.

Duty of registered owner to identify operator

- (3) Where the registered owner of the seized property wilfully fails to identify the person in charge of the vehicle or vessel at the time at which it is operated in violation of a provision of this Act or the regulations within forty-eight hours of a demand by a peace officer, the registered owner is guilty of an offence.

Liability of registered owner

- (4) The registered owner of a vehicle or vessel is liable to incur the penalties provided for a violation of this Act or the regulations unless, at the time of the violation, the vehicle or vessel was in the possession of a person without the registered owners consent, either expressed or implied.

Presence of registered owner

- (5) Where the registered owner of a vehicle or vessel is present on or in the vehicle or vessel at the time of the violation of a provision of this Act or the regulations by another person operating that vehicle or vessel, the registered owner, as well as the operator, is guilty of the offence.

Summary Proceedings Act

- (6) Where not inconsistent with this Act, the *Summary Proceedings Act* and forms authorized thereunder applies *mutatis mutandis* to all prosecutions and proceedings pursuant to this Act.

Offence

- (7) Any person who fails to comply with an order made pursuant to clause (b) of subsection (1) is guilty of an offence. R.S., c. 32, s. 7.

Prohibited activities

8 (1) No person shall, while on a beach,

- (a) be impaired by alcohol or drugs;
- (b) act in a noisy or disorderly manner;

- (c) create a disturbance;
- (d) pursue a course of conduct that is detrimental to the safety of other beach users or their enjoyment of the beach and its facilities;
- (e) wilfully destroy property and other natural resources found on or adjacent to a beach;
- (f) dump or deposit garbage or other material on a beach other than in a receptacle so provided;
- (g) engage in any other activity prohibited by regulation.

Order by Minister

(2) Where there is reasonable and probable grounds to believe that a person has violated or is about to violate any provision of this Act or the regulations, or that the entry upon or remaining within a beach by any person may be detrimental to the safety of other beach users or their enjoyment of the beach, the Minister or a person authorized to act on the Ministers behalf may, without notice or hearing, issue a verbal or written order prohibiting that person from entering upon or being within a beach specified in the order for a period specified therein.

Duty to observe order

(3) Any person having knowledge of an order made pursuant to subsection (2) shall observe that order, and in the event the person is within a beach when the order is made, shall leave forthwith. R.S., c. 32, s. 8.

Offence

9 Every person contravening any provision of this Act or of the regulations shall be guilty of an offence, and every violation in connection with a separate taking or removing of sand, gravel, stone or other material from a beach shall be a separate offence. R.S., c. 32, s. 9.

Penalty

10 (1) Any person who violates this Act is liable upon summary conviction to a penalty of not more than two thousand dollars and in default of payment thereof to imprisonment for not more than ninety days.

Additional orders

(2) In addition to any penalty imposed, the court may order a person convicted of an offence pursuant to this Act to restore the beach as nearly as possible to the condition it was in before the offence was committed and pay an amount equal to twice the market value of any aggregate or other property, damaged or removed. R.S., c. 32, s. 10.

Permission for removal of sand

11 The Minister, upon such terms and conditions as the Governor in Council from time to time prescribes, may grant permission for the removal of sand, gravel, stone or other material from a beach. R.S., c. 32, s. 11.

No compensation entitlement

12 No person affected by this Act shall be entitled to compensation for any restriction, encumbrance or use or lack of use, of any nature or kind whatsoever, of a beach that may result or results from the enacting of this Act. R.S., c. 32, s. 12.

Regulations

13 The Governor in Council may make regulations

- (a) for the preservation, control and management of beaches;
- (b) for the granting of leases, licences and permits authorizing the removal of sand, gravel, stone or other material from beaches and determining the fees and charges for such leases, licences and permits;
- (c) providing for the removal from a beach, by specified persons or persons in specified trades or occupations, of quantities of sand, gravel, stone or other material in such amount as he determines;
- (d) exempting any beach from the operation of this Act and the regulations hereto;
- (e) to preserve and protect flora and fauna located on a beach;
- (f) to restrict or regulate traffic by vehicles, vessels or pedestrians on a beach;
- (g) to restrict or regulate certain activities on a beach;
- (h) to prevent the disposal of garbage on a beach;
- (i) prescribing a minimum penalty of not less than fifty dollars and a maximum penalty of not more than two thousand dollars for offences contrary to the regulations;
- (j) respecting the management or preservation of lands adjacent to a beach in accordance with an agreement made pursuant to Section 4 or where the lands are owned or occupied by Her Majesty in right of the Province;
- (k) defining any word or expression used in this Act but not defined herein;
- (l) respecting such other matters as he deems necessary for the carrying out of the intent and purposes of this Act. R.S., c. 32, s. 13.

Regulations Act

14 The exercise by the Governor in Council of the authority set forth in Section 13 shall be regulations within the meaning of the *Regulations Act*. R.S., c. 32, s. 14.

