

2023

NSARB-2023-001

**Nova Scotia Aquaculture Review Board**

**IN THE MATTER OF:** Applications made by **KELLY COVE SALMON LTD.** for a **BOUNDARY AMENDMENT** and **TWO NEW MARINE FINFISH AQUACULTURE LICENSES** and **LEASES** for the cultivation of **ATLANTIC SALMON (Salmo salar)** - **AQ#1205x, AQ#1432, AQ#1433** in **LIVERPOOL BAY, QUEENS COUNTY.**

**Kelly Cove Salmon Ltd.**

APPLICANT

-and-

**Minister of Fisheries and Aquaculture**

PARTY

-and-

**Kwilmu'kw Maw-Klusuaqn Negotiation Office (KMKNO)**

INTERVENOR

-and-

**Queens Recreational Boating Association (Brooklyn Marina)**

INTERVENOR

**22 Fishermen of Liverpool Bay**

INTERVENOR

**Region of Queens Municipality**

INTERVENOR

**Protect Liverpool Bay Association**

INTERVENOR

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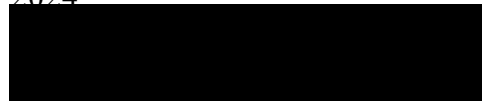
**Supplementary Affidavit of Nathaniel Feindel**

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I, Nathaniel Feindel, of Shelburne, Nova Scotia, affirm and give evidence as follows:

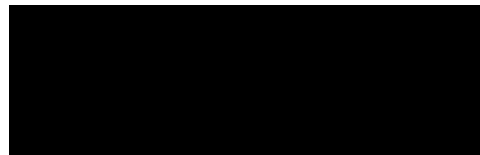
1. I have personal knowledge of the evidence affirmed to in this affidavit except where otherwise stated to be based on information or belief.
2. I state, in this affidavit, the source of any information that is not based on my own personal knowledge, and I state my belief of the source.
3. On January 22, 2024, I asked Melinda Watts, who is an Aquaculture Advisor on the Department's Review Team for AQ#1205x, AQ#1432, and AQ#1433, to follow up with the Canadian Wildlife Service (CWS) regarding the buffer zone recommendations CWS made for Harlequin Duck habitat areas around Coffin Island in its original Network Consultation Review material. A copy of Ms. Watt's January 22<sup>nd</sup> email, along with the two attachments referred to within, are attached to this Affidavit as **Exhibit "A"**.
4. CWS's feedback from the Network Consultation process begins at NSARB Exhibit 004, p. 448 and is described in my January 22, 2024, Affidavit at paras. 62-71.
5. On January 24, 2024, Rachel Gautreau, who is an Environmental Assessment Coordinator within CWS, replied to Ms. Watts. A copy of Ms. Gautreau's January 24<sup>th</sup> email is attached to this Affidavit as **Exhibit "B"**.
6. I was not physically present before Ms. Menczel-O'Neill when I affirmed this affidavit. I was linked with Ms. Menczel-O'Neill using video conferencing technology.

Affirmed to before me by videoconference  
from Shelburne (location of affiant) to  
Halifax, Nova Scotia (location of lawyer  
taking oath) on the 20<sup>th</sup> day of February,  
2024



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CAITLIN MENCZEL-O'NEILL  
A Barrister of the Supreme Court  
of Nova Scotia



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**Nathaniel Feindel**

**EXHIBIT INDEX**

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2023

NSARB-2023-001

This is Exhibit "A" referred to in the  
Supplementary Affidavit of Nathaniel Feindel  
affirmed before me by videoconference  
on February 20, 2024



Signature

CAITLIN MENCZEL-O'NEILL

A Barrister of the Supreme Court of Nova Scotia

**From:** [Watts, Melinda](#)  
**To:** [Roberts, Sydney \(ECCC\)](#); [Breau, Monique \(ECCC\)](#)  
**Cc:** [Winfield, Lynn](#)  
**Subject:** CWS Recommendations for Proposed Liverpool Bay Aquaculture Sites AQ#1205x, AQ#1432, AQ#1433  
**Date:** January 22, 2024 3:53:19 PM  
**Attachments:** [Liverpool Bay Aquaculture Applications\\_CWS Correspondence.pdf](#)  
[Measurements\\_1205x\\_Liverpool20240119.jpg](#)

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Good afternoon Sydney and Monique,

Our Department is preparing for the public hearing in front of the Aquaculture Review Board for the Liverpool Bay applications (AQ#1205x, AQ#1432, AQ#1433) and asks for clarification on the recent correspondence from July 25, 2023, which stated, “per our August 2019 comments *“Aquaculture leases should not be situated within areas where there are concentrations of wintering Harlequin Ducks, and an adequate buffer should be implemented between Harlequin Duck wintering areas and aquaculture sites”*” and that the recommendation was altered to “ECCC-CWS recommends that the aquaculture sites be reconfigured/relocated so that it does not overlap with annual/consistently used Harlequin Duck overwintering habitat to avoid potential disturbance to these and other seaducks.” (Page Reference 467 of the attached document).

In the follow up feedback provided on July 27, 2023, “ECCC-CWS notes that upon further investigation, we were unable to locate any data for Harlequin Duck overwintering habitat in the Liverpool Bay area in our current inventories” (Page Reference 470 of the attached).

With no data to support your comment that Liverpool Bay is consistently used by Harlequin Ducks, our Department interprets that in the absence of this data, the recommendation that *“aquaculture sites be reconfigured/relocated so that it does not overlap with annual/consistently used Harlequin Duck overwintering habitat to avoid potential disturbance to these and other seaducks”* (Page Reference 467 of the attached document), is not applicable for each of the proposed sites (AQ#1205x, AQ#1432, AQ#1433). **Please confirm if this recommendation is still applicable?**

We are also unclear if the altered recommendation, “ECCC-CWS recommends that the aquaculture sites be reconfigured/relocated so that it does not overlap with annual/consistently used Harlequin Duck overwintering habitat to avoid potential disturbance to these and other seaducks” replaces the original recommendation for AQ#1205x as this site is also referenced in the email correspondence dated July 25, 2023:

*“If the proposed boundary amendment is in part <300m Coffin Island, then we recommend reconfiguring/partly relocating the lease such that it would be entirely located >300 m from the island”* (Page Reference 450 from the attached document).

**Please confirm if your 300 m buffer from Coffin Island recommendation for AQ#1205x is still applicable?**

For your reference, attached is a map showing a 300 m buffer around the proposed AQ#1205x site, including distances from the infrastructure on the site to the island.

Thank you,  
Melinda



*We are in Mi'kma'ki, the  
traditional territory of the  
Mi'kmaq*

**Melinda Watts**

Aquaculture Development Advisor  
Department of Fisheries and Aquaculture  
1800 Argyle St. 6<sup>th</sup> Floor (Suite 603)  
Halifax, NS B3J 3N8  
E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)

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**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** June 27, 2019 10:05 AM  
**To:** Hood, Shane (CFIA/ACIA) <[shane.hood@canada.ca](mailto:shane.hood@canada.ca)>; MacArthur, David (EC) <[david.macarthur@canada.ca](mailto:david.macarthur@canada.ca)>; Gautreau, Rachel (EC) <[rachel.gautreau@canada.ca](mailto:rachel.gautreau@canada.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>; Miller, L (Dawn) <[Dawn.Miller2@novascotia.ca](mailto:Dawn.Miller2@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Murrant, Darryl D <[Darryl.Murrant@novascotia.ca](mailto:Darryl.Murrant@novascotia.ca)>; Blackburn, Lori M <[Lori.Blackburn@novascotia.ca](mailto:Lori.Blackburn@novascotia.ca)>; Smith, Angela (CFIA/ACIA) <[angela.smith@canada.ca](mailto:angela.smith@canada.ca)>  
**Cc:** Goreham, Brennan CD <[Brennan.Goreham@novascotia.ca](mailto:Brennan.Goreham@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Snyder, Anthony D <[Anthony.Snyder@novascotia.ca](mailto:Anthony.Snyder@novascotia.ca)>; Hancock, Bruce H <[Bruce.Hancock@novascotia.ca](mailto:Bruce.Hancock@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Subject:** Kelly Cove Salmon - Boundary Amendment AQ1205 - Liverpool Bay, Queens County

Attn: Network Review Agencies:

Attached please find the Boundary Amendment application and information for Kelly Cove Salmon AQ#1205 in Liverpool Bay, Queens County.

Please respond with your feedback by August 27, 2019.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**



1575 Lake Road  
Shelburne, NS BOT 1W0  
Phone: 902-875-7440  
Fax: 902-875-7429  
Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

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**\*Please refer to Application Package, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Environment Climate Change Canada.**

***NOTE: THIS EMAIL WAS DUPLICATED FOR AQ#1432 AND AQ#1433 AND SENT TO THE SAME RECIPIENTS.***

**From:** Gautreau, Rachel (EC) <rachel.gautreau@canada.ca>  
**Sent:** August 27, 2019 2:47 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Wilhelm, Sabina (EC) <sabina.wilhelm@canada.ca>; Hanson, Al (EC) <al.hanson@canada.ca>  
**Subject:** Boundary Amendment Application No. 1205 (Coffin Island) - Liverpool Bay, Queens County, Nova Scotia

Hi Lynn,

Environment and Climate Change Canada's Canadian Wildlife Service (CWS) has reviewed the proposed boundary amendment application for AQ#1205 in Liverpool Bay, Queens County, Nova Scotia, and it is not clear whether the reconfigured boundaries of the lease would be located within 300 m of Coffin Island. **If the proposed boundary amendment is in part <300m Coffin Island, then we recommend reconfiguring/partly relocating the lease such that it would be entirely located >300 m from the island.**

Coffin Island is used for nesting by colonial birds, including the Endangered (Schedule 1 of the *Species at Risk Act*) Roseate Tern. Colonial birds are particularly vulnerable to the effects of human disturbance. The period spent at the colony prior to egg-laying is very important for seabirds as this is when they engage in pair formation and other important breeding behaviours, such as nest site defense, nest building, and copulation. Disturbance prior to egg-laying may cause birds to abandon historical colony locations. Meanwhile, disturbance during the breeding season can cause these birds to abandon their nests or young, or to use valuable energy reserves for defence, instead of incubating eggs and feeding their young. The presence of humans in close proximity to nests may prevent parent birds from returning to protect and feed their young, and expose eggs or chicks to predation, and to the lethal effects of heat, cold and rain. When parent birds are flushed, many of the young chicks wander from their nest site and be taken by predators, or be pecked to death by neighbouring birds.

Also, as indicated in page 117 of the application, the area is important for shorebirds in migration, and as wintering habitat for Harlequin Duck (Special Concern, Schedule 1 of the *Species at Risk Act*). It is important to not disturb migrating shorebirds or wintering waterfowl during energetically expensive times of the year.

Although not officially designated under the Important Bird Areas program, the beaches and flats at East Berlin, West Berlin, Eagle Head, Beach Meadows and Western Head all host small populations of migrant shorebird in late summer and early fall. Furthermore, Purple Sandpipers are known to forage and roost on the ledges at Western Head. Also, the Endangered (Schedule 1 of the *Species at Risk Act*) Piping Plover is known to nest at Beach Meadows Beach and White Point. And the Hudsonian Godwit which was recently assessed as Threatened by COSEWIC (May 2019) has been observed in Liverpool Bay. And as indicated on page 117 of the application, the shorelines from Eastern Head to Beach Meadows, and Black Point to Western Head, are wintering habitat for Harlequin Ducks. There is therefore concern for lost gear washing up along the coast and a risk of entanglement for birds.

Therefore, we recommend the following:

In general, maintain a minimum distance of at least 300 m from all areas of the island or colony occupied by seabirds and waterbirds.

For high-disturbance activities (e.g. drilling, blasting), maintain a buffer of at least 1 km from colonies.



In addition to the above buffers, it is extremely important that mitigation measures, such as the following, be implemented to avoid/minimize adverse effects on migratory birds:

In the vicinity of Coffin Island, marine travel should take place at steady speeds, moving parallel to the shore, rather than approaching the island directly.

Vessels and equipment should be well muffled, and the proponent/contractors should avoid any sharp or loud noises, should not blow horns or whistles, and should maintain constant engine noise levels. Due to the proximity to sensitive receptors, we recommend replacing whistle blasts and horns with radio communications.

Marine vessels should not pursue seabirds/waterbirds swimming on the water surface, and avoid concentrations of birds on the water.

Oil or waste should never be dumped overboard, as even small amounts of oil can kill birds and other marine life, and habitats may take years to recover.

There should be no access to Coffin Island, including the intertidal zone, by project staff and/or equipment. Should equipment wash up at these sites during the courtship, nesting, and/or chick rearing seasons of colonial nesters (spring and summer), the proponent would be expected to contact the Canadian Wildlife Service prior to accessing offshore islands to ensure that colonial nesters are not disturbed during retrieval of equipment, and should be prepared with a plan that would comply with the *Migratory Birds Convention Act (MBCA)*.

Annual or bi-annual shoreline clean-ups should be conducted in outer Liverpool Bay (Western Head to West Berlin), but avoiding the mid-March to September 30<sup>th</sup> period.

Food scraps and other garbage left on beaches and other coastal habitat can artificially enhance the populations of avian and mammalian predators of eggs and chicks of terns. A similar effect could occur if gulls are attracted and have access to excess feed. No litter (including food scraps) should be left in coastal areas. Also, the feed program should be managed to minimize waste, and should include the use of tarps to prevent bird access to fish feed.

Since even small spills of oil can have very serious effects on birds, every effort should be taken to ensure that not oil spills occur. The proponent should ensure that all precautions are taken by staff to prevent fuel leaks from equipment, and contingency plans in case of oil spills should be prepared.

Project staff and vessels should not approach concentrations of seabirds, waterfowl or shorebirds. Beaches and wetlands are sensitive habitats and the proponent should not utilize these habitats for construction, operational or decommissioning activities, with the exception of beach clean-up activities, which should be timed to not coincide with sensitive periods for breeding birds.

The proponent should ensure that staff/contractors are familiar with all mitigation measures and are prepared to implement these. In the event of a discrepancy between environmental legislation and these measures, the requirements of the legislation will take precedence.

We have the following additional comments and questions:

Also, it should be clarified whether grow lights are proposed for this site. Bright lights can cause problems for night migrating birds and night-flying seabirds (e.g. storm-petrels), especially during periods of fog, drizzle, and haze. A powerful pencil of light shining upwards into the fog can appear as a corridor through

darkness into which the birds fly. Birds then get killed or injured by flying into the lit object, by flying into the light itself, or by colliding with other birds. For those that don't get killed or injured but flutter in the light pencil for a long period, they may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk from predators. In order to avoid impacts on migratory birds, it is recommended that lights be shielded and aimed downwards.

On page 15 of the Wildlife Interaction Plan, it is stated that “Migratory birds that are more commonly seen around the sites or have the greatest potential to be seen include:”, and photos of 4 migratory bird SAR (e.g. Barrow’s Goldeneye, Harlequin Duck, Ivory Gull, Roseate Tern) photos are presented. However, the species in the photos do not reflect the broad range of sensitive species of migratory birds most likely to be seen around aquaculture sites in the area. This section should be updated accordingly. Similarly, the “Nova Scotia Protected Wildlife” sheets in the “REFERENCED MATERIALS” section should be updated.

### Applicable Legislation

The *Migratory Birds Convention Act* (MBCA) protects most bird species in Canada however, some families of birds are excluded. A list of species under MBCA protection can be found at <https://ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1> .

Under Section 6 of the *Migratory Birds Regulations* (MBR), no person shall disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities. Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:

Information regarding regional nesting periods can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>.. Some species protected under the MBCA may nest outside these timeframes

Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges or gutters.

One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain

activities, such as clearing, during the regional nesting period for migratory birds.-

The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project activities outside the regional nesting period, can be minimized by measures such as the establishment of vegetated buffer zones around nests, and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA.

Further information can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>

The proponent should also be reminded that the prohibitions under the *Species at Risk Act* (SARA) are now in force. The complete text of SARA, including prohibitions, is available at [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca) .

Please do not hesitate to contact me should you have any questions regarding our comments.

Sincerely,

Rachel

**From:** Gautreau, Rachel (EC) <rachel.gautreau@canada.ca>  
**Sent:** August 27, 2019 2:18 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Wilhelm, Sabina (EC) <sabina.wilhelm@canada.ca>; Hanson, Al (EC) <al.hanson@canada.ca>  
**Subject:** New aquaculture application No. 1432 (Brooklyn) - Liverpool Bay, Queens County, Nova Scotia

Hi Lynn,

Environment and Climate Change Canada's Canadian Wildlife Service (CWS) has reviewed the proposed new aquaculture application for AQ#1432 in Liverpool Bay, Queens County, Nova Scotia, and the project appears to overlap with a portion of coastline identified as significant habitat by provincial wildlife biologists. And as indicated on page 117 of the application, the shorelines from Eastern Head to Beach Meadows, and Black Point to Western Head, are wintering habitat for Harlequin Ducks. It should be clarified whether the "significant habitat" identified by provincial wildlife biologists and illustrated on Figure 54 is Harlequin Duck wintering habitat. If not, it should be clarified what is this "significant habitat", and the distance of the proposed aquaculture lease to Harlequin Duck wintering habitat should be clarified. **Aquaculture leases should not be situated within areas where there are concentrations of wintering Harlequin Ducks, and an adequate buffer should be implemented between Harlequin Duck wintering areas and aquaculture sites.** It should be noted that we may have additional comments once clarification is provided.

The following should also be considered:

Coffin Island is used for nesting by colonial birds, including the Endangered (Schedule 1 of the *Species at Risk Act*) Roseate Tern. Colonial birds are particularly vulnerable to the effects of human disturbance. The period spent at the colony prior to egg-laying is very important for seabirds as this is when they engage in pair formation and other important breeding behaviours, such as nest site defense, nest building, and copulation. Disturbance prior to egg-laying may cause birds to abandon historical colony locations. Meanwhile, disturbance during the breeding season can cause these birds to abandon their nests or young, or to use valuable energy reserves for defence, instead of incubating eggs and feeding their young. The presence of humans in close proximity to nests may prevent parent birds from returning to protect and feed their young, and expose eggs or chicks to predation, and to the lethal effects of heat, cold and rain. When parent birds are flushed, many of the young chicks wander from their nest site and be taken by predators, or be pecked to death by neighbouring birds.

Also, although not officially designated under the Important Bird Areas program, the beaches and flats at East Berlin, West Berlin, Eagle Head, Beach Meadows and Western Head all host small populations of migrant shorebird in late summer and early fall. Furthermore, Purple Sandpipers are known to forage and roost on the ledges at Western Head. Also, the Endangered (Schedule 1 of the *Species at Risk Act*) Piping Plover is known to nest at Beach Meadows Beach and White Point. And the Hudsonian Godwit which was recently assessed as Threatened by COSEWIC (May 2019) has been observed in Liverpool Bay. There is therefore concern for lost gear washing up along the coast and a risk of entanglement for birds.

It is therefore extremely important that mitigation measures, such as the following, be implemented to avoid/minimize adverse effects on migratory birds:

- In the vicinity of Coffin Island, marine travel should take place at steady speeds, moving parallel to the shore, rather than approaching the island directly.

- Vessels and equipment should be well muffled, and the proponent/contractors should avoid any sharp or loud noises, should not blow horns or whistles, and should maintain constant engine noise levels. Due to the proximity to sensitive receptors, we recommend replacing whistle blasts and horns with radio communications.
- Marine vessels should not pursue seabirds/waterbirds swimming on the water surface, and avoid concentrations of birds on the water.
- Oil or waste should never be dumped overboard, as even small amounts of oil can kill birds and other marine life, and habitats may take years to recover.
- There should be no access to Coffin Island, including the intertidal zone, by project staff and/or equipment. Should equipment wash up at these sites during the courtship, nesting, and/or chick rearing seasons of colonial nesters (spring and summer), the proponent would be expected to contact the Canadian Wildlife Service prior to accessing offshore islands to ensure that colonial nesters are not disturbed during retrieval of equipment, and should be prepared with a plan that would comply with the *Migratory Birds Convention Act* (MBCA).
- Annual or bi-annual shoreline clean-ups should be conducted in outer Liverpool Bay (Western Head to West Berlin), but avoiding the mid-March to September 30<sup>th</sup> period.
- Food scraps and other garbage left on beaches and other coastal habitat can artificially enhance the populations of avian and mammalian predators of eggs and chicks of terns. A similar effect could occur if gulls are attracted and have access to excess feed. No litter (including food scraps) should be left in coastal areas. Also, the feed program should be managed to minimize waste, and should include the use of tarps to prevent bird access to fish feed.
- Since even small spills of oil can have very serious effects on birds, every effort should be taken to ensure that not oil spills occur. The proponent should ensure that all precautions are taken by staff to prevent fuel leaks from equipment, and contingency plans in case of oil spills should be prepared.
- Project staff and vessels should not approach concentrations of seabirds, waterfowl or shorebirds.
- Beaches and wetlands are sensitive habitats and the proponent should not utilize these habitats for construction, operational or decommissioning activities, with the exception of beach clean-up activities, which should be timed to not coincide with sensitive periods for breeding birds.
- The proponent should ensure that staff/contractors are familiar with all mitigation measures and are prepared to implement these. In the event of a discrepancy between environmental legislation and these measures, the requirements of the legislation will take precedence.

We have the following additional comments and questions:

- Also, it should be clarified whether grow lights are proposed for this site. Bright lights can cause problems for night migrating birds and night-flying seabirds (e.g. storm-petrels), especially during periods of fog, drizzle, and haze. A powerful pencil of light shining upwards into the fog can appear as a corridor through darkness into which the birds fly. Birds then get killed or injured by flying into the lit object, by flying into the light itself, or by colliding with other birds. For those that don't get killed or injured but flutter in the light pencil for a long period, they may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk from predators. In order to avoid impacts on migratory birds, it is recommended that lights be shielded and aimed downwards.
- On page 15 of the Wildlife Interaction Plan, it is stated that "Migratory birds that are more commonly seen around the sites or have the greatest potential to be seen include:", and photos of 4 migratory bird SAR (e.g. Barrow's Goldeneye, Harlequin Duck, Ivory Gull, Roseate Tern) photos are presented. However, the species in the photos do not reflect the broad

range of sensitive species of migratory birds most likely to be seen around aquaculture sites in the area. This section should be updated accordingly. Similarly, the “Nova Scotia Protected Wildlife” sheets in the “REFERENCED MATERIALS” section should be updated.

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Under Section 6 of the *Migratory Birds Regulations* (MBR), no person shall disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities. Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:

- Information regarding regional nesting periods can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>.. Some species protected under the MBCA may nest outside these timeframes
- Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges or gutters.
- One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain activities, such as clearing, during the regional nesting period for migratory birds.-
- The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project activities outside the regional nesting period, can be minimized by measures such as the establishment of vegetated buffer zones around nests, and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA.

Further information can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>

The proponent should also be reminded that the prohibitions under the *Species at Risk Act* (SARA) are now in force. The complete text of SARA, including prohibitions, is available at [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca) .

Please do not hesitate to contact me should you have any questions regarding our comments.

Sincerely,

Rachel

**From:** Gautreau, Rachel (EC) <rachel.gautreau@canada.ca>  
**Sent:** August 27, 2019 2:44 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Wilhelm, Sabina (EC) <sabina.wilhelm@canada.ca>; Hanson, Al (EC) <al.hanson@canada.ca>  
**Subject:** New aquaculture application No. 1433 (Mersey Point) - Liverpool Bay, Queens County, Nova Scotia

Hi Lynn,

Environment and Climate Change Canada's Canadian Wildlife Service (CWS) has reviewed the proposed new aquaculture application for AQ#1433 in Liverpool Bay, Queens County, Nova Scotia, and the project appears to overlap with a portion of coastline identified as significant habitat by provincial wildlife biologists. And as indicated on page 117 of the application, the shorelines from Eastern Head to Beach Meadows, and Black Point to Western Head, are wintering habitat for Harlequin Ducks. It should be clarified whether the "significant habitat" identified by provincial wildlife biologists and illustrated on Figure 54 is Harlequin Duck wintering habitat. If not, it should be clarified what is this "significant habitat", and the distance of the proposed aquaculture lease to Harlequin Duck wintering habitat should be clarified. **Aquaculture leases should not be situated within areas where there are concentrations of wintering Harlequin Ducks, and an adequate buffer should be implemented between Harlequin Duck wintering areas and aquaculture sites.** It should be noted that we may have additional comments once clarification is provided.

The following should also be considered:

Coffin Island is used for nesting by colonial birds, including the Endangered (Schedule 1 of the *Species at Risk Act*) Roseate Tern. Colonial birds are particularly vulnerable to the effects of human disturbance. The period spent at the colony prior to egg-laying is very important for seabirds as this is when they engage in pair formation and other important breeding behaviours, such as nest site defense, nest building, and copulation. Disturbance prior to egg-laying may cause birds to abandon historical colony locations. Meanwhile, disturbance during the breeding season can cause these birds to abandon their nests or young, or to use valuable energy reserves for defence, instead of incubating eggs and feeding their young. The presence of humans in close proximity to nests may prevent parent birds from returning to protect and feed their young, and expose eggs or chicks to predation, and to the lethal effects of heat, cold and rain. When parent birds are flushed, many of the young chicks wander from their nest site and be taken by predators, or be pecked to death by neighbouring birds.

Also, although not officially designated under the Important Bird Areas program, the beaches and flats at East Berlin, West Berlin, Eagle Head, Beach Meadows and Western Head all host small populations of migrant shorebird in late summer and early fall. Furthermore, Purple Sandpipers are known to forage and roost on the ledges at Western Head. Also, the Endangered (Schedule 1 of the *Species at Risk Act*) Piping Plover is known to nest at Beach Meadows Beach and White Point. And the Hudsonian Godwit which was recently assessed as Threatened by COSEWIC (May 2019) has been observed in Liverpool Bay. There is therefore concern for lost gear washing up along the coast and a risk of entanglement for birds.

It is therefore extremely important that mitigation measures, such as the following, be implemented to avoid/minimize adverse effects on migratory birds:

In the vicinity of Coffin Island, marine travel should take place at steady speeds, moving parallel to the shore, rather than approaching the island directly.



Vessels and equipment should be well muffled, and the proponent/contractors should avoid any sharp or loud noises, should not blow horns or whistles, and should maintain constant engine noise levels. Due to the proximity to sensitive receptors, we recommend replacing whistle blasts and horns with radio communications.

Marine vessels should not pursue seabirds/waterbirds swimming on the water surface, and avoid concentrations of birds on the water.

Oil or waste should never be dumped overboard, as even small amounts of oil can kill birds and other marine life, and habitats may take years to recover.

There should be no access to Coffin Island, including the intertidal zone, by project staff and/or equipment. Should equipment wash up at these sites during the courtship, nesting, and/or chick rearing seasons of colonial nesters (spring and summer), the proponent would be expected to contact the Canadian Wildlife Service prior to accessing offshore islands to ensure that colonial nesters are not disturbed during retrieval of equipment, and should be prepared with a plan that would comply with the *Migratory Birds Convention Act* (MBCA).

Annual or bi-annual shoreline clean-ups should be conducted in outer Liverpool Bay (Western Head to West Berlin), but avoiding the mid-March to September 30<sup>th</sup> period.

Food scraps and other garbage left on beaches and other coastal habitat can artificially enhance the populations of avian and mammalian predators of eggs and chicks of terns. A similar effect could occur if gulls are attracted and have access to excess feed. No litter (including food scraps) should be left in coastal areas. Also, the feed program should be managed to minimize waste, and should include the use of tarps to prevent bird access to fish feed.

Since even small spills of oil can have very serious effects on birds, every effort should be taken to ensure that not oil spills occur. The proponent should ensure that all precautions are taken by staff to prevent fuel leaks from equipment, and contingency plans in case of oil spills should be prepared.

Project staff and vessels should not approach concentrations of seabirds, waterfowl or shorebirds. Beaches and wetlands are sensitive habitats and the proponent should not utilize these habitats for construction, operational or decommissioning activities, with the exception of beach clean-up activities, which should be timed to not coincide with sensitive periods for breeding birds.

The proponent should ensure that staff/contractors are familiar with all mitigation measures and are prepared to implement these. In the event of a discrepancy between environmental legislation and these measures, the requirements of the legislation will take precedence.

We have the following additional comments and questions:

Also, it should be clarified whether grow lights are proposed for this site. Bright lights can cause problems for night migrating birds and night-flying seabirds (e.g. storm-petrels), especially during periods of fog, drizzle, and haze. A powerful pencil of light shining upwards into the fog can appear as a corridor through darkness into which the birds fly. Birds then get killed or injured by flying into the lit object, by flying into the light itself, or by colliding with other birds. For those that don't get killed or injured but flutter in the light pencil for a long period, they may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk from predators. In order to avoid impacts on migratory birds, it is recommended that lights be shielded and aimed downwards.

On page 15 of the Wildlife Interaction Plan, it is stated that “Migratory birds that are more commonly seen around the sites or have the greatest potential to be seen include:”, and photos of 4 migratory bird SAR (e.g. Barrow’s Goldeneye, Harlequin Duck, Ivory Gull, Roseate Tern) photos are presented. However, the species in the photos do not reflect the broad range of sensitive species of migratory birds most likely to be seen around aquaculture sites in the area. This section should be updated accordingly. Similarly, the “Nova Scotia Protected Wildlife” sheets in the “REFERENCED MATERIALS” section should be updated.

### Applicable Legislation

The *Migratory Birds Convention Act* (MBCA) protects most bird species in Canada however, some families of birds are excluded. A list of species under MBCA protection can be found at <https://ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1>.

Under Section 6 of the *Migratory Birds Regulations* (MBR), no person shall disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities. Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:

Information regarding regional nesting periods can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>. Some species protected under the MBCA may nest outside these timeframes

Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges or gutters.

One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain activities, such as clearing, during the regional nesting period for migratory birds.-

The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project activities outside the regional nesting period, can be minimized by measures such as the establishment of vegetated buffer zones around nests, and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is

incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA.

Further information can be found at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>

The proponent should also be reminded that the prohibitions under the *Species at Risk Act* (SARA) are now in force. The complete text of SARA, including prohibitions, is available at [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca) .

Please do not hesitate to contact me should you have any questions regarding our comments.

Sincerely,

Rachel

**From:** Watts, Melinda

**Sent:** September 16, 2020 3:35 PM

**To:** Jennifer Hewitt <[REDACTED]>; [REDACTED] <[REDACTED]>

**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** Network Comments for Liverpool Bay Applications (Brooklyn, Mersey Point, Liverpool Boundary Amendment)

Good afternoon Jennifer and Jeff,

Please see the attached table, which summarizes the network comments provided for each of the three applications submitted for Liverpool Bay. Comments from ECCC/CWS are also attached separately as their response was too lengthy to include in the table.

Further conversations will be required between some of the network partners, including Lands and Forestry and Environment and Climate Change Canada, based on the comments and recommendations included.

Please do not hesitate to reach out if you have any questions and wish to discuss further.

Cheers,  
Melinda

*Melinda Watts*  
**Aquaculture Advisor**

Nova Scotia Department of Fisheries and Aquaculture  
1800 Argyle St. 6<sup>th</sup> Floor (Suite 603) - WTCC  
Halifax, NS B3J 3N8  
T: (902) 483-7668  
E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)



Network Comments  
Re. KCS Liverpool BaAmendment 1205 (Capplications 1432 ar



Boundary



New aquaculture

***NOTE: REFER TO COMMENTS FROM ECCC-CWS ABOVE.***

**From:** Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Sent:** May 20, 2021 10:16 AM  
**To:** Gautreau, Rachel (EC) <rachel.gautreau@canada.ca>  
**Cc:** sabina.wilhelm@canada.ca; al.hanson@canada.ca; Breau, Monique (EC) <monique.breau@canada.ca>; Mailhiot, Joshua (EC) <joshua.mailhiot@canada.ca>; Ronconi, Robert (EC) <robert.ronconi@canada.ca>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** Additional information from Kelly Cove Salmon - Liverpool Bay Aquaculture Applications (AQ#1205 AQ#1432 AQ31433)

Good morning Rachel,

We have received a response from Kelly Cove Salmon for your questions on the two new sites (Brooklyn and Mersey Point) and the boundary amendment for Coffin Island site in Liverpool Bay (see the original emails attached). All recommendations were also shared with applicant when they were first received by our Department and have been taken into consideration by the applicant.

Please see their response in the attached PDF.

If you have any further questions, please let us know.

Cheers,  
Melinda

*Melinda Watts*  
**Aquaculture Advisor**

Nova Scotia Department of Fisheries and Aquaculture  
1800 Argyle St. 6<sup>th</sup> Floor (Suite 603) - WTCC  
Halifax, NS B3J 3N8  
T: (902) 483-7668  
E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)



Rachel Gautreau,  
Enviro Canada 1432 application No. 143:



New aquaculture



Boundary



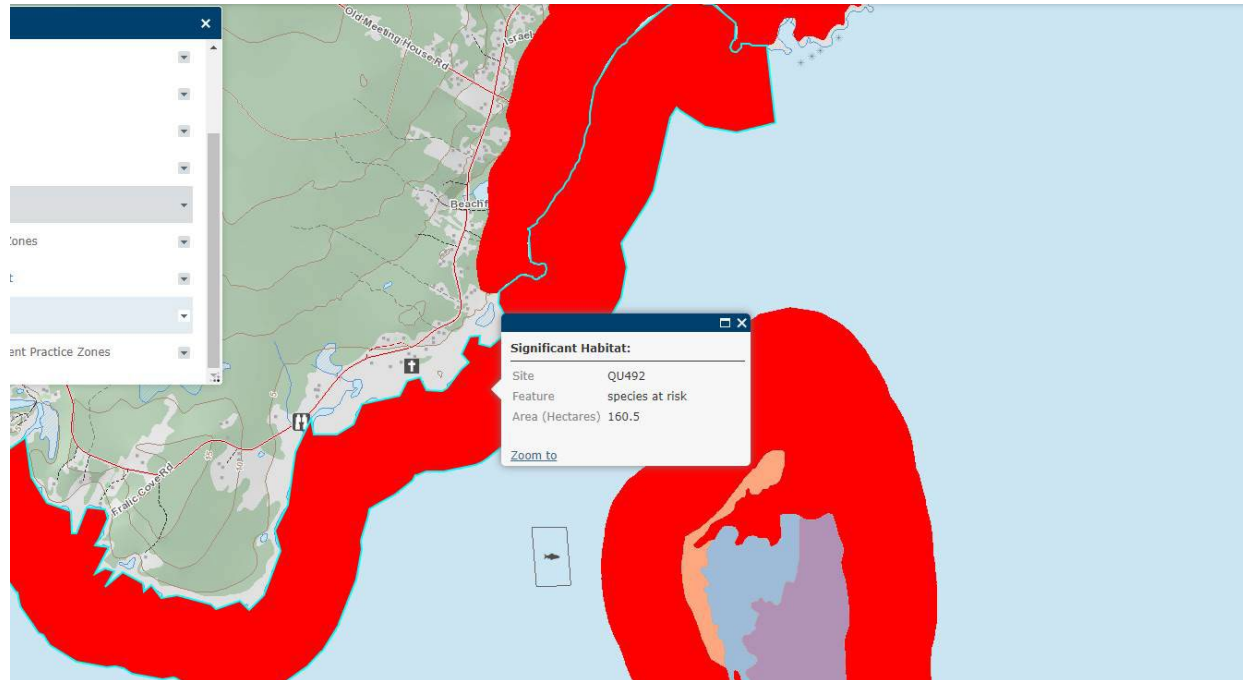
Aquaculture

Applications for Live

## KCS Response to ECCC - Liverpool Application

As indicated on page 117 of the application, the shorelines from Eastern Head to Beach Meadows, and Black Point to Western Head, are wintering habitat for Harlequin Ducks. It should be clarified whether the “significant habitat” identified by provincial wildlife biologists and illustrated on Figure 54 is Harlequin Duck wintering habitat. If not, it should be clarified what is this “significant habitat”, and the distance of the proposed aquaculture lease to Harlequin Duck wintering habitat should be clarified.

Red is deemed as significant habitat for species at risk QU492 – that is all that is available on the website.



LU47	Great Blue Heron
LU75	Great Blue Heron
LU83	Great Blue Heron
LU24	Great Blue Heron
QU397	Great Blue Heron
QU46	Great Blue Heron
HX654	Great Blue Heron
CU13	Great Blue Heron
LU224	Great Cormorant
LU225	Great Cormorant
HX656	Great Cormorant
AP4	Greater Scaup
AP99	Greater Scaup
LU202	Greater Yellowlegs
AP122	Green-winged Teal
LU10	Gull (unclassified)
LU64	Gull (unclassified)
QU14	Gull (unclassified)
HN5293	Gypsum sink hole pond, no species recorded
HX645	Harlequin Duck
HX646	Harlequin Duck
KI202	Harlequin Duck
LU1	Harlequin Duck
LU257	Harlequin Duck
LU258	Harlequin Duck
QU492	Harlequin Duck
AP179	Harlequin Duck
CU11	Herring Gull
KI3	Herring Gull
LU1	Herring Gull
LU5	Herring Gull
LU6	Herring Gull
LU7	Herring Gull
LU9	Herring Gull

QU492 = Harlequin Duck (source: <https://novascotia.ca/nse/ea/kaizer.meadow.wind.project/Section-4.6.2-to-end-of-Appendices.pdf> )

<http://www.speciesatrisk.ca/SARGuide/download/Harlequin%20Duck.pdf> this source indicates that they winter along NS coastline. So if QU492 = Harlequin duck and species at risk indicates they can be found

here in winter.... Then the red indicates overwintering grounds.

It should be clarified whether grow lights are proposed for this site.

Artificial lighting will be used on the site between November 15-April 15th. LED lights from the blue spectrum are used, all lights will be pointed downward towards the bottom of the cage there will be no glow as was observed when using halogen lights. The lights will be powered from the on-site feed barge. There will be 4 lights per cage positioned ~ 5 meters deep in the cage.

On page 15 of the Wildlife Interaction Plan, it is stated that “Migratory birds that are more commonly seen around the sites or have the greatest potential to be seen include:”, and photos of 4 migratory bird SAR (e.g. Barrow’s Goldeneye, Harlequin Duck, Ivory Gull, Roseate Tern) photos are presented. However, the species in the photos do not reflect the broad range of sensitive species of migratory birds most likely to be seen around aquaculture sites in the area. This section should be updated accordingly. Similarly, the “Nova Scotia Protected Wildlife” sheets in the “REFERENCED MATERIALS” section should be updated.

The short list of birds is those that have the greatest potential to be seen as the farms – considering the farms marine locations. The same is true for the Wildlife – given potential interactions and likelihood of seeing the species based on locations of farms. Example the Ivory Gull is listed on the NB list, but not the NS or NL list. A larger list of species is included within the WIP for Atlantic Canada. Should we ever have sightings or interactions with others, we would update based on experience. However, based on our experience, these are the most likely. We cannot list every bird on the SARA list as this is a tool to be used by the Managers, and its purpose is to be a quick reference.

**From:** Watts, Melinda  
**Sent:** July 18, 2023 8:50 PM  
**To:** Breau, Monique (EC) <monique.breau@canada.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** Liverpool Bay Aquaculture Applications (AQ#1205 AQ#1432 AQ#1433) - CWS Comments  
**Importance:** High

Good morning Monique,

Our department is preparing to refer an application package to the Nova Scotia Aquaculture Review Board (NSARB) for marine finfish licence and lease AQ#1205x (boundary amendment) and AQ#1432/AQ#1433 (new marine sites) in Liverpool Bay by Kelly Cove Salmon Ltd.

As a follow up to the request CWS made on August 27, 2019, for additional information (see attached emails) a response from the applicant was provided to CWS on May 20, 2021, from our department (see attached pdfs). During the preparation of the application package for the NSARB, we have noted that our department did not receive comment from CWS after the additional information was provided. Can you please confirm that the information that was provided satisfied your request for additional information?

This is a time sensitive issue so please confirm by **Monday, July 24<sup>th</sup>** to allow the applications to be submitted in a timely manner.

Please do not hesitate to reach out if you have any questions.

Thank you,  
 Melinda

*Melinda Watts*  
**Aquaculture Development Advisor**

Nova Scotia Department of Fisheries and Aquaculture  
 1800 Argyle St. 6<sup>th</sup> Floor (Suite 603) - WTCC  
 Halifax, NS B3J 3N8  
 T: (902) 483-7668  
 E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)



Boundary  
 Amendment



New aquaculture  
 application No. 143



New aquaculture  
 application No. 143



Additional  
 information from Ke



Aquaculture  
 Applications for Live



**From:** Roberts,Sydney (elle, la | she, her) (ECCC) <sydney.roberts@ec.gc.ca>  
**Sent:** July 25, 2023 1:50 PM  
**To:** Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Cc:** EE SCF Atl / EA CWS Atl (ECCC) <eaatlantic@EC.GC.CA>  
**Subject:** Liverpool Bay Aquaculture Applications (AQ #1205, #1432, #1433) - CWS Comments

**\*\* 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

Hi Melinda,

Thank you for reaching out to us to follow-up on your question from May 2021, we appreciate the opportunity to provide input at this late stage.

Environment and Climate Change Canada's Canadian Wildlife Service has reviewed the additional information that Kelly Cove Salmon Ltd.'s provided in response to ECCC-CWS' comments on the Liverpool Bay, NS aquaculture applications (AQ #1205, AQ#1432, AQ #1433) and offers the following comments.

Comment 1:

The applicant has confirmed that the Liverpool Bay, NS area is overwintering habitat for Harlequin Duck. Harlequin Duck (*Histrionicus histrionicus*) are listed on Schedule 1 of the *Species at Risk Act* (SARA) as Special Concern, and are provincially listed on the Nova Scotia *Endangered Species Act* (ESA) as Endangered.

It should be noted that the link provided

(<http://www.speciesatrisk.ca/SARGuide/download/Harlequin%20Duck.pdf>) is no longer active, so ECCC-CWS was unable to view this source.

ECCC-CWS reiterates that per our August 2019 comments "*Aquaculture leases should not be situated within areas where there are concentrations of wintering Harlequin Ducks, and an adequate buffer should be implemented between Harlequin Duck wintering areas and aquaculture sites*". ECCC-CWS recommends that the aquaculture sites be reconfigured/relocated so that it does not overlap with annual/consistently used Harlequin Duck overwintering habitat to avoid potential disturbance to these and other seaducks. ECCC-CWS recommends that the applicant consider the information provided on page 205-208 of the "*Atlas of Sea Duck Key Habitat Sites in North America*" (Sea Duck Joint Venture, 2022) (see [Sea Duck Key Habitat Sites Atlas \(seaduckjv.org\)](https://seaduckjv.org/)), which notes that Liverpool Bay area is overwintering habitat for Harlequin Duck. ECCC-CWS will provide additional information, including updated maps of Harlequin Duck overwintering habitat in the Liverpool Bay area, particularly those that overlap with the three lease sites, to support best site location to ensure that potential disturbance to overwintering Harlequin Duck and other seaducks is avoided/minimized.

Additionally, ECCC-CWS notes that over-wintering seaducks may be attracted to these sites to forage. In addition to fish-eating birds (e.g. gulls, terns, herons) that may be attracted to the site, diving migratory birds such as seaducks may also be attracted to finfish aquaculture site and fish feed, and could become entangled in underwater predator nets. ECCC recommends that the proponent identify measures to monitor underwater predator nets for potential diving bird entanglement.

ECCC-CWS should be contacted for further advice if there is an increase in bird activity or any changes in seaduck distribution or numbers observed in vicinity of the lease (including species and numbers, if possible), particularly if attraction and depredation is suspected (e.g. attraction the feed). If depredation issues do arise, ECCC-CWS can provide additional advice on mitigation measures (also see below advice – Bird Entanglement Contingency Planning Advice).

Comment 2:

ECCC-CWS acknowledges that the applicant has indicated that any lights used will be pointed downwards to avoid glare. ECCC-CWS is satisfied with this information.

Comment 3:

ECCC-CWS acknowledges that the applicant has provided a short list of birds with the greatest potential to be sighted at the lease sites, including Barrow's Goldeneye (SARA Schedule 1, Endangered; NS ESA, Special Concern), Harlequin Duck (see above), Ivory Gull (SARA Schedule 1, Endangered; not listed on NS ESA), and Roseate Tern (SARA Schedule 1, Endangered; NS ESA, Endangered), and that they have committed to updating the Wildlife Interaction Plan (WIP) if they have interactions with other species. The applicant states that the WIP is meant to be a quick reference for Managers.

ECCC-CWS disagrees with this approach to the Wildlife Interaction Plan. Applicants should be aware of all species (migratory birds, species at risk and species of conservation concern) that have the potential to be impacted by their activities to ensure that they have adequately considered all measures to avoid/minimize the potential impacts.

Please let us know if you have any questions.

Thanks

Sydney

**Sydney Roberts**

Coordinator, Environmental Assessment, Canadian Wildlife Service  
Environment and Climate Change Canada / Government of Canada  
**NEW!** [Sydney.Roberts@ec.gc.ca](mailto:Sydney.Roberts@ec.gc.ca) / Tel: +1-709-325-1740

Coordonnatrice, Évaluations environnementales, Service canadien de la faune  
Environnement et Changement climatique Canada / Gouvernement du Canada  
**NOUVEAU!** [Sydney.Roberts@ec.gc.ca](mailto:Sydney.Roberts@ec.gc.ca) / Tél : +1-709-325-1740

**From:** Watts, Melinda  
**Sent:** July 26, 2023 10:17 AM  
**To:** Roberts,Sydney (elle, la | she, her) (ECCC) <sydney.roberts@ec.gc.ca>  
**Cc:** EE SCF Atl / EA CWS Atl (ECCC) <eaatlantic@EC.GC.CA>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: Liverpool Bay Aquaculture Applications (AQ #1205, #1432, #1433) - CWS Comments

Thank you, Sydney, for this quick turnaround response.

Just two quick comments/questions.

It states you “will provide additional information, including updated maps of Harlequin Duck overwintering habitat in the Liverpool Bay area, particularly those that overlap with the three lease sites, to support best site location to ensure that potential disturbance to overwintering Harlequin Duck and other seaducks is avoided/minimized.” Can you please send this so it can be shared with the applicant?

Finally, with regards to the last comment, Kelly Cove Salmon did update their Wildlife Interaction Plan in 2022, which was done after the original response was provided to CWS. I have attached it here for your reference and apologies I did not send with our request for review last week. As you will see, this is more inclusive of a variety of species, not just those with designations. Through the department’s Farm Management Plan Program, mitigation measures to avoid interactions with wildlife, including birds are identified by all licence/lease holders. ECCC-CWS’ recommendations and mitigation measures have been shared with the applicant.

Cheers,  
Melinda

*Melinda Watts*  
**Aquaculture Development Advisor**

Nova Scotia Department of Fisheries and Aquaculture  
1800 Argyle St. 6<sup>th</sup> Floor (Suite 603) - WTCC  
Halifax, NS B3J 3N8  
T: (902) 483-7668  
E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)



WIP Wildlife  
Interaction Plan 22.C

***NOTE: REFER TO APPENDIX K FOR THE UPDATED WILDLIFE INTERACTION PLAN***

**From:** Roberts,Sydney (elle, la | she, her) (ECCC)  
**Sent:** July 27, 2023 1:40 PM  
**To:** Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Cc:** EE SCF Atl / EA CWS Atl (ECCC) <[eaatlantic@EC.GC.CA](mailto:eaatlantic@EC.GC.CA)>; Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>; Keeping,Brent (ECCC) <[Brent.Keeping@ec.gc.ca](mailto:Brent.Keeping@ec.gc.ca)>  
**Subject:** RE: Liverpool Bay Aquaculture Applications (AQ #1205, #1432, #1433) - CWS Comments

Hi Melinda,

Please see ECCC-CWS' responses to your follow-up questions below. Let us know if you have any additional questions.

Thanks!

Sydney



EA\_Liverpool\_NS\_H ARD\_20230727\_Tem  
Liverpool\_NS\_HARD \_Obs.csv

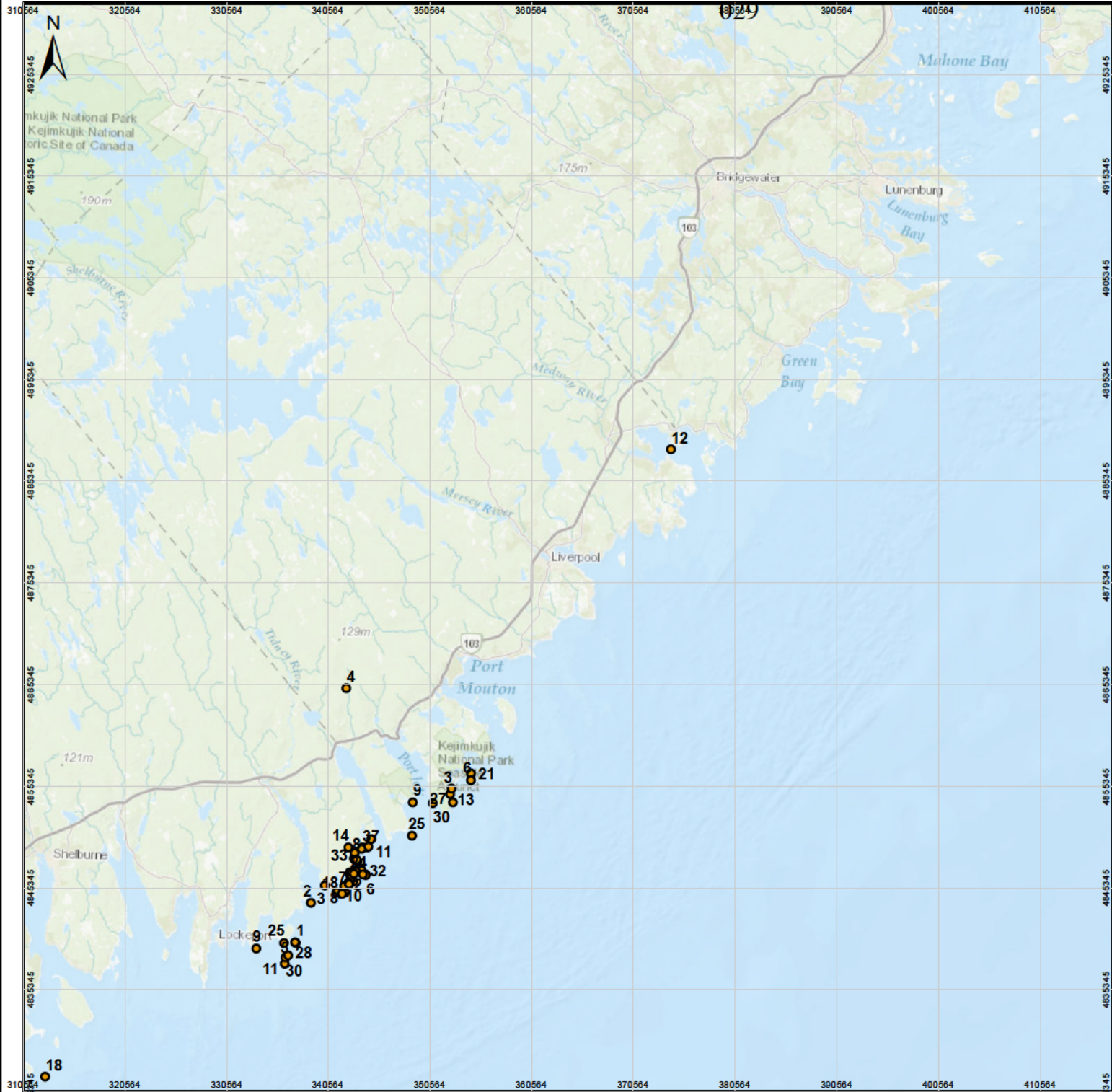
It states you "will provide additional information, including updated maps of Harlequin Duck overwintering habitat in the Liverpool Bay area, particularly those that overlap with the three lease sites, to support best site location to ensure that potential disturbance to overwintering Harlequin Duck and other seaducks is avoided/minimized." Can you please send this so it can be shared with the applicant?


ECCC-CWS notes that upon further investigation, we were unable to locate any data for Harlequin Duck overwintering habitat in the Liverpool Bay area in our current inventories. We apologize for the confusion, but point to the information provided by the applicant (in 2021) and support their conclusion that the Liverpool Bay area is overwintering habitat for Harlequin Duck. Should more information become available, we will provide it to you.

Please find attached a map that includes Harlequin Duck survey observations in the southeastern Nova Scotia area, dating from 1966-2015 (with only one record pre-dating 2000). We have also included an accompanying datasheet that includes additional information (date, location, number observed, sex), should this be of interest.

Finally, with regards to the last comment, Kelly Cove Salmon did update their Wildlife Interaction Plan in 2022, which was done after the original response was provided to CWS. I have attached it here for your reference and apologies I did not send with our request for review last week. As you will see, this is more inclusive of a variety of species, not just those with designations. Through the department's Farm Management Plan Program, mitigation measures to avoid interactions with wildlife, including birds are identified by all licence/lease holders. ECCC-CWS' recommendations and mitigation measures have been shared with the applicant.

ECCC-CWS is satisfied with the information provided. No additional information is required at this time.




 Environment and  
 Climate Change Canada  
 Canadian Wildlife Service

**471**  
 Environnement et  
 Changement climatique Canada  
 Service canadien de la faune

## Liverpool, NS Harlequin Duck Observations

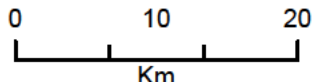
Queens County  
Nova Scotia

### Legend

- Harlequin Duck Counts



UTM Zone 20N  
North American Datum 1983



0      10      20  
Km

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 ESRI World Topographic Map ArcGIS 10.8 © 2023

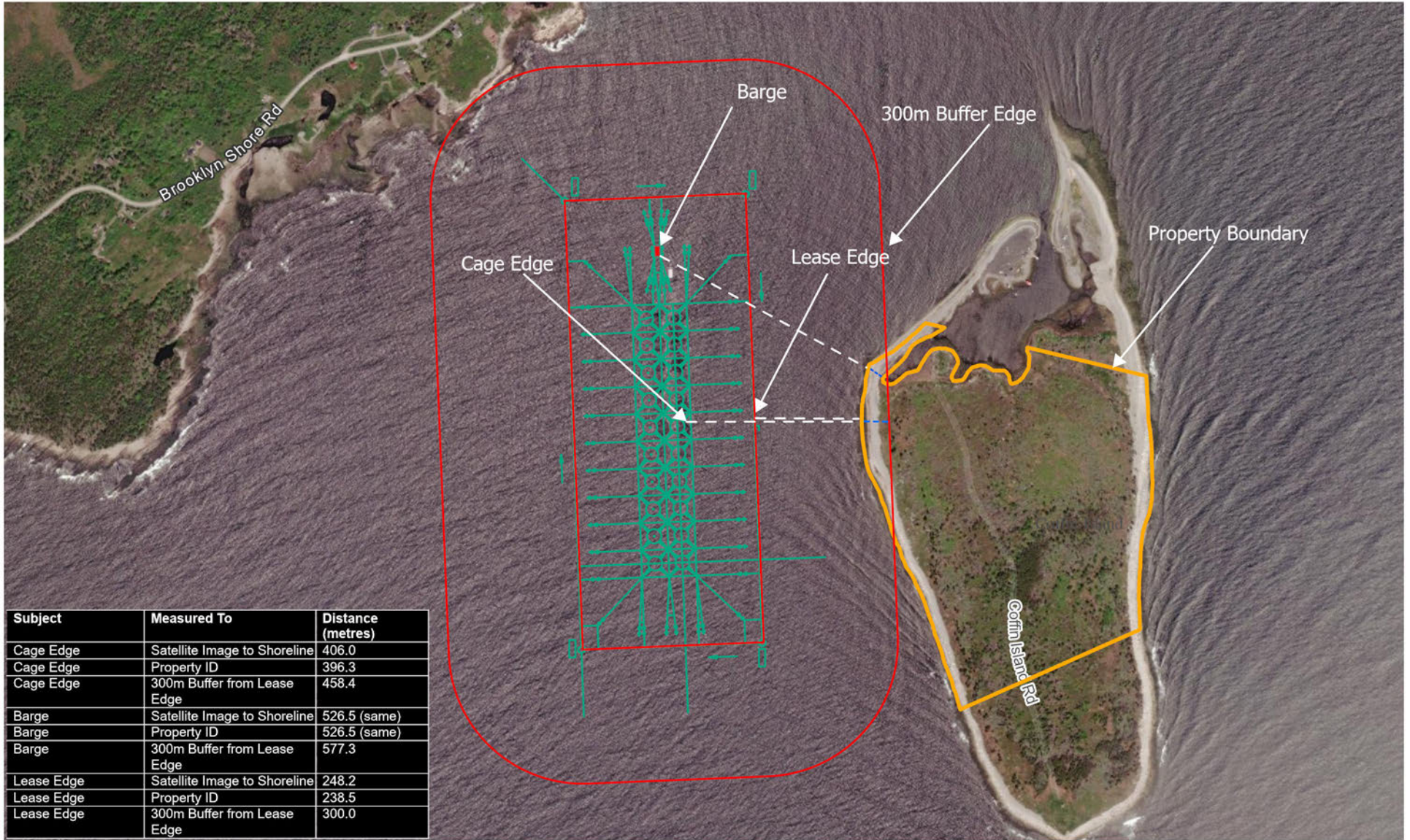
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472	20150224_	2015	2	24 24-FEB-151	88	43.57012	-65.319

region	location	notes	HARD_M	HARD_F	HARD_unk	HARD_tota	PUSA	F17
Nova Scoti:	Medway		<Null>	<Null>		12	12	<Null>
South NS	Johnston's		4	10	0	14	<Null>	
South NS	Little Port I		10	14	0	24	<Null>	
Little Port I	Little Port I		<Null>	<Null>		32	32	<Null>
Littl Port L'	East of Joh		<Null>	<Null>	<Null>		37	<Null>
Littl Port L'	Green Rock		<Null>	<Null>	<Null>		2	<Null>
Little Port I	Between Jc		<Null>	<Null>	<Null>		33	<Null>
Little Port I	Little Port I		<Null>	<Null>	<Null>		21	<Null>
Little Port I	Harding Isl		<Null>	<Null>	<Null>		8	<Null>
Little Port I	The Ovens		<Null>	<Null>	<Null>		18	<Null>
Little Port I	West of Lit		<Null>	<Null>	<Null>		7	<Null>
Little Port I	Little Port I		<Null>	<Null>		126	126	<Null>
Little Port I	Little Port I		<Null>	<Null>		78	78	<Null>
Little Port I	Between Si		0	0	46	46		0
Little Port I	Green Rock		0	0	54	54		0
Little Port I	Rocks far e		0	0	8	8		0
Little Port I	South tip H		2	2	0	4		0
Little Port I	Stevon's Le		0	0	24	24		0
Little Port I	West of co		0	0	18	18		0
Little Port I	West of Jo		0	0	12	12		0
Little Port I	West of Stc		0	0	10	10		0
Little Port I	Green Rock		3	0	3	6		0
Little Port I	Johnston's		3	0	69	72		0
Little Port I	Little Port I		0	0	51	51		0
Little Port I	Jones Harb		0	0	43	43		0
Little Port I	Jones Harb		0	0	2	2		0
Little Port I	Little Port I		6	0	7	13		
Little Port I	Little Port I		2	0	27	29		0
Little Port I	Little Port I		2	1	0	3		0
Little Port I	Green Side		7	10	0	17		
Little Port I	Johnston's		4	6	0	10		
Little Port I	Little Port I		10	14	0	24		22
Little Port I	S of Johnso		0	0	42	42		
Southwest	Black Rock,		<Null>	<Null>	<Null>		1	0
Littl Port L'	East side of		<Null>	<Null>	<Null>		3	<Null>
Little Port I	Black Rock		<Null>	<Null>	<Null>		5	<Null>
Little Port I	Boyd's Ree		<Null>	<Null>	<Null>		30	<Null>
Little Port I	East of Joh		<Null>	<Null>	<Null>		3	<Null>
Little Port I	Hell Pt		<Null>	<Null>	<Null>		21	<Null>
Little Port I	Hemeons F		<Null>	<Null>	<Null>		25	<Null>
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Little Port I Rasperry H	<Null>	<Null>	<Null>	2	<Null>
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Little Port I rocks off of	<Null>	<Null>	25	25	10
Little Port I south of Lit	<Null>	<Null>	17	17	0
Southeast I Gull Rock (I	<Null>	<Null>	18	18	82



Subject	Measured To	Distance (metres)
Cage Edge	Satellite Image to Shoreline	406.0
Cage Edge	Property ID	396.3
Cage Edge	300m Buffer from Lease Edge	458.4
Barge	Satellite Image to Shoreline	526.5 (same)
Barge	Property ID	526.5 (same)
Barge	300m Buffer from Lease Edge	577.3
Lease Edge	Satellite Image to Shoreline	248.2
Lease Edge	Property ID	238.5
Lease Edge	300m Buffer from Lease Edge	300.0

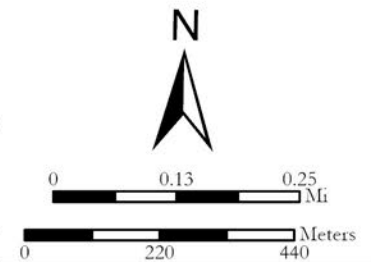


### Proposed Lease 1205x - Liverpool Bay

Province of Nova Scotia, Esri Canada, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, NRCan, Parks Canada, Esri, NASA, NGA, USGS, Maxar

2024

Coordinate System: NAD 1983 CSRS UTM Zone 20N



2023

NSARB-2023-001

This is Exhibit "B" referred to in the  
Supplementary Affidavit of Nathaniel Feindel  
affirmed before me by videoconference  
on February 20, 2024

A solid black rectangular redaction box covering the signature area.

Signature

CAITLIN MENCZEL-O'NEILL

A Barrister of the Supreme Court of Nova Scotia

**From:** [Gautreau, Rachel \(elle, la | she, her\) \(ECCC\)](#)  
**To:** [Watts, Melinda](#)  
**Cc:** [Roberts, Sydney \(elle, la | she, her\) \(ECCC\)](#); [Mailhot, Joshua \(ECCC\)](#); [Winfield, Lynn](#)  
**Subject:** responses to your Jan 22, 2024 email - Liverpool Bay Aquaculture Sites AQ#1205x, AQ#1432 & AQ#1433  
**Date:** January 24, 2024 3:27:22 PM

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**\*\* 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

Hello Melinda,

Environment and Climate Change Canada's Canadian Wildlife Service (CWS) has received your January 22, 2024 email with questions related to proposed Liverpool Bay Aquaculture Sites AQ#1205x, AQ#1432, and AQ#1433, and we are providing the following in hopes that these will respond to your questions regarding our previous comments for these sites:

AQ#1205x

It appears that the proposed boundary amendment for this lease is in part within 300 m of Coffin Island, an island used by nesting colonial waterbirds, including the Endangered Roseate Tern.

For avoidance of disturbance to colonial nesting waterbirds/seabirds (e.g. tern colonies, heronries) and Piping Plovers, CWS generally recommends the following when birds may be present:

- In general, maintain a minimum distance of at least 300 m from all areas of the Piping Plover Critical Habitat or colonial waterbird/seabird nesting island/sandspit
- For high-disturbance activities (e.g. drilling, blasting), maintain a buffer of at least 1 km from colonies.

As stated in our August 27, 2019 email to your department, Coffin Island is used for nesting by colonial waterbirds, including the Endangered (Schedule 1 of the *Species at Risk Act*) Roseate Tern. Colonial birds are particularly vulnerable to the effects of human disturbance. The period spent at the colony prior to egg-laying is very important for seabirds as this is when they engage in pair formation and other important breeding behaviours, such as nest site defense, nest building, and copulation. Disturbance prior to egg-laying may cause birds to abandon historical colony locations. Meanwhile, disturbance during the breeding season can cause these birds to abandon their nests or young, or to use valuable energy reserves for defence, instead of incubating eggs and feeding their young. The presence of humans in close proximity to nests may prevent parent birds from returning to protect and feed their young, and expose eggs or chicks to predation, and to the lethal effects of heat, cold and rain. When parent birds are flushed, many of the young chicks wander from their nest site and be taken by predators, or be pecked to death by neighbouring birds.

**For this reason, we recommend reconfiguring/partly relocating AQ#1205 such that it would be entirely >300m from Coffin Island.**

In addition, we also recommend that beneficial management practices listed in our August 8, 2019 and July 25, 2023 emails be implemented. In the event of a discrepancy between environmental legislation and these measures, the requirements of the legislation will take precedence.

AQ#1432 and AQ#1433

The Harlequin Duck, Eastern population, is a Species at Risk in Canada, listed on Schedule 1 of the *Species at Risk Act* as Special Concern, and provincially listed as Endangered under the Nova Scotia

*Endangered Species Act.*

In the applications for AQ#1433 and AQ#1432, the Proponent identified the "... shorelines from Eastern Head to Beach Meadows Beach and Black Point to Western Head as Harlequin Duck habitat, particularly in the winter." The Harlequin Duck was also one of the species of waterfowl identified by CWS as occurring in Coastal Block 172 in Table 17 of the applications. A later search of our databases in July 2023 did not yield further data, and staff with Harlequin Duck observations summarized to coastal block areas (i.e. the data provided by CWS in Table 17 of the applications) were unfortunately not available. Furthermore, on Figure 54 of these applications, provincially identified areas labeled "Significant Habitat" are mapped and leases appear to partially overlap these areas. This "Significant Habitat" was later confirmed to be sections of wintering habitat for Harlequin Duck in the Proponent's May 2021 responses to CWS questions.

CWS reiterates our August 2019 comments that "Aquaculture leases should not be situated within areas where there are concentrations of wintering Harlequin Ducks, and an adequate buffer should be implemented between Harlequin Duck wintering areas and aquaculture sites". We recommend that these aquaculture sites be reconfigured/relocated so that they do not overlap with annual/consistently used Harlequin Duck overwintering habitat to avoid potential disturbance to these and other seabirds. For specific details on the areas used by Harlequin Ducks in the areas labeled by the Province as "Significant Habitat" in the lease applications, we recommend that provincial wildlife biologists be consulted.

In addition, we recommend that beneficial management practices listed in our August 8, 2019 and July 25, 2023 emails be implemented. In the event of a discrepancy between environmental legislation and these measures, the requirements of the legislation will take precedence.

Canadian Wildlife Service mandate

The Canadian Wildlife Service (CWS) is a branch of Environment and Climate Change Canada, and the federal government organisation responsible for the conservation of migratory birds, the recovery of species at risk, and the protection of nationally-important habitat for wildlife. With a long-standing tradition of scientifically-driven conservation and environmental regulation in Canada, we are committed to renewed Crown-Indigenous relations and reconciliation with Indigenous Peoples, and integrating Indigenous knowledge in our decision-making. Our wildlife conservation mandate is grounded in the *Migratory Birds Convention Act* (MBCA), the *Canada Wildlife Act* (CWS) and the *Species at Risk Act* (SARA).

Our vision is a society that lives and develops as part of nature that values the diversity of life and takes no more than what can be replenished so we can ensure a nurturing and dynamic world rich in biodiversity to future generations. Our mission is to achieve nature conservation outcomes for habitat, wildlife and their ecosystems, particularly migratory birds and species at risk.

Please don't hesitate to contact me should you have any questions regarding our comments.

Sincerely,

Rachel

**Rachel Gautreau**

(she/her/elle)

Coordinator, Environmental Assessment / Canadian Wildlife Service

Environment and Climate Change Canada / Government of Canada

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Coordinatrice, Évaluations environnementales / Service canadien de la faune

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