



NUNAVUT WATER BOARD
WATER LICENCE NO: 3AM-ARV2232
REASONS FOR DECISION
INCLUDING RECORD OF PROCEEDINGS

NUNAVUT WATER BOARD

In the Matter of:

Applicant: Hamlet of Arviat represented by Government of Nunavut, Department of Community and Government Services (GN-CGS)

Subject: Application to Replace Expired Licence No: 3AM-ARV1016 With a Renewed and Amended Type “A” Water Licence

Date: July 13, 2022

Precedence: Where there is any inconsistency or conflict between *the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWSRTA)*, the *Nunavut Agreement* prevails to the extent of the inconsistency or conflict. Where there is any inconsistency or conflict between the *NWSRTA* and any other act of Parliament, except the *Nunavut Land Claims Agreement Act*, the *NWSRTA* prevails to the extent of the inconsistency or conflict.

RECORD OF PROCEEDINGS

Applicant: Hamlet of Arviat represented by Government
of Nunavut, Community and Government
Services (GN-CGS)

Address: P.O. Box 150
Hamlet of Arviat, NU
X0C 0E0

Purpose: Application for a Type “A” Water Licence No:
3AM-ARV2232 to replace expired Type
“A” Water Licence No: 3AM-ARV1016

Application for
Type “A” WL
Received on: September 16, 2020

Application
Received from: Government of Nunavut, Community and
Government Services Department for the
Hamlet of Arviat

Public Hearing
Record Closed: June 1, 2022

Participants in the Board's processing of the Application:

NWB

Representatives:

Nunavut Water Board Panel Members (Panel P16):	Chairman Member Member	L. Toomasie S. Silou E. Uniuqsaraq
Nunavut Water Board Staff:	Executive Director Director of Technical Services Licensing Manager Technical Advisor Director of Board Administration and Communication/Translator Legal Counsel (Meadows Law)	S. Autut K. Kharatyan R. Dwyer A. Kubeisinova B. Kogvik T. Meadows
Interpreters:	Inuktitut Inuktitut	B. Suluk A. Irkok-Suluk
Court Reporter:	Dicta Court Reporting, Inc.	A. Vidal
Sound Technician:	PIDO Productions	C. Coomber

Applicant:

Hamlet of Arviat	Director of Community Development	A. Kadjuk
Government of Nunavut, Community and Government Services (GN-CGS)	Municipal Planning Officer Municipal Works Manager	E. Chalmers M. Lusty

Parties:

(participated, via teleconference, in the Public Hearing and Technical Meeting and Pre-Hearing Conference for the Application):

Acting Manager – Water Resources	A. Keim
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Crown-Indigenous Relations and Northern Affairs (CIRNA)	Senior Environmental Assessment Specialist	V. Okonkwo
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Environment and Climate Change Canada (ECCC)	Senior Water Quality Analyst	A. Wilson
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	Senior Environmental Assessment Officer	V. Shore
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	Environmental Assessment Officer	S. Mallon
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Written Record of Submissions:

Available from the Board's public registry using the following link:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-ARV2232>

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ABBREVIATIONS

CIRNA	Crown-Indigenous Relations and Northern Affairs (formerly Indian and Northern Affairs Canada (INAC) and Aboriginal Affairs and Northern Development Canada (AANDC))
ECCC	Environment and Climate Change Canada (formerly Environment Canada)
DFO	Department of Fisheries and Oceans
GN-CGS	Government of Nunavut, Community and Government Services
NIRB	Nunavut Impact Review Board
<i>Nunavut Agreement</i>	<i>Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada</i>
NPC	Nunavut Planning Commission
<i>NuPPAA</i>	<i>Nunavut Planning and Project Assessment Act</i> , S.C. 2013, c. 14, s. 2
<i>NWNSRTA</i>	<i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i> , S.C. 2002, c. 10
NWB	Nunavut Water Board
PHC	Pre-Hearing Conference
PH	Public Hearing
TM	Technical Meeting

REASONS FOR DECISION

Executive Summary

This decision is in relation to an application before the Nunavut Water Board (NWB or Board), filed by the Government of Nunavut, Community and Government Services (GN-CGS) on behalf of the Hamlet of Arviat (Applicant or Licensee) requesting the replacement of an Expired Type “A” Water Licence No: 3AM-ARV1016 (the Expired Licence) with a renewed and amended Type “A” Water Licence No: 3AM-ARV2232 (the Licence) which authorizes the continued use of water and deposit of waste associated with the Applicant’s operation of a “Municipal Undertaking¹” in the Hamlet of Arviat (the Application).

The Hamlet of Arviat is located in the Kivalliq Region of Nunavut. The population of the community is 2,766 (2021 Census). The scope of the Licence includes the use of water to supply the residents of the Hamlet with drinking water. The municipality obtains its water from Wolf Creek, located 8.0 km southwest of the Hamlet.

The scope of the Licence also includes the deposit of waste (sewage and other municipal waste). The Hamlet of Arviat provides daily-trucked sewage collection service. Sewage is trucked to a sewage lagoon approximately 2.8 km southwest of the Hamlet that was commissioned in 2005. Effluent seeps at a slow continuous rate through the exfiltration lagoon berm and into the wetland treatment area. The sewage is then treated by traveling through the wetland treatment area towards Hudson Bay, approximately 100 m from the discharge point. The Hamlet of Arviat solid waste management facilities consists of a landfill, bulky metals area, and hazardous waste storage area. Solid waste is collected and trucked to the landfill approximately 2.8 km southwest of the Hamlet. The bulky metals area is located 0.7 km north of the landfill area. The bulky metals area includes segregation of materials such as tires, appliances, and vehicles. The Hamlet of Arviat owns and operates an industrial shredder for the items stored at this site, which reduces the volume of materials stored at this location annually. Hazardous waste is stored next to the Hamlet garage.

By way of background, an application was originally received by the NWB on February 27, 2015, for renewal of the Applicant’s previous Type “A” Licence No: 3AM-ARV1015 (the 2015 Application). A Completeness Check of the 2015 Application was initiated by the NWB on March 27, 2015, and correspondence outlining deficiencies in the 2015 Application was provided to the Applicant on May 4, 2015 with a request for the Applicant to provide additional information to complete the 2015 Application.

On March 30, 2015, GN-CGS on behalf of the Hamlet submitted an additional application seeking the short-term renewal of Licence No: 3AM-ARV1015 for a period of up to 180 days in order to bridge any potential gap between the expiry of Licence No: 3AM-ARV1015 and the NWB’s

¹ As of April 2013, when the *Nunavut Waters Regulations*, SOR/2013-69 came into force, a “Municipal Undertaking” under Schedule 1 is defined as “a waste disposal or water system for a municipality” without reference to population size.

processing and issuance of a fully renewed and amended Licence. As permitted under s. 9(1)(b) of the *Nunavut Waters Regulations*, SOR/2013-693), the short-term renewal application was processed without a Public Hearing. The approval of the short-term renewal application resulted in the issuance of Licence No: 3AM-ARV1016 with an expiry date set for the earlier of February 27, 2016 or the date on which a renewed water licence was issued. The additional information required by the NWB to process the 2015 Application was not received by the Board prior to the expiry of the short-term renewal period, and Water Licence No: 2AM-ARV1016 expired on February 27, 2016 (the Expired Licence).

On September 16, 2020, the Applicant provided an updated Application seeking to replace the Expired Licence with a renewed and amended Type “A” Water Licence (the Application). On November 20, 2020, the Board notified the Applicant that the Completeness Check for the Application was paused pending the receipt of outstanding information as per the recommendation from Environment and Climate Change Canada (ECCC). Although the Applicant provided additional information, the application process was paused again, this time at the request of the Applicant. The request was made due to the requirement for the updated scope of the Application which included expansion and upgrades to the sewage lagoon to undergo an additional screening level assessment by the Nunavut Impact Review Board (NIRB).

Once the NWB process was resumed, on December 10, 2021, the NWB deemed the Application to be complete and provided Public Notice of the Application. It should be noted that although Panel P16 initially directed staff to conduct the TM/PHC and associated Community Session in person in the Hamlet of Arviat, unfortunately these plans had to be adjusted to reflect the public health restrictions that were issued by the Government of Nunavut’s Chief Public Health Officer in January and February 2022 in response to COVID-19 outbreaks in Arviat and other communities across Nunavut and Canada in general.

Following the submission of responses and clarifications submitted by Applicant, on February 4, 2022, the Board provided correspondence confirming that the Application could proceed to the Technical Meeting (TM) and Pre-Hearing Conference (PHC) stage and that, to protect public health and safety, the format of these meetings had been changed to teleconference and videoconference. On February 10, 2022, NWB staff went on the local radio in Arviat to inform the community members of the upcoming Technical Meeting, Community Session, and Pre-Hearing Conference. On February 22 and 23, 2022, the Board conducted the TM/PHC via Microsoft Teams and teleconference links as administrated by GN-CGS and attended by GN-CGS, Crown-Indigenous Relations and Northern Affairs (CIRNA), ECCC, and Fisheries and Oceans Canada (DFO).

In order to minimize public gatherings due to the situation with COVID-19 spread in Nunavut at the time, the Board did not provide a centralized venue for the community members to gather during the Community Session, but issued teleconference and videoconference coordinates in the community. The Hamlet of Arviat also had this information available to provide to interested community members upon request. Consecutive Inuktitut/English interpretation was also made

available with the attendance of the Board's Interpreter, Ben Kogvik, during the Community Session scheduled for February 22, 2022.

The NWB staff and representatives of GN-CGS, CIRNA, ECCC, and DFO were present in the Community Session to make presentations and answer questions. However, no members of the public called in or connected on-line during the Community Session. While waiting for community members to participate, the parties took the opportunity to continue the Technical Meeting, including a detailed discussion of the Applicant's commitments.

As directed by the Board in the Pre-Hearing Conference Decision dated March 25, 2022, on May 31 and June 1, 2022, the Board held an in-person Public Hearing in respect of the Application in Arviat. A Community Session was hosted by the NWB on the evening of May 31, 2022 and afternoon of June 1, 2022. The Board closed the Public Hearing Record for the Application at the Public Hearing on June 1, 2022, and remitted the file to the Panel for decision-making.

On the basis of the information provided with the Application by the Hamlet of Arviat and GN-CGS, technical review of the Application by the Board, Interveners and the public, the Applicant's commitments and responses to information requests from the parties during the technical review of the Application, comment submissions received throughout the Board's consideration of the Application, the final written submissions filed with the Board in advance of and during the Public Hearing, and the information provided during the Public Hearing and Community Session, the three-member Panel of the Board, Panel (P16), duly appointed by the Board to consider the Application has by way of Motion No: **2022-03-P16-05** and decided the following:

- To grant the Applicant's request to replace the Expired Licence No: 3AM-ARV1016 (the Expired Licence) with the attached renewed and amended Type "A" Water Licence No: 3AM-ARV2232 (the Licence); in accordance with the terms and conditions included in the Licence and as outlined in [SECTION VII: WATER LICENCE: TERMS AND CONDITIONS](#)
- Specific terms and conditions of note in the Licence include the following:
 - The term of the Licence is ten (10) years, with the Licence set to expire in 2032;
 - The Licence authorizes total annual water use of up to 235,393 cubic metres (m³) (the annual amount of water used is increased from 86,000 m³ authorised under the Expired Licence); and
 - Increased quality limits for the Effluent from the Wetland Treatment Area;
 - Removal of the requirement for a geotechnical Engineer to perform annual inspections of infrastructure containing Water and Waste. Instead, the inspections are to be conducted by a qualified Engineer;
 - Requirements for submission of:
 - The results of the Wetland Treatment Area performance assessment;
 - The Solid Waste Disposal Facility Improvements Project Report; and

- Updated “Arviat Sewage Treatment Facility Operation and Maintenance Plan”.
- Inclusion of new and updated definitions; and
- Changes to the Monitoring Program Stations to reflect new infrastructure.

SECTION I: FILE BACKGROUND AND REGULATORY HISTORY

Current Application

All documents filed in association with the Application, as well as all documents provided by the Applicant in support of the Application are listed in detail in [APPENDIX B - List of Submissions and Correspondence](#) that is attached to these Reasons for Decision. A summary of the key materials provided by the Applicant in support of the original application for the Type “A” Water Licence to replace the Expired Licence, as filed with the Board on September 16, 2020, included the following documents:

- Type “A” Water Licence Renewal Application
- Hamlet Permission for the Government of Nunavut-Community Government Services to Represent the Hamlet during the Board’s processing of the Application
- NPC Letter File # 149380 3AM-ARV1015 Water Licence Amendment and Renewal
- Plan for Compliance 2020
- Maps
- Summaries in English and Inuktitut
- Arviat New Water Treatment Plant (WTP) Operations and Maintenance (O&M Manual)
- Arviat Hydrology Report
- Engineering drawings of water supply infrastructure

All submissions in respect of the Application are available from the NWB’s public registry at the following link:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-ARV2232>

Scope of the Application

The Application before the NWB is for a Type “A” Water Licence to replace and amend Type “A” Water Licence No: 3AM-ARV1016, which expired on February 27, 2016 (the Expired Licence). The general scope of the Application includes the following:

- Renewal of the Expired Licence with a new term of 10 years;
- Increased water use from 86,000 to 235,393 cubic metres (m³) annually from Wolf Creek to meet the current and future water demands of the community;

- Operation of three water storage reservoirs, a water treatment plant, and a truckfill station;
- Operation of a solid waste disposal facility;
- Operation of, and upgrades to, the existing sewage lagoon, including construction of a new sewage lagoon cell; and
- Modification of sewage lagoon effluent quality limits.

Regulatory and Procedural History of the Application

Licensing History of the Undertaking

Reflecting the NWB's jurisdiction for licensing undertakings resulting in the use of water and deposit of waste as established under Article 13 of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA or Act*), the NWB has issued three (3) Licences for this undertaking to date.

1. Licence No: NWB3ARV0308
 - Issued January 9, 2004 and expired on December 31, 2008
 - Allowed for the use of 81,000 cubic metres (m³) of water annually and the deposit of waste in support of a Municipal Undertaking
2. Licence No: 3AM-ARV1015
 - Issued August 23, 2010 and expired on August 31, 2015
 - Allowed for the use of 86,000 m³ of water annually and the deposit of waste in support of a Municipal Undertaking
3. Licence No: 3AM-ARV1016
 - Short-term renewal Licence Issued June 16, 2015 and expired on February 27, 2016
 - Allowed for the use of 86,000 m³ of water annually and the deposit of waste in support of a Municipal Undertaking

Pre-licensing Requirements

The Nunavut Planning Commission (NPC)

On July 29, 2020, the Nunavut Planning Commission (NPC) issued its conformity determination for the Application² on the basis of the following scope:

² Correspondence dated July 29, 2020 from Goump Djalogue, Nunavut Planning Commission to R. Dwyer, NWB (and others) Re: NPC File # 149380 [3AM-ARV1015 (*sic* 3AM-ARV1016) Municipal Water Licence Amendment and Renewal].

- Renewal and Amendment of the community of Arviat's Type "A" Water Licence No: 3AM-ARV1016 to accommodate the operation of the new water treatment plant, a third raw water reservoir (Cell #3) and decommissioning of the old sewage lagoon.

However, NPC noted that: *"Although the proposal [the Application] notes future plans to expand or move the sewage lagoon and the solid waste disposal facility, the scope of the current review does not include the establishment of new sewage lagoon and solid waste disposal sites."*

Reflecting this scope, the NPC determined that the Application conforms to the applicable Keewatin Regional Land Use Plan (KRLUP) and that:

The activities associated with this proposal [the Application] were previously reviewed by NPC, and a conformity determination was issued on January 28, 2010, and on May 18, 2017 which still applies. In addition, the activities were previously screened by the Nunavut Impact Review Board (NIRB FILE NO.: 17WN058). The ...proposal is exempt from screening by the NIRB because the NPC is of the understanding that it does not change the general scope of the original or previously amended project activities (NPC File #148586), and the exceptions noted in Section 12.4.3(a) and (b) of the Nunavut Agreement do not apply.

Subsequently, in April 2021 the Applicant submitted an updated scope for the Application to NPC to include the expansion and upgrade of the sewage lagoon, and also to reflect a request in the Application to change the effluent treatment parameters under the Water Licence to reflect current research conducted in Nunavut to define the best available wastewater treatment (NPC File NO: 149528). On April 16, 2021, NPC issued its conformity determination for the updated scope of the Application³ noting that the proposed activities conform to the Keewatin Regional Land Use Plan (KRLUP) and constitute a *"significant modification to the project because of the expansion and upgrade of the active lagoon in the new licence."* On this basis, the NPC forwarded its determination and the proposal containing the updated scope to the NIRB to conduct screening of the Application (including the updated scope).

The Nunavut Impact Review Board (NIRB)

As indicated in NPC's July 29, 2020 conformity determination, the NPC concluded that the scope of the Application (without the expansion and upgrades to the sewage lagoon) was unchanged from the activities previously screened by the Nunavut Impact Review Board (NIRB File No.: 17WN058), the scope of that Application did not require additional assessment by the NIRB.

However, subsequently in April 2021 when the Applicant filed an update to the scope of the Application with NPC to include the expansion and upgrade of the sewage lagoon and to change the effluent treatment parameters, the NPC determined that additional screening of the proposed activities by the NIRB was required. On April 16, 2021, the NIRB received the referral from NPC

³ Correspondence dated April 16, 2021 from Solomon Amuno, Nunavut Planning Commission to R. Dwyer, NWB (and others) Re: NPC File # 1495280 [3AM-ARV1016 Municipal Water Licence Amendment].

of the updated scope of the Application (NPC File NO.: 149528 and NIRB File No.: 21UN019). On May 20, 2021, the Applicant submitted the online application to the NIRB to commence the NIRB's screening of these activities. On August 17, 2021, the NIRB issued its Screening Decision Report to reflect the NIRB's assessment of the updated scope.⁴ Based on the NIRB's screening of the activities included in the updated scope, the NIRB concluded that further assessment of the Application was not required provided that the Applicant complied with the terms and conditions set out in the NIRB's *Screening Decision Report*.

As no further assessment of the activities included within the scope of the Application is required, the NWB has concluded that the applicable pre-licensing conformity and impact assessment requirements for the Application under Articles 11 and 12 of the *Nunavut Agreement*, Part 3 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*) and ss. 38 and 39 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*) have now been met, and the Application can now be processed by the NWB.

Key Steps in NWB's Procedural History of the Application

The following listing summarizes only selected key steps in the procedural history of the NWB's processing of the Application. Complete information related to the procedural history of the Application and all information received in support of the file can be accessed from the NWB's FTP site and Public Registry using the following link:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-ARV2232>

Date	Procedural Step
<u>September 16, 2020</u>	NWB received an updated application for a Type "A" Water Licence to replace the Expired Licence No: 3AM-ARV1016 from GN-CGS on behalf of the Applicant (the Application).
<u>September 17, 2020</u>	The NWB acknowledged receipt of the Application, determined that the Application met the requirements for public distribution, and invited interested parties to conduct an initial Completeness Check and provide Information Requests (IRs).
<u>October 26, 2020 and November 19, 2020</u>	Applicant responded to CIRNA's and ECCC's comments.
<u>November 19, 2020</u>	CIRNA accepted the Applicant's Responses and stated they were ready to move to the next step of the process. ECCC recommended further review of the Application be deferred.

⁴ Correspondence dated August 17, 2021 from K. Kaluraq, Nunavut Impact Review Board to the Hon. J. Ehloak (Minister of Community & Government Services) Re: Screening Decision for the Governments of Nunavut's "3AM-ARV1016 Municipal Water Licence Amendment" Project Proposal, Kivalliq Region and attached NIRB *Screening Decision Report*, NIRB File No.: 21UN019, NPC File No.: 149528, August 17, 2021 (NIRB *Screening Decision Report*).

Date	Procedural Step
<u>November 20, 2020</u>	As recommended by ECCC, the NWB suspended the Completeness Check of the Application pending the receipt of updated information from the Applicant.
<u>March 29, 2021</u>	The Applicant provided the outstanding information, including updated management plans and manuals, along with the as-built drawings of the water treatment plant.
<u>April 19, 2021</u>	GN-CGS requested that the NWB's processing of the Application pause while additional screening of activities that would expand the scope of the Application be conducted by the NIRB.
<u>November 19, 2021</u>	NWB received supplemental information from the Applicant and publicly distributed the Application requesting Interveners and interested parties resume their Completeness Check of the Application.
<u>December 1, 2021</u>	NWB received comments on completeness from CIRNA and ECCC. The parties indicated that the Application was ready for technical review. While DFO did not comment on completeness, DFO stated the Department would participate in the technical review of Application.
<u>December 10, 2021</u>	The NWB deemed the Application to be complete and provided Public Notice of the Application, advised parties of the commencement of the technical review period for the Application and included timelines for the proposed in-person TM/PHC.
<u>January 25, 2022</u>	NWB received technical review comments on the Application from CIRNA, ECCC and DFO.
<u>February 3 and 7, 2022</u>	NWB received the Applicant's responses to the Interveners' technical review comments.
<u>February 4, 2022</u>	The NWB distributed correspondence regarding the status of the Application and included the draft Agendas for the Technical Meeting (TM), Community Session, and Pre-hearing Conference (PHC) scheduled for the file and advised parties regarding the change to the format of the in-person TM/PHC to teleconference and videoconference meetings as required to reflect public health restrictions, such as travel restrictions and limits on public gatherings to limit the spread of COVID-19.
<u>February 10, 2022</u>	NWB staff presented the Application and announced the upcoming dates for the TM/Community Session/PHC on local radio in Arviat.
<u>February 17, 2022</u>	The NWB received confirmation of participation in the meetings and presentation documents from Interveners (CIRNA, ECCC, DFO) and the Applicant.

Date	Procedural Step
<u>February 18, 2022</u>	NWB circulated correspondence with the final Agenda for the TM/Community Session/PHC.
<u>February 22, 2022</u>	NWB conducted the TM via Microsoft Teams, followed by a Community Session held in the evening via teleconference/videoconference (no community members called in or joined on-line).
<u>February 23, 2022</u>	NWB conducted the PHC via Microsoft Teams.
<u>March 25, 2022</u>	NWB issued the Pre-Hearing Conference Decision for the file; including providing a list of commitments, identifying issues to be addressed at the Public Hearing and proposing tentative timelines as the Application proceeded to a Public Hearing. In addition, NWB issued notice of the in-person Public Hearing to be held in the Hamlet of Arviat tentatively scheduled for the week of May 30-June 3, 2022.
<u>May 31, 2022 - June 1, 2022</u>	NWB Panel (P16) conducted the in-person Public Hearing for the Application, including hosting a Community Session on the evening of May 31, 2022 and afternoon of June 1, 2022.

The NWB's Timeline for Processing the Application

As set out under the *NWNSRTA*, s. 55.2, the NWB is required to process applications for a new, amended or renewed Type “A” Water Licence within nine (9) months from the receipt of a complete application. The nine-month time limit does not commence until the applicable conformity assessment is conducted by the Nunavut Planning Commission (NPC) and the required impact assessment is completed by the Nunavut Impact Review Board (NIRB).⁵ The impact assessment process was completed on August 17, 2021 when the NIRB issued its Screening Decision Report for the Application. In addition, under the *NWNSRTA*, s. 55.4, the time that is spent by the Applicant to provide additional information and/or supplement the Application is not included in the calculation of the time limit under section 55.2. When these circumstances are considered, the NWB has rendered this Decision well within the nine (9) month time limit prescribed under s. 55.2 of the *NWNSRTA* that commenced upon the completion of the NIRB's screening of the Application and paused during the Applicant's preparation of responses to Information Requests and technical comments.

⁵ As stated in s. 55.31:

If the Board is cooperating and coordinating with the Nunavut Planning Commission under subsection 36(2) or with the Nunavut Impact Review Board, a federal environmental assessment panel or a joint panel under subsection 37(1), the time limit referred to in section 55.2 does not begin to run until the Nunavut Planning Commission, Nunavut Impact Review Board...has completed its screening or review of the project.

SECTION II: SUMMARY OF SUBMISSIONS OF THE PARTIES

Prior to the Technical Meeting and Pre-hearing Conference (TM/PHC), an opportunity for comment on the Application was provided to Interveners and members of the public. The Board's request for comments invited parties to consider whether the Application was complete and to identify any outstanding issues that would prevent the Board from continuing to process the Application, including any additional information required to complete the Application. Following the Completeness Check, on January 25, 2022, the NWB received comments and Information Requests (IRs) from intervening parties, including Crown-Indigenous Relations and Northern Affairs (CIRNA), Environment and Climate Change Canada (ECCC), and Fisheries and Oceans Canada (DFO). The Applicant provided a response to Interveners' comments on February 3 and 7, 2022.

Crown-Indigenous Relations and Northern Affairs (CIRNA)

Crown-Indigenous Relations and Northern Affairs' (CIRNA) participation in water licensing processes in Nunavut is informed by their mandate under the following Acts and associated regulations:

- *Department of Crown-Indigenous Relations and Northern Affairs Act*;⁶
- *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*;
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA)*;⁷
- *Territorial Lands Act*;⁸ and
- *Arctic Waters Pollution Prevention Act*.⁹

The following comments/recommendations were provided by CIRNA during the technical review stage:

1. Management of the Solid Waste Disposal Facility
 - Requesting the Applicant outline the plans to resolve the problem of insufficient capacity of the solid waste disposal site.
2. Operations of the Sewage Disposal Facility
 - Requesting the Applicant provide the data on the lagoon retention time and discharge rate.
 - Recommending an update to the values of biochemical oxygen demand and total suspended solids to the "Arviat Sewage Treatment Facility Operation and Maintenance Plan".

⁶ S.C. 2019, c. 29, s. 337.

⁷ S.C. 2002, c. 10.

⁸ R.S.C. 1985, c. T-7.

⁹ R.S.C. 1985, c. A-12.

- Requesting further information on permafrost degradation measures for the sewage lagoon and recommending inspections of berm conditions be conducted by an Engineer.
3. Changes to the Monitoring Program
 - Recommending the Applicant provide clarification on the reasoning for removal and designation as “inactive” of some of the Monitoring Program Stations as included in the Application.
 4. Revisions to Management Plans
 - Requesting updates to the Sewage Treatment Facility Operation and Maintenance Plan reflecting sludge management procedures.

In addition to comment submissions on completeness / technical review submissions as set out in detail in **APPENDIX B: List of Submissions and Correspondence**, on May 3, 2022, the NWB received CIRNA’s final written submission. In its final written submission, CIRNA reiterated its comments on the specific topics outlined above.

Environment and Climate Change Canada (ECCC)

ECCC’s participation in water licensing processes in Nunavut is informed by their mandate under the following Acts and associated regulations:

- *Canadian Environmental Protection Act, 1999*;¹⁰
- *Species at Risk Act*;¹¹ and
- *Fisheries Act*.¹²

The following comments/recommendations were provided by ECCC during the technical review stage:

1. Clarifications on the proposed changes to the Monitoring Program
 - Requesting a clarification on the relocation of Monitoring Program Station ARV-4.
 - Recommending the installation of a new Monitoring Program Station at the outflow from the sewage lagoon into the wetland treatment area.
2. Future planning
 - Requesting information on the plans and timelines for the construction and expansion of the sewage lagoon system in Arviat, as well as details on the plans for the expansion of the solid waste disposal site.
 - Recommending the Applicant provide substantive information on the abandonment and reclamation of the solid waste facility and historical sewage lagoons, any plans in relation to closure of these sites, and further recommendations on retaining

¹⁰ S.C. 1999, c. 33.

¹¹ S.C. 2002, c. 29.

¹² R.S.C. 1985, c. F-14.

relevant water licence conditions as they pertain to abandonment, closure and reclamation.

3. Sludge management

- Requesting the Applicant describe its desludging procedures and scheduling.

4. Revisions to Management Plans

- Recommending the inclusion of replicate or duplicate samples into the Quality Assurance and Quality Control (QA/QC) Plan.

Within its final submission dated April 28, 2022, ECCC noted that the timing of the Wetland Treatment Area flow study and timeline and necessary actions required for closure planning of municipal infrastructure required further clarification by the Applicant. In addition, the Intervener noted that the QA/QC Plan was not updated in full to include replicate and duplicate sampling. ECCC indicated that the remainder of the technical issues identified had been resolved either fully or by commitment made by the Applicant.

Fisheries and Oceans Canada (DFO)

DFO's participation in water licensing processes in Nunavut is informed by their mandate under the following Acts and associated regulations:

- *Fisheries Act*;¹³ and
- some aspects of the *Species at Risk Act*.¹⁴

DFO recommended the Applicant review the *Interim Code of Practice for End-of-pipe Fish Screens* and the *Measures to Protect Fish and Fish Habitat* to ensure the Applicant complies with the operating standards set out in these two documents.

During the Technical Meeting, DFO noted that because DFO had no outstanding unresolved issues in respect of the Application, DFO would not be participating in the Public Hearing. Although the NWB recommended that DFO provide a final written submission confirming this position, no additional documents were supplied by DFO in respect of the Application.

Government of Nunavut, Community and Government Services (GN-CGS) on behalf of the Hamlet of Arviat (Applicant or Licensee)

In accordance with the information provided in the Application and supplemental documentation and expressed during the Public Hearing, the following activities were initiated and/or completed by the Applicant and its representative, GN-CGS during the period between the expiry of the Expired Licence No: 3AM-ARV1016 in 2016 and the submission of the Application for the Type "A" Water Licence to replace and amend the Expired Licence in 2020:

¹³ R.S.C. 1985, c. F-14

¹⁴ S.C. 2002, c. 49

Several projects that impact this licence have also been undertaken by CGS on behalf of the municipality, including an additional raw water reservoir cell, a preliminary design to upgrade and expand the sewage lagoon, and preliminary work to improve the compliance and extend the useful life of the current landfill.¹⁵

In addition to the third cell of a raw water storage reservoir, the Applicant constructed a water treatment plant. As a result, the available water storage capacity grew to 235,000 m³. Hence, the Hamlet requested an increase to the allowable water withdrawal in order to accommodate the growing population.

GN-CGS provided discussions and clarifications which were required by parties during the review stages of the Application as responses to the Interveners' technical comments, discussion at the Technical Meeting, submissions to fulfill the Technical Meeting commitments, and the final discussion during the Public Hearing. These are summarized below.

1. Future plans for the solid waste site

- The existing Solid Waste Disposal Facility may be expanded in the future by utilizing the area where the Abandoned Sewage Lagoons are currently located.
- These plans were described in the Applicant's written response to Interveners' comments as follows:

A contract for a comprehensive assessment on how to upgrade the current site will take place in summer 2022, with construction anticipated to begin in 2024. The assessment will include an investigation of the abandoned lagoon cells to determine if they are suitable to be repurposed and upgraded to accept solid waste. This assessment report is expected to be complete by March 2023. If they can be repurposed the design will be submitted as part of the larger solid waste project design to NWB for distribution. The design phase is expected to begin April 2023 and be complete by April 2024.¹⁶

2. Future plans for the wastewater treatment infrastructure

- The Applicant provided engineering drawings of the planned expansion of the current sewage lagoon. The expansion will be conducted by upgrading the current sewage lagoon cell and constructing an additional cell. The current Wetland Treatment Area will serve both cells.

3. Modifications sought for the Monitoring Program and its Stations

- The Applicant requested the removal of acute lethality testing from the Effluent testing suite due to the complexities around timing and the logistics of performing such tests.

¹⁵ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 25, lines 12-18.

¹⁶ Elan Chalmers (GN-CGS) to NWB, RE: 3AM-ARV---- Municipality of Arviat – Renewal and Amendment Application, dated May 3, 2022.

- Monitoring Program Station ARV-3 was requested to be relocated to the outflow from the lagoon.
 - The Applicant also requested removal of Monitoring Program Stations ARV-7 and ARV-8 due to their redundancy and ARV-10 and ARV-11 due to their respective facilities being non-existent.
4. Consideration for decommissioning, abandonment and reclamation of historical lagoons
- As discussed above, an evaluation of the possible expansion of the Solid Waste Disposal Facility site is to be undertaken by GN-CGS, and the feasibility of using the Abandoned Sewage Lagoons will be assessed. In the case that these historic lagoons cannot be converted into a solid waste disposal site, their closure and reclamation would be performed by GN-CGS. As described by GN-CGS:
- If the cells can be repurposed, construction will begin in 2024. If the cells cannot be repurposed, an Abandonment and Restoration Plan will be commissioned in 2023 and submitted to NWB once complete.¹⁷*
5. Sludge management
- As committed to by GN-CGS during the Technical Meeting, an updated Operations and Maintenance Manual for the Wastewater Treatment System will include sludge management procedures.
6. Updates to management plans and manuals
- Operations and Maintenance Manual for the Wastewater Treatment System will be updated prior to the commissioning of the upgraded and expanded Sewage Disposal Facility.
 - The QA/QC Plan will be updated to include information on the frequency of replicate/duplicate samples in the sampling program.
7. Information on fish screen parameters
- The information on sizing of fish screens installed at raw water intake will be provided by October 31, 2022.
8. Geotechnical inspections
- GN-CGS requested the removal of the requirement that was included in the Expired Licence for a geotechnical Engineer to conduct inspections of Water and Waste infrastructure annually. The Applicant maintained that the Hamlet staff is capable of identifying any leaks and that GN-CGS has no internal capacity to conduct such inspections.

¹⁷ Elan Chalmers (GN-CGS) to Richard Dwyer (NWB), Untitled, dated April 5, 2022.

SECTION III: SUBMISSIONS BY OTHER INTERVENING PARTIES OR MEMBERS OF THE PUBLIC

There were no written submissions provided to the NWB by any other intervening party or members of the public throughout the Board's consideration of the Application. As required under ss. 55(1) and 55(2) of the *NWNSRTA*, the NWB published and/or posted on the NWB's Public Registry:

- Notice of the receipt of the Application, inviting comments on completeness, on September 17, 2020;
- Notice of a complete Application, identifying the dates for the upcoming Technical Meeting, Community Session and Pre-Hearing Conference, on December 10, 2021; and
- Notice of the Public Hearing for the Application, on March 21, 2022.

These notices invited any intervening parties or interested members of the public to make representations to the NWB about the Application. In addition, the timing of the Public Hearing was advertised in the community in the weeks prior to the Public Hearing.

On the evening of May 31, 2022 (6:30 – 8:00 pm CST) and the afternoon of June 1, 2022 (2:20-3:30 CST), an in-person Community Session was conducted at the John Ollie Complex in Arviat. The Community Session was also linked by teleconference and videoconference to the representatives of CIRNA and ECCC. The NWB's decision-making Panel for the file and the Interveners participating in the Public Hearing were present for the Community Session and available to answer questions. A total of 23 community members attended the Community Sessions.

As summarized in the table that follows, several key issues were raised by the community members in attendance. This summary is provided for the convenience of reviewers only, and the full transcript of comments provided by members of the public during the Community Session on May 31, 2022 and during the technical sessions of the Public Hearing on May 31 and June 1, 2022 is available at the following location:

<ftp://ftp.nwb-oen.ca/registry/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-ARV2232/2%20ADMIN/4%20HEARINGS/2%20HEARING/220624%20Public%20Hearing%20Transcripts>

TABLE 1: KEY ISSUES RAISED BY COMMUNITY MEMBERS DURING THE PUBLIC HEARING, INCLUDING THE COMMUNITY SESSION

Topic	Issues/Concerns/Comments
Excavation of the new cells in the Reservoir	There is a big pile of gravel/earth that has been created when the new reservoir cells were dug out, and the snow builds up around these piles and the snow built up makes it difficult to travel in that area. Will the Hamlet be removing those piles now that the new cells are completed?

Topic	Issues/Concerns/Comments
Inspections of the facilities	What inspections does the GN-CGS/Hamlet (or others) do to inspect these facilities to ensure they are safe?
Monitoring	How far does GN-CGS sample away from the sewage lagoon, because the community is noticing that the vegetation has changed in the wetland area since there is sewage going into that area.
Sewage lagoon – Expansion	The sewage lagoon fills up very quickly and every spring it overtops the lagoon and overflows along the shoreline. Has GN-CGS reviewed the current capacity, with plans to expand?
Sewage Lagoon -- Expansion	Will there be new additional land required for the expansion of the sewage lagoon? Because previously the area was rich in cloudberryes and now that the old sewage lagoons are there, these areas cannot be used. Will there be more land needed for this expansion?
Sewage lagoon – location of the proposed expansion	The expansion of the sewage lagoon is needed, but there is concern about where the new sewage lagoon cell will be located. If it is on a new area of the land, residents are concerned about the potential to impact vegetation and terrestrial wildlife; if it is in a new area near the ocean, residents are concerned about the potential for the sewage to affect fish, seals and other marine mammals.
Sewage lagoons – location and effluent quality	Residents can see the impact of the sewage lagoon overtopping in the spring and impacting the shore line---and the community has concerns regarding the potential for the sewage to affect the beluga, seals, fish and other marine mammals if the water coming out of the lagoons is not fully treated when it flows out of the lagoons.
Term of the licence	Is this a ten-year term of the licence; and will that mean that the Hamlet will not be able to change anything in the licence during those ten years?
Water Use Fees	Does the Hamlet have to pay for the Nunavut Water Board licence or water use?

SECTION IV: JURISDICTION OF THE NWB

Under Division 2 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*)¹⁸ the NWB has jurisdiction to issue a licence,¹⁹ amend a licence,²⁰ or in certain circumstances, cancel a licence.²¹ In exercising the Board's statutory functions under the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* (*Nunavut Agreement*) and the statutory regime governing the Board (the *NWNSRTA* and the *Nunavut Waters Regulations*), the NWB must be guided by the following objects:

*... to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general.*²²

In considering the Application, the NWB was guided by these objects and the NWB's statutory duty to make *all* reasonable efforts to minimize any adverse effects on aquatic ecosystems. Reading several of the Articles of the *Nunavut Agreement* together,²³ the NWB relies on the broad definition of "ecosystemic" found in Article 12, Section 12.1.1 of the *Nunavut Agreement*, requiring not only the Nunavut Impact Review Board (NIRB) but also the NWB to ensure that all components of the ecosystem, such as fish and fish habitat, are protected within the parameters of s. 71 of the *NWNSRTA*.

In accordance with Article 13, Section 13.3.6 of the *Nunavut Agreement* and s. 29 of the *NWNSRTA*,²⁴ the Board has delegated its power to dispose of all matters related to the Application for the Type "A" Water Licence No: 3AM-ARV2232, including the conduct of the Public Hearing, to a three-member Panel of the Board (which is referred to as Panel P16 or the Hamlet of Arviat Panel).

As with any applications considered by the NWB, the burden of proof rests with the Applicant, to demonstrate that its request for a Type "A" Water Licence should be granted and that the proposed terms and conditions (including amendments to the Expired Licence) should be granted. In addition, the NWB's Rules of Practice and Procedure for Public Hearing (NWB's Rules) state: "[a]ny party offering evidence before the NWB shall have the burden of introducing sufficient and appropriate evidence to support its position."²⁵

¹⁸ Sections 42-81 of the *NWNSRTA*.

¹⁹ See ss. 42, 48, 55, 56, and 70 of the *NWNSRTA*.

²⁰ See s. 43(1)(b) of the *NWNSRTA*.

²¹ See s. 43(1)(c) of the *NWNSRTA*.

²² See s. 35 of the *NWNSRTA*.

²³ This approach is consistent with the direction provided in Article 2, section 2.9.1 of the *Nunavut Agreement*.

²⁴ S.C. 2002, c. 10.

²⁵ Section 23.1 of the Nunavut Water Board "Rules of Practice and Procedure for Public Hearing" (May 11, 2005).

SECTION V: REQUIREMENTS OF THE NWNSRTA, THE NUNAVUT AGREEMENT AND NUPPAA

Objects of the NWB and its Relationship to other Bodies

As established under Articles 10-13 of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* prior to the NWB's consideration of the Application, the Applicant is required to meet the pre-licensing requirements of the Nunavut Planning Commission (land use planning) and the Nunavut Impact Review Board (impact assessment).

Land Use Planning

As outlined in the summary provided under the sub-hearing [Pre-licensing Requirements](#), initially on July 29, 2020, the Nunavut Planning Commission indicated that the Application conformed to the applicable Keewatin Regional Land Use Plan (KRLUP) and exempted the Application from requiring further impact assessment by the Nunavut Impact Review Board.²⁶

Subsequently, in April 2021 the Applicant submitted an updated scope for the Application to NPC to include the expansion and upgrade of the sewage lagoon, and also changes to the effluent treatment parameters under the Expired Licence (NPC File NO: 149528). On April 16, 2021, NPC issued its conformity determination for the updated scope of the Application²⁷ noting that the proposed activities continued to conform to the Keewatin Regional Land Use Plan (KRLUP) but that the updated scope constituted a “*significant modification to the project because of the expansion and upgrade of the active lagoon in the new licence.*” On this basis, the NPC forwarded its determination and the proposal containing the updated scope to the NIRB to conduct screening of the Application (including the updated scope).

Impact Assessment

As indicated in NPC's July 29, 2020 conformity determination, on the basis of the scope of the Application originally submitted in 2020 the NPC concluded that the Application was unchanged from the activities previously screened by the Nunavut Impact Review Board (NIRB File No.: 17WN058), and therefore did not require additional impact assessment by the NIRB.

Subsequently, in April 2021 when the Applicant filed an update to the scope of the Application with NPC to include the expansion and upgrade of the sewage lagoon and to change the effluent treatment parameters, the NPC determined that additional screening of the proposed activities by the NIRB was required and referred the Application with the updated scope to the NIRB for

²⁶ Correspondence dated July 29, 2020 from Goump Djalogue, Nunavut Planning Commission to R. Dwyer, NWB (and others) Re: NPC File # 149380 [3AM-ARV1015 (*sic* 3AM-ARV1016) Municipal Water Licence Amendment and Renewal].

²⁷ Correspondence dated April 16, 2021 from Solomon Amuno, Nunavut Planning Commission to R. Dwyer, NWB (and others) Re: NPC File # 1495280 [3AM-ARV1016 Municipal Water Licence Amendment].

screening on April 16, 2021, the NIRB (NPC File NO.: 149528 and NIRB File No.: 21UN019). On May 20, 2021, the Applicant submitted the online project proposal to the NIRB to commence the NIRB's screening of these activities. On August 17, 2021, the NIRB issued its Screening Decision Report to reflect the NIRB's assessment of the updated scope and concluded that further assessment of the project proposal was not required provided that the Applicant complied with the terms and conditions set out in the NIRB's *Screening Decision Report*.²⁸

As no further assessment of the activities included within the scope of the Application was required, the NWB has concluded that the applicable pre-licensing conformity and impact assessment requirements for the Application under Articles 11 and 12 of the *Nunavut Agreement*, Part 3 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*) and ss. 38 and 39 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10 (*NWNSRTA*) have now been met, and the Application can now be processed by the NWB.

SECTION VI: DECISION TO ISSUE

On the basis of the Application, the materials filed with the Board during the Board's consideration of the Application, including the submissions of the Interveners, the presentations and discussion at the Public Hearing, and the comments and questions of community members provided during the Community Session, the Board has decided to grant the Application for a renewal-amendment Type "A" Water Licence No: 3AM-ARV2232 (the Licence) to replace Expired Type "A" Water Licence No: 3AM-ARV1016 subject to the terms and conditions set out in the attached draft of Type "A" Water Licence No: 3AM-ARV2232 and as described in more detail in the text that follows. The Licence authorizes the Hamlet of Arviat's continued use of water and deposit of waste for a Municipal Undertaking as defined under Schedule 1 of the *Nunavut Waters Regulations*, with terms and conditions as required to:

- Replace Type "A" Water Licence No: 3AM-ARV1016 (expired as of February 27, 2016) with a renewed/amended Type "A" Water Licence for a ten (10) year term;
- Authorize the continued use of up to 235,393 m³ of Water annually and the deposit of Waste associated with a Municipal Undertaking; and
- Authorize, with changes, the operation of existing and new facilities including the Sewage and Solid Waste Disposal Facilities and the Water Supply Facilities.

²⁸ Correspondence dated August 17, 2021 from K. Kaluraq, Nunavut Impact Review Board to the Hon. J. Ehloak (Minister of Community & Government Services) Re: Screening Decision for the Governments of Nunavut's "3AM-ARV1016 Municipal Water Licence Amendment" Project Proposal, Kivalliq Region and attached NIRB *Screening Decision Report*, NIRB File No.: 21UN019, NPC File No.: 149528, August 17, 2021 (*NIRB Screening Decision Report*).

Conditions for Issuance of a Licence

Section 57 of the *NWNSRTA* provides several key legislative requirements that must be satisfied before the NWB may issue a licence.

The Board may not issue a licence unless the applicant satisfies the Board that

- (a) any waste produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of the water quality standards and effluent standards that are prescribed by the regulations or, in the absence of such regulations, that the Board considers acceptable; and*
- (b) the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for*
 - (i) the completion of the appurtenant undertaking,*
 - (ii) such measures as may be required in mitigation of any adverse impact, and*
 - (iii) the satisfactory maintenance and restoration of the site in the event of any future closing or abandonment of that undertaking.*

Financial Responsibility of the Applicant

As outlined under the *NWNSRTA*, s. 57(b), the NWB considers three aspects of the responsibility of an Applicant to carry out a licensed undertaking:

- (i) the financial ability of the Applicant to complete the appurtenant undertaking;
- (ii) the ability of the Applicant to undertake measures to adequately monitor for impacts and implement measures to mitigate any impacts; and
- (iii) the Applicant's ability to maintain and restore the site during care and maintenance, closure and abandonment.

As a public authority, the Board's inquiry into the financial responsibility of the Applicant is somewhat different than would be the case for other types of corporate or individual water licence applicants. Reflecting this distinction, the Board has focused this inquiry on the second and third elements of the financial responsibility assessment; the ability to undertake measures to adequately monitor and mitigate impacts and the Applicant's ability to maintain and restore the site during care and maintenance, closure and abandonment.

During the Board's assessment of the extent to which the Applicant has the ability to undertake the required monitoring and mitigation measures associated with the Application, the Board has noted the commitments of GN-CGS. With few changes to the terms and conditions in Type "A" Water Licence No: 3AM-ARV2232 (the Licence) compared to the previous terms and conditions of the Expired Licence, the Board remains confident the Applicant will be able to continue to conduct the

undertaking in a manner that is protective of the freshwater environment. During discussions at the Technical Meeting, GN-CGS indicated that there may be some budgetary and human resource limits on the availability of engineers to conduct annual inspections of water and waste management infrastructure and requested a change to this requirement. The Board's staff highlighted that this requirement for a qualified engineer to conduct such inspections is a standard practice across the Board's licences, and communicated that the Board expects all licensees to ensure that they make the required personnel available to meet these important compliance requirements. The Panel reiterates the importance of ensuring these annual inspections are conducted by a qualified engineer on an annual basis, but has modified the Licence to reflect that the expertise and expense of retaining a geotechnical engineer to specifically conduct annual inspections of infrastructure where no issues affecting the integrity of the structures have been identified is not warranted.

Compensation of Existing or Other Users

The *NWNSRTA* requires that the NWB be satisfied that existing or other water users affected by the Application have been or will be compensated for any damage to their rights to use Water.²⁹ To ensure that all parties with the potential to bring a water user compensation claim have been notified of their rights under the *NWNSRTA*, the NWB provided, in the Notice of Application, an invitation to parties with water use compensation issues to advise the NWB regarding such issues. The Notice of the Application was issued by the Board on December 10, 2021, and in the Notice of Public Hearing, published by the Board on March 21, 2022, the Board advised anyone having a water user compensation claim to inform the Board of their interests within the time limit specified in the Notice, and in accordance with s. 55 of the *NWNSRTA*. The NWB confirms that no representations regarding a claim for water user compensation were made to the NWB in respect of the Application.

Issuance of a Licence

As stated above and pursuant to s. 42(1) of the *NWNSRTA*, the NWB has decided to issue a renewed/amended Type "A" Water Licence No: 3AM-ARV2232 (the Licence) to replace the Expired Licence subject to the terms and conditions outlined in these Reasons for Decision and the attached Licence. In deciding to issue the Licence, the NWB is satisfied that the Application contained the required information and is in the proper form having regard to the requirements of the *NWNSRTA*³⁰ and associated Regulations.³¹

Applications in Relation to the Licence

Overall, the NWB is satisfied that the requirements of s. 48 of the *NWNSRTA* were met by the Applicant. GN-CGS filed an Application, which complied with the NWB's *Rules*, and was accompanied by the fees required by regulation, including the application fee. Further, the Applicant has also provided the necessary application and supplementary information required to evaluate whether the Licence should be granted and also to assess whether any changes to the

²⁹ See ss. 58-60 of the *NWNSRTA*.

³⁰ See s. 48 of the *NWNSRTA*.

³¹ *Nunavut Waters Regulations*, SOR/2013-69.

Expired Licence requested by the Applicant are reasonable and consistent with the objects of the Board as established under the *Nunavut Agreement* and the *NWNSRTA*.

Application to Amend or Application for Future Modifications

In relation to future applications to undertake significant modifications of the activities included within the scope of the Licence, the NWB reminds the Applicant that it must comply with all requirements of the *Nunavut Agreement*,³² *NuPPAA*,³³ and the *NWNSRTA*.³⁴ In particular, the Board notes that the scope of the authorized use of water use and deposit of waste is as provided by the GN-CGS in the Application and as set out in Part A of the Licence, and any requested changes to that scope may require an amendment to the Licence. In addition, any significant modifications to the undertaking are required to be submitted to the Nunavut Planning Commission and may subsequently be referred to the Nunavut Impact Review Board prior to the NWB's consideration of any future amendments to the Licence.

Cancellation or Expiry of the Licence

As identified above, the NWB reminds the Applicant that the provisions of s. 46 of the *NWNSRTA* states: “[t]he expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence.”

The Applicant is also reminded that pursuant to the NWB's authority under s. 43(1)(c)(iii) of the *NWNSRTA*, the NWB may, on application by a licensee, or on its own motion, cancel a licence at any time that the NWB considers the cancellation to be in the public interest.

Term of Licence

Under s. 45 of the *NWNSRTA* the NWB is required to ensure that the term of a licence shall not exceed the longer of twenty-five years or the “anticipated duration” of the undertaking. In the Application, the Applicant requested a term of 10 years for the Licence.

As expressed in recent municipal licensing decisions, the Board recognizes that the GN-CGS and the Hamlets have limits on the resources available to prepare regulatory approval applications, and that it is appropriate to consider longer terms for licences where the Applicants have clearly demonstrated a commitment to devoting resources to compliance and improvement of facilities during the term of the Licence. In the case of this Application, the Board notes that the Applicant has demonstrated a very clear commitment to continuous improvement of facilities within the scope of the Licence throughout the ten-year term, not just when the Applicant is engaged in the regulatory approval process. The Board has relied on this commitment to find that a ten-year term for the Licence is justified. The Board expects that by granting the Licence for this longer term, the

³² See Article 12, Clause 12.4.3 (b) of the NLCA.

³³ *Nunavut Planning and Project Assessment Act* S.C. 2013, c. 14 (*NuPPAA*).

³⁴ See s. 43 of the *NWNSRTA*.

Licensee will be able to focus more effort on complying with the terms and conditions in the Licence rather than on efforts to renew the Licence in the short term.

Given these circumstances, the NWB is satisfied that a term of 2022-2032 is appropriate and has incorporated the ten-year term into the expiry of the Licence. However, the Board wishes to emphasize to the Applicant that the Board has serious concerns with the situation of municipal licensees continuing to operate, and even construct municipal infrastructure without a current Water Licence being in place. In respect of this particular licence, the Board notes that the Hamlet has been operating without a current licence since February 27, 2016. As indicated under s. 46 of the *NWNSRTA* the obligations under a water licence continue even after it expires, but the rights to use water and deposit waste do not. In the past, municipalities that have constructed and operate infrastructure without the benefit of the technical review and approval process associated with water licensing have missed the opportunity to have the infrastructure design, construction, operation and reclamation plans reviewed in advance, when changes and improvements to ensure the facilities can function as required are still possible. Accordingly, as is the case with all Type “A” Water Licences, the Board strongly encourages the Licensee in this case to ensure that any future applications to renew or amend the Type “A” Water Licence are submitted 12-18 months before the expiry of the Licence or 12 months before the requested amendments are expected to take effect. Applicants are responsible to submit applications and required information in sufficient time to ensure that all pre-licensing and licensing processes, including decision-making of the NWB and Minister, can be completed before the Licence expires or the amendments required to make changes to the use of water and/or deposit of waste associated with an undertaking are in place. Failing to make an application in sufficient time to allow for the Board’s processing and the NWB and Minister’s decision-making can result in compliance issues and/or costly mistakes of constructing infrastructure that may not subsequently be approved by the Board/Minister after the fact.

SECTION VII: WATER LICENCE: TERMS AND CONDITIONS

The Licence does not take effect until approval of the Minister is given or is deemed to have been given pursuant to s. 56 of the *NWNSRTA*.³⁵ As indicated in the Reasons for Decision, the Panel has decided to issue Water Licence No: 3AM-ARV2232 to replace the Expired Licence subject to the conditions contained herein (the Licence).

To provide context and clarity, in the following section the NWB provides some discussion and comments about specific terms and conditions that follow. The Board has not included discussion

³⁵ Section 56 of the *NWNSRTA* states:

The issuance, amendment, renewal and cancellation of a type A licence, and if a public hearing is held, a Type B licence are subject to the approval of the Minister.

Under s. 56(2.2) if the Minister does not issue a decision within 45 days of receiving the Licence from the Board, (or within 90 days if the Minister has extended the decision-making period by an additional 45 days) the Minister is deemed to have approved the Licence.

or commentary with respect to those licence terms and conditions that are clear in their wording and intent on the face of the Licence and/or that are unchanged from the Expired Licence.

PART A: Scope, Definitions and Enforcement

Scope

The scope of activities, works, and undertakings included under the Licence is set out in Part A of the Licence, and includes:

- a. Replacement of Type “A” Water Licence No: 3AM-ARV1016 (expired as of February 27, 2016) with a renewed/amended Type “A” Water Licence for a ten (10) year term to allow for the continued use of up to 235,393 cubic metres (m³) Water annually and deposit of Waste associated with a Municipal Undertaking;
- b. Operation of the Water Supply Facilities;
- c. Operation of the Solid Waste Disposal Facility; and
- d. Operation of the Sewage Disposal Facility and upgrades to the existing sewage lagoon, including construction of a new lagoon cell.

Definitions

Several definitions were added to the list of definitions for the Licence to provide more clarity, to be consistent with standardized terms and conditions of Type “A” Water Licences, and to reflect the changes in the municipal infrastructure compared to the previous Expired Licence.

Enforcement

To ensure that the Hamlet complies with the terms and conditions of the Licence, inspectors, designated and empowered by the Minister of Northern Affairs may inspect or examine works, activities, and undertakings associated with the use of waters and/or the deposit of waste for the purposes of exercising their powers in accordance with the *NWNSRTA*.³⁶

PART B: General Conditions

Part B of the Licence addresses many of the general terms and conditions that apply to the Undertaking, such as annual report submission, protocols for handling documents related to the Licence, posting of signage at sites associated with the Undertaking, and more.

PART C: Conditions Applying to Security

There are no requirements for security to be posted for the Undertaking, as the Licensee is exempt from the requirements for posting security because the Licensee is the Hamlet of Arviat, and the

³⁶ Sections 85-88 of the *NWNSRTA*.

use of Water and deposit of Waste authorized under the Licence is associated with a Municipal Undertaking.

PART D: Conditions Applying to the Use of Waters and Water Management

Part D of the Licence focuses on the use of water and the related management plans. To ensure that the amount of water use authorized under the Licence does not negatively impact freshwater resources, the Board has included several terms and conditions under Part D of the Water Licence designed to preserve water sources.

The maximum volume of water use allowed from Wolf Creek is increased from the amount allowed under the Expired Licence, from 86,000 to 235,393 cubic metres (m³) per year. The *Wolf Creek 2019 Hydrologic Assessment* dated March 4, 2020 and submitted by the Applicant indicates that requested increased annual water withdrawal “... appears to be much less than water availability in Wolf Creek (approximately 0.2% of the average annual runoff).” In addition, the Board notes that during the Community Session, members of the community did not voice any concerns or pose any questions with respect to this rate of withdrawal and potential impact to Wolf Creek. On the basis of the information provided with the Application, noting the results of the hydrological study and a lack of public concerns, the Board is confident that the authorization for the Applicant’s increased consumption of Water is sustainable.

On the issue of whether appropriate fish screen sizes are used by the Hamlet and DFO’s recommendation for the Applicant to review the *Interim Code of Practice for End-of-pipe Fish Screens* and the *Measures to Protect Fish and Fish Habitat* to ensure the Applicant complies with the operating standards set out in these two documents, the Board took into account the Applicant’s commitment to provide the information of fish screen sizing and remediate any non-compliance, on or before October 31, 2022. To reflect this commitment, the Board included a relevant term and condition in this Part of the Licence.

In addition, at the request of GN-CGS, the name of the water source was corrected from Wolf River to Wolf Creek.

PART E: Conditions Applying to Deposit of Waste and Waste Management

Part E of the Licence focuses on terms and conditions relevant to Waste management.

GN-CGS requested to increase the Effluent quality limits from the Sewage Disposal Facility at Monitoring Program Station ARV-4 for Biochemical Oxygen Demand to 100 mg/L from 80 mg/L and Total Suspended Solids to 120 mg/L from 100 mg/L. In support of this request, the Applicant provided a study entitled *Treatment Performance of Municipal Wastewater Stabilization Ponds in Nunavut* dated September 18, 2015 and authored by the Centre for Water Resources Studies, Dalhousie University. As the Applicant stated during the Public Hearing:

Currently, the effluent is being diluted, which is why the levels are so low. So if -- so dilution is not treatment. And moving forward, the effluent that will³⁷ be pumped out will be more concentrated, but it will have an opportunity to have treatment within the wetland treatment area. Plus, we have also commissioned extensive waste water research within Nunavut, and the level of 100/120 for CBOD/TSS can be consistently met by this type of treatment while preserving the health of the receiving environment.³⁸ ... So as part of the wetland assessment, they will be assessing to see if the wetland can meet that 100/120, and should it not be able to, they will recommend modifications to the wetland to be able to meet those levels.³⁹

Having reviewed this study and noting the comments from Interveners, the Board is satisfied that this requested change is reasonable. As a result, the Board has included the updated Effluent quality limits in this Part of the Licence.

PART F: Conditions Applying to Modifications and Construction

The Applicant provided engineering plans for the upgrades and expansion of the sewage lagoon as part of this Application. Therefore, no further submission/review of such plans is required by the Board.

The NWB reminds the Licensee that any activity which would constitute a significant modification to the Type “A” Water Licence will require the Applicant to apply to the NWB for an amendment to the Licence, and may trigger requirements for a conformity assessment of the proposed amendments by the Nunavut Planning Commission and impact assessment by the Nunavut Impact Review Board under the *Nunavut Agreement* and the *NuPPAA*.

PART G: Conditions Applying to Operations and Maintenance

Under this Part, the Board approved the “Operation & Maintenance Manual Arviat Water Treatment Plant” dated November 2019, “Arviat Sewage Treatment Facility Operation and Maintenance Plan” dated March 2021, and the “Hamlet of Arviat Solid Waste Management Facility Operation and Maintenance Plan” dated October 2021.

The NWB has included conditions in Part G of the Licence to submit further information on the Sewage and Solid Waste Disposal Facilities to account for the recommendations received from the Interveners and commitments made by the Applicant during the technical review of the Application:

³⁷ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 36, lines 24-26.

³⁸ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 37, lines 1-8.

³⁹ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 38, lines 1-5.

- Part G, Item 2 requires the Applicant to submit an updated “Arviat Sewage Treatment Facility Operation and Maintenance Plan” prior to commissioning the expanded sewage lagoon, as agreed to by GN-CGS^{40,41} during the Board’s processing of the Application. The document is to include updates to account for upgraded configuration of the lagoon and sludge management procedures (such as sludge quantity assessment and disposal techniques, as well as a disposal location).
- Part G, Item 5 requires the Applicant to provide the results of the Wetland Treatment Area performance assessment as committed to by the Licensee during the licensing process. This commitment was included in the Applicant’s response⁴² to the recommendation made by ECCC.
- Part G, Item 6 requires the Applicant to submit the Solid Waste Disposal Facility Improvements Project Report. The Report shall include a feasibility study on conversion of the Abandoned Sewage Lagoons into a part of the Solid Waste Disposal Facility, or any timeline for closure and reclamation of the Abandoned Sewage Lagoons. The condition is included in accordance with the commitment⁴³ made by GN-CGS during the Board’s processing of the Application.
- The updated Plan shall also include the provision that, in the event of a suspected leak, a professional engineer will be contracted to conduct an assessment of the lagoon system.

As discussed above, the Applicant requested amending the terms and conditions related to annual geotechnical engineering inspections of the Water and Waste facilities. The relevant term and condition in the Expired Licence stated the following:

Licensee shall, annually between the months of June and September, undertake a geotechnical inspection to be carried out by a Geotechnical Engineer that takes into account all facilities intended to contain, withhold, divert or retain Water or Wastes. The inspection shall be conducted in accordance with the Canadian Dam Safety Guidelines, where applicable.

This term and condition required the Hamlet to ensure that an annual inspection of infrastructure be performed by a geotechnical engineer. At the Public Hearing, the Applicant summarized their recommended change to this term and condition as follows:

Furthermore, the licence was issued in 2010, and at the time, the guidelines for dam safety had been published in 2007. And since then, there has been a revision in 2013, and the types of structures, the municipalities generally do not require an annual inspection. So I would recommend removing this clause completely...

⁴⁰ Elan Chalmers (GN-CGS) to NWB, RE: 3AM-ARV---- Municipality of Arviat – Renewal and Amendment Application, dated May 3, 2022.

⁴¹ Stephanie Autut (NWB) to Parties, Type “A” Water Licence No: 3AM-ARV1016: Pre-Hearing Conference Decision Report Regarding an Application to Renew and Amend Expired Water Licence No: 3AM-ARV1016, dated March 25, 2022.

⁴² Elan Chalmers (GN-CGS) to Richard Dwyer (NWB), Untitled, dated April 5, 2022.

⁴³ Elan Chalmers (GN-CGS) to Richard Dwyer (NWB), Untitled, dated April 5, 2022.

I would change the language to have a geotechnical inspection, a dam safety inspection, to be required in the incident that an issue was observed. So, for example, we've had to commission two of these type of reports in the last five years when a leak was identified by hamlet staff. And in that case⁴⁴, we would bring in a third party to do this type of inspection to identify our next steps. So this -- other than having the hamlet staff routinely inspecting and the CGS staff just routinely participating in inspections, a geotechnical investigation should really just be commissioned on an as-needed basis because they are quite expensive, and they do require quite a large level of expertise that -- many of the consultant firms that we work with don't even have those type of staff members on board already. So it's not a common thing that's available to us at this time...⁴⁵

In the Board's view, the Applicant's recommended change to the term and condition does not achieve the objective of the term and condition in the Expired Licence. It appears that the Applicant may have misunderstood the purpose of this term and condition as being premised on, or arising from obligations under the *Canadian Dam Safety Guidelines*. This is not in fact the case. The objective of the term and condition is to ensure that a qualified professional conducts, on at least an annual basis, a visual inspection of the municipal infrastructure to ensure its continued integrity and to identify any issues that could damage the stability or integrity of the infrastructure, which would require follow up, including further investigation and possible remediation. The reference to the *Canadian Dam Safety Guidelines* was to provide a reference point for the expected type of inspection and reporting associated with this annual inspection.

However, in municipal water licensing processes for municipal undertakings since the Expired Licence was issued in 2010, the Board has been advised that the requirement for a geotechnical engineer to conduct these inspections on annual basis has significant financial and logistical implications for Hamlets and the GN-CGS that is not warranted. It has been argued that other types of qualified engineers, who are more readily available to Hamlets and the GN-CGS would be sufficient to conduct these annual inspections, with the commitment that if a qualified engineer identified issues, that the appropriate referral to a geotechnical engineer for further investigation and response would occur. In the Board's consideration of whether the requirement for a geotechnical engineer should be modified, the Board has considered that the requirements of the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*, provide the Board with comfort that if an engineer considers him/herself qualified to conduct the annual inspections that is likely sufficient, and the Board does not need to prescribe that a geotechnical engineer is the only type of engineer who can conduct such these annual inspections.

⁴⁴ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 39, lines 9-16, 21-26.

⁴⁵ E. Chalmers, NWB Public Hearing, File No. 3AM-ARV1016, Transcript, May 31, 2022, Volume 1, p. 40, lines 1-12

However, the Board does not agree that it is sufficient for Hamlet staff to conduct the inspection, without sign off by a qualified engineer. While the Board understands that Hamlet staff are well familiar with municipal infrastructure, and may identify issues on a day to day basis that trigger immediate remedial actions, having this informal and on-going input from Hamlet staff is not a replacement for the annual application of professional expertise and sign off on the inspection provided by a qualified engineer.

Therefore, the Board has modified this term and condition to broaden the requirement so that the annual inspection is not required to be conducted by a geotechnical engineer, but rather a qualified Engineer. While the Board understands that this amendment does not reflect the full scope of the Applicant's request, this amendment is consistent with the Board's requirements in other licences and reflects the Board's objective of having a qualified professional conducting these routine inspections, which provide important information to ensure the continued safe operation and maintenance of this critical municipal infrastructure. It should also be noted that this provision is aligned with GN-CGS previous requests⁴⁶ with respect to the numerous municipal licences.

Reflecting these considerations, the Board included the following amended term and condition in Part G, Item 10 requiring the Hamlet to conduct annual visual inspections of engineered facilities by a qualified Engineer to assess the conditions, identify issues early and resolve them before they become more serious, and possibly triggering the requirement for an investigation by a geotechnical Engineer.

An inspection of all engineered facilities associated with this Licence shall be carried out at least once annually during open water season by a qualified Engineer. The Engineer's report shall be submitted to the Board along with the Annual Report, including a cover letter from the Licensee outlining an implementation plan to address each of the Engineer's recommendations.

PART H: Conditions Applying to Spill Contingency Planning

This Part of the Licence contains conditions for spill contingency planning. The Licensee has submitted the Plan entitled "Hamlet of Arviat Environmental Emergency Contingency Plan" dated January 2021, which is being approved by the Board with the issuance of the Licence.

⁴⁶ Megan Lusty (GN-CGS) to Phyllis Beaulieu (NWB), Re: Hamlet of Chesterfield Inlet Water Licence No. 3BM-CHE1013 Amendment/Renewal Application, dated January 25, 2015.

PART I: Conditions Applying to Monitoring

With respect to the monitoring requirements under the Licence, the NWB's jurisdiction is very broad and the NWB may include conditions in licences related to monitoring programs to be undertaken.⁴⁷

The Licensee has submitted the Plan entitled "Environmental Monitoring Program and Quality Assurance/Quality Control Plan" dated January 2021, which is to be updated to include recommendations from ECCC on the inclusion of replicate and duplicate sampling.

PART J: Conditions Applying to Closure and Reclamation

The terms and conditions of the Licence outlining the NWB's Closure and Reclamation requirements are generally similar to other Municipal Type "A" Licences and require that, at least six (6) months prior to commencing the decommissioning of a facility, the Licensee shall submit to the Board, for approval in writing, a Closure and Reclamation Plan prepared by an Engineer and in accordance with industry's best practices and relevant guidelines.

Schedules A, B and I

Schedules A, B, and I have been revised to reflect the changes under the Licence. The following sections outline the changes to the schedules included in the Licence.

Schedule A

The Licence includes Schedule A: Definitions, and the following definitions have been added/revised under the Licence to reflect the issuance of the amended Type "A" Water Licence to replace the Expire Licence for a Municipal Undertaking and to reflect that former references to the *Nunavut Land Claims Agreement* should be updated to be the *Nunavut Agreement*:

- "Abandoned Sewage Lagoons";
- "Application";
- "Effective Date";
- "Engineered Structure";
- "Licence";
- "Licensee";
- "Minister";
- "Sewage Disposal Facility";

⁴⁷ See s. 70(1)(c) of the *NWNSTRA*.

- “Solid Waste Disposal Facility”;
- “Water Supply Facilities”;
- “Wetland Treatment Area”, and
- “Water Treatment Plant”.

Schedule B

Schedule B applies to general and specific annual reporting requirements for the Undertaking.

Schedule I

This Schedule is linked to Part I of the Licence and the Conditions Applying to Monitoring. This Schedule includes updates or changes to the monitoring requirements as required to reflect any changes under the Licence, taking into consideration the Applicant’s requests, Interveners’ recommendations, the Board’s mandate and the scope of the Undertaking.

In this Licence, several changes were made to the Monitoring requirements imposed under the previously Expired Licence.

Table 1 in **Schedule I** of the Licence includes a list of monitoring parameters. Acute lethality was removed as a monitoring parameter as requested by GN-CGS in its Public Hearing presentation. As stated in Exhibit #1 filed by the Applicant during the Public Hearing:

ECCC has recognized that this test is not practical for remote northern communities and it has been removed from other licences⁴⁸

It should be noted that no objections were received from the Interveners in regards to this request.

Table 2 has been updated to include water quality parameters to be measured for each monitoring station, the testing frequency, and the reporting frequency. Some Monitoring Program Stations were introduced, and some have been designated as inactive. The names of a number of Monitoring Program Stations have been updated for more clarity. They are as follows:

- **ARV-3** is updated from “Inactive” to “Active” and now includes monitoring for quality.
- **ARV-3a** is a new Monitoring Program Station added to the existing program to monitor the wastewater quality flowing from lagoon to the Wetland Treatment Area as requested by ECCC and agreed with by GN-CGS.
- **ARV-4** indicates that it is the final discharge point for the Sewage Disposal Facility Effluent.
- **ARV-7, ARV-8, ARV-10, and ARV-11** are designated as “Inactive” as no monitoring is required at these Monitoring Program Stations.

⁴⁸ GN-CGS, Exhibit #1, NWB Public Hearing, Water Licence Renewal and Amendment Arviat 3AM-ARV----, Hard Copy, (English) filed on May 31, 2022.

GN-CGS advocated for complete removal of inactive Monitoring Program Stations; however, the Board's view is that removing these stations and changing the numbering to reflect that these stations are not part of the Monitoring Program under the Licence could cause confusion to a reader unfamiliar with the application and discussions during the 2020-2022 licensing process. As a result, the Board has not altered the numbering of Monitoring Program Stations by deleting specific Monitoring Program Stations that had already had station numbers assigned to them under the Expired Licence. Instead, the Board has labelled these Monitoring Program Stations as "inactive" to denote that the Licensee is not expected to provide monitoring data for these Monitoring Program Stations.

Management Plans, Manuals and Reports

Throughout the review of the Application, Interveners, the Board, and the Applicant have considered and commented, to various extents, on the following management plans (Plans), which were received during the Application process:

- Operation & Maintenance Manual Arviat Water Treatment Plant
- Arviat Sewage Treatment Facility Operation and Maintenance Plan
- Hamlet of Arviat Solid Waste Management Facility Operation and Maintenance Plan
- Hamlet of Arviat Environmental Emergency Contingency Plan
- Environmental Monitoring Program and Quality Assurance/Quality Control Plan

After completing the technical review of the Plans listed above as part of the Board's consideration of the Application, the Board has approved these Plans with the issuance of the Licence. However, the Board also expects that in future, the Licensee shall update the approved Plans as may become necessary to reflect updates to operations, such as changes to site infrastructure (e.g. new infrastructure is added, or existing infrastructure is modified or decommissioned).

APPENDIX A - List of Acronyms

CIRNA or CIRNAC	Crown-Indigenous Relations and Northern Affairs (formerly INAC and AANDC)	ᑳᐃᖅᐃᖅ ᓄᓇᖃᖃᖅᑕᓕᓂᐱᑦ ᐃᑭᓂᐱᑦ ᑕᓂᐱᑦ ᐃᓂᓂᐱᑦ (ᑕᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ)
DFO	Fisheries and Oceans Canada	ᖅᐃᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
ECCC	Environment and Climate Change Canada (former EC)	ᓂᓇᑕᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
GN	Government of Nunavut	ᓄᓇᓂᐱᑦ ᓂᓇᓂᐱᑦ
NIRB	Nunavut Impact Review Board	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
NPC	Nunavut Planning Commission	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ
<i>Nunavut Agreement</i>	<i>The Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada</i>	ᓂᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
<i>NuPPAA</i>	<i>Nunavut Planning and Project Assessment Act</i>	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
NWB	Nunavut Water Board	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
<i>NWNSRTA</i>	<i>Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10</i>	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
<i>NWR or Regulations</i>	<i>Nunavut Waters Regulations, SOR/2013-69</i>	ᓄᓇᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
PH	Public Hearing	ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
PHC	Pre-Hearing Conference	ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ
TM	Technical Meeting	ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ ᐃᓂᓂᐱᑦ

APPENDIX B - List of Submissions and Correspondence

Application:

1. Cover letter and initial submission of water licence renewal and amendment Type ‘A’ Water Licence No: 3AM-ARV1016; by Government of Nunavut, Community and Government Services (CGS) on behalf of the Hamlet of Arviat, **September 01, 2020**.

Initial Submission & Correspondence:

1. Submitted **September 01, 2020** by CGS, Application for Water Licence Amendment, dated September 01, 2020.
2. Submitted **September 01, 2020** by CGS, Letter to Phyllis Beaulieu, NWB, RE: [3AM-ARV Arviat Water Supply – Hamlet of Arviat – Dec 2009], from Bobby Suluk, NPC, dated January 28, 2010.
3. Submitted **September 01, 2020** by CGS, Cover E-mail to Richard Dwyer, NWB, RE: 3AM-ARV----, from Ryan Barry, Nunavut Impact Review Board, (NIRB), dated April 23, 2010.
4. Submitted **September 01, 2020** by CGS, Letter to Richard Dwyer, NWB, RE: NPC File # 149380 [3AM-ARV1015 Municipal Water Licence Amendment and Renewal], from Goump Djalogue, Nunavut Planning Commission, (NPC), dated July 29, 2020.
5. Submitted **September 01, 2020** by CGS, 3AM-ARV1016 2019 Annual Report.
6. Submitted **September 01, 2020** by CGS, PLAN FOR COMPLIANCE LICENCE NO: 3AM-ARV1016 TYPE – A.
7. Submitted **September 14, 2020** by CGS, Letter to Richard Dwyer, NWB, RE: NPC File # 149380 [3AM-ARV1015 Municipal Water Licence Amendment and Renewal], from Goump Djalogue, Nunavut Planning Commission, (NPC), dated July 29, 2020.
8. Submitted **September 14, 2020** by CGS, Letter to Phyllis Beaulieu, NWB, RE: [3AM-ARV Arviat Water Supply – Hamlet of Arviat – Dec 2009], from Bobby Suluk, NPC, dated January 28, 2010.
9. Submitted **September 14, 2020** by CGS, Cover E-mail to Richard Dwyer, NWB, RE: 3AM-ARV----, from Ryan Barry, Nunavut Impact Review Board, (NIRB), dated April 23, 2010.
10. Submitted **September 14, 2020** by CGS, Application for Water Licence Amendment, dated September 01, 2020.
11. Submitted **September 14, 2020** by CGS, Water Treatment Facility and Raw Water Storage Arviat NU, Issued for Tender Drawings date May 2017.

12. Submitted **September 14, 2020** by CGS, Hamlet of Arviat Water Licence No. 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) Amendment/Renewal Application (Executive Summary Inuktitut)
13. Submitted **September 14, 2020** by CGS, Hamlet of Arviat Water Licence No. 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) Amendment/Renewal Application (Executive Summary English)
14. Submitted **September 14, 2020** by CGS Operation & Maintenance Manual Arviat Water Treatment Plant, dated November 2019.
15. Submitted **September 14, 2020** by CGS, 3AM-ARV1016 2019 Annual Report.
16. Submitted **September 14, 2020** by CGS, Hamlet Letter Authorizing CGS to represent Hamlet of Arviat dated August 12, 2020.
17. Submitted **September 14, 2020** by CGS, Wolf Creek 2019 Hydrologic Assessment, dated March 4, 2020.
18. Submitted **September 14, 2020** by CGS, PLAN FOR COMPLIANCE LICENCE NO: 3AM-ARV1016 TYPE – A.
19. Submitted **September 16, 2020** by CGS, Letter to Richard Dwyer, NWB, RE: NPC File # 149380 [3AM-ARV1015 Municipal Water Licence Amendment and Renewal], from Goump Djalogue, Nunavut Planning Commission, (NPC), dated July 29, 2020.
20. Submitted **September 16, 2020** by CGS, Letter to Phyllis Beaulieu, NWB, RE: [3AM-ARV Arviat Water Supply – Hamlet of Arviat – Dec 2009], from Bobby Suluk, NPC, dated January 28, 2010.
21. Submitted **September 16, 2020** by CGS, Cover E-mail to Richard Dwyer, NWB, RE: 3AM-ARV----, from Ryan Barry, Nunavut Impact Review Board, (NIRB), dated April 23, 2010.
22. Submitted **September 16, 2020** by CGS, Application for Water Licence Amendment, dated September 01, 2020.
23. Submitted **September 16, 2020** by CGS, Hamlet of Arviat Water Licence No. 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) Amendment/Renewal Application (Executive Summary Inuktitut)
24. Submitted **September 16, 2020** by CGS, Hamlet of Arviat Water Licence No. 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) Amendment/Renewal Application (Executive Summary English)
25. Submitted **September 16, 2020** by CGS, Arviat Map Wolf Creek
26. Submitted **September 16, 2020** by CGS, Arviat Map Municipal Facilities.

27. Submitted **September 16, 2020** by CGS Operation & Maintenance Manual Arviat Water Treatment Plant, dated November 2019.
28. Submitted **September 16, 2020** by CGS, 3AM-ARV1016 2019 Annual Report.
29. Submitted **September 16, 2020** by CGS, Hamlet Letter Authorizing CGS to represent Hamlet of Arviat dated August 12, 2020.
30. Submitted **September 16, 2020** by CGS, Wolf Creek 2019 Hydrologic Assessment, dated March 4, 2020.
31. Submitted **September 16, 2020** by CGS, PLAN FOR COMPLIANCE LICENCE NO: 3AM-ARV1016 TYPE – A.
32. Cover E-mail to Richard Dwyer, NWB, RE: 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) Amendment and Renewal Application Package (applicant confirms deletion of previous application submission), from Sarah Collins, CGS, dated **September 17, 2020**.
33. Letter to Steve England, Hamlet of Arviat, Sarah Collins, CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat, from Richard Dwyer, NWB, dated **September 17, 2020**.
34. Cover E-mail to Steve England, Hamlet of Arviat, Sarah Collins, CGS, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016, from Richard Dwyer, NWB, dated **September 17, 2020**.
35. Cover E-mail to Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (ECCC Extension Request) from Victoria Shore, ECCC, dated **October 5, 2020**.
36. Cover E-mail to Steve England, Hamlet of Arviat, Sarah Collins, CGS, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (ECCC Extension Requested Granted), from Richard Dwyer, NWB, dated **October 5, 2020**.
37. Letter to Richard Dwyer, NWB, RE: Crown-Indigenous Relations and Northern Affairs Canada's completeness check on the Government of Nunavut – Community and Government Services' renewal application for municipal undertakings – Hamlet of Arviat – 3AM-ARV1016, from Sarah Forte, Crown Indigenous Relations and Northern Affairs Canada (CIRNA) dated **October 16, 2020**.
38. Letter to Richard Dwyer, NWB, RE: 3AM-ARV1016 Hamlet of Arviat Water Licence Renewal-Amendment Application, from Margaret Fairbairn, ECCC, dated **October 16, 2020**.

39. Cover E-mail to Sarah Collins, CGS, RE: 3AM-ARV1016 Hamlet of Arviat Renewal Application (Applicant Response to Comments Requested), from Richar Dwyer, NWB, dated **October 19, 2020**.
40. Submitted **October 27, 2020** by CGS, Recommendations for the Development of Nunavut Municipal Wastewater Management Standards, dated October 2017 Revised November 2018.
41. Submitted **October 27, 2020** by CGS, Review of Wastewater Research in Nunavut June 20, 2019 Preliminary Discussion on Development of Regulatory Framework for Northern Wastewater Systems.
42. Submitted **October 27, 2020** by CGS, Letter to Nunavut Water Board, RE: Licence No: 3AM-ARV1016, Type “A”; Hamlet of Arviat; 2020 Completeness Check, from Sarah Collins, CGS, dated October 26, 2020.
43. Submitted **October 27, 2020** by CGS, Treatment Performance of Municipal Wastewater Stabilization Ponds in Nunavut, dated September 18, 2015.
44. Cover E-mail to Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016, from Sarah Forte, CIRNA, dated **November 17, 2020**.
45. Letter to Richard Dwyer, NWB, RE: RE: 3AM-ARV1016 Hamlet of Arviat Water Licence Renewal-Amendment Application, from Margaret Fairbairn, ECCC, dated **November 19, 2020**.
46. Cover E-mail to Sarah Forte, CIRNA, Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (Applicant Response to CIRNA), from Sarah Collins, CGS, dated **November 19, 2020**.
47. Cover E-mail to Sarah Collins, CGS, Assol Kubeisinova, Richard Dwyer, NWB, Godwin Okonkwo, Justin Hack, Atuut Shouldice, CIRNA, ECCC, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (CIRNA Satisfied with Applicant Response), from Sarah Forte, CIRNA, dated **November 19, 2020**.
48. Cover E-mail to Steve England, Hamlet of Arviat, Sarah Collins, CGS, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (Review Deferred until feasibility studies provided) from Richard Dwyer, NWB, dated **November 20, 2020**.
49. Cover E-mail to Assol Kubeisinova, NWB, RE: Arviat and Whale Cove municipal applications (applicant agrees to defer application) from Sarah Collins, CGS, dated **November 23, 2020**.
50. Submitted **March 29, 2021**, by CGS, Hamlet of Arviat Environmental Monitoring Program and Quality Assurance/Quality Control Plan, dated January 2021.

51. Submitted **March 29, 2021**, by CGS, Sewage Treatment Facility O&M Plan Hamlet of Arviat, Nunavut dated March 2021.
52. Submitted **March 29, 2021**, by CGS, HAMLET OF ARVIAT SOLID WASTE MANAGEMENT FACILITY Operation and Maintenance Plan, dated January 2021.
53. Submitted **March 29, 2021**, by CGS, Operation & Maintenance Manual Arviat Water Treatment Plant, dated March 2020.
54. Letter to Richard Dwyer, NWB, RE: 3AM-ARV 1016 - Updated License Documents, from Sarah Collins, CGS, dated **March 29, 2021**.
55. Submitted **March 29, 2021**, by CGS, Environmental Emergency Contingency Plan, dated January 2021.
56. Submitted **March 29, 2021**, by CGS, As-Builts dated August 30, 2017.
57. Submitted **March 29, 2021**, by CGS, As-Builts dated January 8, 2018.
58. Cover E-mail to Assol Kubeisinova, NWB, RE: Arviat Lagoon (Pause Application Process) from Sarah Collins, CGS, dated **April 17, 2021**.
59. Submitted **November 19, 2021** by CGS, Cover Letter to Jeannie Ehaloak, Minister CGS, RE: Screening Decision for the Government of Nunavut's "3AM-ARV1016 Municipal Water Licence Amendment" Project Proposal, Kivalliq Region, from Kaviq Kaluraq, Chairperson Nunavut Impact Review Board (NIRB) dated August 17, 2021.
60. Submitted **November 19, 2021** by CGS, SCREENING DECISION REPORT NIRB FILE No.: 21UN019, dated August 17, 2021 (Inuktitut).
61. Submitted **November 19, 2021** by CGS, SCREENING DECISION REPORT NIRB FILE No.: 21UN019, dated August 17, 2021 (English).
62. Submitted **November 19, 2021** by CGS, Business Case for Arviat Wastewater Final Report Rev 01, dated April 23, 2021.
63. Submitted **November 19, 2021** by CGS, Water Treatment Facility and Raw Water Storage Arviat NU, As-built dated August 30, 2017.
64. Letter to Richard Dwyer, NWB, RE: Municipality of Arviat is requesting to include the upgrade and expansion of the existing wastewater treatment facility and the amendment of the effluent limits at the final effluent discharge point ARV-4 in the ongoing application process to amend and renew the 3AM-ARV1016 water license. Screening for these additional items was completed by Nunavut Impact Review Board on August 17, 2021, from Elan Chalmers, CGS, dated **November 19, 2021**.

65. Submitted **November 19, 2021** by CGS, Letter RE: 3AM-ARV1016 Effluent Parameters, dated November 18, 2021.
66. Submitted **November 19, 2021** by CGS, Letter RE: NPC File #149528 [3AM-ARV1016 Municipal Water Licence Amendment], from Solomon Amuno, NPC, dated April 16, 2021.
67. Submitted **November 19, 2021** by CGS, PLAN FOR COMPLIANCE LICENCE NO: 3AM-ARV1016 TYPE-A.
68. Submitted **November 19, 2021** by CGS, HAMLET OF ARVIAT SOLID WASTE MANAGEMENT FACILITY Operation and Maintenance Plan, dated October 2021.
69. Cover E-mail to Assol Kubeisinova, NWB, RE: 3AM ARV1016 Renewal/Amendment (Applicant Response Feasibility Study_Solid Waste MGMT O&M Plan Update), from Elan Chalmers, CGS, dated **November 22, 2021**.
70. Cover E-mail to Elan Chalmers, CGS, RE: 3AM ARV1016 Renewal/Amendment, from Assol Kubeisinova, NWB, dated **November 22, 2021**.
71. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016 (Water Licence Completeness Check Resumed) from Richard Dwyer, NWB, dated **November 22, 2021**.
72. Letter to Richard Dwyer, NWB, RE: Crown-Indigenous Relations and Northern Affairs Canada's Completeness Check on Government of Nunavut - Community and Government Services renewal/amendment application for Hamlet of Arviat Type A Water Licence 3AM-ARV1016, from Vincent Okonkwo, CIRNA, dated **November 30, 2021**.
73. Cover E-mail to Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016, from Ashley Lindley, Fisheries and Oceans Canada (DFO) dated **November 30, 2021**.
74. Cover E-mail to Assol Kubeisinova, Richard Dwyer, Karen Kharatyan NWB, Andrew Keim, CIRNA, RE: 3AM-ARV1016 CIRNAC Comment to NWB on GN-CGS Hamlet of Arviat Type A WaterLicence Renewal/Amendment Application Completeness Check, from Vincent Okonkwo, CIRNA, dated **December 1, 2021**.
75. Cover E-mail to Richard Dwyer, NWB, Jody Small, ECCC RE: Hamlet of Arviat Water Licence Renewal and Amendment Application 3AM-ARV1016, from Victoria Shore, ECCC, dated **December 1, 2021**.
76. Letter to Steve England, Hamlet of Arviat, Elan Chalmers, CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat, from Stephanie Autut, NWB, dated **December 10, 2021**.

77. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat Technical Review, from Richard Dwyer, NWB, dated **December 10, 2021**.
78. Letter to Richard Dwyer, NWB, RE: Crown-Indigenous Relations and Northern Affairs Canada's technical review of Hamlet of Arviat Type A Water Licence renewal application for municipal undertakings – Type A Water Licence No. 3AM-ARV1016, from Vincent Okonkwo, CIRNA, dated **January 20, 2022**.
79. Letter to Richard Dwyer, NWB, RE: 3AM-ARV1016 – Hamlet of Arviat – Municipal Water Licence Renewal-Amendment Application, from Margaret Fairbairn, ECCC, dated **January 21, 2022**.
80. Cover E-mail to DFO, Assol Kubeisinova, Karen Kharatyan NWB, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat Technical Review, from Richard Dwyer, NWB, dated **January 24, 2022**.
81. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat Technical Review, from Richard Dwyer, NWB, dated **January 24, 2022**.
82. Letter to Richard Dwyer, NWB, RE: Comment Request for the Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat Technical Review, from Rick Kiriluk, DFO, dated **January 25, 2022**.
83. Letter to NWB, RE: 3AM-ARV---- Municipality of Arviat – Renewal and Amendment Application, from Elan Chalmers, CGS, dated **February 3, 2022**.
84. Letter to Richard Dwyer, NWB, RE: Crown-Indigenous Relations and Northern Affairs Canada's technical review of Hamlet of Arviat Type A Water Licence renewal application for municipal undertakings – Type A Water Licence No. 3AM-ARV1016, from Vincent Okonkwo, CIRNA, dated **February 3, 2022**.
85. Letter to Steve England, Hamlet of Arviat, Elan Chalmers, CGS, RE: Type "A" Water Licence 3AM-ARV1016; Application for Renewal-Amendment; Hamlet of Arviat; Technical Meeting Draft Agenda, from Richard Dwyer, NWB, dated **February 4, 2022**.
86. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet of Arviat Technical Review, from Richard Dwyer, NWB, dated **February 4, 2022**.
87. Submitted **February 7, 2022** by CGS, Letter to NWB, RE: 3AM-ARV---- Municipality of Arviat – Renewal and Amendment Application, from Elan Chalmers, CGS, dated February 3, 2022.

88. Submitted **February 7, 2022**, by CIRNA, **Hamlet of Arviat Renewal Application for Type “A” Water Licence 3AM-ARV----** Nunavut Water Board Technical Meeting February 22 - 23, 2022.
89. Cover E-mail to Richard Dwyer, NWB, RE: 3AM_CIRNAC Technical Meeting Presentation for the Hamlet of Arviat Type A WaterLicence Application, from Vincent Okonkwo CIRNA, dated **February 7, 2022**.
90. Submitted **February 15, 2022**, by ECCC Environment and Climate Change Canada’s Presentation to the Nunavut Water Board Respecting the Hamlet of Arviat Type A Water Licence Renewal Amendment Application 3AM-ARV1016 Nunavut Water Board Technical Meeting February 22, 2022 (English).
91. Submitted **February 15, 2022**, by ECCC Environment and Climate Change Canada’s Presentation to the Nunavut Water Board Respecting the Hamlet of Arviat Type A Water Licence Renewal Amendment Application 3AM-ARV1016 Nunavut Water Board Technical Meeting February 22, 2022 (French).
92. Prepared **February 16, 2022** by NWB, Nunavut Water Board Technical Meeting Community Session Presentation Regarding an Application for renewal-amendment Type “A” Water Licence 3AM-ARV1016 Hamlet of Arviat (French_English).
93. Prepared **February 16, 2022** by NWB, Nunavut Water Board Technical Meeting Community Session Presentation Regarding an Application for renewal-amendment Type “A” Water Licence 3AM-ARV1016 Hamlet of Arviat (Inuktitut_English).
94. Submitted **February 17, 2022** by CGS, Nunavut Water Board Public Meeting Water Licence Renewal and Amendment Arviat 3AM-ARV---- (English)
95. Cover E-mail to Richard Dwyer, NWB, RE: Technical Meeting 3AM-ARV---- Hamlet of Arviat, from Paul Harper, DFO, (Attendance Confirmation) dated **February 17, 2022**.
96. Cover E-mail to Richard Dwyer, NWB, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet ofArviat Technical Review, from Victoria Shore, ECCC (Attendance Confirmation) dated **February 17, 2022**.
97. Cover E-mail to Richard Dwyer, NWB, Steve England Hamlet of Arviat, Megan Lusty CGS, RE: Application for Renewal-Amendment to Water Licence No: 3AM-ARV1016; Hamlet ofArviat Technical Review, from Elan Chalmers, CGS (Attendance Confirmation) dated **February 17, 2022**.
98. Prepared by NWB **February 18, 2022**, FINAL AGENDA TECHNICAL MEETING AND PRE-HEARING CONFERENCE – HAMLET OF ARVIAT APPLICATION FOR RENEWAL-AMENDMENT TO WATER LICENCE NO: 3AM-ARV1016 (Inuktitut)

110. Letter to Richard Dwyer, NWB, RE: Response to Commitment #3 and #6 from the Technical Meeting/Pre-Hearing Conference, Project Timelines, from Elan Chalmers, CGS, dated **April 5, 2022**.
111. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS, RE: Hamlet of Arviat Project timeline memo for water licence 3AM-ARV1016, from Richard Dwyer, NWB, dated **April 6, 2022**.
112. Cover Letter to Richard Dwyer, NWB, RE: 3AM-ARV1016– Hamlet of Arviat – Type A Munciple Water Licence Renewal-Amendment Application (Final Written Submission), from Margaret Fairbairn, ECCC, dated April 28, 2021 (submitted **April 28, 2022**).
113. Submitted **April 28, 2022** by ECCC, ENVIRONMENT AND CLIMATE CHANGE CANADA’S FINAL WRITTEN SUBMISSION TO THE NUNAVUT WATER BOARD RESPECTING THE TYPE A MUNICIPAL WATER LICENCE APPLICATION FOR HAMLET OF ARVIAT.
114. Letter to Richard Dwyer, NWB, RE: Crown-Indigenous Relations and Northern Affairs Canada’s technical review of Hamlet of Arviat Type A Water Licence renewal application for municipal undertakings – Type A Water Licence No. 3AM-ARV1016 (Final Written Submission), from Vincent Okonkwo CIRNA, dated **May 3, 2022**.
115. Letter to NWB, RE: RE: 3AM-ARV---- Municipality of Arviat – Renewal and Amendment Application (Final Response Letter), from Elan Chalmers, CGS, dated **May 3, 2022**.
116. Letter to Steve England, Hamlet of Arviat, Elan Chalmers, CGS, RE: Water Licence No: 3AM-ARV1016, Type “A”; Hamlet of Arviat; Renewal Amendment Application; Public Hearing Update and Hearing Draft Agendas, from Richard Dwyer, NWB, dated **May 12, 2022**.
117. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS, RE: Hamlet of Arviat Water Licence Renewal & Amendment 3AM-ARV1016 Pre-HearingConference Decision Report, from Richard Dwyer, NWB, dated **May 12, 2022**.
118. Cover E-mail to Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal & Amendment 3AM-ARV1016 Pre-HearingConference Decision Report (CGS Attendance Confirmation), from Elan Chalmers, CGS, dated **May 13, 2022**.
119. Cover E-mail to Assol Kubeisinova, NWB, RE: Hamlet of Arviat Water Licence Renewal & Amendment 3AM-ARV1016 Pre-HearingConference Decision Report (CIRNA Attendance Confirmation), from Vincent Okonkow, CIRNA, dated **May 16, 2022**.

120. Submitted **May 16, 2022** by CIRNA, Hamlet of Arviat Renewal Application for Type “A” Water Licence 3AM-ARV---- Nunavut Water Board Public Hearing May 31 – June 1, 2022.
121. Cover E-mail to Richard Dwyer, NWB, RE: Hamlet of Arviat Water Licence Renewal & Amendment 3AM-ARV1016 Pre-HearingConference Decision Report, (ECCC Attendance Confirmation), from Victoria Shore, ECCC, dated **May 19, 2022**.
122. Submitted **May 19, 2022** by ECCC, Environment and Climate Change Canada’s Presentation to the Nunavut Water Board Respecting the Hamlet of Arviat Type A Water Licence Renewal Amendment Application (Inuktitut & English)
123. Submitted **May 19, 2022** by ECCC, Présentation d’Environnement et Changement climatique Canada à l’Office des eaux du Nunavut concernant la demande de renouvellement et de modification du permis d’utilisation des eaux de type A du hameau de Arviat (French)
124. Submitted **May 19, 2022** by CGS Nunavut Water Board Public Meeting Water Licence Renewal and Amendment Arviat 3AM-ARV---- (Inuktitut & English)
125. Submitted **May 19, 2022** by CGS Réunion publique de l’Office des eaux du Nunavut Renouvellements et modifications des permis d’utilisation de l’eau Arviat 3AM-ARV--- (French)
126. Prepared **May 26, 2022** by NWB Nunavut Water Board Public Hearing Presentation Regarding an Application for renewal amendment Type “A” Water Licence 3AM-ARV1016 Hamlet of Arviat (Inuktitut & English)
127. Prepared **May 26, 2022** by NWB AGENDA PUBLIC HEARING HAMLET OF ARVIAT TYPE “A” LICENCE NO: 3AM-ARV1016, RENEWAL AMENDMENT APPLICATION
128. Prepared **May 26, 2022** by NWB ᑲᑎᓚᑦᑲᑎᑦᑲᑦ ᐃᑭᑦᓚᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ “A” ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ: 3AM-ARV1016, ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ ᐃᓕᑦᑲᑦᑲᑦ (Public Hearing Agenda Inuktitut)
129. Cover E-mail to Steve England, Hamlet of Arviat, Elan Chalmers, Megan Lusty, CGS RE: Hamlet of Arviat Water Licence Renewal & Amendment 3AM-ARV1016 PublicHearing Presentation and Agendas, from Richard Dwyer, NWB, dated **May 26, 2022**.
130. Prepared **May 31, 2022** by NWB Public Hearing Registration Forms.
131. Submitted **May 31, 2022** by NWB Exhibit 1 Water Licence Renewal and Amendment CGS Presentation (English)
132. Submitted **May 31, 2022** by NWB Exhibit 2 Water Licence Renewal and Amendment CGS Presentation (Inuktitut)

133. Submitted **May 31, 2022** by NWB Exhibit 3 Water Licence Renewal and Amendment CGS Presentation (French)
134. Submitted **May 31, 2022** by NWB Exhibit 4 Water Licence Renewal and Amendment CIRNA Presentation (English)
135. Submitted **May 31, 2022** by NWB Exhibit 5 Water Licence Renewal and Amendment ECCC Presentation (Inuktitut_English)
136. Submitted **May 31, 2022** by NWB Exhibit 6 Water Licence Renewal and Amendment ECCC Presentation (French)
137. Prepared **May 31, 2022** by NWB Exhibits List: Nunavut Water Board Public Hearing, May 31 – June 1, 2022 in Arviat, Nunavut Application to For Type “A” Water Licence No: 3AM-ARV----
138. Prepared **June 24, 2022** by NWB Public Hearing for Licence No. 3AM-ARV1016-Renewal - Amendment Application HEARING VOLUME 1 Arviat, Nunavut May 31, 2022 (Public Hearing Transcript)
139. Prepared **June 24, 2022** by NWB Public Hearing for Licence No. 3AM-ARV1016-Renewal - Amendment Application HEARING VOLUME 2 Arviat, Nunavut June 1, 2022 (Public Hearing Transcript)

APPENDIX C - Agendas for Public Hearing and Community Session

AGENDA

PUBLIC HEARING

HAMLET OF ARVIAT

TYPE “A” LICENCE NO: 3AM-ARV1016, RENEWAL AMENDMENT APPLICATION

May 31, 2022, 10:30 a.m. – 5:00 p.m. CST, Arviat Community Hall

June 1, 2022, 10:30 a.m. – 5:00 p.m. CST, Arviat Community Hall

Teleconference Call-In Information:

Zoom link: <https://pido-ca.zoom.us/j/86335551351>

Meeting ID: 863 3555 1351

Or call in (audio only): +12042727920,,86335551351# Canada

+14388097799,,86335551351# Canada

Dial by your location

+1 204 272 7920 Canada

+1 438 809 7799 Canada

+1 587 328 1099 Canada

+1 613 209 3054 Canada

+1 647 374 4685 Canada

+1 647 558 0588 Canada

+1 778 907 2071 Canada

855 703 8985 Canada Toll-free

Meeting ID: 863 3555 1351

Find your local number: <https://pido-ca.zoom.us/u/kefs0UNEfm>

1. Opening Prayer
2. Opening Remarks by the Chairperson, which shall include the purpose of the Hearing and the scope of matters which will be considered by the Board
3. Introduction of the Board Members and staff
4. Identification and introduction of the Parties

5. Introduction of the Elders and their role in the Hearing
6. Introduction and identification of the persons, associations, agencies, etc., who have not submitted interventions but who have expressed a desire to speak at the Hearing
7. Identification of any Motions or any objections
8. Presentation by the Applicant
9. Questioning of the Applicant by Parties respecting the Applicant's presentation
10. Questioning by the Board staff and Panel Members
11. Presentation by Interveners
12. Questioning of Interveners by Parties
13. Questioning by the Board staff and Panel Members
14. Presentation by any other persons, associations, agencies, etc. who have advised the Chairperson that they wish to speak
15. Questioning of other persons, associations, agencies, etc. by Parties
16. Questions by the Board staff and Panel Members
17. Upon completion of presentations by all Parties, the Board will give the Applicant the opportunity to reply. Then all Parties will have the opportunity to make final closing statements taking into account matters raised at the Hearing
18. Closing remarks by the Chairperson; and
19. Closing Prayer

AGENDA

COMMUNITY SESSION

HAMLET OF ARVIAT
TYPE “A” LICENCE NO: 3AM-ARV1016, RENEWAL AMENDMENT APPLICATION

May 31, 2022, 6:00 p.m. CST, Arviat Community Hall

Teleconference Call-In Information:

Zoom link: <https://pido-ca.zoom.us/j/86335551351>

Meeting ID: 863 3555 1351

Or call in (audio only): +12042727920,,86335551351# Canada

+14388097799,,86335551351# Canada

Dial by your location

+1 204 272 7920 Canada

+1 438 809 7799 Canada

+1 587 328 1099 Canada

+1 613 209 3054 Canada

+1 647 374 4685 Canada

+1 647 558 0588 Canada

+1 778 907 2071 Canada

855 703 8985 Canada Toll-free

Meeting ID: 863 3555 1351

Find your local number: <https://pido-ca.zoom.us/u/kefs0UNEfm>

1. Opening Prayer
2. Opening Remarks by the Chair
3. Presentation by the Nunavut Water Board (NWB) – Type “A” water licensing process for the Applications (15 minutes)
4. Questions and/or comments from community members and other participants

5. Presentation by Hamlet of Arviat on the Renewal Amendment Application before the Board for Type “A” Water Licence 3AM-ARV1016 (20 Minutes)
6. Questions and/or comments from community members and other participants
7. Presentation from each intervening party pertaining to its mandate and role(s) in the water licensing process as well as an overview of their findings during their technical review (15 Minutes/Intervener)
8. Questions and/or comments from community members and other participants
9. Closing Remarks
10. Closing Prayer

APPENDIX D - Exhibit List

Nunavut Water Board Public Hearing, May 31 – June 1, 2022 in Arviat, Nunavut

Application for Type “A” Water Licence No: 3AM-ARV----

Exhibit	Exhibit Description	Date	From
1	Hard Copy PowerPoint Presentation Nunavut Water Board Public Meeting Water Licence Renewal and Amendment Arviat 3AM-ARV---- <i>(English)</i>	May 31, 2022	Government of Nunavut— Community and Government Services
2	Hard Copy PowerPoint Presentation Nunavut Water Board Public Meeting Water Licence Renewal and Amendment Arviat 3AM-ARV---- <i>(Inuktitut)</i>	May 31, 2022	Government of Nunavut— Community and Government Services
3	Hard Copy PowerPoint Presentation Nunavut Water Board Public Meeting Water Licence Renewal and Amendment Arviat 3AM-ARV---- <i>(French)</i>	May 31, 2022	Government of Nunavut— Community and Government Services

Exhibit	Exhibit Description	Date	From
4	<p>Hard Copy PowerPoint Presentation Hamlet of Arviat Renewal Application for Type “A” Water Licence 3AM-ARV----</p> <p>Nunavut Water Board Public Hearing May 31-June 2, 2022</p> <p><i>(English)</i></p>	May 31, 2022	Crown-Indigenous Relations and Northern Affairs
5	<p>Hard Copy PowerPoint Presentation</p> <p>Environment and Climate Change Canada’s Presentation to the Nunavut Water Board Respecting the Hamlet of Arviat Type A Water Licence Renewal Amendment Application</p> <p>3AM-ARV1016 – Nunavut Water Board Public Hearing</p> <p><i>(English/Inuktitut)</i></p>	May 31, 2022	Environment and Climate Change Canada
6	<p>Hard Copy PowerPoint Presentation</p> <p>Environment and Climate Change Canada’s Presentation to the Nunavut Water Board Respecting the Hamlet of Arviat Type A Water Licence Renewal Amendment Application</p> <p>3AM-ARV1016 – Nunavut Water Board Public Hearing</p> <p><i>(French)</i></p>	May 31, 2022	Environment and Climate Change Canada

APPENDIX E - Sign-in Sheets – List of Participants in the Public Hearing

PUBLIC HEARING HAMLET OF ARVIAT

Arviat, Nunavut MAY 31, 2022

Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
1.	ÉLAN	CHALMERS	GN-CGS	867 975 5461		echalmers@gov.nv.ca
2.	MEGAN	LUSTY	GN-CGS	867 975 5478		m1usty@gov.nv.ca
3.	Amber	Kadjuk	Hamlet of Arviat	204 583 7992		dcd@arviat.ca
4.	Sarah	Silou	NWB	431-335-7100		ssilou@gmail.com
5.	Bobby	SULUK		857-6793		bsuluk@yahoo.ca
6.	Andy	Ilungicysk	Arviat			
7.	Joe Jr	Savikqtuag	Arviat	857 9841		
8.	Charlie	Kritagiluk	ARVIAT			
9.	JERRY	KOMAK	ARVIAT			
10.	Francesca	Suluk	Arviat			Sulukfrancesca@gmail.com
11.	Angelina	Suluk	Arviat			ksuluk@yahoo.ca
12.						
13.						
14.						
15.						

PUBLIC HEARING HAMLET OF ARVIAT
Arviat, Nunavut MAY 31, 2022
Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
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PUBLIC HEARING HAMLET OF ARVIAT
Arviat, Nunavut MAY 31, 2022
Registration Form Day One

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
31.	Arviat	Arviat	Arviat			
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PUBLIC HEARING HAMLET OF ARVIAT
Arviat, Nunavut MAY 31, 2022
COMMUNITY SESSION REGISTRATION FORM

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
1.	ELAN	CHALMERS	GN-CGS	975-5641		echalmers@gnv.nu.ca
2.	MEGAN	WUSTY	GN-CGS	975-5478		mjusty@gnv.nu.ca
3.	Deil	Kuk/Suk		No Phone		
4.	Esther	Kuk/Suk		No Phone		
5.	Lulle Sukie		HT	857-2862		lquit_heritage@outlook.com
6.	Amber	Kadyuk	Hamlet of Arviat	204-583-7992		dcd@arvut.ca
7.	Joy	Suluk	Retired	857-2802		framing@msn.com
8.	Lisa	Issumatarjuuk		807-445-9898		
9.	Deborah Deborah					
10.	William	William Curley		837-2148		
11.	Ange	Curley		4004		
12.	EMILIA	DONS				
13.	Cecilia	Akummak				
14.	SARAH	SILOU	NWB	436-335700		ssilou@gmail.com
15.						

PUBLIC HEARING HAMLET OF ARVIAT
Arviat, Nunavut MAY 31, 2022

COMMUNITY SESSION REGISTRATION FORM

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
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Arviat, Nunavut MAY 31, 2022
COMMUNITY SESSION REGISTRATION FORM

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
31.	Angelena	Kuksuk	706 5 Ave	No phone		
32.	Waiman	Afikut	5050 8 Ave	No phone		
33.	Lukisuk	Siluk	502 3rd Ave	857-286		
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COMMUNITY SESSION REGISTRATION FORM

No.	First Name	Last Name	Organization/ Address	Phone	Fax	E-mail
91.	Peter	Alareah		857-4039		peter.alareah@hotmail.com
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