

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)

FIRST INTERVENOR

-and-

Queens Recreational Boating Association (Brooklyn Marina)

SECOND INTERVENOR

22 Fishermen of Liverpool Bay

THIRD INTERVENOR

Region of Queens Municipality

FOURTH INTERVENOR

Protect Liverpool Bay Association

FIFTH INTERVENOR

Affidavit of Bruce Hancock

I, Bruce Hancock, of Halifax, Nova Scotia, affirm and give evidence as follows:

1. I am the Executive Director of Aquaculture in the provincial Department of Fisheries and Aquaculture (the Department).
2. I have personal knowledge of the evidence affirmed in this Affidavit except where otherwise stated to be based on information and belief.
3. 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.
4. I attended and participated in all of the consultation meetings regarding Kelly Cove Salmon's (KCS) Liverpool applications held between the Province and the Kwilmu'kw Maw-Klusuaqn Negotiation Office (KMKNO) and Acadia First Nation.

Affidavit of Charmaine C. Stevens

5. I was surprised when I read the Affidavit of Charmaine Stevens because her description of the meetings is not consistent in several areas with my recollection of those meetings.

Involvement of Proponent

6. At the first consultation meeting, which took place on December 9, 2020, Ms. Stevens' states in paragraph 10 of her affidavit that it felt like the "Province was arguing on behalf of Kelly Cove" and at paragraph 11 Ms. Stevens states that she was baffled that the Province was answering questions rather than KCS.
7. In the course of scheduling the December 9, 2020 consultation meeting, I asked Ms. Gaudet in an email dated October 8, 2020 if Acadia First Nation wished to have the proponent present in the meeting to answer questions.
8. On October 14, 2020, Ms. Gaudet responded by email that Acadia First Nation "would prefer not to hear from the proponent at that time."
9. KCS's involvement was raised at the December 9, 2020 meeting. I recall the Department staff suggesting that KCS may be better able to answer Acadia First Nation and KMKNO's questions. This recollection is reflected in the Action Items listed at the end of the Record of the Meeting which stated that Acadia First Nation would discuss potential proponent engagement with community members, Band Council and the KMKNO before advancing conversations with the proponent directly. (Affidavit of Robert Ceschiutti, p. 51)
10. On July 16, 2021, Department staff sent an email to KMKNO following up on the meeting, and the action item regarding the proponent's involvement in particular. (Affidavit of Robert Ceschiutti, p. 87)
11. Following the July 16th, 2021 email, it took 8 months to schedule the next consultation meetings which took place on March 1 and 2, 2022.

12. At that meeting, the action item regarding meeting the proponent was raised. It was not clear whether Acadia First Nation had followed through with the action item. Acadia First Nation “described a lack of engagement by the company” and “significant opposition from community members and Band Council.” (Affidavit of Robert Ceschiutti, p. 157)
13. I was surprised to hear Acadia First Nation state that there was a lack of engagement by KCS as the Department understood that the company had attempted to initiate conversations (NSARB Exhibit 006, p.923).
14. The record of the meeting reflects that the Department urged Acadia First Nation to meet with KCS directly. OLA is also noted as stating that the Crown does at times rely on proponents for information sharing and that proponent engagement can feed into consultation. (Affidavit of Robert Ceschiutti, p. 158)
15. Acadia First Nation discussing meeting with KCS with the Chief and Council was once again added to the action items. (Affidavit of Robert Ceschiutti, p. 159)
16. I understand that on April 15, 2022 KCS met with Acadia First Nation.
17. Ms. Stevens states, at paragraph 11 of her Affidavit, that the Province did not convey Acadia First Nations’ concerns regarding archaeological impact to KCS.
18. This was also raised during the consultation meeting that took place on June 2, 2022. The Province explained at that time that they do not share information received at the consultation table with proponents. (Affidavit of Robert Ceschiutti, p. 194). This is one of the reasons why the Department encourages First Nations communities to meet directly with proponents.

Understanding material

19. I was surprised by Ms. Stevens’ statements in her affidavit with respect to being overwhelmed by information and the need for assistance in understanding the scientific and technical information. (Affidavit of Charmaine Stevens, paras 8-10)
20. In an October 2nd call with Ms. Gaudet to set dates and an agenda for the first consultation meeting, I recall offering an introductory presentation on Aquaculture and this was declined. Ms. Gaudet very clearly indicated that they wanted to focus the meeting on the questions raised by Acadia First Nation in their initial consultation letter.
21. My understanding is that KMKNO supports its member communities to understand technical information of this type.
22. The only time I recall Ms. Stevens indicating capacity concerns regarding the time it takes to review material and absorb details is at the meeting on June 2, 2022. KMKNO indicated they would support Acadia First Nation’s assessment. (Affidavit of Robert Ceschiutti, p. 196)

23. We rely on parties to consultation asking questions or asking for further explanation if information is not understood. There were a number of times during consultation when we invited KMKNO or Acadia First Nation to submit questions on particular issues, like fish health, but, ultimately, they chose not to submit questions or request further information.
24. Ms. Stevens states, in paragraph 10, that funding assistance to obtain the independent expertise needed was not offered. The issue of funding assistance to obtain independent expertise, or the necessity for such expertise, was never raised during consultation.

Affidavit of Justin Martin

25. The issue of potential adverse impacts to fishing practices in Liverpool Bay were discussed at each of the four consultation meetings. Justin Martin did not attend, or participate, in any of the consultation meetings.
26. During consultation, we rely on the Mi'kmaq to explain to us what Aboriginal or Treaty rights are at play in the area, and how the Mi'kmaq believe those rights could be adversely affected by this project in addition to asking questions/raising general issues and concerns.
27. The Department and OLA repeatedly requested specific information on:
 - a. Species fished;
 - b. Specific areas fished by the Mi'kmaq of Nova Scotia;
 - c. Number of community members that would be impacted; and
 - d. Number of and type of Mi'kmaq fishers
28. The KMKNO stated that they had concerns with providing that information, but never explained what those concerns were.
29. Although some general information was shared during the consultation meetings, Acadia First Nation refused to provide specific location information about where its community members fished.
30. Similarly, during consultation the number of indigenous fishers operating in Liverpool Bay was not clearly stated. Acadia First Nation indicated that approximately 30 community members participated in a Food, Social, Ceremonial fishery (FSC) in Liverpool Bay, but no other information was provided regarding Moderate Livelihood Fisheries.
31. Justin Martin provides Moderate Livelihood Fisheries information, including lobster landing data, at paragraph 13 of his Affidavit and in the attached exhibits. He indicates that there are currently 9 Mi'kmaq individuals participating in the Moderate Livelihood Fishery in LFA 33, an area that stretches from Cow Bay Halifax County to Port La Tour Shelburne County.
32. Despite being requested numerous times, this data and information was not shared during consultation.

33. Mr. Martin also raises speculative impacts to *future rights* to fish elvers in the Mersey River watershed in paragraph 15.

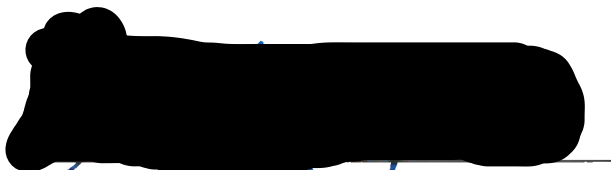
Affidavit of Heather MacLeod-Leslie

34. Ms. MacLeod-Leslie did not attend, or participate, in any of the consultation meetings. However, it is noted that a member of her staff, Emily Pudden, did attend the June 1, 2022 consultation meeting.
35. Ms. MacLeod-Leslie indicates that “no discussions were held between KMKNO and the Government of Nova Scotia (NSDFA or CCTH) concerning appropriate strategies or methodologies for the archaeological investigation of the submerged Mi’kmaq cultural landscape of the Liverpool Bay” (Affidavit of Heather MacLeod-Lesley, para 22). I do not agree with this characterization of the consultation that took place.
36. The letter initiating consultation on KCS’ Liverpool applications was sent on September 25, 2019.
37. On November 22, 2019, KMKNO advised that they wished to proceed with consultation. A number of concerns were raised including impacts on the eco-system, fish health, escaped salmon, and the eel fishery.
38. The first consultation meeting took place on December 9, 2020.
39. The Province reached out to the KMKNO to continue consultation on May 3, 2021 and July 16, 2021. The KMKNO did not acknowledge this correspondence until August 30, 2021, 8 months later.
40. Although scheduling correspondence was exchanged, no meetings were scheduled.
41. On January 18, 2022, the Department wrote to the KMKNO to make a final offer to continue consultation. The Department noted that the Mi’kmaq-Nova Scotia-Canada Consultation Terms of Reference stress the importance of timeliness to the consultation process, stating that “reasonable time” be given to “consider and discuss the information, having regard to any time constraints.” (Affidavit of Robert Ceschiutti, p. 102) A copy of the Mi’kmaq-Nova Scotia-Canada Consultation Terms of Reference is attached to this Affidavit as **Exhibit A**.
42. The Department requested a response by February 4, 2022, otherwise consultation would be considered concluded.
43. On the same date, Tamara Young from the KMKNO responded to schedule meetings to “conclude consultation.” (Affidavit of Robert Ceschiutti, p. 111). Consultation meetings were scheduled to take place on March 1 and 2, 2022.

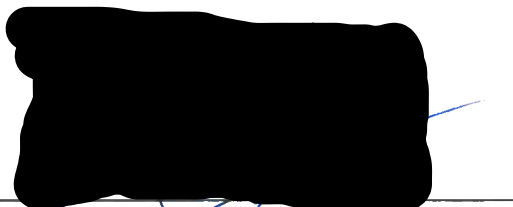
44. The issue of potential impacts to submerged archaeology was raised for the first time during the meeting on March 2, 2022, over three years into the consultation process.
45. In response to this new issue, another consultation meeting was scheduled to consult on the issue of archaeology on June 1, 2022. The Department invited two staff members from the Department of Communities, Culture, Tourism and Heritage (CCTH), Katie Cottreau-Robins and John Cormier to attend this meeting and respond to the issues raised about submerged archaeology. Upon hearing the general concerns about submerged archaeology raised by the KMKNO, CCTH agreed with the Mi'kmaw that an Archaeological Resource Impact Assessment (ARIA) should be conducted.
46. CCTH is one of the provincial Departments that the DFA seeks feedback from during the Network Consultation process. CCTH's initial advice to the Department was provided on September 11, 2019 and February 18, 2020. CCTH recognized that there was a concern for impacts to submerged archaeological resources when large anchors are placed on the sea floor, but the concern is lessened if the anchors remain stationary and are not dragged. CCTH advised that if during development or operation any archaeological materials are observed, the operator should contact the Coordinator of Special Places. (NSARB Exhibit 007, p. 717, 520, 523)
47. Prior to the June 1, 2022 meeting taking place, Acadia First Nation met with KCS on April 15, 2022. The Department was not present at this meeting, but understands that Acadia First Nations' concern regarding submerged archaeology was brought to KCS' attention.
48. On June 16, 2022 the KMKNO sent a letter reiterating its concerns regarding potential negative impacts to Mi'kmaw Rights and Title from loss, disturbance, or a lack of detection of archaeological sites. (Affidavit of Robert Ceschiutti, p. 200) The KMKNO recommended that a full ARIA be conducted in consultation with the Mi'kmaq.
49. At some point KCS contracted Boreas Heritage Consulting to conduct a Phase I ARIA.
50. Since CCTH oversees the permitting and approval of archaeological work, the Department requested CCTH provide a summary of their review process on this file. Attached to this Affidavit as **Exhibit B** is the summary provided by CCTH.
51. On July 26, 2022 Boreas Heritage Consulting applied for a Heritage Research Permit (Archaeology) from CCTH. The permit was issued on August 3, 2022.
52. The ARIA Phase I completed by Boreas Heritage Consulting is dated October 2022. The Department received a copy from KCS on October 12, 2022. (NSARB Exhibit 007, p. 530) The Report recommended that two high potential areas (as described in the Report) were to be avoided. If avoidance was not possible, the Report recommended that area be sampled to confirm the presence or absence of archaeological resources.
53. CCTH wrote to Boreas Heritage on December 13, 2022 indicating that the Report was acceptable. CCTH reported this conclusion to the Department. (NSARB Exhibit 007, p. 589)

54. On December 14, 2022, Ms. Gaudet wrote to advise that: “We stand firm in our position that the full ARIA should be completed, and the results reviewed by the ARD, prior to the conclusion of consultation.” (Affidavit of Robert Ceschiutti, p. 213)
55. CCTH received another Heritage Research Permit (Archaeology) permit from Boreas Heritage Consulting on January 6, 2023. This permit was to enable Boreas Heritage Consulting to conduct the sampling recommended in the Phase I report.
56. The ARIA Phase II is dated March 2023. The Department received a copy from KCS on March 15, 2023. (NSARB Exhibit 007, p. 592)
57. CCTH wrote to Boreas Heritage on March 22, 2023 advising that the Report was acceptable. (NSARB Exhibit 007, p. 618)
58. I understand that this letter was provided to the KMKNO.
59. On April 18, 2023, the Department followed up with CCTH directly to confirm that CCTH was satisfied with the results and recommendations from the ARIA Phase II report. On April 24, 2023, CCTH responded indicating that they had reviewed the report and granted approval. (NSARB Exhibit 007, p. 622)
60. My understanding is that CCTH’s ARIA (Category C) guidelines specify that permit holders should engage with the Mi’kmaq during the course of the permitted work. Attached to this Affidavit as **Exhibit C** are CCTH’s ARIA (Category C) guidelines.

Affirmed to before me in Halifax, Nova Scotia
on the 20th day of February 2024.



Caitlin Menczel-O’Neill
A Barrister of the Supreme Court
of Nova Scotia



Bruce Hancock

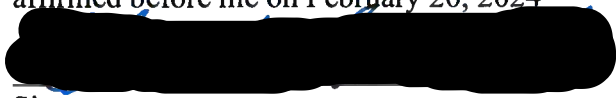
EXHIBIT INDEX

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This is Exhibit "A" referred to in the
Affidavit of Bruce Hancock
affirmed before me on February 20, 2024

A large black rectangular redaction box covering the signature of the affiant.

Signature

CAITLIN MENCZEL-O'NEILL

A Barrister of the Supreme Court of Nova Scotia

**TERMS OF REFERENCE FOR A
MI'KMAQ-NOVA SCOTIA-CANADA CONSULTATION PROCESS**

BETWEEN:

The MI'KMAQ OF NOVA SCOTIA as represented by the Thirteen Mi'kmaw Saqmaq
(the "Mi'kmaq of Nova Scotia")

– and –

HER MAJESTY THE QUEEN IN RIGHT OF NOVA SCOTIA as represented by the
Minister of Aboriginal Affairs
(“Nova Scotia”)

– and –

HER MAJESTY THE QUEEN IN RIGHT OF CANADA as represented by the Minister of
Indian Affairs and Northern Development
(“Canada”)

Collectively referred to as “the Parties”

THE PARTIES agree as follows:

PURPOSE

1. The consultation process under this Terms of Reference is available whenever Canada or Nova Scotia wishes to conduct consultation on the record and with prejudice with one or more Mi'kmaq Bands respecting established or asserted Mi'kmaq Aboriginal or treaty rights, including consultation in respect of a decision or activity concerning Crown land, water or a natural resource.
2. The Parties intend that the consultation process under this Terms of Reference be the preferred choice for consultation by Canada and Nova Scotia with the Mi'kmaq of Nova Scotia.
3. This Terms of Reference does not constitute a commitment by any Party to reach agreement or to undertake consultation in respect of any particular decision, activity or subject matter.

STRUCTURE

Mi'kmaq of Nova Scotia Consultation Committees

4. The Mi'kmaq of Nova Scotia intend to participate in the consultation process under this Terms of Reference through committees appointed by and reporting to the Assembly of Nova Scotia Mi'kmaq Chiefs (the "Assembly"). The composition of the committees may change from time-to-time and from consultation-to-consultation, at the discretion of the Assembly.
5. Subject to determination by a Chief and Council pursuant to articles 6 to 8, the Assembly and the committees appointed by it have authority to enter into consultations and to bind and make commitments on behalf of the Mi'kmaq of Nova Scotia and the Chief and Council of each of the thirteen (13) Mi'kmaq Bands that subscribe to this document.
6. A Chief and Council that receives notice under Article 12a may at any time before or after consultation has commenced pursuant to that notice determine to conduct its own consultation on behalf of its respective Band.
7. A Chief and Council that determines under Articles 6 or 12b to conduct a consultation itself will give notice to that effect to the Assembly, which will provide written notice to Canada or Nova Scotia of the decision.
8. A Chief and Council that gives notice under Article 7 is not further represented by the Assembly and is not governed by this Terms of Reference, unless Canada or Nova Scotia and the Band agree to follow this Terms of Reference.

Consultation Advisory Group

9. The Parties shall establish a Consultation Advisory Group.
10. Each Party shall appoint one or more persons to represent them at the Consultation Advisory Group.
11. The Consultation Advisory Group shall advise on administrative and process issues associated with this Terms of Reference.

PRINCIPLES OF CONSULTATION PROCESS

12. The consultation process shall operate in good faith on the basis of the following principles:
 - a. Where Canada or Nova Scotia wishes to initiate consultation under this Terms of Reference, they shall provide notification in writing to the Chief and Council of all thirteen (13) Mi'kmaq Bands and the Assembly that consultation with prejudice and on the record is intended, respecting a particular decision, activity or subject matter;

- b. Each Chief and Council that receives notice under Article 12a shall have a reasonable opportunity to consider if it wishes to itself conduct consultation pursuant to that notice, as contemplated by Article 6 of this Terms of Reference.
- c. Canada or Nova Scotia shall make good faith efforts to provide to the Mi'kmaq all relevant information with respect to the proposed decision, activity or subject matter, and sufficient time to assess whether or not and the extent to which the decision, activity or subject matter may impact on established or asserted Mi'kmaq Aboriginal or treaty rights;
- d. The Assembly shall, within a reasonable period of time, identify and communicate to Canada or Nova Scotia any concern they may have respecting any potential adverse impact on established or asserted Mi'kmaq Aboriginal or treaty rights;
- e. Canada or Nova Scotia shall consider the concerns identified pursuant to 12d, identifying potential accommodations, if any, including, if appropriate, providing financial consideration or other redress;
- f. Canada or Nova Scotia shall notify the Assembly of any decision or determination reached, including responses to the issues or concerns raised, and notification of specific accommodations, if any, as a result of the consultation; and
- g. The Parties concerned may terminate by written notice any consultation process conducted pursuant to this Terms of Reference.

PROCESS OPTIONAL

- 13. The Parties acknowledge that the consultation process established through this Terms of Reference:
 - a. is optional; and
 - b. does not limit the ability of the Parties to engage in consultation independent of the consultation process set out in this Terms of Reference.

CONFIDENTIALITY

- 14. This document is not confidential and may be made public and tendered as evidence in a court of law or other legal proceeding.
- 15. In respect of any consultation conducted pursuant to this Terms of Reference, records and information may be provided to the Parties to the consultation and received by them in confidence. In each case where information is intended to be provided, received and held in confidence, the Party providing the information shall so notify the other Party or Parties participating in respect of that consultation. The Parties at the consultation shall determine whether the records or information in question should be provided, received and held in

confidence. If the Parties determine the records or information should be provided and received in confidence, any such record or other record containing the information shall be marked to indicate it was provided and received in confidence. It is the intention of the Parties that any such record and information be held in confidence and not disclosed publicly, unless such disclosure is required by law.

16. Notwithstanding Article 15, any Party may tender as evidence in a court of law or other legal proceeding records and information provided, received and held in confidence by the Parties to the consultation if the record or information is relevant to an issue of whether a duty to consult was or was not met or fulfilled through the consultation process conducted pursuant to this Terms of Reference.

PARTIES MAY PROCEED WITHOUT PREJUDICE

17. Notwithstanding any other provision of this Terms of Reference, the Parties to the consultation have the option of determining that, at any time prior to or during the consultation, discussions may be held and information exchanged, until further notice, on a without prejudice basis, in order to permit frank, cooperative and solution-oriented interaction without concern for the legal significance of admissions, concessions, positions and discussions for the period of time specified or agreed upon.

FUNDING

18. Contribution funding as determined by Canada and Nova Scotia will be provided to the Assembly to allow them to create and operate the Consultation Committees and participate in the Consultation Advisory Group. Such funding will be provided based on consideration of an annual budget submitted by the Assembly and subject to annual appropriations by Canada and Nova Scotia.
19. Each of Canada and Nova Scotia will consider the funding requirements of consultation respecting each proposed decision or activity.

REVIEW OF TERMS OF REFERENCE

20. The Parties will jointly review this Terms of Reference every three years. The objectives of the three-year review include, but are not limited to:
 - a. determine whether the Parties are opting to use this process with regularity;
 - b. if they are not opting to use the process, assess why not; and
 - c. consider if amendments to this Terms of Reference are desirable.

TERMINATION OF AGREEMENT

21. The Terms of Reference of the Consultation Process shall come into force and effect on the date of its signature and shall continue in force and effect unless terminated by one or more of the Parties upon three (3) months written notice to the other Parties hereto.
22. A Chief and Council may at any time by written notice to Canada, Nova Scotia, and the Assembly terminate its subscription to this Terms of Reference and take responsibility for all consultations on behalf of the Band.

AMENDMENT

23. This Terms of Reference may be amended with the written consent of the Parties.

2023

NSARB-2023-001

This is Exhibit "B" referred to in the
Affidavit of Bruce Hancock
affirmed before me on February 20, 2024


Signature

CAITLIN MENCZEL-O'NEILL

A Barrister of the Supreme Court of Nova Scotia

A Summary of the Technical Information that Supports the SPP Approval of Permits and Reports for the Archaeological Work Conducted for the Liverpool Bay Lease Applications

Submitted by K. Cottreau-Robins, PhD
February 8, 2024

Heritage Research Permits A2022NS130 and A2023NS016 and 2022 Report

The approval of the 2022 (A2022NS130) permit stemmed from analysis by SPP staff of the proposed aquaculture project at Liverpool Bay as well as from discussions with the KMKNO during the consultation process for the project particularly discussions during consultation meetings on March 1, 2022, and June 1, 2022. Reps from the KMKNO noted archaeological concerns in relation to the project and KMKNO requested that an ARIA (Category C HRP) be conducted. CCTH agreed with the KMKNO's request and recommended a two-phase approach that includes a thorough background study (Phase 1), then discussion as a group about the results to determine if further exploration (Phase 2) was required.

Though CCTH appreciated the background information presented at the June 1 meeting and stated that CCTH regarded the project area as having a high energy subsurface environment and sandy floors, it was agreed by CCTH that more information regarding archaeological potential and the project area was needed. The permit for Phase 1 work was issued on August 3, 2022 to Boreas Heritage Consulting. We agreed upon the proposed methodology for the desktop study (a detailed review of the environmental, historical, and archaeological context) with a boat ride over the project area (September 27, 2022). We anticipated benthic data or bathymetric data review would be included.

The permit report was approved by CCTH on December 9, 2022. CCTH supported the desktop and bathymetric data compiled and the designation of two high potential areas in the Liverpool and Brooklyn license areas (HPA-01 and HPA-02). CCTH supported the recommendation to avoid the high potential areas as depicted in Figure 5 of the permit report. If avoidance was not possible, CCTH also supported the recommendation to have the areas "subjected to subsurface archaeological sampling probes in order to confirm the presence or absence of archaeological resources." (2022:42).

CCTH considered the 2022 permit report to be well done and comprehensive. The background study supported all recommendations.

The approval of the 2023 permit (A2023NS016) stemmed from the review and approval of the 2022 desktop report and recommendations (to conduct Phase 2: subsurface sampling). It was confirmed by Cooke Aquaculture that the proposed operations for Liverpool and Brooklyn license areas would not be able to avoid the high potential areas as identified in Phase 1. A permit application for the Phase 2 probe sampling, as part of a presence/absence assessment, was approved on January 16, 2023. There were delays with the field work given the weather.

Approval of A2023NS016 Permit Report

The two license areas under study for A2023NS016 were #1205 Liverpool (adjacent Coffin Island) and #1432 Brooklyn. A combination of factors supported the approval of the 2023 permit report (March 22, 2023) and the recommendations presented therein. For CCTH, one factor alone, such as depth of the sampling probes, is not sufficient to determine acceptance and approval of a Phase 2 archaeological assessment report where the proposed development is marine cage cultivation (finfish, salmon) with anchors.

Factors Used by CCTH to Support Report Acceptance and Approval:

- a) **Presence/absence of archaeological evidence** – The 2023 archaeological assessment was a presence/absence study in two high potential areas. Thirty-nine probes, also described in the assessment report as “sediment core samples,” were extracted and none resulted in the positive collection or identification of cultural material (2023: ii).

Each sample was sifted through 3mm wire mesh and analyzed for micro-debitage and other material culture. Each sample was also analyzed at close range using a digital microscope with adjustable polarization. Results were negative, even for micro-debitage.

- b) **The sample or core collection method** – The sampling method employed was a method Cooke Aquaculture could support and included Scuba divers and the Wildcohand corer. Video footage was collected for each sample extraction. Though visibility was less than optimum, nothing of archaeological potential was observed during extraction. Before removing the sample from the sea floor, the divers dug around the core to access the bottom end of the core/probe. No artifacts were noted during this digging (2023: 5). It is worth noting that at no time in the permit application process or coring discussion, was large and hefty geotechnical coring equipment that requires a power source or winch, suggested for this sampling project. The description in the application for 2023 states specifically, “archaeological sampling probes” or “sediment core samples.” CCTH approved probing/coring not geotechnical testing with heavy equipment. The target was to get each probe to at least 15 cm in depth. If this did not occur, an explanation/rationale would be provided.

The question has been asked if more and deeper core sampling would have been useful to further determine presence or absence. Given the environmental information noted below in d), CCTH was not confident that it would have.

- c) **Anchor type and position in the license area high potential zones** – There has been confusion regarding the anchors to be employed in the Liverpool Bay operations. Both shovel anchors and concrete blocks are to be used (See Table 25, page 181, in the Application Package, Volume 1). Concrete anchors sit on sediment and do not dredge the ocean floor. Archaeological concerns are lessened because of the stationary nature of the anchors and how they sit on built-up ocean sediment. Shovel anchors are more of a concern because they are anchored or dug in place into the ocean floor causing ground disturbance. Clarification on the shovel anchors and their proposed placement at the Liverpool and Brooklyn license areas is provided in Volume 2 of the Application Package.

Liverpool License Area:

Page 789 depicts the proposed location of shovel anchors and concrete blocks at the Liverpool license area. Our archaeological focus related to the impacts of shovel anchors.

Two sets of 4 shovel anchors are planned for the most northern middle area of the proposed license area. In this same middle area, an additional 3 shovel anchors are planned on either side of the feed barge. Twelve shovel anchors are spaced along the eastern line of the license area, however the southern 6 or 7 shovel anchors are outside the high potential area. On the western side of the license area 2 additional shovel anchors are in the high potential area.

All the core samples in the areas of the proposed shovel anchors surpassed the 15cm core target and ranged in depth from 21 to 32 cm below the ocean floor. Most were more than 29cm deep. All were negative for archaeological resources.

Brooklyn License Area:

On page 817 of Volume 2 of the application package provides a diagram that shows a number of proposed shovel anchor locations. There is a similar central cluster in the western end of the license area, like Liverpool. There are an additional 6 or 7 anchors along the northern edge. All the core samples in the area of the proposed anchors passed the 15 cm target except for 3 samples.

- d) **Subsurface Environment** – The hardness of the sea floor was noted in the Phase 2 assessment report. There was difficulty in penetrating the sea floor at times and difficulty getting to depths below 33 centimeters. This hardness of the sea floor may indicate that glacial till or bedrock had been encountered. This has yet to be confirmed, though two core samples at Brooklyn (B4 and B5), only got to 0-1 cm below due to a “ledge” suggesting the rock subfloor was not deep.

In the June 1, 2022 consultation meeting, CCTH presented their understanding of the subsurface environment as high energy and very sandy, resulting in the movement of archaeological materials on the seafloor over time.

Tidal energy in the two license areas is often high given the locations of the areas close to the coastline. Such tidal energy has an impact on paleoshorelines or areas that were once terrestrial. High tidal energy results in soil erosion especially during the long process of sea level rise. The impacts of these natural forces – high energy subsurface environment and tidal energy soil erosion - does not preclude any cultural materials in the proposed license area however, archaeological potential is decreased.

The Application Package (Volume 1, section 4.1.2) notes wave heights of 1.6 to 3 to 5 meters through the year in the wider area, not taking into account storm weather events. The section is not very precise though Table 11 on page 77, has wave heights recorded in the area ranging from 8.5 to 13 meters from 2005 to 2018. Such wave action contributes to the high energy subsurface environment as noted above.

- e) **Environmental Context** – It is important to note that only fragmentary evidence of coastline environments have been found offshore in Nova Scotia. To quote from the 2022 report, “...the coastline has evolved significantly through time and the coastal orientation of precontact archaeological sites must be considered in light of the changing configuration and position of the coastline since the last glaciation.”

For the assessment area, “the coastline is indented with well developed capes and long narrow bays...and the sediment along the coast is generally composed of local sand carried landward from offshore and deposited during the post glacial marine transgression;bedrock is exposed in areas along the coastline...Most of the nearshore is generally characterized by rugged and hard bedrock outcrop terrain....; the inner shelf region , including Liverpool Bay, was largely mapped...., as undifferentiated sand and gravel deposits formed when washed in a paleo-coastal environment during the post glacial rise in sea level.”

The point being, this has been a dynamic environment for thousands of years with shifting sands and soils as water moved and rose. Such environmental activity impacts archaeological potential.

- f) **Environmental Monitoring** - Once the operations are underway, there will be regular and recorded monitoring of the aquaculture operations under the NSDFA's Environmental Monitoring Program Framework for Marine Aquaculture in Nova Scotia. The monitoring focuses on the benthic (ocean floor) marine habitat and will occur between July and October. There is a requirement to update mitigation plans based on monitoring results. Volume 1 of the Application Package, pages 51-53, page 52 states, "In the event of poor environmental performance as determined through monitoring, the site must implement mitigation...". It is anticipated that CCTH will have access to these monitoring reports, to review for archaeological concerns (ie. movement of anchors, ground disturbances).

To conclude, given factors a) through f) combined, CCTH remains confident in the approval of the Phase 2 report and the recommendation to clear the proposed license areas (Liverpool and Brooklyn) of further archaeological investigation notwithstanding continued environmental monitoring as outlined in (f).

Chronology for Archaeological Assessment conducted for Liverpool Bay Project

Compiled by SPP on February 8, 2024.

Note: The process outlined below is specific to the review and approvals for the archaeological assessment work conducted for the Liverpool Bay Aquaculture project. However, the process outlined below represents the typical process for permit and report review and approval process conducted by the Special Places Program staff at Communities, Culture, Tourism, & Heritage.

- The permit application for **Heritage Research Permit A2022NS130** was received by the Nova Scotia Department of Communities, Culture, Tourism & Heritage (CCTH), Special Places Protection Program (SPP) via email from Sara Beanlands of Boreas Heritage Consulting Inc. (Boreas Heritage) on July 26th, 2022. This permit application was processed using Microsoft Outlook by John Cormier, Special Places Coordinator, on the date received and distributed for review the same day. The permit application was distributed to Senior Curator of Archaeology, Dr. Katie Cottreau-Robins and John Cormier for review. Reviews were conducted on July 27th (JC) and July 30th (KCR) of 2022.
- A2022NS130 was signed by Susan Jeffries, Director, acting on behalf of Executive Director Christopher Shore on August 3rd, 2022, and issued to Sara Beanlands on the same day. ED signature is based on recommendations by the reviewers.
- The **final report for HRP A2022NS130** was received by CCTH via email from Sara Beanlands on October 13th, 2022, processed by John Cormier, and distributed using Microsoft Outlook to Dr. Katie Cottreau-Robins and John Cormier for review on the same date.
- The final report for A2022NS130 was reviewed by both Dr. Cottreau-Robins and John Cormier on December 9th, 2022, and a report letter was emailed to Sara Beanlands of Boreas Heritage on that date.
- **Heritage Research Permit A2022NS224** was received by CCTH via email from Sara Beanlands on December 7th, 2022. This permit was requested to have an expedited review and was processed and distributed Microsoft Outlook for review to Dr. Cottreau-Robins and John Cormier by John Cormier on December 7th, 2022. The permit was reviewed on December 8th, 2022, signed by CCTH Executive Director Christopher Shore, and issued to Sara Beanlands of Boreas Heritage on December 9th, 2022. Due to severe weather conditions, no field work was conducted under Heritage Research Permit A2022NS224.
- The Permit Application for **Heritage Research Permit A2023NS016** was received by CCTH/SPP via email from Sara Beanlands of Boreas Heritage on January 6th, 2023. The application was processed and distributed to Dr. Cottreau-Robins and John Cormier on January 9th, 2023 by Mary Cosgrove, SPP Assistant using CCTH's Collections Index+ system (CI+). The application was signed by Executive Director Christopher Shore on January 16th, 2023 based on the recommendation of reviewers and issued via email to Sara Beanlands of Boreas Heritage on the same day.
- The **final report for Heritage Research Permit A2023NS016** was submitted to CCTH via email from Sara Beanlands of Boreas Heritage on March 15th, 2023, and was processed by Mary Cosgrove in CI+ on the same day. The final report was reviewed by CCTH Staff on March 24th (KCR) & 30th (JC), 2023, and a report letter was sent via email to Sara Beanlands of Boreas Heritage the same day.

2023

NSARB-2023-001

This is Exhibit "C" referred to in the
Affidavit of Bruce Hancock
affirmed before me on February 20, 2024

A thick black horizontal bar redacting the signature of the affiant.

Signature

CAITLIN MENCZEL-O'NEILL

A Barrister of the Supreme Court of Nova Scotia

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DEFINITIONS

Act - means the *Special Places Protection Act* (Chapter 438 of the Revised Statutes of Nova Scotia 1989)

Archaeological excavation - a specific field research program carried out for the purpose of locating, systematically recovering by controlled excavation techniques, analyzing, and interpreting archaeological resources;

Archaeological monitoring - an on-site examination of non-archaeological activities to identify archaeological resources during the disturbance of subsurface deposits, or the periodic revisiting of archaeological sites to determine condition

Archaeological reconnaissance - an examination of a defined area to locate archaeological resources using methods that do not include disturbance of subsurface deposits, but may involve limited surface collection;

Archaeological survey - an examination of a defined area, including subsurface deposits, for the purpose of obtaining information on the archaeological resources located on, in or under the land, or underwater;

Archaeological resource impact assessment - an inventory and evaluation of archaeological resources and the assessment of impacts in connection with development proposals which will potentially disturb or alter the landscape, thereby endangering archaeological sites;

Archaeological resource - means a work of past human activity, or zoological, botanical, geological or other natural materials found in association with such activity that:

- (i) is primarily of value for its prehistoric, historic, cultural or scientific significance; and
- (ii) lay on, or was buried or partially buried in land in the province, including land covered by water.

Burial - means human remains and objects placed with human remains either at the time of burial or later;

Excavate - means to employ standard archaeological techniques to explore for, locate or recover archaeological resources;

Permit Period - means the period specified on the archaeological research permit for which the permit is valid;

Artifact - means an object, or any part of an object, that was made or used by human beings and that has been deposited, discarded, lost or abandoned in or on the land, including land covered with water;

Specimen - means a sample of organic or inorganic matter, whether modified or not by cultural activity, collected for scientific analysis in conjunction with archaeological research;

Wreck - means a land vehicle, a water vessel or an aircraft, any part of a land vehicle, a water vessel or an aircraft, or any object that is found in, or in conjunction with a land vehicle, a water vessel or an aircraft that has been discarded, lost or abandoned;

Site - means land, including land covered by water, that contains an artifact, a structure, a burial, a wreck, a specimen, or a combination thereof associated with past cultural activities;

Overview - means an identification and assessment of archaeological resource potential or sensitivity within a specific area;

Minister - means the Minister of Communities, Culture and Heritage;

Museum - means the Nova Scotia Museum as established by the *Nova Scotia Museum Act* (Chapter 211 of the Revised Statutes of Nova Scotia 1967)

Conservator - means conservator as defined in the Code of Ethics and Guidance for Practice for Those Involved in the Conservation of Cultural Property in Canada; and who is experienced in the field of archaeological conservation;

Examination Records - means examination records as defined in the Code of Ethics and Guidance for Practice for Those Involved in the Conservation of Cultural Property in Canada.

ARCHAEOLOGICAL RESOURCE IMPACT ASSESSMENT

Heritage Research Permits (Archaeology) may be granted by the Minister for:

- (A) Archaeological Reconnaissance;
- (B) Archaeological Research;
- (C) Archaeological Resource Impact Assessment.

Category C permits may be issued to an individual who will be responsible for the conduct of an archaeological and/or historical investigation in advance of real or proposed development activities. The permit holder is responsible for the communication of results and the performance of project assistants. Persons who intend to conduct monitoring, reconnaissance, survey, excavation or other pre-development archaeological assessments on land or underwater must apply for a category C permit. Category C permits require professional qualifications in archaeology.

The purpose of an archaeological resource impact assessment is to ensure that significant archaeological or historical remains are protected from accidental or unknowing disturbance. The investigation phase will involve one or more basic procedures, any of which may provide information and recommendations that will allow decisions to be made by the developer and/or the regulator. The purpose of the investigative stage is to gather sufficient information to allow these decisions to be made.

I. Investigative Stage

It should be noted that the developer may decide to abandon or alter their development plans, and that Culture and Heritage Development may clear any development, at any stage of the investigation. These decisions will be made by the respective agencies on the basis of the results of the investigation up to that time.

Background research is an important component of any investigation, as it serves to identify known sites and helps set the historical context for any remains found in the area under investigation. Background research of the study area may include, but is not limited to:

Documentary Research: the N.S. Heritage Division Archaeological Site File, the N.S. Heritage Building Inventory, the Canadian Inventory of Historic Buildings, the records of the Receiver of Wreck, etc.; legal land survey records, archival records, etc.; local and regional histories, etc.; relevant ecological studies; air photos, side scan radar images, and topographical maps;

Direct Consultation: contact individuals and organizations with knowledge of the archaeological and historical resources in the study area;

Preliminary field visit to assess on site conditions and facilitate plans for further studies.

Based on the results of these preliminary investigations, the developer may decide to abandon or alter their development plans or the Culture and

Heritage Development may clear the development from further assessment requirements. These scenarios are most likely if significant resources are located (the former), or if nothing is found and potential is low (the latter).

Limited Testing is another form of investigation and is required if archaeological or historical remains are suspected, or located, during preliminary investigations. It consists of an examination of a defined area, including subsurface deposits, for the purpose of obtaining information on the archaeological resources located on, in or under the land, or underwater. This type of investigation will establish the location and the nature of archaeological and historical resources in the proposed development area. In addition, limited testing will provide the basis for one or more recommendations to the Culture and Heritage Development. These recommendations may suggest that the site be cleared for development, that further work be undertaken or that the development be moved or halted to protect a significant archaeological or historical remains. The appropriate course of action will be determined by the Culture and Heritage Development.

Extensive Testing may be required where preliminary investigations suggest that an important resource may be threatened with disturbance by the proposed development. More information may be required before the Culture and Heritage Development can make a determination on appropriate mitigation. Once completed and reported upon, final mitigation measures may be developed. Types of mitigation are described below.

II. Mitigation Stage

The purpose of mitigation is to ensure that significant archaeological or historical remains are protected from disturbance, or where that is not feasible, that the information recovered is sufficient in quantity and quality to justify the destruction of a non-renewable heritage resource.

Monitoring may be required in those cases where development is to take place in areas which could not be adequately tested. It requires the presence of a trained archaeologist during all ground-disturbing activities unless otherwise directed by the Culture and Heritage Development. Upon the discovery of archaeological or historical remains, all development activity must cease until the remains are evaluated and commencement is permitted by the Culture and Heritage Development.

Avoidance is the preferred type of mitigation for significant archaeological and historical remains. In some cases it may be the only options, but in others excavation may be permitted.

In instances where a significant site must be destroyed, full or partial excavation may be required. Excavation is a specific field research program carried out for the purpose of locating and systematically recovering archaeological resources by controlled excavation techniques. It also includes the analysis of data, conservation of artifacts and interpretation of results.

APPLICANT QUALIFICATIONS

An applicant for a Category C (Archaeological Resource Impact Assessment) permit must be able to demonstrate relevant ability through documentation of previous training and experience in the following areas:

1. the award of an advanced degree in archaeology, anthropology, or other relevant discipline from an accredited university, a B.A. in archaeology/anthropology with an equivalent combination of training and experience, or an equivalent combination of training and experience acceptable to the Culture and Heritage Development;
2. a minimum of 20 weeks participation in archaeological field projects involving survey, excavation and analysis, with at least 10 of those weeks in a supervisory capacity;
3. the demonstrated ability to design, execute and supervise all aspects of a study comparable in scope and nature to the project described in the application, including the preparation and timely submission of a satisfactory report and supporting documents and materials.

The applicant must also have:

1. complied with all conditions of previous permits in Nova Scotia ;
2. access to facilities necessary to carry out field work, analysis and report preparation, including the safe storage of archaeological materials for the duration of the project; and
3. access to specialist services such as conservation and analysis when each service may be required by the nature, scope and design of the proposed project.

Underwater surveys involving sub-surface testing or the collection of artifacts must be conducted by a qualified archaeologist who is also an appropriately qualified diver.

APPLICATION PROCEDURES AND GENERAL CONDITIONS

I. Permit Application

A person who applies for a Heritage Research Permit (Archaeology) shall submit to the Minister through the Executive Director of the Culture and Heritage Development an application form, obtainable from Culture and Heritage Development.

A permit application must be submitted by the individual who will assume responsibility for all aspects of the project, in the field and in the laboratory.

An application for a Category C permit must be received by the Executive Director, Culture and Heritage Development no later than two weeks (10 working days) prior to the commencement of the project.

Exceptions to submission deadlines will be considered only under unusual circumstances.

The application form for a Category C permit shall be accompanied by:

II. Description of Project

All applications for a Heritage Research Permit (Archaeology) must be accompanied by a complete 'Description of Project'. For Archaeological Resource Impact Assessment permit applications, the information should be provided in the format given below. Failure to submit a complete application will delay approval of the permit until such time as all requirements are fulfilled.

1. Name:
2. Address:
3. Occupation:
4. Employer/Agency:
5. Date of Commencement of Field Investigations:
6. Date of Termination of Field Investigations:
7. Summary of Project:
8. Project Description
 - (a) description of the development;
 - (b) nature of land disturbances in relation to sites;
 - (c) scheduling;
 - (d) size of area to be disturbed;
 - (e) name and address of landowner;

- (f) name and address of developer;
- (g) research plans, methods (indicate how field documentation is to be kept);
- (h) are there plans to contact the KMKNO / Mi'kmaq as part of this project? If not, please outline why you think it is not necessary to contact the Mi'kmaq in this project;
- (i) indicate conservation facilities and/or funding available to complete project.

9. Location of Project (Attach a 1:50000 map or larger scale indicating the location).

The applicant for a Category C permit shall also:

10. Provide a current curriculum vitae including the applicant's educational background, any relevant scientific publications to the applicant's credit, all institutions to which the applicant has been attached since the completion of his/her university studies and the applicant's status at each institution, as well as any experience pertinent to the proposed project (and in the case of multiple permit applications by an individual within any calendar year a curriculum vitae need only be submitted with the first application in that year). It should include documentation evidencing that the applicant:

- (a) has been awarded an advanced degree in archaeology, anthropology or other relevant discipline at an accredited university, a B.A. in archaeology/ anthropology with an equivalent combination of training and experience, or an equivalent combination of training and experience acceptable to the Culture and Heritage Development;
- (b) has a minimum of 20 weeks participation in archaeological field projects involving survey, excavation and analysis, with at least 10 of those weeks in a supervisory capacity;
- (c) has demonstrated the ability to design, execute and supervise all aspects of a study comparable in scope and nature to the project described in the application, including the preparation and timely submission of a satisfactory report and supporting documents and materials;

11. Provide evidence that the applicant has complied with all conditions of previous permits in Nova Scotia;

12. Provide evidence that the applicant has access to facilities necessary to carry out field work, analysis, and report preparation, including the safe storage of archaeological materials for the duration of the project;

13. Provide evidence that the applicant has made adequate provision for

specialist services when may be required according to the nature, scope and design of the project.

14. Demonstrate that adequate resources, including budgets and facilities, have been allocated for conservation;
15. Provide for the services of a conservator approved by the Culture and Heritage Development who will assume responsibility for the archaeological resources recovered, if the proposed project is likely to result in the recovery of materials requiring extensive conservation treatment;
16. Submit a current curriculum vitae demonstrating the conservator's educational background, employment experience, any relevant scientific publications to the conservator's credit as well as any experience pertinent to the proposed project with the permit application;

III. General Conditions

1. If a Heritage Research Permit (Archaeology) is issued, the Description of Project shall be considered to form part of the permit.
2. A permit is valid only for the permit period, which is restricted to the calendar year of issue. Any work planned for subsequent calendar years will require separate permits for each calendar year involved.
3. Permits must be produced for inspection in the field upon request.
4. A permit application may be made for an archaeological project involving several locations, however, if another project is initiated even in the same location, another application must be submitted.
5. A permit holder may apply to the Minister through the Executive Director, Culture and Heritage Development to amend the permit and the Minister may refuse, allow or vary the amendment in whole or in part and alter the permit accordingly.
6. A permit holder shall be involved personally in the field investigations by carrying out the work required or by directly supervising the individual conducting the investigation for at least 75% of the time necessary to complete the project.
7. The permit holder shall obtain all necessary approvals to conduct research on private or public lands.
8. The permit holder should be aware that any activity which involves excavation on Crown lands requires a Letter of Authority from the Department of Natural Resources.
9. The permit holder is bound by all municipal, provincial and federal legislation and regulations as they are applicable.

INVESTIGATIVE PROCEDURES

In designing an archaeological resource impact assessment, the following components should be addressed:

1. Background research of the study area;
2. Field strategy must be clearly defined, including the nature of techniques to be used (surface inspection, sub-surface testing, etc.), frequency of transects, recording procedures, etc. Survey strategy must be clearly justified in the research design. A strategy may require modification in the field, and any modification must be discussed with and approved by the Resources Archaeologist;
3. Field activities may include both surface and sub-surface inspection, as required. Artifact collections and site disturbance should be kept to a minimum. Only representative samples of cultural material should be collected. Collections should be made and processed in accordance with policies outlined under Collections and Records below;
4. All sites must be recorded on the Maritime Archaeological Resource Inventory Form. All resources must be assessed as to their significance (scientific, public, ethnic, historic and economic) and integrity (level of disturbance, state of preservation);
5. All project related impacts on significant resources, both beneficial and adverse, must be assessed as to their magnitude, severity, duration, range, frequency, diversity, cumulative effect and rate of change;
6. Reporting of the project must be carried out in accordance with policies outlined under Reporting Procedures below.

In designing a mitigation strategy based upon an archaeological resource impact assessment, the following components should be addressed:

1. Recommendations for mitigation are to be based upon evaluation of the significance relative to the impacts of development. Implementation of all site-specific mitigation measures must be authorized by the Culture and Heritage Development. Strategy will be dependent upon significance of the resource, the nature of the impact, the relative effectiveness of the measure, research and resource priorities and needs, and project objectives, conditions and constraints. Subsequent activities are to be conducted in accordance with policies outlined for archaeological survey and archaeological excavation;

2. In a situation where impact on resources is to be mitigated by means of avoidance or site protection a monitoring program must be designed to ensure compliance with and proper execution of adopted mitigation measures;
3. A monitoring strategy should be designed to address project impacts on archaeological or historic resources which could not be predicted or evaluated prior to construction;

The applicant and developer should be aware of the following guidelines:

1. In situations where development or other activities cause unanticipated impacts to archaeological sites, activities must be stopped immediately and contact made with the Executive Director of the Culture and Heritage Development;
2. The Minister may order the development or activity to cease in whole or in part for 30 days and upon the recommendation of the Minister, the Governor in Council may continue the order, in such a manner that it will not cause undue hardship to the developer;
3. Emergency impact management strategies must be implemented in accordance with the *Special Places Protection Act* and be approved by the Culture and Heritage Development prior to implementation;
4. Actions could include any or all of the following:
 - (i) avoidance through partial or complete project redesign or relocation;
 - (ii) application of site protection measures, which may include provision of barriers, temporary or permanent capping, and monitoring;
 - (iii) salvage or emergency excavations;
 - (iv) archaeological awareness training for workers.

REPORTING PROCEDURES

I. General

1. If, during the course of carrying out work under a permit, the permit holder:
 - (a) discovers a new site, he/she shall report the discovery to the Executive Director, Culture and Heritage Development within 30 days; or

(b) discovers that the integrity of a site is threatened, he/she shall report the discovery to the Executive Director, Culture and Heritage Development within 48 hours.

2. The Executive Director, Culture and Heritage Development may require a permit holder to inspect sites identified by the Resources Archaeologist that are situated in the area described in the permit and to report any site status changes in writing:

(a) within 90 days of the commencement of the permit period; or

(b) within 48 hours if the integrity of the site is threatened by any means.

3. A permit holder shall, within 30 days after the expiration of the permit, or within such further period specified in the permit, submit to the Executive Director, Culture and Heritage Development:

(a) Maritime Archaeological Resource Inventory Forms for all newly discovered sites;

(b) 1:50,000 National Topographic Series (NTS) maps showing areas investigated, procedures and sites recorded.

4. A permit holder shall, by the end of the calendar year in which the permit was issued, or by March 31 of the following year when the permit is issued within 90 days of the end of the year of issue, or within such further period specified in the permit, submit to the Executive Director, Culture and Heritage Development:

(a) complete Maritime Archaeological Resource Inventory Forms for all sites investigated under authority of the permit project;

(b) copies of project notes, catalogues, records and photographs as described under Collections and Records; and

(c) a preliminary report outlining activities carried out under permit, including a digital version in WordPerfect 6.0 or a format acceptable to the Culture and Heritage Development, for potential publication in the Archaeology in Nova Scotia review.

II. Archaeological Resource Impact Assessment Report

The holder of a Category C permit (Archaeological Resource Impact Assessment) shall submit, as appropriate, and in the proper format a report on their work.

1. Introduction

The introduction should include:

- a) the proponent's name and general nature of the project;
- b) the objective and scope of the impact assessment;
- c) the persons conducting the assessment and the kinds of professional expertise involved;
- d) how the study integrates or coordinates with project planning and scheduling;
- e) the dates and duration of the study; and
- f) the organizational format of the report.

2. Development Area

This section should contain a brief description of the project area. Emphasis should be placed on relating the project area to the natural and cultural environments. The area of project impact may have been sufficiently described in an overview report, in which case a brief summary of and proper reference to the document will suffice. Description of the project area should include:

- (a) biophysical features such as physiography, drainage, fauna, and flora;
- (b) a discussion of past and present ecological conditions that bear upon human settlement and land use;
- (c) past and present land use practices;
- (d) the condition of the land, particularly the extent of alteration from agricultural activity, forest harvesting, or other intensive land uses; and

(e) weather conditions and patterns, particularly as they relate to or affect the conduct and scheduling of fieldwork.

3. Study Area

This section should contain a succinct description of the location and boundaries of the study area, including specific areas in which mitigation activities were undertaken. Previous studies which provide comprehensive descriptions of the study area should be referenced. However, biophysical, socioeconomic, political or cultural factors which have a direct and pertinent bearing on the study should be explicitly stated.

4. Methodology

The basic research plan and the precise methods and equipment used to implement the plan should be outlined in this section. Each assessment activity (inventory, site evaluation, and impact identification and assessment) should be described individually. The discussions should include:

(a.) Inventory

- (i) a thorough account of the sampling design, particularly sample selection and size;
- (ii) the rationale underlying any stratification of the project area according to the archaeological potential, and the level of survey intensity in these strata;
- (iii) the number of surveyors, the manner in which they were deployed over the survey area including distance intervals and direction of travel, and the amount of time spent surveying any one area;
- (iv) location of areas exempt from survey;
- (v) where and how often subsurface testing was employed, and the particular techniques or practices used including test frequency, interval spacing and unit dimensions;
- (vi) site recording practices; and
- (vii) sources considered in designing the site inventory strategy.

(b.) Site Evaluation

- (i) information sources used such as evaluative testing, surface collecting, direct consultation and documentary research;
- (ii) evaluative testing procedures including unit sampling or selection, test frequency, unit dimensions, mapping, recording and data recovery

practices;

- (iii) surface collecting procedures including sampling design, recording and collection practices;
- (iv) the process used to derive a measure of relative site significance including the system of ranking or weighting various significance criteria and the rationale underlying the process;
- (v) the kinds of professional expertise involved.

(c.) Impact Identification and Assessment

This section should contain a comprehensive statement of impacts and a thorough assessment of their level of effect. An impact matrix relating development actions to recorded archaeological resources is recommended. The impact assessment should include:

- (i) a map of the project delineating areas of direct, indirect, and potential impact and showing all recorded archaeological sites;
 - (ii) impacts which have occurred to date from exploration, engineering and other feasibility studies;
 - (iii) how project impacts were identified;
 - (iv) the level of effect of project impacts on archaeological values;
 - (v) the process used to assess impacts on archaeological resources including assessment criteria, their relative weighting, and the rationale underlying the process;
 - (vi) areas of uncertainty regarding the impact assessment;
 - (vii) a schedule relating the timing of impacts to development stages;
- and

5. Resource Inventory

This section should contain results of the archaeological site inventory including:

- (a) maps showing areas surveyed, and indicating the level of survey intensity;
- (b) maps showing all recorded archaeological sites in relation to the proposed project;
- (c) the number of archaeological sites recorded and the total anticipated in the project area;
- (d) a brief narrative or tabular description of each site including present condition and use, distinguishing features, and its general

relationship to the regional environment and cultural setting;

(e) a qualitative and quantitative summary of all cultural material or features observed or collected;

(f) an interpretation of the archaeological resource inventory including observed spatial patterning of sites in the project area, temporal, functional and contextual characteristics, and comparisons with other local or regional resources;

(g) an explanation of negative results, such as where and why archaeological sites were absent in areas suspected of having moderate to high resource potential; and

(h) any further predictions concerning potential resource variability, density, distribution and importance in the project area.

6. Resource Evaluation

The relative significance of each evaluated site should be presented here. The discussion should include:

- (a) specific criteria used to measure relative site significance;
- (b) site-specific assessments in tabular form; and
- (c) a map illustrating archaeological sites of high, medium, and low significance in relation to the proposed project.

7. Results and Discussion

The results of mitigation or compensation in the form of archaeological programs, investigative projects, property transfer or other appropriate measures, should be presented and discussed here. A thorough analysis of all recovered data should be provided.

8. Interpretation

An interpretation of results is primarily required for systematic data recovery or other investigative projects. The interpretation should focus on the research problems and study objectives initially identified.

9. Evaluation of Research

This section should contain a critical evaluation of the impact assessment only. The discussion should address:

- (a) the accuracy of overview predictions regarding archaeological resource density, distribution, variety and significance in the project area;
- (b) the suitability of the inventory strategy and site survey techniques employed, and the level of confidence that can be placed on the survey results;
- (c) the suitability and reliability of the site evaluation and impact assessment methods employed.
- (d) the relationship between the results and the stated objectives of the assessment study, including problem-oriented research objectives if applicable; and
- (e) appropriate research goals, objectives or opportunities for any subsequent archaeological studies in the project area.

10. Conclusions and Recommendations

The proponent's recommendations for managing unavoidable adverse impacts on archaeological sites are presented here. Mitigation measures should be recommended for each impacted site. Recommendations should be presented in sufficient detail to allow the Culture and Heritage Development to comment on their appropriateness. This section should also include:

- (a) a reference to those archaeological sites which can be avoided by project design modifications;
- (b) a discussion of the process used to select an impact management action from among various possible alternative actions for any specific site;
- (c) justification for not recommending site-specific action;
- (d) archaeological compensation recommendations involving archaeological programs, investigative projects, property transfers, or

other appropriate measures; and

(e) recommendations or a tentative schedule for conducting surveillance and/or monitoring, site stabilization and/or interpretation during project implementation and operation.

11. References Cited

All literary sources cited in the report such as publications, documents and records, as well as names and dates of all personal communications should be listed here.

12. Appendices

A variety of items should be appended to the report including:

- (a) appropriate tables, charts, graphs, maps and other supportive materials;
- (b) a list of recorded archaeological sites directly relevant to the study; and
- (c) a complete catalogue of all cultural materials, faunal and floral remains, and ancillary samples collected during systematic data recovery operations.

COLLECTIONS AND RECORDS: STANDARDS AND DISPOSITION

I. Collections

Collections consist of the artifacts, samples and artifact records from projects authorized by Category C Heritage Research Permits (Archaeology).

1. In the case of Category C permits (Archaeology Resource Impact Assessment):

- (a) collecting should be restricted to the minimum necessary to identify and evaluate the resource;
- (b) quantities of detritus, fire-cracked rock, structural debris, etc. should be noted but not collected;

(c) provisions must be made for artifact conservation if required, but collection of material requiring conservation should be avoided unless significant resources would otherwise be lost.

2. A person who conducts an archaeological project pursuant to a Heritage Research Permit (Archaeology) shall clean, number and catalogue all artifacts and specimens collected in the course of the project.

3. Each artifact or specimen must have an individual catalogue number assigned to it. Objects amenable to numbering are to be labeled with the correct Borden number and a consecutive artifact number. Group numbering for small artifacts is permitted. For example, quantities of artifacts such as quartz flakes or similar types of ceramic sherds from the same provenience should be assigned the same number.

4. Collections must be catalogued on original Nova Scotia Museum Archaeological Specimen Record forms, or comparable forms approved by the Nova Scotia Museum. The permit and site number must appear at the head of each sheet, and only one site per catalogue sheet or sheets is allowed. Each item is to be identified using Nova Scotia Museum Object Name terminology, and its provenience recorded according to the form specifications. Use of the Nova Scotia Museum electronic cataloguing program is required.

5. A permit holder shall be responsible for ensuring that necessary changes are made to correct any errors found in the cataloguing of archaeological collections submitted to the Nova Scotia Museum.

6. Conservation of all archaeological objects recovered under permit is the responsibility of the permit holder, who shall:

- (a) ensure that the conservator assesses all archaeological objects recovered under permit in terms of conservation requirements;
- (b) provide the Museum with all examination records; and
- (c) provide the Museum with detailed treatment records.

7. Treatment records shall be signed and dated by the conservator and shall include the following information:
- (a) site name and Borden designation;
 - (b) permit and specimen numbers;
 - (c) name, description, material(s) and condition of the archaeological object;
 - (d) details of treatment including treatment proposal, materials used, and methods and techniques employed during treatment; and
 - (e) future conservation requirements.
8. Collections and catalogues are to be delivered to the Museum within a period of two years from the expiration of the permit, with two weeks' notice to the Executive Director, Culture and Heritage Development.
9. Collection submissions are to be made in strong, medium sized cardboard boxes. Each box should be labeled with the permit number(s) and the sites(s) contained therein, as well as the address and name of the sender. Artifacts are to be protected from damage by separate bagging, placement in vials with cotton, or the use of cushioning material as deemed appropriate to ensure their safe arrival at the Museum. Each bag should be labeled with the permit number and site number written in indelible felt pen or ordinary pencil. The bags should be of heavy hardware type paper, or of a heavyweight plastic. All bags should be closed.
10. Faunal material must be boxed and labeled separately as faunal material, as well as with permit and site numbers. It must be packaged with sufficient, cushioning material to prevent breakage and abrasion. Bone must not be placed loose in a box and transported. Special care is to be accorded fragile or degradable material.
11. Oversized objects or very small collections are to be treated in a manner commensurate with their safe arrival at the Museum.

12. Each submission must be accompanied by a letter of transmittal showing the date of transfer and a complete list of permit numbers and sites included in the shipment, and a brief statement describing the submission. This should include the identification of objects requiring continuing conservation or other special care as priority items.

13. Under the provisions of the *Act*, collections recovered under the authority of a Heritage Research Permit (Archaeology) become the property of the Province, and may be assigned by the Minister to the Museum or to any other public institution. When an artifact has been recovered from any site in the Province by a person who is not a permit holder or by a permit holder in contravention of his permit, the Minister may authorize that the artifact be seized and delivered to the Museum. However, the Museum or other designated public institution may return any artifact received to the person who recovered it, subject to conditions as to care and disposition determined by the Museum.

14. The Museum shall act as central repository for the submission of all collections recovered under the authority of a Heritage Research Permit (Archaeology). Collections may be retained at the Museum as part of a representative provincial collection, or distributed to designated alternate repositories comprising local museums, academic institutions and Native or other institutions. Disposition to an alternate repository will be by means of a formal loan agreement with the Museum, renewable on an annual basis. Loans will normally consist only of complete site or project collections, and an alternate repository must be able to demonstrate that it can provide adequate storage, curation, environmental control, security and access.

15. In the case of collections from Native sites, disposition may be subject to consultation with, and approval by, the Micmac Association of Cultural Studies or other responsible Native organization.

II. Site Records

1. All archaeological sites in Nova Scotia must be recorded on the standard Maritime Archaeological Resource Inventory Form (MARI), available from Culture and Heritage Development. Instructions for completing MARI are also available from Culture and Heritage Development and they must be consulted when recording archaeological sites. They identify the kind of

information to record and the format to employ. Photographs, a map (photocopy of the appropriate section of a 1:50,000 NTS map), and a sketch plan are also required.

2. Completed Maritime Archaeological Resource Inventory Forms must be submitted to Culture and Heritage Development as stipulated under Reporting Procedures. **Borden numbers can only be assigned by Culture and Heritage Development staff.** A temporary site referencing system is available for use in the field prior to receiving Borden numbers, and is outlined in the Maritime Archaeological Resource Inventory Form instructions.

III. Supporting Documentation

1. Culture and Heritage Development requires the submission, as stipulated under Reporting Procedures, of copies of all notes, plans, profiles, maps, drawings, documents, photographs and other records collected or prepared in conjunction with the investigations authorized by a Heritage Research Permit (Archaeology).

2. It is expected that judicious sorting of the material will occur prior to submission, so that only material dealing directly with and relevant to the project and report will be submitted. The submission should include the original field notes and catalogued photographs and photograph records and catalogues; field maps and draughted copies thereof; director's notes, level records and stratigraphic records. Archaeological Photo Record Forms are to be used as appropriate. Alternative field record forms may be used with the approval of the Culture and Heritage Development. Enough concise and organized data must be submitted to enable the report reviewers and future researchers to assess the research conducted under the permit.

GENERAL CONSIDERATIONS

A heritage research permit does not provide the permit holder with permission to access to lands without owner permission.

The permit holder must also comply with any other relevant law or regulation relating to land disturbance.

Your overall project may trigger a Crown consultation process with the Mi'kmaq of Nova Scotia. In 2004-05, the Supreme Court of Canada ruled in three major court cases, that governments have a duty to consult Aboriginal peoples when they are contemplating activities (for example, permits, authorizations, approvals, policies) that may adversely impact Aboriginal and treaty rights. In 2007, the Mi'kmaq of Nova Scotia and the governments of Nova Scotia and Canada developed a terms of reference that outlines a process for Crown consultation. Relevant documents may be found on the [Aboriginal Affairs Consultation web page](#).

Although the courts have ruled that third parties (proponents) have no legal duty to consult Aboriginal peoples, governments may delegate procedural aspects of consultation to third parties. The Province of Nova Scotia's Proponents' Guide for Engaging the Mi'kmaq of Nova Scotia outlines procedural aspects of consultation third parties are expected to undertake on projects of significant scope.

Special note concerning human remains:

Upon the accidental discovery of human remains in the course of a project pursued under permit, they shall not be further disturbed unless absolutely unavoidable. Appropriate authorities (Culture and Heritage Development, police coroner, etc.) must be informed immediately after the discovery. When there is reason to believe that the remains may be of Native origin, the chief of the Mi'kmaq Band nearest to the project location must also be informed immediately and consulted on appropriate action.

Title: Archaeological Reconnaissance (Category C)
Date: 8 December 2014
Contact: Communities, Culture and Heritage
Special Places
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