

[CLC Public Meeting Video ← Click to view.](#)

In Black: The submission from FOAH member Peter Bowler
In Blue: Responses from the CLC and TPO

September 8, 2021
Mr. Stephen Feist
Chair, Antigonish Oyster CLC
Via email

Dear Mr. Feist,

Thank you for hosting and chairing the CLC public meeting on August 23rd. Given that follow-up questions were not permitted at the CLC meeting on 8/23, would you please ask TPCI, to respond to questions 1,2,3,6 and 7 and Dr. Garbary to respond to question 4 and 5?

Many thanks

Peter Bowler
Friends of Antigonish Harbour.

CLC Public Meeting Feedback: Follow-up questions not permitted

Video Time: 1:34:35

CLC's Response:

Follow-up questions were permitted at the CLC public meeting on 8/23/2021. The Q&A section of the meeting went on for an hour. Several attendees approached the mic more than once, asked more than one question, and made multiple comments. The meeting ended more than 15 minutes early. CLC Chair Stephen Feist asked three times if there were any more questions or comments, none were forthcoming.

1. Jobs

At the 8/23 meeting, a question was asked about how many jobs would be created by TPCI's plan other than jobs for members of the Porter Family. Mr. Porter indicated there would be 11 total jobs, but did not answer the question.

Another question was asked about why the number of jobs called for in the application documents is so high relative to other shellfish farms in NS. Mr. Porter did not answer this question.

Follow-up

Mr. Porter emphasizes frequently the presumed positive employment effects of TPCI's plans. Could Mr. Porter please provide more details and some explanation for why he expects to have 11 jobs associated with TPCI's proposed oyster farm (ref TPCI's application)? NSDFA data for 2019 are that there were 91 full time jobs and 220 part time jobs for just over 5,900 ha of shellfish leases. (Numbers for earlier years are comparable.) 11 jobs for 36 ha would be approximately equivalent to 3.5% of NS shellfish farm jobs for only 0.6% of shellfish farm area. It is difficult to understand how

Mr. Porter expects to employ more than five times the number of people than would typically be employed -- given the economies of scale and labour saving technology touted in the application and Mr. Porter's presentation. One would expect TPCI to employ fewer, not five times as many, people.

- The issue of jobs has been responded to.
 - <https://www.antigonishoysterclc.com/responses>
 - https://www.youtube.com/channel/UCnIzGPP9u_AlfVyOIFIsKdQ
- We have copied and pasted the responses below for your convenience. However, we do encourage you to read the full responses document (linked above).

Feedback: Only seasonal jobs
TPO's Response:

We have spent considerable time and analysis in order to “right-size” the farm in order to make year-round employment possible. After the farm is fully developed most positions will be year-round, not seasonal.

We plan to provide full-time employment to as many staff as possible. One of the principal reasons the farm plan is scaled to about 90 acres is to enable sufficient production to provide for full-time employment. The farm will require production of 2-3 million oysters per year in order to justify the capital cost of a depuration facility. This facility will enable year-round production and full-time employment for most staff.

After the farm is in full production, we plan to sell oysters year-round and thus employ most staff on a full-time basis. Jobs in cleaning, packing, shipping, sales, marketing, accounting, and management we expect will all be full-time.

Feedback: This farm will not help our economy as TPO is claiming.
TPO's Response:

If the farm sites are approved, TPO will help to fulfill the call by the “Ivany Report”, urging all Nova Scotians to strive to decrease rural out-migration and maximize the available coastal resources that are so abundant here. His call is to create employment in coastal and rural communities, provide jobs that don't exist today, and produce a valuable product that will contribute to provincial GDP. It is likely most of our product will be sold outside the region with the resulting benefit of injecting new funds into our local economy.

“The ecological role of bivalve shellfish aquaculture in the estuarine environment: A review with application to oyster and clam culture in West Coast (USA) estuaries.”
Aquaculture, Brett R.Dumbauld, Jennifer L.Ruesink, Steven S.Rumrill

- “Aquaculture is increasingly viewed as a potential mechanism to meet the growing demand for food from the sea (Costa-Pierce, 2002), particularly as

landings from world marine capture fisheries have plateaued (Brugere and Ridler, 2004; Muir, 2005). Although bivalve shellfish aquaculture represented only 10% of the world volume of fishery production in 2003, it represented 26% of world aquaculture production and 18% of world economic value (Lovatelli, 2006; Subasinghe, 2006). “

“The Ivany Report - Now or Never: An Urgent Call to Action for Nova Scotians”

CLC Public Meeting Feedback: Employment numbers

Video Time: 52:45

TPO's Response:

The opposition group presenters, Peter Bowler and Lou Bilik, during the CLC public meeting, made claims regarding employment in the provincial shellfish aquaculture.

Paraphrased, their claim is as follows;

The total area under lease in provincial waters for shellfish aquaculture is about 5900 hectares. The information available from NSDFA published employment statistics indicates there are 91 full-time and 120 part-time jobs directly related to shellfish aquaculture. Dividing the number of jobs into the total lease area would infer a job rate of about one job per 45 acres. So, for the proposed operation of 90 acres, they claim the employment should equal 2 full-time jobs, not 10 jobs as indicated in the TPO application.

For public understanding, it is important to more fully explain the related information. Following are some facts about shellfish aquaculture in Nova Scotia:

- 1) Only a small portion of shellfish aquaculture leases in the province are approved for suspended aquaculture operations...“farming”. Most leases are approved only for collection of naturally occurring oysters from the seafloor...“harvesting”. These leases involve no farming, only harvesting which is far less labour intensive than farming.
- 2) More significantly, many approved leases are not in operation but instead are inactive and lying fallow so there is no associated employment at all.
- 3) Many existing leases are for small hobby farms where the operator produces a small number of oysters only for personal consumption. No employment is reported for these leases.

Because of 1, 2, and 3 above, the opposition's premise of claiming TPO's employment predictions are false is based on incorrect information. As stated during the meeting, TPO has not exaggerated the employment prediction for our proposed oyster operation.

2. Clean-up of oyster farm debris in Antigonish Harbour and St. George's Bay following a storm

At the 8/23 meeting Mr. Porter agreed government should not pay for the clean-up, indicating that TPCI would participate in a bond program that would cover clean-up expenses. In its application TPCI indicates that it has a small outboard power boat that it will use to clean-up debris from a storm.

Follow-up

- a. How much money will be available from the “bond program” to clean-up TPCI debris following a storm?
- b. How long would the clean-up/salvage operation take using TPCI’s recreational outboard power boat?
- c. Could Mr. Porter explain how he, his recreational boat and the money from the bond program will be capable of salvaging up to 23,000 oyster floats, 52Kms of rope and unknown buoys and other gear from St. Georges Bay and Antigonish Harbour?
- d. Does Mr. Porter have a video of the “Oystermatic” in action, ideally operating in windy conditions? Could he share that video with the public as it is apparently an essential element of the TPCI plan, especially the capacity to sink/lower the oyster floats/cylinders in advance of a storm?

- For more information about the bond program, you’re welcome to contact AANS to inquire.
 - <https://seafarmers.ca/>
- If the lease site applications are approved, TPO will acquire appropriate service boats. If storm damage requiring cleanup were to occur, time is always of the essence.
- DockPort Ltd, the owner of BOBR technology, is preparing to begin the production of promotional materials to market their new technology including videos of BOBR and Oyster-Matic. These videos will be made publicly available at that time.
- The issue of potential storm damage has been responded to.
 - <https://www.antigonishoysterclc.com/responses>
 - https://www.youtube.com/channel/UCnIzGPP9u_AlfVyOIFIsKdQ
- We have copied and pasted the responses below for your convenience. However, we do encourage you to read the full responses document (linked above).

Feedback: Cages may break free during storms

TPO’s Response:

Weather-related damage is certainly a potential risk. Should this happen we are well-positioned to respond quickly to retrieve any growth units that might break free as we would want them back. We have designed a farm that is less prone to storm damage due to the following features; the BOBR growth units to be used have far less exposure to wind than commonly used systems, and also, the cylindrical shape of BOBR vs the rectangular shape of common units provides less drag from passing waves so less strain on the cage securements. The growth units are secured by two static lines, not one. There is far less chance of both lines failing in the same storm.

Again, we have gone to great lengths to design and propose a superior system that will outperform existing farm systems providing greater security from storm damage and

less likelihood of gear losses. Due to close proximity and direct line of sight, TPO will be able to monitor farm sites during storm events and will be able to respond quickly should damage occur.

The proposed lease sites were chosen in part due to their lack of exposure to large waves. The maximum fetch is about 2 Km so maximum wave height is expected to be about 0.6 m. This is considered to be a low energy site and in the optimal range for siting of such an operation. Also, the narrow protected entrance to the harbour ensures no pounding ocean waves will impact the lease sites.

Feedback: Citizens taxes used for cleanup after potential storm damage

TPO's Response:

There is a bond program through AANS in which farmers collectively participate. In the event, a farm is left fallow or there is extensive storm damage beyond the operator's capability to accommodate, the bond funds are available to deal with gear removal or other necessities.

The industry is very closely regulated and monitored by government so the chance of an operation falling into disrepair and failing without remediation is unlikely. In the case of TPO, this operator lives next to the proposed site and will be able to closely monitor conditions so that quick response will be possible if there is storm damage.

CLC Public Meeting Feedback: Sober Island storm damage

Video Time: 39:15

TPO's Response:

The following question was asked by an opposition group member. "A couple years ago as you all know, we had hurricane Dorian and a lot of the contraptions, I'm just going to call them contraptions, from the oyster farm in sheet harbour, a lot of them went into the ocean. They explicitly said in a CBC article that they expected government assistance to help with that clean-up and to recover. I would like to know why it is the responsibility of the taxpayer. And I would like to know what you would do, what you think of that, if there were to be a hurricane or some kind of other environmental issues that puts all that stuff into the water because we know we have a lot of garbage floating around within the ocean and the harbor and water systems. So like I said, why is it the responsibility of the taxpayer? Thank You"

During the public meeting, the CLC and TPO were not in possession of all of the details surrounding this Sober Island Oyster Farm case. We have since learned the following:

- Sober Island Oyster Farm did not implement any hurricane avoidance action prior to the storm.
- It has been confirmed by the operator that no taxpayer money was used for the cleanup.

TPO does not expect taxpayers to pay for equipment lost from our farm if such an event were to happen.

- If the lease site applications are approved, TPO will have appropriate service boats and will use the BOBR growth system, rather than the technology used on the Sober Island site.
- The BOBR growth units are far less vulnerable to displacement from storms.
- Storm avoidance is far more easily accomplished with the BOBR system. It is a mechanized system, specifically designed to permit efficient storm avoidance.

As stated during the meeting, if approved, TPO will participate in the bond program provided through AANS which ensures funds are available for work required in the event the operator is unable to respond.

3. Harbour Width at Town Point

At the 8/23 meeting Mr. Porter said that he used an average of three different distances to determine that the width of Antigonish Harbour at Town Point is 1Km.

Follow-up

Wouldn't the common understanding of the words "width of the harbour at this point" (referring to the spot at Town Point where the nursery pipes enter the harbour), mean the nearest shore on the other side of the harbour (i.e., 400 m away)? Could Mr. Porter share precedent for using this measurement methodology in the scientific, nautical, cartographic or any other communities?

- This issue was already responded to during Mr. Porter's presentation at the August 23rd, 2021 CLC public meeting.
 - https://www.youtube.com/channel/UCnIzGPP9u_AlfVyOIFIsKdQ
 - **Video Time:** 9:50
- An overview and further response are available below.
 - This issue relates to a general statement Mr. Porter wrote when describing the harbour where he said the width is about 1 km. This statement is true and not intended to be misleading. When standing at our land-based nursery the harbour width varies depending on which way you are facing. If looking north the width is 1.8 km, when looking east it is just under .5 km, and when looking south it is 1.3 km. Averaging these numbers would equal 1.2 km.
 - Furthermore, this information was **not** a requirement of the application, it was just provided as a general description of the nursery setting. The application reviewers are fully capable of examining the physical layout of the harbour on their own which they likely they have done as a routine part of their review process.

4. No eel grass under the leases sites

Dr. Garbary indicated in his presentation that there was no eel grass under the proposed lease sites.

Follow-up

Could Dr. Garbary share the timing, methodology and any reports used to come to the conclusion that there is no eel grass under the lease sites? Could Dr. Garbary

This is part of an ongoing study at St. Francis Xavier University. When the study is complete our results will be published and a copy will be posted on the Town Point Oysters and Community Liasion Committee websites.

5. Baseline data gathering

Dr. Garbary said that two undergraduate students from St. F.X. (presumably operating under his guidance) had gathered baseline data on Antigonish Harbour against which to measure future change. Unfortunately, he had thus far been unable to secure funding to ensure ongoing measurements in the event TPCI's lease applications are approved.

Follow-up

Can Dr. Garbary share what base-line data have been measured? Does it include essential items such as species diversity and abundance (including algae), water chemistry (minerals and nutrients), pCO₂, dissolved oxygen, sediment load, low tide depth?

This is part of an ongoing study at St. Francis Xavier University. When the study is complete our results will be published and a copy will be posted on the Town Point Oysters and Community Liasion Committee websites.

6. Harbour Master and Navigation Protection Program

A question was asked regarding the infringement of TPCI's proposed lease #1443 on a personal navigational channel filed with Transport Canada by a local resident to protect that resident's access to the main channel in Antigonish Harbour from his access point on Graham's Cove. Mr. Porter promised at TPCI's Public Meeting in Lakevale on 9/27/19 that TPCI's lease proposals would not infringe on personal navigational channels. Mr. Feist and one of Mr. Porter's av assistants asserted that the questioner had no right to file a personal navigational channel or place buoys as this was the job of the "Harbour Master". Mr. Feist was apparently unaware that Antigonish Harbour has not had a Harbour Master for many years.

Follow-up

Will Mr. Porter comply with his promise not to infringe filed personal navigational channels so as to ensure residents and other sailors have safe access between Graham's Cove and Archibald's Point and the main channel in Antigonish Harbour?

- The issue of navigation has been responded to.
 - <https://www.antigonishoysterclc.com/responses>
 - https://www.youtube.com/channel/UCnIzGPP9u_AlfVyOIFIsKdQ

- We have copied and pasted the response below for your convenience. However, we do encourage you to read the full responses document (linked above).

Feedback: Lease infringes on a “registered “ navigational route.

TPO's Response:

Ensuring protection to scheduled navigable waterways is a critical part of the aquaculture application process.

Transport Canada has a Navigation Protection Program (NPP), which is incorporated into the site-specific license conditions and is a critical part of the aquaculture application process. The NPP is the agency that administers the Canadian Navigable Waters Act and oversees protections for scheduled waterways.

TPO took this concern seriously and reached out to the Navigation Protection Program (NPP) to discuss this claim. The NPP was able to confirm that they are familiar with TPO's application and that TPO has correctly followed the regulatory process under Transport Canada with the NPP. This process with the NPP is what will determine if there is or is not interference with navigation and whether any mitigation may be necessary.

Furthermore, TPO deliberately proposed lease areas that are not in frequent use and do not infringe on marked channels, commercial fishing vessel routes, or common boating areas. The decision of interference with navigation is up to Transport Canada.

Navigation Protection Program

- “The Navigation Protection Program (NPP) helps keep Canada’s navigable waters open for transport and recreation. The program administers the Canadian Navigable Waters Act.”
- “Program responsibilities. The program:
 - approves and sets terms and conditions for works in navigable waters;
 - assesses navigable waters for additions to the schedule;
 - manages obstructions in navigable waters;
 - enforces the regulations for private buoys;
 - addresses irresponsible vessel management;
 - provides authorization to people to salvage, remove or dispose of abandoned boats; and
 - enforces rules against dewatering (removing water from) or depositing materials into navigable waters.”

The Canadian Navigable Waters Act

- “Restoring Lost Protections and keeping Canada’s Navigable Waters open for public use for years to come”

Scheduled Bodies of water.

- Click the link above to read through Transport Canada's list of protected scheduled bodies of water.

CLC's Response:

It is important for the community to understand how navigable waterways are addressed and protected in Canada. There are scheduled bodies of water that are protected under the Canadian Navigable Waters Act (CNWA). The Navigable Protection Program (NPP) is responsible for administering the CNWA. The NPP is a program of Transport Canada. So, to summarize - Transport Canada has an NPP which administers the CNWA which is responsible for protecting navigation in scheduled bodies of water and all other navigable waters.

The entire Atlantic Ocean is a scheduled body of water (link to scheduled bodies of water below). That being said, on Atlantic Tidal Waters every marine dock, bridge, oyster farm, offshore wind farm, or other form of works is on a protected scheduled body of water. These works all have to follow the regulatory process under Transport Canada's Navigable Protection Program in order to determine if there is or is not interference with navigation, whether any mitigation may be necessary, and whether the works is approved or denied.

No "registered" navigable Waterways exist in Antigonish Harbour, or the rest of the Atlantic Ocean. It is not possible to "register" a navigable waterway, but what can be done is to apply to have navigable waters added to the schedule. However, the entire Atlantic Ocean is already scheduled, this includes Antigonish Harbour.

We encourage community members to read the links below, learn about Transport Canada's NPP, the CNWA, and Scheduled bodies of water. This will help community members understand how navigable waterways are addressed by the Canadian Government.

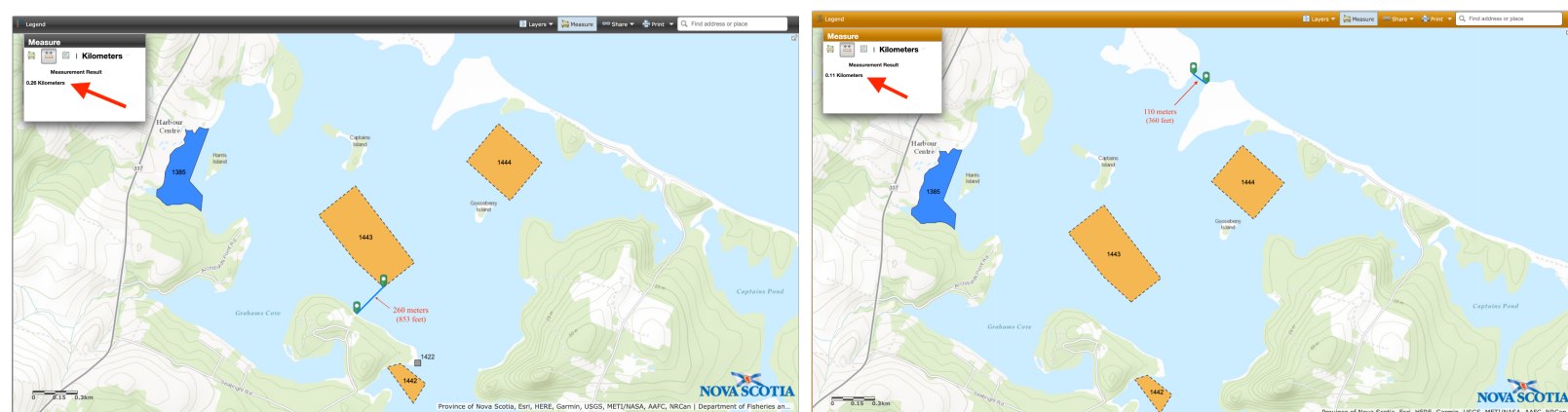
Navigation Protection Program
Canadian Navigable Waters Act
Scheduled Bodies of Water

CLC Public Meeting Feedback: Harbour Navigation **Video Time: 1:17:05** **TPO's Response:**

We have taken navigation and safety for all harbour users very seriously. Lease site 1443 leaves ample distance to ensure boaters have safe access from Graham's Cove and Archibald's Point to the main channel in Antigonish Harbour. The narrowest point on this route between lease site 1443 and shore is 260 meters (853 feet) wide. When considering width of navigation channels, a good point of reference is the harbour

opening to St. Georges Bay which is 110 meters (360 feet) wide. All boats that enter and exit Antigonish Harbour do so by passing through this opening.

Ultimately, the decision of navigation is up to Transport Canada. The considerations related to the right of navigation fall within the purview of the Navigation Protection Program (NPP), which is a program of Transport Canada. This agency is among the many government departments that review aquaculture applications to determine their suitability relative to each department's particular jurisdictions and responsibilities. The NPP was provided with our application by NSDFA after a thorough internal review by NSDFA. The NPP will decide on the suitability of our proposed lease sites in regards to navigation and, if approved, will prescribe the necessary lease boundary markers.



Mr. Porter's "promise" was that TPO would not conflict with the marked channel. The marked channel being the main entrance channel in Antigonish Harbour that has been marked for many years. TPO never "promised not to infringe filed personal navigational channels" as none existed when we chose our lease sites. A review of the timeline associated with this issue reveals that timing of the claimed navigation conflict postdates the publication of TPO's proposed lease sites.

April of 2019 - TPO disclosed lease sites during door-to-door public engagement.

August 13, 2019 - StFX public panel discussion. TPO presented on the proposed oyster farm and lease sites. When asked by the opposition Mr. Porter confirmed TPO would not be proposing lease areas within the marked harbour channel.

August 18, 2019 - Subsequently, five days later the opposition placed buoys along the shoreline of Town Point. Then, a year later, the opposition divulged the purpose of these buoys which was previously unapparent.

October 27, 2020 - The opposition posted a photoshopped map with the outline of lease site 1443 overlain with green lines to indicate a supposed "registered" navigation route.

August 23, 2021 - CLC Public Meeting an opposition group member said, "Ernie at his first public meeting said he wouldn't put any oyster cages in any channel, **so I marked a channel**".

As you can see, it was only long after our lease sites were made public did someone then try to intentionally create a conflict with TPO lease site 1443.

7. Dr. Jeffrey Barrell's report

Mr. Porter referred to a report by Dr. Barrell of the DFO.

Follow-up

Could Mr. Porter provide a copy of that report to the public?

- For a copy of the report, you're welcomed to contact DFO to inquire.
 - <https://www.dfo-mpo.gc.ca/index-eng.html>
- The issue of potential impact on eelgrass has already been responded to. This response along with our website and FB page include a multitude of peer-reviewed scientific articles on the subject. We encourage you to read them.
 - <https://www.antigonishoystercllc.com/responses>
 - <https://www.townpointoysters.com/>
 - <https://www.facebook.com/TownPointOysters>
- We have copied and pasted the eelgrass response below for your convenience. However, we do encourage you to read the full responses document along with the many scientific articles available on this subject.

Feedback: Potential impact on eelgrass TPO's Response:

Any loss of eelgrass in Antigonish Harbour would be considered a negative impact. An on-site eelgrass survey was conducted by Department of Fisheries and Oceans (DFO) scientists. A DFO scientist noted that the oyster farm will likely have a positive impact on the overall health of the eelgrass in the harbour due to reduced turbidity of the water. There is potential for reduced growth directly under the growth units due to shading; however, feedback from this DFO scientist noted that the net effect more broadly is likely to be beneficial. Additionally, the design of the growth units TPO will use minimizes the shading of sunlight on the eelgrass below growth units. TPO's growth units will cover only 0.1% of the harbour surface area.

Antigonish Harbour is 4,400 acres. TPO's proposed lease sites comprise 90.3 acres which is 2% of the harbour. However, the growth units occupy less than 4% of lease areas. Therefore, the portion of Antigonish Harbour covered by growth units will be >0.1%.

An article cited below asserts that eelgrass can benefit from co-culture with oysters, as this co-culture was shown to reduce the severity of Eelgrass Wasting Disease (EWD) by filtering out pathogens that cause EWD. According to this article, operations such as

the proposed farm may reduce the chance of disease outbreak by filtering more of the pathogens that cause EWD. EWD is caused by a pathogenic slime mold, “Labyrinthula”, which is present in Antigonish Harbour. This pathogen was responsible for the decimation of eelgrass in the 1930”s. Subsequently, stocks rebounded until the early 2000”s when the arrival of the Green Crab, led to another decimation.

“Oysters and eelgrass: potential partners in a high pCO₂ ocean” Ecology, Maya L. Groner, Colleen A. Burge, Ruth Cox, Natalie D. Rivlin, Mo Turner, Kathryn L. Van Alstyne, Sandy Wyllie-Echeverria, John Bucci, Philip Staudigel, Carolyn S. Friedman

- “In conclusion, our study provides preliminary evidence to suggest that eelgrass and possibly oysters could benefit from co-culture under projected pCO₂ conditions”

“Effects of Bivalve Aquaculture on the Environment and Their Possible Mitigation: A Review” Fisheries and Aquaculture Journal, Daria Gallardi

- "The functions of water clarification and bio deposition that characterize filter-feeding bivalves are valuable providers of ecological services to shallow water ecosystems. Bivalves help buffer estuaries and coastal ocean waters against excessive phytoplankton blooms in response to anthropogenic loading of nitrogen, counteracting the symptoms of eutrophication; they also remove inorganic sediments from suspension, counteracting coastal water turbidity. The biodeposition created by mussels and oysters, through the creation of sediment anoxic microzones where denitrifying bacteria are promoted, induce denitrification, which also help to counteract eutrophication by returning nitrogen into the atmosphere as inert nitrogen gas [3,8,9,39,40]. Moreover, the enhancement of water clarity due to filtration allows deeper light penetration and therefore can increase the growth of seagrasses that are important nursery habitat for many fish, crustaceans and molluscs; bivalves are therefore capable of enhancing estuarine nursery habitats [9,40,41]. These natural functions of bivalves can be employed in aquaculture not only to mitigate the environmental effects of the culture, but also to create added value and services for the surrounding environment.”

“Bivalve aquaculture and eelgrass: A global meta-analysis” Aquaculture, Bridget E. Ferriss, Letitia L. Conway-Cranos, Beth L. Sanderson, Laura Hoberecht

- “These analyses suggest the response of eelgrass to bivalve aquaculture varies depending on eelgrass characteristics, grow-out approaches, and harvesting methods, with potential regionally specific relationships. Questions remain, regarding how this dynamic relationship between eelgrass and aquaculture habitat relates to ecological functions and services in the nearshore environment.”