NUNAVUT WATER BOARD

TYPE "A" LICENCE NO. 3AM-RUT---,

RENEWAL AND AMENDMENT APPLICATION

PUBLIC HEARING

Resolute Bay, Nunavut

October 27, 2020

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October 27, 2020

NUNAVUT WATER BOARD

L. Toomasie	Chair of Hearing
R. Mrazek	Panel Member
S. Sowdlooapik	Panel Member

NUNAVUT WATER BOARD STAFF

K. Kharatyan	Director of Technical Services
S. Autut	Executive Director
S. Kuflevskiy	Technical Advisor
R. Ikkutisluk	Licensing Administrator
T. Meadows	Legal Counsel to the Board

INTERVENERS

Government of Nunavut, Community and Government Services

B. Roy (Remotely)	Municipal Planning Engineer
J. Idlout	Municipal Technical Officer
E. Bell	Senior Engineer of EXP
S. Piercey	CAO of the Municipality of Resolute Bay
T. Whalen (Remotely)	Senior Engineer, EXP

D. Burke (Remotely)	Senior Engineer, EXP

Crown-Indigenous Relations and Northern Affairs Canada

G. Okonkwo	Manager Water Resources
S. Forte	Water Management Specialist

Environment and Climate Change Canada

A. Graham (Remotely)	Environmental Assessment Coordinator
M. Tobin (Remotely)	Water Quality Expert

INTERPRETERS/TRANSLATORS

T. Qitsualik	Language Translator
S. Anderson, CSR(A)	Official Court Reporter
R. Dempster	Sound Technician

(PROCEEDINGS COMMENCED AT 9:20 AM)

Opening remarks

THE CHAIR: Thank you. Good morning. And we're now start -- proceed to the public hearing here in Resolute Bay. Welcome to our public hearing for Type "A" water licence application submitted by Government of Nunavut, Community and Government Service Department (GN-CGS). This application is seeking

authorization to renew and amend [sic] the expired Type "B" Water Licence No. 3BM-RUT1520 with a Type "A" Water Licence No. 3AM-RUT---.

My name is Lootie Toomasie, and I'm the chairman of the Nunavut Water Board and the hearing chair for today's public hearing. Over the next two days, the Nunavut Water Board will be considering the GN-CGS application to authorize activities associated with continued use of water and disposal of sewage through the utilidor system at the hamlet of Resolute Bay. The Applicant initially requested a licence term of 10 years until 2030 but later updated it to 20 years to address the recommendation received from CIRNAC during the technical meeting.

I would like to also note that some parties are joining the public hearing via Zoom conference call, so I would like to ask those participants who are calling in to mute your microphone to avoid any unnecessary noises.

Before we proceed with the hearing, please let us begin with a prayer. Let us stand and pray.

Opening prayer

THE CHAIR: On behalf of the Nunavut Water Board, I welcome you to the hamlet of Resolute Bay. Now, to provide you with some background and set the stage for the hearing, the Nunavut Water Board, which I

shall refer to as "the Board" or "NWB", is an institution of public government created 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. The NWB is responsible for the use, management, and regulation of freshwater in the Nunavut settlement area.

The purpose of this public hearing is to review an application filed by the Government of Nunavut, Community and Government Services Department -- I may refer to them as "GN-CGS" or "the Applicant" -- for a renewal and amendment of the existing Type "B" Water Licence No. 3BM-RUT1250 [sic], which expired March 29, 2020, as a Type "A" Water Licence No. 3AM-RUT--- under the Nunavut Waters and Nunavut Surface Rights Tribunal Act to authorize the continued use of water and deposit of sewage through the utilidor system at the hamlet of Resolute Bay.

Under Article 13, Section 13.3.6, of the Nunavut Agreement and Section 29 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act, the Board has delegated its power to dispose of all matters related to the processing of the GN-CGS's renewal and amendment application, including the conduct of this public hearing, to a Panel of the Board, which the Board refers to as the "Resolute Bay Panel" or "Panel P21".

I will be chairing this Panel, and with me today, as members of the Panel, are the Board members: Ross Mrazek on my left, and to my right, Sakiasie Sowdlooapik. Several staff members, who have contributed to the Board's administration and technical services, technical review of the application, are present, along with legal counsel to the Board. I ask them to wave when I say their names: Stephanie Autut, executive director; Karén Kharatyan, director of technical services; Sergey Kuflevskiy, technical advisor; Robin Ikkutisluk, licensing administrator; and Teresa Meadows from Meadow's Law, legal counsel to the Board.

In addition, we have two interpreters available for simultaneous interpretation throughout the hearing, Tapitia Qitsualik, who is originally from Gjoa Haven, and Martha's not -- I think she's not here yet, but she'll join us today -- who is from Resolute Bay.

For audio support, we have Ryan Dempster from PIDO. If you experience any difficulty with your headsets, Ryan is able to provide assistance.

To ensure an accurate record of the proceeding is kept, we have with us a court reporter, Sara Anderson, from Dicta Court Reporting Incorporated.

Before I move on to an overview of this application and what to expect today during this public

hearing, there are some important housekeeping items for everyone here. First of all, I would like to remind everybody that we are currently in the middle of the global pandemic, so we'll be discussing safety measures on an ongoing basis throughout this meeting. As everyone can appreciate, due to the public health restrictions associated with the COVID-19 pandemic, our proceeding may look different than usual as we have had to modify our normal plans to keep us all safe and in compliance with local health requirements.

Today, to provide our health and safety briefing, we have Mavis Manuk. Is she here? She's not here yet, but she'll probably join us. Oh, okay. Legal counsel, Teresa Meadows will take the -- take the floor.

Go ahead, Teresa.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So as we all realize, we are in fairly exceptional circumstances as we embark on the public hearing for this application. You will notice that as you come in the door we have a sign-in desk. At that sign-in desk, before anyone can enter the hall, we are taking peoples' temperature, and we are getting them to fill out the health screening questionnaire. Anyone who is presenting symptoms that would be similar to COVID-19 -- so anyone who has a fever, a runny nose, a

sore throat -- will be asked not to enter the venue.

You will notice that some people, when we can't maintain that distance of 6 feet, are putting masks on so that we can protect each other. We also, at the back table, have hand sanitizer and masks available if anyone did not bring a mask with them but they would like to wear a mask.

Once inside the hall here, you'll notice that the chairs have little 'X's underneath them. That is where the chair must be placed so that it maintains that distance. Please don't move your chair around.

We also have refreshments on the side wall. We ask that once you're in the venue, you come in through the entrance, and to go to the washrooms or to go to the -- where the snacks are, if you can use the far exit so that we're kind of one-way traffic so that we minimize the amount of time where we're in close proximity. It would be appreciated.

The Board has complied with all of the public health orders. We have protocols in place, and the chief public health officer for Nunavut has reviewed the Board's protocols for these meetings and approved the Board's implementation of them. If anyone at any time has concerns about the protocols that are in place or questions about the protocols that are in place, we invite you to see either Stephanie or I, and we can

assist you in knowing what measures the Board is taking in more detail.

For the people on the Zoom call, because this is the first time that the Board has conducted a meeting in this way, we ask that you identify yourself before you speak. The court reporter cannot always see who is actually speaking on the Zoom call, so it's very important for everyone here to identify themselves before they speak.

We also note that we are on a bit of a delay in terms of the video feed and the audio feed to the people who are on the Zoom call. In the interest of both our interpreter, our court reporter, and the people in the room, we ask that you allow some time in between your remarks so that the interpreter can -- can hear what you said and interpret it for the people in the room and so that we're not talking over each other where we're not able to actually understand and hear what anyone on the Zoom call is saying.

We very much appreciate everyone being willing to come out and join us today. There are gathering limits -- indoor gathering limits in place in Nunavut, and so the maximum capacity of this building is 75 percent of the rated capacity, so we will have people monitoring how many community members are here so that we can make sure that we do not exceed the

capacity of the building.

And with that, Mr. Chair, those are the, sort of, rundown of the changes to the Board's modification of process to reflect COVID-19. We really appreciate everyone doing their best, being patient and flexible, as we work through some new procedures for the Board.

Thank you, Mr. Chair.

THE CHAIR: Thank you, Teresa.

Additionally, I would like to ask everybody not to -- not to approach Sara Anderson, the court reporter, and Ross Mrazek, the Board member, directly since they travelled here from outside of Nunavut. Instead, please direct your questions to Teresa, and she will relay them to Sara and Ross.

Second, I would like to ask, again, those participants who are calling in via Zoom to mute their microphone to avoid any unnecessary noises. I would also like to remind everyone to please turn your cell phones off or put them on silent before you begin -- before we begin. So if you have -- if you have done so, you may -- put your mute -- put it on mute or so -- or turn it off.

Additionally, as indicated earlier, there is interpreter -- interpretation available throughout the hearing in English and Inuktitut. Earpieces can be obtained from the table located just by the door as you

enter this room. Channel 1 broadcasts English while Channel 2 broadcasts Inuktitut. When you are speaking into the microphone, please make sure you have turned it -- your earpieces off to prevent audio feedback or interference with the speakers.

Thirdly, I would like to ask everybody, including the Applicant, interveners, and members of the public, to sign in and leave your contact information on the sheets located at the table by the entrance. Additionally, there are COVID-19 screening questionnaire forms available. Please fill them out too. This information is required by the Department of Health for contact tracing purposes, so we will appreciate your help in making sure this information is provided.

Also, the agenda for the public hearing and the community session are available at the back. Please pick one up and follow along with us as we proceed.

The washrooms are located at the -- outside the hall by -- by -- by the coffee area on the side. There will be snack and refreshment brought in -- brought in throughout the hearing during breaks, and you are welcome to help yourself throughout the day. Please remember to wash your hands and use hand sanitizer prior to touching the snacks. Also, the snacks will be individually packed, so please try to make -- try to

take only the item you are going to consume.

Finally, to assist both our court reporter and interpreters, please wait to have a microphone before you speak, then state your name, speak clearly and slowly, and avoid the use of abbreviation. We appreciate your assistance in making sure your comments are recorded and the Board's record of proceeding is accurate and complete.

Is there media? Any present? No. Okay.

Since the Board cannot comment on pending matters, either by confirming or denying accuracy of statements by others to the media, the Board would appreciate if all parties refrain from making any comment that may imply a certain action or decision by the Board.

Following the close of the record of this public hearing, the Board's decision and recommendation with respect to the application will be communicated in a publicly available decision report. Until that time, the Board reminds everyone that the Panel members and Board staff will not discuss the substance of the hearing or the matters before the Board with any of the parties or the media.

If you have a question regarding the Board and its practice or procedures, please speak with the executive director, and she will assist you.

Prior to identifying and introducing all the

parties in attendance today, I will proceed -- I will provide, sorry -- I will provide a brief description of the application that is before the Board. The application we'll be discussing today is for renewal and amendment of the existing Type "B" Water Licence No. 3BM-RUT1250 [sic] as a Type "A" Water Licence No. 3AM-RUT--- requested by the Government of Nunavut, Community and Government Services Department. The scope of the application is generally as follows: Replacement of the Type "B" Licence Number 3BM-RUT1520, expired as of March 29, 2020, with a new Type "A" licence for a term of 20 years; storage and use of up to 216,528 cubic metres of freshwater annually; the water will be extracted from Char Lake; continued management of utilidor system operated by the GN-CGS through ATCO.

Now, I'm going to provide you with a brief overview of the procedural history for the application that is before the Board, which captures only the major procedural steps.

January 22, 2020: NWB received a renewal, amendment application for GN-CGS.

January 23 to February 28, 2020: NWB conducted an internal preliminary review of the application, GN-CGS submitted missing documents.

February 28, 2020: NWB distributed the

application for a preliminary technical assessment and completeness check with a deadline of March 20, 2020, and later extended until March 26, 2020.

March 20 to 26, 2020: Preliminary review comments were received from CIRNAC and ECCC.

March 27 to April 22, 2020: Preliminary review were received -- sorry. I missed -- preliminary comments from parties were addressed by the Applicant.

March 29, 2020: The previous Type "B" water licence governing the undertaking expired.

April 29, 2020: NWB issued correspondence requesting that parties conduct full technical review of the application by June 12, 2020.

June 12, 2020: NWB received technical review comments from CIRNA and ECCC.

June 17, 2020: NWB issued correspondence requesting that the Applicant respond to interveners' comments by June 22, 2020.

June 29, 2020: NWB reviewed and distributed the GN-CGS's response to interveners' comments and recommendations.

June 29, 2020: NWB distributed the draft agenda and correspondence to confirm that NWB would hold a technical meeting and prehearing conference for the file on July 14 and 15, 2020, via teleconference.

July 14, 2020: NWB hosts the technical meeting

and prehearing conference via teleconference and completed the both -- completed the -- both TM and PHC in a single day.

July 27, 2020: NWB issued a prehearing conference decision in respect of the application, providing a list of commitments, timelines for the submission of additional documentation, a list of issues to be considered at this public hearing, and a tentative timeline for this in-person public hearing and community session; and ...

August 21, 2020: NWB issued formal notice of this public hearing as required under the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

October 8, 2020: NWB issued a public hearing update correspondence with draft agenda for this public hearing and community session.

October 20, 2020: NWB distributed the final agenda for this public hearing and community session.

Complete details on all submissions received in relation to the application and key procedural steps are available on the NWB's FTP site. If you need any assistance finding or reviewing any of the documentation files on the site, please check with our licensing administrator, Robin Ikkutisluk, at the table, and she will help you get access to the document.

I will now move on to a list of the issues to be addressed at this hearing as identified during the technical meeting and prehearing conference for this file.

The scope of the licence: Amendment to original scope of Licence No. 3BM-RUT1520 to reflect decommissioning at the various facilities (old dump site -- oh, sorry, old pump station, blue building, macerator unit building, old intake line, outfall line) and construction/decommissioning of new wastewater treatment plant, new outfall, collection point and improvement to utilidor, and exclusions of the sewage lagoon at the airport.

The terms of licence: 10 years -- 10-year term originally requested but later amended to 20-year term.

Compliance: Status of outstanding compliance obligations under Licence No. 3BM-RUT1520, wastewater effluent quality criteria in -- waste facilities.

Water supply: Quantity of water requested, water pumping capacity of new pump station, Char Lake as water source and its capacity to handle increased water use.

Waste management.

Wastewater treatment: New wastewater treatment plant, WWTP; decommissioning of macerator -- macerator -- sorry -- unit building and the outfall

pipe.

Management plans and reports: Environmental plan -- management plan; spill contingency plan; quality assurance/quality control plan; operation and maintenance (O&M) manual, including updated O&M manual for water supply facility; timing of approval of plans.

Monitoring program: Compliance with sampling requirements; modification and required updates to sampling methods, sampling points; bioassay effluent testing; amendments; new requirements.

Closure and Reclamation Planning: Decommissioning and reclamation of old pump station, blue building; macerator unit building; and old intake line/outfall line.

So now that I have given you the background to the renewal and amendment application we will be discussing throughout this public hearing and community session, I would like to turn to Item 4 on the agenda, the instruction of the Applicant and interveners participating in this public hearing.

I will now ask -- I will now ask that the Applicant, GN-CGS, introduce their representative.

Go ahead.

Roll Call

MR. BELL: Thank you very much, Mr. Chairman.

My name is Eric Bell, and I'm here with Janise, and we are representing, in the person, CGS. Bhabesh Roy is our lead liaison on this, and he is on the Zoom call, so perhaps now Bhabesh could give us a breakdown of how his team is working.

THE CHAIR: Thank you.

I will now go to the local associations and representative interveners, intervening parties, to introduce -- okay. Just hold on.

Go ahead, Teresa.

MS. MEADOWS: Thank you, Mr. Chair. I believe that Mr. Roy is on the -- on the Zoom call and is going to introduce the people that are on the Zoom call for the Government of Nunavut, Community Government Services.

Thank you, Mr. Chair.

THE CHAIR: Okay. Thank you. Thank you for the reminder. Yeah. I'm not used to this, so I keep forgetting. All right. I already forgot one.

Okay. Go ahead.

MS. AUTUT: Yeah. Thank you, Mr. Chair. Bhabesh, we're going to stop you. I believe your microphone may be on mute, so if you can make sure that you're unmuted at your end, then we can hear you. We are still unable to hear you.

We are still unable to hear you. Stephanie Autut,

Nunavut Water Board.

MR. DEMPSTER: If you could maybe unplug your headset and change the audio for your microphone. If you go down to the little microphone on the left-hand side, you can pull up the pop-up and change it just to your -- your -- same as system here, your integrated audio. You can also -- as an alternative, you can just dial the phone number on the link in the email and call in. Yeah. If you go to your bottom left-hand side of the Zoom screen ...

THE CHAIR: Okay. Give us -- to -- to correct some -- some of the problem here and -- and something -- give us a 15-minute break.

MS. AUTUT: So as the Chair has indicated, we are going to take a short break. We do ask anyone that is heading out to the refreshment table to use the proper exit and to maintain a -- 6 foot between each other as you proceed down the refreshment table. Thank you.

(ADJOURNMENT)

MR. ROY: So we can start now?

MR. DEMPSTER: Correct.

MR. ROY: Okay.

Thank you, Mr. Chairman, to give us the opportunity for -- to attend this meeting. My name is Bhagesh Roy. I'm the GN representative and licensee

and main contract of this file. In my team, I am being assisted by Janis Idlout, who is our municipal technical officer in my office. I have a big team in this meeting.

Some are physically attending; some are partially. Physically attended, Steve Piercey, who is the CEO of the Municipality of Resolute Bay. Municipality is also part of this included operation. He is also part of my team.

Also, Eric Bell, who is the senior engineer of EXP, who is physically in this meeting, who is assisting me for this entire meeting.

Beside that, I have Tony Whalen, who is the senior engineer of EXP, who is remotely attending this call. Also, Daryl Burke, who is also senior engineer, remotely attending to support the -- my licence -- licence application process.

Now, these are the team members: two from sole GN office; one from municipality, CAO; and three from EXP.

Mr. Chairman, I just want to let you know that our IT -- GN IT told me that Zoom is not friendly to the GN IT system. So it means -- I'm outside of the GN network; that's why I'm getting to the system. But if I was in the GN network, I could not -- into the Zoom system. Just let you know in future meetings.

Thank you, Mr. Chairman. So these are the parties

working together with me to support the licensing process and the meeting today and tomorrow. Thank you.

THE CHAIR: Thank you.

Now we'll proceed with the interveners and local representative.

I'd like to call Crown-Indigenous Relations and Northern Affairs, who is here in person and will be providing a formal presentation. Please have your -- have your introduction.

MR. OKONKWO: Hello. Thank you, Mr. Chair.

My name is Godwin Okonkwo. I'm the manager water resources with Crown-Indigenous Relations and Northern Affairs Canada. And with me here is Sarah, who's lead of the file, but I'll let her introduce herself. Thank you.

MS. FORTE: Hello. My name is Sarah Forte, and I'm water management specialist with Crown-Indigenous Relations and Northern Affairs, and I've been working on this file.

THE CHAIR: Thank you.

Ryan, you want to address something?

Now call the Environment and Climate Change Canada who is joining us over teleconference and will be providing a formal presentation.

MS. GRAHAM: Anna Graham, Environment and Climate Change Canada. Can everyone hear me?

THE CHAIR: Yeah, we can hear you.
MS. GRAHAM: Okay. Thank you. Thank you.
I am the environmental assessment coordinator for this project, and with me on Zoom today is Meagan Tobin, our water quality expert on this project.
THE CHAIR: Okay. Thank you.
Is there any other interveners who would like to speak? Please identify yourself and introduce yourself -- your representative. Okay. I take that ...
It is our tradition to give respect to all the elders; therefore, at any time during the proceeding an Elder may speak about the application that is before the Board. I just ask that any Elder wanting to speak about the application wait until the Board staff can get you a microphone so that we can ensure we have a complete record of what you have to say.
Are there any members of the general public who would like to identify themselves and make a formal request to speak to the Board about -- during this public hearing?
I also want to mention any community member who wish to ask question or provide comments to the Board about this application will also have an opportunity to do so tonight during the community session starting at 7 PM.

Are there any representative from agencies, association, et cetera, who have not submit intervention but would like to speak?

I will now turn to getting identification of any motion or objection to the application that is before the Board. We're not suspecting any motion, but -- okay. Okay.

Seeing none, we will now proceed with Item 8 of the agenda, the presentation by the application -- by the Applicant. Sorry.

Applicant, go ahead.

MR. BELL: Thank you very much, Mr. Chairman. The first part of the presentation will be presented by Mr. Roy.

THE CHAIR: Just hold on, Applicant.

Sorry. Go ahead.

MS. MEADOWS: Thank you, Mr. Chair.

Teresa Meadows, legal counsel for the Nunavut Water Board. Mr. Chair, there's a number of procedural matters that I have before the Applicant can make their presentation.

First and foremost, I will require that the -- the parties who will be presenting and providing evidence on behalf of the Applicant, I will ask now that they be sworn in or affirmed. So if I can have the witnesses please state and spell their name for the record,

please.
MR. BELL: I will go first. My name is Eric Bell, E-R-I-C B-E-L-L.
MS. IDLOUT: Hi. I'm Janise Idlout, J-A-N-I-S-E I-D-L-O-U-T. Thank you.
MS. MEADOWS: And I believe you have someone on the phone as well -- or several people on the phone. If I can have those -- or on Zoom. If I can have those witnesses please state and spell their name for the record, please.
MR. WHALEN: Yeah. Tony Whalen. T-O-N-Y W-H-A-L-E-N.
MR. BURKE: Also Daryl Burke, D-A-R-Y-L B-U-R-K-E.
MS. AUTUT: Stephanie Autut with the Board.
Bhabesh, I believe you were on mute, but as a witness to this application, you will need to identify yourself and spell your name, please. Bhabesh, we are unable to hear you. If you can unmute your phone, please.
MR. ROY: Bhabesh Roy. B-H-A-B-E-S-H. Last name is R-O-Y.
MS. MEADOWS: Thank you. If I can have the witnesses who are on Zoom and on the phone ...
TONY WHALEN, DARYL BURKE, BHABESH ROY, Affirmed Via

Teleconference
ERIC BELL, Sworn
JANISE IDLOUT, Affirmed
MS. MEADOWS: Thank you. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have six exhibits which consist of the presentation materials about to be presented by the Applicant in English and Inuktitut. I also have their summary statements that are in several languages, and I also have a statement -- a letter that the Applicant provided to the Nunavut Water Board, and I propose to mark those as the first six exhibits in this public hearing.

And, Mr. Chair, with that, those are all my procedural matters. Thank you, Mr. Chair.

EXHIBIT 1 - PowerPoint presentation for Type “A” water licence application of the Resolute Bay utilidor system, Nunavut Water Board public hearing, October 27, 2020 (English)

EXHIBIT 2 - PowerPoint presentation for Type “A” water licence application of the Resolute Bay utilidor system, Nunavut Water Board public hearing, October 27, 2020 (Inuktitut)

EXHIBIT 3 - Correspondence from Bhabesh Roy

to Richard Dwyer dated August 4, 2020,
Re: Seeking approval for the renewal of the Type "A" water licence of the Resolute Bay utilidor system for 20 years term (English)
EXHIBIT 4 - Executive summary of the utilidor system (water and sewage treatment facilities) of the Municipality of Resolute Bay (English)
EXHIBIT 5 - Executive summary of the utilidor system (water and sewage treatment facilities) of the Municipality of Resolute Bay (Inuktitut)
EXHIBIT 6 - Hard copy executive summary of the utilidor system (water and sewage treatment facilities) of the Municipality of Resolute Bay (French)

THE CHAIR: Thank you, Teresa.

So, Applicant, you may go ahead.

Presentation by Government of Nunavut, Community Government Services (Type "A" Water Licence)

MR. ROY: Thank you, Mr. Chair.

I am going to present for the Type "A" water licence application of the Resolute Bay utilidor system. This presentation will be shared by myself and our senior advised technical advisor, Eric Bell, and to answer to the question of the -- provided to you by

myself, Eric Bell, Tony, and Daryl.

So let's go ahead to -- step by step. I'm going slowly. My first slide is for the Municipality of Resolute Bay. As you know, the Municipality of Resolute Bay, it is 1970s settlement located at 74 degree, 43'01" second north and 94 degree 58'10" west. The population -- the community was designed in a way at 1970 to accommodate roughly 1,500 people. Today, 2020's population is 290. This is the base population of the town. Interestingly, the town population increased dramatically in summer because this is the Canadian military training centre, and the military moved to the town for short term, so population moved from 290 to roughly 800.

The entire town divided into two sections. The town area is the utilidor system, is the one part where it's mostly the public area. 7 kilometres away there is another band of the settlement or be -- government offices are -- the airport are located, which is almost 7 kilometre from the town.

The town is company -- water supplied by the utilidor system, and the airport area is water supplied by truck system. In this -- in this small town, we have three water licence: water licence of the utilidor system, 3BM-RUT1012, Type "B". It was issued March 30th, 2015. This licence -- or the licence of

the solid waste facility, this belonged to the Hamlet. It was issued on March 30, 2020. At the airport facility, there is a sewage lagoon in the airport, it's 3BM-YRB1621, Type "B". It was issued December 16, 2016. This licence belonged to the GN, the Department of Economic Development and Transportation. So out of the three licence, the utilidor licence belonged to Community Government Services, Government of Nunavut, and sharing with the Municipality of Resolute Bay.

How this system is operated: The operational mode of the utilidor system -- Nunavut is original system, and Baffin original headquartered in Pond Inlet. Pond Inlet office, we have the PO office and also the asset management division. Asset management is under the PMO office, and we contacted a local contractor for day-to-day operation who's name is ATCO.

Char Lake is the potable water source, and we pump water from Char Lake, and from there, we'll pump the water to the system plant. So the old pump station is not functioning to the satisfaction. We are building a new pump station about 60 feet -- 60-metre area from the existing one. It is under construction right now. We are expecting to build -- build and complete and commission the new one in 2021. It is half -- almost 75 percent done.

Now, all pump station has a flow meter who is --

calculate the water coming from the Char Lake. In the new pump station, also a new flow meter has to go there to model the future water extraction volume.

The water treatment plant is located at Signal Hill, which is about 500 metre from the pump station, and there is a storage tank next to the water plant, approximately 500 metre cubed.

Now, in the airport area, the water is supplied by the truck. The truck water collected from the water treatment plant. The water distribution system in the town is a circulation system. It's -- the system is controlled from the water treatment plant. So, like -- how the town -- the public individual household in Resolute Bay, they are getting the pipe water supply.

Chlorine is the only disinfectant reagent we are using that now in the current water treatment plant.

In the future treatment plant, it will be different. I will explain later.

The operational mode continues in this chapter. The linear length of the utilidor system is about 4 kilometre. This is a network system inside the town. The utilidor system consists of buried water and sewer line. The waterline is 150-millimetre diameter, and sewer line is 200-millimetre diameter. The waterline is a recirculation process under the pressure of 100 psi. The estimated of bleeding water is roughly

227 litres per day. The utilidor system consists of 36 access vault and 23 fire hydrants. There is a water meter at each building to record water consumption, and it's billed to the Hamlet on monthly basis.

The sewer line passes through the macerator unit where suspended solids are classed to make it smaller to discharge to the sea.

A new wastewater treatment plant is proposed to be built next to the macerator unit. The macerator unit will be decommissioned once the new wastewater treatment is built.

The future wastewater treatment plant will receive the truck sewage coming from the airport, and once the system will be operational, the airport sewage lagoon will be decommissioned.

The new wastewater treatment plant effluent recommended by ECCC, CBOD, and TSS, 25 milligram per litre both cases.

The utilidor system -- different section have been updated at the current time. The new utilidor system acquired the waterline, sewer line, head pump, fire hydrant, all have been updated, and to be operational is available for the audience and to the contact to operate the system.

Here, this status of the water licence: The existing water licence, 3BM-RUT1012, this licensee is

Community Government Services of Government of Nunavut. It is Type "B" issued March 30, 2015, expired March 29, 2020. It was a five years' licence. The water permit of this particular licence is 126,020 cubic metres annually.

Now, status of the future licence, part -- Mr. Chair already explained. The proposed licence is 3AM-RUT dash -- we are waiting for the number. The licensee the same, Community Government Services of Government of Nunavut. It will be Type "A" licence. The proposed duration is 20 years, and these 20 years will be ending on 2040.

We are requesting for the permit of 2040. This Type "A" water licence is 216,528 metre cube.

The component of the utilidor system at par, we have 4 kilometre of buried water and sewer lines, 23 fire hydrants, 36 access vaults, the pump station at Char Lake. We have 500-metre water storage tank at Signal Hill, a water treatment plant at Signal Hill, a macerator unit, 150-millimetre diameter intake line from Char Lake to pump station, 150-millimetre diameter water intake line to the pump station to Signal Hill, 200-millimetre diameter of outfall line from macerator unit to the sea. The original utilidor system was built 1978 and upgraded 2014/'15.

Here are the main components of the future

utilidor system, how -- next one -- next -- from now to next five years, how the utilidor system will be look like.

The main buried water and sewer line upgraded in 2014/'15, the vaults upgraded in 2014/'15, fire hydrant upgraded in 2014/'15. And intake from the Char Lake to the new pump station, it is already constructed. Fish screen were all -- already provided at the end of intake of the new pump station. The new pump station -- sorry. A new -- new pump station at Signal -- a new water plant at Signal Hill is under construction. A standard flow meter will be installed at the new pump station to -- it will be done in -- next year. Because this year construction already stop.

Intake from new pump station to Signal Hill water treatment plant have -- already constructed. The storage tank is already built. We are upgrading the existing water treatment plant in order to meet our current drinking water guidelines. It is under construction. A new wastewater treatment plant, it's under design phase; we did the site selection. A new outfall from the water treatment -- the wastewater treatment plant to the sea, it will be built once the future wastewater treatment plant is built. A collection point at the wastewater treatment plant to

receive the trucks with, it will be located once the new wastewater treatment plant in operation.

Once all these new utilidor -- new component of the utilidor system are in -- operational, the old pump station, macerator unit, outfall line, and the -- the old wastewater treatment plant, blue building, will be decommissioned.

Here is a little sketch I'm presenting to you, how it is today and how it should be tomorrow. We -- we have Char Lake. This is our main source. From Char Lake, the water presently -- the water is coming to the pump station, and pump station will push out the water to the storage tank to the Signal Hill water treatment plant. And from there, it is coming to the main town for distribution. And, also, the sewer line is running parallel to the waterline.

And from there, the sewer -- sewer is passing through the macerator unit, and there is a grinding machine inside. It's grinded up, the suspended solid, and running to the sea. So outfall line -- there is a point called "compliance point", while you have to satisfy BOD and TSS level according to the water licence.

The outfall is seen when there's a low tide. Outfall is submerged when there is high tide. And, interestingly, the entire sewer system of -- of the

town is a gravity system. We don't have any mechanical device to drive the sewer from one point to other point. But in the mechanical system, we are using the bleed water to mix with sewage to dilute and then back to the sea.

So later on we'll be talking about the bleed water, its impact on our water supply system.

So this is the present system. How the future system will looking -- look like -- the future system is -- Char Lake will be there. The new pump station is going to be built -- is under construction next to the existing pump station. And then, same way, we are connecting the pump station to the same storage tank and then storage tank to the water treatment plant. Water treatment plant, as I said, is going to be highly upgraded to satisfy our present need. And then connected will be the distribution line, the water sewer line.

Right now, the water treatment plant is connected with the waterline. So once, basically, the distrubution is completed, then sewer line -- the last vault are build. Sewer line is connected also getting the sewage from treatment plant. Now, once it's coming to the town, from the town, it will not go to macerator unit anymore because we are building a wastewater treatment plant, so all the wastewater is coming to the

treatment plant.

At the same time, we are getting the truck sewage from the airport location and then dumping to the sewage -- sewage plant. So this sewage plant will be receiving sewage from the town from the pipe system, also sewage from the truck, and then will connect and then have to treat to the high degree to satisfy the BOD-TSS level as directed by ECCC, and then we have to flow the water to the sea.

In this -- in this case, the compliance point is moved from the sea to the -- next to the water treatment plant. It means once the water from the -- treatment water coming out from the plant, it must satisfy our compliancy.

So I just use one slide, and then I hand it over to Eric.

The historical water extraction volume: You see, the water extraction volume 2019 down to 2014, and in this period you will see the highest water extraction volume 2015 and then second highest is -- next highest is 2016. Because 2015 to once we are -- we are updating the utilidor system -- prior to that, we have sewage leaking. You can -- we must have lost almost 50 percent water leaking out. And then once we built, then we have to do -- we have to do the hydraulic test of the entire pipe to make sure there is no -- there is

no leak anywhere. We have to store water and do the hydraulic test. So that also take a lot of water. That's why 2014 and 2015 we have a huge extraction of water from the Char Lake.

Now, as I said, the previous permit volume is 126,200 [sic] cubic metre, but due to the Water Board's current regulation, we have to move from Type "B" to Type "A", and we are requesting for 20 years' licence, and so definitely 20 years' licence -- the amount I already indicated -- that that was -- volume we are requested in the water permit.

So from here, I'm leaving to Eric. The -- EXP is our main consultant who would be the entire replacement of the utilidor system, and, also -- they are also current consultant for the pump station and also the water treatment plant. They also do the site selection study, the simply -- for the wastewater treatment plant.

So the most experienced three senior engineers who are involved with me for design and construction, renovation, and supporting all the necessary documents for the water licence application. All three are present. So Eric is on -- in the room, so I'm leaving to Eric to continue to present up to the end.

Eric.

MR. BELL: Thank you very much, Mr. Roy.

Moving on this slide right here, again, EXP has compiled a lot of these numbers on best practices and on historical data for the CGS group. The design flow for the water source at the new pump station in Char Lake is by --

THE CHAIR: Stop. Hold on. Hold on. The interpreter needs some -- slow down. Sorry. She can ...

MR. BELL: Thank you very much, Mr. Chairman. I'm a little excited.

The design flow for the water source from the new pump station is 720 litres a minute. There will be three pumps installed with two in operation at any time for a capacity of each having 360 litres a minute.

There's also a fish screen, as per DFO regulations, that has 2.3-millimetre wedge wire protecting the aquatic life.

The maximum output from Char Lake pump station is 900 litres per minute with all pumps in operation. And, again, the gravity sewage flow rate from the macerator unit to the ocean is currently estimated at 280 litres a minute.

If I could go to the next slide, please.

So we are aware of revised turbidity ruling as of May 13th, 2020, and the treatment design for the plant takes this into account. With filtration, normal

operation will occur as long as the water turbidity remains less than or equal to 1 NTU.

With dual filtration at the water treatment plant, which includes one stage of multimedia filters which are the large filters that remove large particles of turbidity, as well as giardia microorganisms -- the second stage of filtration is a 1-micron filter -- so it's much smaller -- which will remove smaller particles, as well as cryptosporidium microbio. There should be no issues with meeting the turbidity limits so long as these filters are in operation.

The 3-log, 99.9 percent inactivation of pathogens, is achieved with 2-log credits from filtration and an additional log credit for the addition of chlorine.

Next slide, please.

So on to the quantity of water that has been requested. The annual water extraction from Char Lake has been calculated and forecasted from this current year all the way to 2047. Included in this table are an estimated growth in the population, an estimate in the litres per person per day that a person in Resolute Bay would consume, and then the overall community consumption. There's also the airport consumption for a total estimate of how much water is currently being utilized and how much will be in demand in 2047. That number goes from 103,000 litres per

day -- or a thousand -- litres per day, yes -- to upwards to 141,000 litres a day.

Both of these numbers have max-day factors applied to them, okay, whether it's reflected in 2 units of flow, being litres per day or litres per second, and this accounts for the instantaneous time when everybody wants to use water at once.

Also added in this chart is the bleed water rate, and that has to do with the amount of water that comes from the freshwater system to be added to the sewer system to keep that alive. And the litres per day on the bleed water has been modified over the forecasted timeline, up to 2047, based on forecasted age and forecasted number of users.

So the total annual consumption in metres cubed in 2020 is estimated to be 160,000 cubic metres; and then 2040, at the end of our request for permit, it's 216,000 cubic metres; and by 2047, it is estimated to be 236,000 cubic metres.

Next slide.

The total extracted water accounts for use within the community, the airport community, as well as the bleed water. Annual consumption for 2020 is calculated at sixteen -- 160,000 up to 236,000 in 2047. Again, this has to do with the population increases; the user habits, being the per-capita consumption; and the

increase in the estimates for bleed water.

The Char Lake replacement capacity is estimated to be sufficient up to about 2040 to supply water for the community. It is recommended that additional technologies be investigated, heat tracing, additional pumping, to replace bleed water systems and to prevent water from freezing since Char Lake cannot sustain supply in this fashion past 2040.

Next slide, please.

CGS is requesting a water measurement confirmation for Char Lake. For this purpose, the measuring of water quality is being withdrawn on a consistent basis from Char Lake, and a flow totalizing flow meter is the -- is the desired technology. Everything on this slide that is being presented has to do with a temporary flow measurement request that CGS has in order to confirm the measurement. Once the ultimate Signal Hill water treatment plant has been upgraded, this will -- there will be adequate flow measurement incorporated into that.

But in the short-term, the service conditions -- a turbine flow meter is what we would like to use. The service conditions and the congestion that exists at the Char Lake pump house is provided -- tough to put a flow totalizer at Char Lake. Ideally, you would have a nice piece of a pipe where you could just insert the

flow meter, and, in our case, the flow meter is .58 metres long.

If anyone has been down to Char Lake, there is not very much piping down there, and it's not very long.

So we are proposing to install this at the Signal Hill plant directly on the intake as the line comes to Char Lake into the Signal Hill plant. So that is an equal measurement of what leaves Char Lake.

From Char Lake, a dedicated 6-inch line is utilized to connect to the Signal Hill water treatment plant. It's proposed that that's where the flow meter be installed. This will -- there will be no other flow measured on this line, only the withdrawal water that is from Char Lake. And EXP has prepared the specifications and are currently working to have it installed as soon as possible.

Next slide, please.

So the plans for the Char Lake pump house: There are both environmental management plans and decommissioning and remediation plans that have been submitted. The environmental management plan assists with implementing the measures to protect the environment and minimize environmental impacts during the construction of both the new lake -- Char Lake pump house and the Signal Hill sites.

The environmental management plan outlines

requirements and procedures to minimize the surface water and fish habitat impacts by controlling erosion and drainage and settlement and, in turn, turbidity in the water.

Pollution control and procedures are also implemented to reduce dust and particulate matter in the construction area. It also deals to -- determines the procedures for management of hazardous materials during the decommissioning should they become obvious.

A spill response procedure are also outlined for spills on land, snow, and in water. And, finally, the environmental management plan describes in detail the reporting requirements that any spill may occur.

Next slide.

Additional details are provided in the decommissioning and remediation plan, as well as the spill contingency plan. The decommissioning plan assists with implementing the specific work and procedures in order to protect human health and minimize the environmental impacts during the decommissioning of the old Char Lake pump house. Due to the proximity of the pump house to Char Lake, control measures must be implemented to prevent movement of contaminants into the water that -- that are -- could be potentially caused by disturbing the soils and structure as it is being dismantled.

The above-ground fuel tank must be safely removed, cleaned, and washed using a vacuum truck, and the metal will be disposed of in the community metal land field -- land disposal.

Hazardous materials, such as lead-based paints, mercury-containing fluorescent light tubes, and PCBs in the light fixture ballasts are going to be securely removed and disposed of to recycling facilities.

The scope of the new pump house and the remediation of the site and the new facility involve some of the following activities: The site work including access by truck and personnel, as well as a new power line; a provision of a new building, including electrical and mechanical systems; a provision of a new intake into Char Lake with a new transmission water main interconnecting the pump house at Char Lake to the Signal Hill water treatment plant; and the remediation of the petroleum contamination of the existing site and management of the contaminated soil.

As previously mentioned, the design flow from the water source at the new pump house is going to be 720 litres a minute. And the site that has been selected is 60 metres to the east of the existing facility, and that meets the required criteria for water intake.

Next slide, please.

The Char Lake pump house design and construction: A significant amount of work has already been done during the 2020 construction season, and the Char Lake site that includes the installation of silt fencing around the work site --

THE CHAIR: Excuse me?

MR. BELL: Yes.

THE CHAIR: You need to slow down a bit. The court reporter cannot keep up with you.

MR. BELL: Sorry. Again, I'm awfully excited.

The work that has been done at Char Lake in 2020 includes the installation of silt fencing around the worksite; excavation of the new pump house and concrete pours for foundations; and the new pump house building that has been already constructed; boilers and glycol pipes and pumps have also been installed; and bedding material has been imported; the -- Char Lake, with the turbidity curtain in place to prevent particulate matter from entering the raw water supply; and new intakes are being placed during the 2021 construction season. So there has been significant work done this year.

Next, please.

The recommended water treatment process that is

going to be implemented at Signal Hill includes multiple filtration steps and disinfection using chlorine in the form of calcium hypochlorite.

The filtration will provide the suitable protection for microorganisms removal and any small amounts of TSS and turbidity to get picked up by the Char Lake pumps.

The chlorine addition protects against viruses and other microorganisms from the water source and provide protection from any cross-contamination that may occur in the utilidor distribution system.

The first stage of the filters are backwashable media filters. A media filter is -- typically removes particles down to 7 to 10 microns in size, and that's suitable for the large turbidity particles as well as the giardia.

The secondary proposed filters are disposable cartridge filters or polymer-based filters that filter down to 1 micron of size, which is suitable for further removal of small particles and include cryptosporidium.

The disinfection method to be employed will be the use of chlorine in the form of calcium hypochlorite, and this will be delivered to site in dry format and prepared for a 24-hour period in a mixing or hydration tank.

As can be seen in this drawing, the water will

flow in from Char Lake on the left-hand side and will move towards the right; the first stage being multimedia filters, the second stage being the cartridge filters. All water will be treated and disinfected before entering into the reservoir, and then from the reservoir, two locations it can go to, being the hamlet utilidor system, where there is a constant recirculation, and to the truck fill to support the airport and any users that are on the truck-fill system.

Next slide.

The upgrade to the water treatment plant on Signal Hill examines the requirements for the water treatment as outlined by the Canadian Drinking Water Guidelines. This includes the upgrade of disinfection equipment and the inclusion of filtration equipment.

Capital costs, as well as operational costs for the needs for the 30-year operation life, were considered when selecting the technology.

The upgraded water treatment plant will be in the same building but will incorporate additional filtration equipment, new disinfection equipment, new circulation pumps, a washroom facility, additional equipment storage, and a laboratory area for -- as well as a maintenance area.

Next side, please.

The unused reservoir tank has been removed already, and the building has been expanded in an easterly direction. A significant amount of this work has been completed during this construction year, and that includes the site grading; some concrete demolition work; building-addition work, including some concrete walls room; roof and cladding; and any obsolete equipment that was in the building and has been removed, as well as other materials.

Next.

So for quality assurance and quality control, a program has been developed and is used to maintain the standards of monitoring programs for both the wastewater treatment and disposal and the water supply and treatment, as well as solid waste disposal, as described in each one of the O&M manuals.

The program describes quality assurance and quality control processes and procedures as applied during field activities to accurately reflect the attributes of either the water, the wastewater, or the leachate being tested.

Field quality control addresses cross-contamination as a common source of -- and an error in sampling procedures and sample handling and storage of equipment; i.e., this is errors during our sampling.

So field QC samples must include field blanks, as labelled as such, to trace sources of artificially induced contamination. Or blind duplicates can be used, not labelled as such, to ensure the analytical precision.

Laboratory quality control is applied by laboratories after the samples have been received from the field and to enable the laboratory to produce accurate and reproducible results on an ongoing basis.

The samples are collected in laboratory supplied bottles and jars and are analyzed at laboratories certified by the Canadian Association of Lab Accreditation. All analytical reports are to include QA/QC reports, and this hamlet has been using the services at accredited labs in Ottawa named "Caduceon Environmental Labs".

Next.

So for the spill containment -- or contingency plan: The spill contingency plan is used to address the proper responses to the anticipated types of spills that may be -- occur during the routine operation and maintenance activities at the hamlet's facilities associated with wastewater disposal, water supply, as well as the solid waste disposal.

This contingency plan presents potential contaminants, spill scenarios, and existing preventive

measures and response organizations that are to be used.

The spill contingency plan has action to include potential impact from -- and procedures for containing the chemical spills, such as sodium hypochlorite, being the chlorine, and any petroleum spills, such as diesel fuel, used for the powering of equipment.

The spill contingency plan provides information in case of the spill and spill kit locations, as well as spill reporting procedures.

It also includes the standard spill kit requirements, as well as forms for filling them out and reporting.

And I think that's the last slide there, Sergey. Oh, sorry. My bad.

At the wastewater treatment plant a number of technical issues and concerns regarding the current and future wastewater treatment have been raised by the stakeholders. As such, EXP, my company, has prepared and submitted a technical memo addressing the fecal coliform limits for the O&M plan for the existing macerator and a technical memo addressing the ammonia for the new wastewater treatment plant and technical memo that reviews the 2012 and the 2020 wastewater treatment plant designs.

The calculated fecal coliform values, which were

determined based on linear regression of data reflected from 2016 to 2020, and includes 18 results as a data set.

For a flow greater than 600 litres per person per day and a TSS -- so a total suspended solids -- of 80 milligrams per day, the calculated fecal coliform was calculated to be 157,000 units per hundred millilitres. For flows between 150 litres per person per day and 600 and a TSS of 80, the calculated number was increased to 183,000 coliform units per 100 millimetres.

And that was the last slide, I believe. No? I got ten more? What? Sergey, are you adding slides to this?

MR. ROY: No, no. Continue. "EXP has previously noted" ...

MR. BELL: EXP has previously noted that the building macerator unit is an open flow and that the heater has been -- exposed in a heating element, including thermostat, and the fan is completely blocked off with insulation.

Okay. I was down at the building yesterday, so yes.

There's not so much smell in the -- in the building because the flow is so dilute, but it was noted to the GN that this is a hazard as -- an

explosion potential for operators, and there is ventilating issues. This is the way it is in all macerator and head works buildings.

As such, health and safety risks from these hazards need to be mitigated.

The identified issues associated with the building are that it's not ventilated, has only a single-man door entry, and it's flushed to the exterior grade, a vent is not operating, electrical equipment is not explosion-proof in design and does not have any hazardous gas sensors.

We've recommended a number of procedures that should be followed when entering the macerator building. This is useful to investigate short-term options until a new water treatment plant -- wastewater treatment plant is constructed and commissioned. These may include things such as acquisition of gas detector and replacement of the heating, lighting, fans, plugs, and disconnects for the explosion-proof units.

Further on this, the current trends in the wastewater regulations indicate that effluent ammonia is likely to become a parameter of concern throughout Nunavut, and specifically the hamlet the Resolute Bay in the future.

There are currently no regulations in place in Nunavut or the hamlet that require biological

electrification to meet the effluent ammonia discharge objectives; however, it's anticipated that there will be future regulatory changes for that far north -- that include the far north that could include new guidelines for the ammonia.

With the uncertainty of future regulatory changes, the hamlet of Resolute Bay has -- will be well-served by installing a biological mechanical treatment system according to a predesign report that my company has done.

The proposed process water technology could be designed for ammonia removal to meet the current WSER performance standards in effect throughout Canada.

There are a number of key design factors that remain very similar or unchanged between the original 2012 design and the 2020 design as completed by my company. The most significant difference was the process technology with the intent to better balance the treatment performance with some of the economic and operational challenges. This will result in a more cost-competitive system that is still capable of providing a high-quality effluent for exit to the ocean.

MR. ROY: Okay. Thank you, Eric. Let me finish the last slide myself. Thank you.

MR. BELL: Happily.

MR. ROY: So I'm taking -- yeah. Thank you. Thank you, Eric.

So the last slide is the -- how we see the future wastewater treatment plant. So what is the recommendation in the technical meeting by ECCC -- they are saying -- they're suggesting -- and we were also designing the plant following the solution that CBOD should not be more than 25 milligram per litre. It means we have to keep the CBOD below at the approved level, and the compliance point next to the water plant should be less than or equal to 25 milligram per litre. The same way, the total suspended solids should be less than or equal to 25 milligram per litre.

The average concentration of total residual chlorine should be less than or equal to 0.02 milligram per litres.

The maximum concentration of unionized ammonia should be less than 1.25 milligram per litre expressed as nitrogen at 15 degree, plus/minus 1 degree centigrade. Be non-accurately lethal effluent.

So these are going to be a compliance point of the new treatment plant. And the effluent coming from the treatment plant, that water quality has to satisfy this criteria. So this is my last slide of the presentation.

Before I will go for question, I have one question

to the audience: Is the CAO of the Municipality of Resolute, Steve Piercey -- I'm not hearing his sound. He's in the meeting? Hello? Hello?

MR. PIERCEY: Yeah. Go ahead, Bhabesh.

MR. ROY: Oh, I'm just asking -- oh, you are -- you are there. You are -- because you are not -- not counting your name. So, anyway, I'm glad that you are there. Thank you. Thank you, Steve.

Thank you, Mr. Chair. This is end of my presentation.

THE CHAIR: Teresa, do you want to speak to that? Okay. Okay.

MR. ROY: Mr. Chair, I just want to mention that the -- all the questions will be directed by the name of GN to me, and I will share whoever will respond to the question from my team.

Thank you, Mr. Chair.

THE CHAIR: Okay. I think we can -- we can have a break for now. Break -- lunch for break, and then we can come back at 2 -- 1:15. And we have one interpreter as well, so need the break as well. Okay. We can come back -- come back at -- you can continue with your presentation -- oh, all done? Okay. Yeah. We -- we can start again at 1:15 this afternoon.

MR. ROY: Okay. Thank you.

THE CHAIR: Thank you.

PROCEEDINGS ADJOURNED UNTIL 1:15 PM

(PROCEEDINGS RECOMMENCED AT 1:31 PM)

THE CHAIR: Welcome back to -- for this afternoon's session.

So questioning we were about to start by the time we left the -- the room for lunch, so I'd like to ask the Crown-Indigenous and Relation -- Crown-Indigenous Relations and Northern Affairs -- Sarah and Godwin, you may want to come over to the intervention table.

THE CHAIR: Go ahead.

Crown-Indigenous Relations and Northern Affairs

Questions Government of Nunavut, Community Government Services

MS. FORTE: Thank you. So it's Sarah Forte speaking. I have just two questions, which is more clarifications I'm requesting.

The first one is in regards to the water volume being requested. There was quite clear communication, but then just recently there was a submission with projected water-use volumes up to 2047, and these numbers are also on page 14 of the presentation. And so I'd just like to confirm whether the quantity of water being requested for this water licence is the value projected for the 2040, which is 2016 --

216,528 cubic metres.

THE CHAIR: Thank you.

Applicant, go ahead.

MR. ROY: Thank you. Thank you, Mr. Chairman. Thank you, Sarah. This is a question you asked in the technical meeting as well as here. This question I'll be sharing with Tony, who is our -- who is our -- you know, the senior technical advisor to me. I just go in part, and then he'll be giving a detailed explanation.

This -- as you see, there are different items: per capita, litre per capita per day, and also there is the bleed quantity. So this is a consumption plus bleed water. If we can combine together, that is the total volume we need to extract from the Char Lake, and that is the total volume we are anticipating with our 2024 water licence.

So having said so, this is -- Tony will be -- to explain this, and I was requesting Tony Whalen to go in details on this expectancy.

Tony.

MR. WHALEN: Sure. Thank you, Bhabesh. Can everybody hear me okay?

MR. ROY: Yeah, I'm hearing okay.

MR. WHALEN: Okay.

Yeah. So I believe the question is, you know --

the volume that we're requesting up to 2040, it is indeed the 216,528 cubic metres, which has been calculated, as Bhabesh indicated, on a number of -- a number of pieces of information, you know, one being the population, and there's a projected population growth over the -- over the 20 years, so that's included in the calculation. And then the per capita consumption, it's also shown increasing over the course of the -- the 20 years, as well; as well, the community consumption based on that per capita and the population.

So the other part -- essentially, everything in here increases over time, and that's kind of a worst-case scenario, just so -- we want to make sure that, you know, the request is sufficient to handle any -- any demand. So this is all speculation in terms of the population increase, per capita consumption increases, you know, increases in water at the airport, and also an increase in bleed water. So -- so it all leads to an increase in the water use. So this 216,528 is, in fact, based on all of these projections as a worst-case scenario for the amount of water that will be consumed and used up to 2040.

So does that -- does that answer the question at hand?

And thank you, Mr. Chair.

MS. FORTE: Yes, that answers my question. Thank you.

My next question has to do with some information found on page -- or Slide 16 regarding the installation of the flow meter -- or a flow meter at the -- either the pump station or the water treatment plant. The -- on the slide, it says that this -- it was to be arranged -- the delivery to be arranged for October 2020 with a goal to collect at least one week of flow data prior to the hearing.

From your comments, Eric, I understand that perhaps this didn't occur, and so I would be looking for confirmation of that. And, also -- and if it hasn't occurred, an estimated time schedule at which it might occur.

MR. BELL: Thank you for the question. Eric Bell here.

I can confirm that it has not yet been installed. We are in the works of getting a contractor to install it. As far as the timeline, I know that it's going to be within the next three or four weeks.

Tony Whalen, I'll let you speak up if you think that that is an incorrect statement.

And as for the duration and the commitment of the flow measurement data, Bhabesh, perhaps you could speak to what the commitment is that we -- we have on that.

MR. ROY: Yeah. Thank you.
THE CHAIR: Can you state your name -- state your name for the record.
MR. ROY: Yeah. Bhabesh Roy. Thank you, Chair.

Flow meter, actually, we are talking about for a long -- since last technical meeting. Here is the source to the -- of this flow meter. Flow meter should be in the existing pump station. So while we are doing the design, we found that this pump station built so long ago, there is no meter today on the market available to fit into the existing pump station.

So Eric Bell did the design, and he came up with the conclusion that we can remove the location at -- not in the pump station but in the water treatment plant prior to water coming inside the water plant, so that way -- it's the same building, same quantity, no division -- we can get a device. The device will be lined. Contract call given to someone to install it. As you know, the COVID-19 situation there is too many constraints.

I am asking Tony -- Tony is supervising the construction work. He is the manager. He will give you more update, more clearer information, when exactly the flow meter will start working.

Tony.

MR. WHALEN: Sure. Thank you.

Thank you, Bhabesh. Again, it's Tony Whalen here.

Yeah. Currently we have acquired the meter itself, and I believe it is in Edmonton at the moment. And as Bhabesh did mention, there are some delays, because of COVID, in getting things shipped. I mean, even at the best of times, it's -- it's challenging to get things shipped to Resolute, and the COVID pandemic has made that even more difficult. So we're -- we're getting it closer to Resolute. Hoping we will have it in Resolute in the next week to two weeks, and then we will be coordinating the installation.

Currently, the contractor is working in the Char Lake pump house. The -- the electrical and mechanical components are -- are being installed there, and those are the people that are actually going to do the installation of the flow meter. So Eric suggested, you know, we're three to four weeks out; that is probably realistic. I'm hoping we can do better than that, but that's -- that's what we should kind of plan for.

The installation itself is relatively quick. It should be done in less than, you know, a half a day. This is just a matter of drawing water off of the tank there while the -- you know, the pipe is cut and the -- the flow meter is installed in there. And Eric was

correct; it will be installed at the Signal Hill water treatment plant because there just is not sufficient space at the old Char Lake pump house to install that meter there. Hopefully that answers the question.

Thank you, Mr. Chairman.

THE CHAIR: Thank you.

Any more questions? Okay. Thank you.

Oh, okay. Godwin.

MR. OKONKWO: Thank you, Mr. Chair. My name is Godwin, manager of water resources, Crown-Indigenous Relations and Northern Affairs Canada.

I have one question, and this is back to the first question Sarah was asking about quantity of water asked. But my question is -- I did hear that the estimation or projection accounts for time when everybody wants to use water, so I'm looking at it, and I'm looking at the population of Resolute, of the town, the community. But then one of the slides where you presented the town population at 290, you indicated that during the summer, due to military presence for training, the population of the town increases to 800.

So I was wondering -- so that's probably not seen as the real population, that increase. But if it happens every summer, I'm just wondering if the projections for the water required, if -- when you say that it accounts for everybody's need, if it includes

the need of the -- I don't know if you call it -- temporary increase in population?

MR. BELL: Eric Bell here with EXP.

I'm going to attempt a bit of an answer at this, and then, Tony Whalen, if you could chime in afterwards to let me know your -- your thought on this to support my information. The --

THE CHAIR: Just hold on.

Staff. Stephanie.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

I'm going to weigh in. For the third time, we're going to have to ask you to slow down so the interpreters and the stenographer can stay on track. Thank you.

MR. BELL: Thank you very much. I will do my best.

When there is the influx of population, that is primarily out at the airport sites, and the airport sites are all on the truck-fill situation. The truck-fill situation definitely increases the overall amount of water that's used there, but when we talk about some of the peak water consumption numbers, that is the peak outflow from the Signal Hill water treatment plant. That's not really accounted for with regards to the instantaneous peak that we need when

we're sizing pumps and looking at contact time and things like that. That the overall consumption of water -- you're right -- is increased, but that is from the -- the truck-fill perspective.

And I'm also under the impression -- and this is where I want to draw from Tony's expertise on this -- is that there is sort of a reduced number for the military when it comes to the average consumption days, and on a truck-filled system, there is a lower daily average of customer -- customer usage.

Tony, I'll let you speak to that.

MR. WHALEN: Sure. Thank you, Eric. Tony Whalen here again.

So, I mean, I think the question comes down to have we accounted for military personnel and their use of water in our calculations for consumption. The answer to that is yes. However, because it is based on truck fills, that number has been, sort of, equalized over time. But you'll see in the -- the calculation of annual water extraction from Char Lake that there is an airport consumption number which is fairly significant. In fact, you can see it's, you know, more than half of the community consumption as well. So that is accounted for overall in the -- in the calculation of consumption. So, yeah, I think -- hopefully that -- that answers your question.

Thank you, Mr Chair.

THE CHAIR: Thank you.

MR. ROY: Mr. Chair, I just want to disclose something. The -- any -- any agency asks a question to the Applicant, that is me, and don't talk to any individual. So questions asked to me, and we'll make the answer from -- for the question using any of our technical advisors or the embassy or -- so, again, I repeat, Applicant -- and no one should directly ask question to non-applicant. It should be to Applicant and Applicant to -- to the Water Board.

Hello? Hello?

THE CHAIR: Yeah, I can hear you. So, yeah, just -- I'm just given some direction here. So okay. We'll take your -- take your word.

MR. ROY: Thank you.

THE CHAIR: Okay. Next intervener I'd like to call upon is Environment and Climate Change Canada.

Anna, are you -- can you hear? Have you -- go ahead.

MS. GRAHAM: Yes. This is Anna Graham, Environment and Climate Change. I believe our water quality expert, Meagan Tobin, would like to ask a question.

Environment and Climate Change Canada Questions

Government of Nunavut, Community Government Services

MS. TOBIN: Hi. Yes. Thank you, Mr. Chair. This is Meagan Tobin with Environment and Climate Change Canada. I just have one question.

So in the presentation, as well as in the environmental management plan, it was described the settlement and erosion-control practices that will be implemented to prevent increases in turbidity in Char Lake that is associated with the construction and the decommissioning of the pump houses. However, there was no description of any turbidity monitoring to be undertaken in Char Lake in order to ensure that these mitigations are working as intended and that there aren't unexpected impacts to water quality.

So my question is, will the environmental management plan be updated to include turbidity monitoring to monitor for increases in turbidity that may occur during construction in the water body?

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Applicant, do you -- respond to the question.

MR. ROY: There is a little error of the presentation we should mention about the turbidity monitoring. This question I'll be sharing with Tony. Tony will give the explanation how to install in the Char Lake, how we can protect. But the turbidity

monitoring, yes, we did. As I mentioned before, that we have the ATCO onboard who is operating the system, and our asset management division is the -- administering the contract.

So turbidity has been tested on regular basis during the construction and with the close contact with the Department of Health. So we don't see any kind of adverse turbidity developing during construction. Because if we did that first, then public health will declare the water turbidity, and it will not happen because turbidity under control.

Tony, you want to explain a little bit.

MR. WHALEN: Sure. Thank you, Bhabesh.

Yes. So, I mean, part of the environmental management plan included silt fencing adjacent to Char Lake in the area that we're doing any work on land. In addition to that, we did also install turbidity curtains around any area that we were working in, you know, directly in Char Lake with regard to placing gravel so that we can install the intake lines next year.

So the turbidity curtains were actually installed, and we did measure -- we had the turbidity measured by ATCO during that time, and in comparison to previous turbidity numbers, there was -- there was no increase evident with the work that was done.

Also, the plan was submitted to the Department of Health to review and provide comments prior to doing the -- the work in Char Lake. So I think, overall, we -- like I mentioned, we did not see an increase in turbidity in the raw water in Char Lake during the construction activities. And we will continue those mitigation programs in 2021 when we recommence work in Char Lake, so the turbidity curtains will be reinstalled, and then the silt fencing is still there and will remain there until the end of next year's construction season. So both of those measures will ensure that we reduce any kind of impact of turbidity formation in the raw water for Char Lake.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Any more question from ECCC?

MS. TOBIN: I think --

MS. GRAHAM: We have no --

MS. TOBIN: Oh, sorry. Thank you, Mr. Chair. It's Meagan Tobin with Environment and Climate Change Canada. I just have one follow-up.

So I -- I do understand the mitigations that are being applied. I just wanted to ensure that the continuous testing of water quality and the turbidity, you know, outside of those mitigations is being applied to ensure that the mitigations are working as intended.

And, I guess, just my other question is whether it's intended that the environmental management plan is going to be updated to -- to outline the turbidity monitoring that is being undertaken.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Applicant. Applicant, do you have any response to question?

MR. ROY: Can you hear me? You hearing me now?

THE CHAIR: Stephanie, go ahead.

Okay. Go ahead.

MR. ROY: Yeah.

THE CHAIR: Go ahead.

MR. ROY: Okay. Mr. Chair, I think that we already explained the process in place to monitor the turbidity this year, and most of the system is already onboard to continue monitoring in 2021.

So you are asking to update the environmental management plan? Yes. Once we complete the exercise, we will update the environmental management plan to resubmit.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Any more questions from ECCC?

MS. TOBIN: Thank you, Mr. Chair. Meagan

Tobin with Environment and Climate Change Canada. I have no further questions.

THE CHAIR: Thank you.

Now I'd like to ask the -- the -- the Board -- Nunavut Water Board staff. Do you have any questions to the applicant?

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

Mr. Chair, we do have a few questions for the Applicant, so I'm going to ask that the technical staff address those questions at this time. Thank you.

THE CHAIR: Thank you.

Go ahead, Nunavut Staff.

Nunavut Water Board Staff Questions Environment and Climate Change Canada

MR. KUFLEVSKIY: Thank you, Mr. Chair. This is Sergey Kuflevskiy, the technical advisor of the Water Board. I have a few questions for the Applicant.

On Slide 14, where you showed the volumes of water projected, the volumes of water keep growing, but, from our understanding, the bleeding water that is currently used to dilute the sewage was supposed to drop once the water treatment -- wastewater treatment plant is constructed. So if everybody goes back to Slide 14, you see that the percentages, the contributions from the bleed water, keep going up even past the

construction of the wastewater treatment plant.

Could you please clarify why this is happening. Because, from our understanding, this was the main -- the main reason why you wanted to -- one of the reasons why you wanted to build the wastewater treatment plant, to have the decrease in water intake to basically prevent this water from being wasted on bleed in the sewage.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Applicant.

MR. ROY: Thank you, Mr. Chair.

I think the water treatment -- wastewater treatment plant is to -- proposed to bleed -- do you see -- the -- the wastewater coming from the community. So it is -- the bleed water is also part of the mixing of the sewage, and the mix is coming through the wastewater treatment plant. So wastewater treatment plant -- I don't think we use the quantity of bleed water because that process is before the treatment process. I leave it to our consultant to explain better.

Daryl and Tony, can one of you go ahead to explain, please.

THE CHAIR: Thank you.

MR. WHALEN: Okay. Yeah. Thank you,

Bhabesh.

And, Daryl, you can correct me if I'm -- I'm wrong.

But, yeah, I -- I'm not sure where it came out that, you know, bleed water would be produced once the wastewater treatment plant was constructed and commissioned. In fact, yeah, that -- that's not the impact that will happen by installing the wastewater treatment plant. The -- the bleed water is used to keep -- to keep things from freezing within the pipes, so you need that water flowing constantly. And, yeah, in this case, that -- that still has to happen even after the wastewater treatment plant is installed.

So, yeah, I think that's -- that would be my explanation for that. Hopefully that answers the question.

Thank you, Mr. Chair.

MR. KUFLEVSKIY: Thank you. Thank you, Mr. Chair. Thank you, Tony.

But if you look at this table, the increase is -- that would be disproportional. Like, if you look at the percentages, you go from 35 percent to 40 percent, so it's not your regular, like, 3 percent increase in consumption. So how can you explain that?

MR. ROY: So, Tony, I think we -- you want to explain, or you want Daryl to do?

THE CHAIR: State your name before you speak for the record, please.

MR. ROY: Hi. Yes, Mr. Chair. This is Bhabesh.

So I'm just requesting Tony or Daryl to go into more details because the -- Sergey's question is water treatment plant, but we are talking about bleeding quantity. It's not increasing or decreasing, nothing to do with the water treatment plant. So I think Tony already explained, but the bleeding part is before the treatment process. So you take these -- the water treatment plant at -- or not the water treatment plant, the bleeding quantity will increase according the increasing of the population.

I don't think it adds any kind of the relationship. In terms of volume, yes. But it -- building a wastewater treatment plant, it's nowhere it can reduce the volume of the bleeding quantity. That's my understanding. Let me -- will explain much better.

Tony.

MR. KUFLEVSKIY: Thank you, Bhabesh. Before Tony -- this is Sergey Kuflevskiy. Before Tony answers the question, I just wanted to clarify what exactly I was asking about.

If you look at that table, for the year 2020, you -- you have a 35 percent contribution from a --

contribution from -- for the bleed water. And if you go to the year 2030, it increases by 3 percent to 38 percent. When you go to the next 10-year period, it increases only by 1 percent. So why is such a difference? Why does the water increase by 3 percent in the first 10 years and only by 1 percent in the next 10 years? So is there something that we are missing here, or this is going to be a part of the design?

Thank you.

THE CHAIR: Thank you.

Go ahead, Applicant.

MR. ROY: Okay. Thank you. Thank you, Mr. Chair.

I think the explanation will come from the consultant because the Char Lake -- I understand that the part 20 to 30 is the 3 percent increase, and then 30 to 40 and 47, increase is not that significant; it's going lower. So I think the -- Tony and Daryl could explain it better.

So who will take over the call, Tony or Daryl?

MR. WHALEN: I can -- I can take that, Bhabesh.

MR. ROY: Thank you.

MR. WHALEN: Tony Whalen speaking here.

Yeah. So, I -- I mean, I can look into this a little further, but the -- the bleed water percentage

is the total amount of bleed water as a percentage of the total water extracted. There may just be a -- a rounding error in the -- the percentage there. But you can see that the bleed water from 2020 to 2030 increases by approximately, you know, 40,000 litres a day, and then from 2030 to 2040, it's, again, another 40,000 litres per day. So the actual amount of bleed water per day, that increase over those ten-year periods, is essentially the same.

So then you would have to look to the total water extracted, and that's where that percentage comes from, and that's why you see a bit of a difference in the percentages there over -- over time.

So my explanation would be that the actual bleed water itself, the -- there's a proportional increase in that over time, but the percentage, the numbers are slightly different because there are a number of variables that are used to calculate that -- that percentage in that case because it's based on consumption -- total consumption. Hopefully that explains it.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Water Board Staff.

MR. KUFLEVSKIY: This is Sergey Kuflevskiy.

Thank you, Tony. It is -- it -- thank you for

this explanation, but it is still quite confusing. Like, you have the same pipe basically going in and out of the town. The diameter -- like, dimensions of the pipe did not change, so the volume of the water contained in this pipe should theoretically stay the same, but the volume of the water basically is increasing.

So the bleed water -- like, how -- how does the -- what does the bleed water have to do with the intake from the source? The bleed water is basically used to keep the pipes warm and, to a certain extent, to dilute the sewage. So can you please comment on the reason why the actual volumes of the bleed water are growing.

Thank you.

THE CHAIR: Thank you.

Applicant.

MR. ROY: Thank you, Mr. Chair. I think I can go back to Tony again to explain it more better in detail.

Thank you, Tony.

MR. WHALEN: Yes. Thank you, Bhabesh.

Yeah. I -- I need to kind of take a look at my -- I'm just trying to call up my spreadsheet. So, essentially, there was a design report prepared back in 2012, and it had some of these numbers in it, and then I basically went in and updated it based on the fact

that, you know, we are not installing anything in 2012; in fact, we're doing it in 2020.

So if you would allow me to just take a look at some of these numbers to get you some of the information that you're requesting, I -- I could provide that to you later on during the hearing, if that would be acceptable. I'd just like to take a look at the numbers rather than just speculating off -- off the cuff here. Does that sound okay?

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Staff.

MR. KUFLEVSKIY: Thank you, Tony. This is Sergey. Absolutely. Like, the -- the question can be deferred, and you can answer it later on. It is just -- in the Water Board's opinion, it's a very critical question. Because if you remember, back in 2012, the lines were not exactly perfect, so there was a lot of seepage and a lot of water loss through the lines. But then the lines were repaired. So was this fact accounted in the new design, or you're still accounting for the -- for the water to be lost? But you can absolutely confirm this later on during the hearing, and we can move to the next question.

So my -- again, this is Sergey Kuflevskiy. My next question would be about the wastewater treatment

plant itself. On your Slide 30, you're mentioning that the biological/mechanical treatment is going to be used. For the biological portion of the treatment, I presume you would need to have it done indoors because it is pretty difficult to -- to have any bacterial growth at the temperatures of minus 60, minus 70. So you are you planning to have a building specifically dedicated for this biological treatment portion, and how large of a building are we talking about?

Thank you.

THE CHAIR: Thank you.

Applicant, go ahead.

MR. ROY: Thank you, Mr. Chair.

So, Sergey, as you know, the -- we did not complete the detailed design of the wastewater treatment plant. It's -- a preliminary concept design was submitted. However, your question is -- could be answered clearly.

Daryl, you want to take over?

MR. BURKE: Yes. Thanks, Bhabesh. Daryl Burke with EXP.

So to answer the -- the first portion of your question there, Sergey, yes, absolutely, the entire mechanical and biological portion of the treatment system -- wastewater treatment system would be contained within -- within a building, and the building

would be temperature controlled. So we would see a -- I would expect temperatures of a minimum of 15 degrees Celsius in that space, which would be more than adequate for the type of treatment technology that's being proposed here. This treatment technology has been used outdoors in southern locations within Canada, so -- where temperatures do drop below freezing, below zero degrees C, and it still is an effective treatment technology, so -- however, in Resolute Bay, in the building at temperatures of 15 degrees Celsius, there would be no issues maintaining biological treatment.

To answer the second part of your question, I just can't seem to put my hands on it right now, but there is a conceptual drawing that's been done that shows the building size, and I just can't seem to put my hands on that drawing at the moment. If you would just let me -- I can get back to you on that one. I know there is a -- kind of a conceptional building plan that's been developed, and I will find that and get that sized for you.

MR. KUFLEVSKIY: Thank you, Tony. Yeah, you can absolutely provide the answer later on during the hearing. And I can maybe move to the next question.

So the next question would be about the decommissioning plan for the pump house and the Signal Hill water treatment plant. As it was mentioned

on Slide 16, this decommissioning plan was submitted to the Water Board. When I went through this plan, all I saw was the actual buildings of the pump house and the water treatment plant with the infrastructure within the buildings, but there was no coverage or there was no mention of the old intake lines or what is going to be -- how the old intake lines are going to be remediated. This is a very critical point. And the question is whether the proponent is planning to update the decommissioning plan to account for these items?

Thank you.

THE CHAIR: Thank you.

Applicant, go ahead.

MR. ROY: Thank you, Mr. Chair.

I think in the presentation one of the slides shows that the -- the intake line from the Char Lake to the existing pump station and the existing pump station to the water plant, so this is the intake. So this intake has to be decommissioned. Also, the outfall from macerator unit to the sea -- that outfall pipe, that also the -- part of the decommissioning.

So three components of the pipe system, the intake from the Char Lake to the pump station, pump station to the water treatment plant, and also the macerator building to the outfall to the sea -- so three sections of the pipe has to be decommissioned. A lot will be in

pump station, macerator building, blue building.

So those are the pumps that has to be decommissioned.

MR. KUFLEVSKIY: Thank you, Bhabesh. This answers my Question Number 3.

And now I can move to Question Number 4. Question Number 4 is about the wastewater treatment plant design. So, basically, the new wastewater treatment plant is going to be receiving sewage from both the hamlet and the airport. Will you count the influent characteristics from these -- both places when designing the report?

Thank you.

THE CHAIR: Thank you.

Applicant, go ahead.

MR. ROY: Thank you, Mr. Chair.

I think the -- I did a presentation saying that there's a limit of the wastewater coming from the truck system and also coming from the -- to the system after bleeding. So while the two systems with two different quality mix together, and then the treatment process will start.

Again, the -- I think this question was raised in the last technical meeting as well, so I'm requesting Daryl to explain it in detail.

Daryl, please.

MR. BURKE: Yeah. Thanks, Bhabesh. Daryl Burke here again, EXP.

Yes. We've accounted for both of the sites, both the airport site and the townsite, and -- and we've accounted for those in terms of both flow as well as concentration of contaminants of BOD and TSS. That being said, the existing treatment system is sized that -- such that it can handle BOD concentration up to 110 milligrams per litre and the total suspended solids of up to 125 milligrams per litre.

So it -- that would be much more concentrated than what we would expect to see on a typical basis here due to the bleed water flow and the dilution effect that you get from that in your wastewater stream. However, we -- we did want to make sure that system was sized such that if there are future efforts to reduce the bleed water that we don't put ourselves in a situation where the concentration is -- is higher than the system can handle.

We've also followed up with the manufacturers of the proposed treatment technology and confirmed that it can handle both the hydraulic capacity, which is a concern because of that bleed water flow, but it can also handle the influent concentrations that I just mentioned. So anything up to those concentrations would be acceptable, and we anticipate that we'll be

well within those design parameters here in the hamlet, especially given the bleed water flow.

I hope that answers your question.

MR. KUFLEVSKIY: Thank you, Daryl. This is Sergey Kuflevskiy from the Water Board. This answers my question partly.

So are you going to provide the actual chemical parameters, the characteristics, something for us to visualize what parameters we can expect? Because I don't think the full characteristics has been provided to date. It would be very nice for the Water Board to see a visual, like a table, with all the parameters and the expected characteristics. Thank you.

MR. BURKE: Okay. Yeah. Daryl -- Daryl Burke here again.

In -- I don't know, Sergey, if you've seen, we did a memo, technical memo, prepared by EXP. It was in March of -- of 2020, and that was basically an update to the previous design report that had been done in 2012. And we did provide the recommended -- there is a table in there with recommended influent wastewater characteristics for design.

As I mentioned, though, those are the -- the recommended -- I guess, the recommended design characteristics, not necessarily the estimated concentrations of what you would maybe expect to see in

the hamlet knowing that our design concentrations that we've recommended are on the conservative side to allow for future reductions in bleed water flow.

I'm not sure that we have -- well, I -- we have done estimates of the wastewater characteristics that we would expect to see with the bleed water flow accounted for. I don't have those numbers in front of me right at the moment, but they're well less than what the influent design parameters are.

MR. KUFLEVSKIY: Thank you, Daryl. This is Sergey.

If I remember correctly, that memo from March 2020 only accounted for the sewage coming from the hamlet, and it did not account for the sewage portion coming from the airport. So it wasn't a combined -- the parameters were not from the combined sewage. Can you confirm that, please. Thank you.

THE CHAIR: Thank you.

MR. BURKE: So, yeah. Daryl Burke here again.

I'm just -- actually, I'm -- I'm looking through that memo as -- as we're speaking right now, Sergey, and I -- I do believe that we did account for both the townsite and the airport site in those values. What I would like to do, however, is -- the report that I have in front of me is just a summary of, obviously, the

design calculations that have been done at that point. Since you've asked the question, though, I would like to take the opportunity to go back through the design calculations and confirm that. I -- I believe that it has accounted for both sites at this time, but I will go back through those calculations and double-check that for you.

MR. KUFLEVSKIY: Yeah. Thank you, Daryl. Yeah. It would be greatly appreciated.

Now, Question Number 5: On Slide 27, you provided fecal coliform parameters, basically, fecal coliform data, and from my understanding, this data is for the pre-wastewater treatment construction. Did you -- or do you have any estimates for the post-water -- wastewater treatment plant construction for parameters or not yet?

Thank you.

THE CHAIR: Thank you.

Applicant.

MR. ROY: Mr. Chair, I think the -- we -- we was -- we were requested by ECCC to develop the fecal coliform parameters based on the existing effluent quality. So that we did. A memo was sent to the Water Board.

But to answer to Sergey's question, I don't think we prepare any kind of technical memo on the fecal

coliform for the -- for new wastewater treatment plant, and I'm not sure that we can provide this until the detail design is finalized.

So, Daryl, you want to add anything?

MR. BURKE: Yeah.

MR. ROY: Daryl?

MR. BURKE: Daryl Burke here, EXP.

I -- I do agree with you, Bhabesh. I think the intent was to try to help define a limit. If I -- I understand correctly what we were supposed to have provided was to help define a -- you know, a discharge limit for fecal coliforms as opposed to necessarily trying to define what the influent concentration was expected to be. I know we did do some of that.

Tony, I might ask you just to maybe jump in there if you feel I'm saying something incorrectly here, but --

MR. WHALEN: Yeah, I can. Tony Whalen speaking.

Yeah. So we -- we essentially prepared a technical memo to develop fecal coliform limits to be used prior to construction of the wastewater treatment plant. So, yeah, we did not look at establishing any sort of limits on fecal coliform once the treatment plant is in place. So, yeah, that's -- you were correct, Daryl. That's -- and that's pretty much all I

can say at this point. We -- we haven't developed any of those numbers as of yet until we finalize the design of the wastewater treatment plant and effluent characteristics.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Go ahead, Staff.

MR. KUFLEVSKIY: Thank you, Tony. Thank you, Daryl. Thank you, Bhabesh. This answers my questions. And if you can provide that information that you promised to provide earlier, that would be great. But this answers all of my questions. Thank you.

THE CHAIR: Thank you. Okay. Thank you, Staff.

Now, I'd like to ask the Panel members, do you have -- yeah, we do have a question regarding ... Nunavut Water Board Questions the Government of Nunavut, Community Government Services

MR. SOWDLOOAPIK: Thank you, Mr. Chairman.

My name is Sakaisie Sowdlooapik. I'm with the Water Board. Okay. Again, my name is Sakaisie. I'm with the Water Board. Thank you for all the presentations throughout the morning and this afternoon.

In many of the presentations today, I, myself, being very interested about a place called

"Char Lake" -- by the way, I'm fisherman back home. Surrounding the Char Lake there seems to be many plans for the future for up to 2047, from 2020, and I'd like to know if this is very large lake, first of all, or if there -- secondly, Mr. Chairman, if there is some species in that lake, such as fish or other ecosystem in the lake. And, thirdly, I am very interested from the community members if there is traditional knowledge [OTHER LANGUAGE SPOKEN] surrounding that lake.

Thank you, Mr. Chairman.

THE CHAIR: Thank you, Panel Member.

Applicant.

MR. ROY: Thank you. Thank you, Mr. Chair.

You're asking -- one of the member asking for -- is there any other lake? My answer is yes. Technically there are two lakes. One is called the "airport lake", and another is called "Char Lake". The airport lake many years ago was abandoned. The airport -- we had a pump station and the airport lake, which was used that supply water in the airport area. That pump station is even done. The pipes -- everything is there, but we are not using it. And same city, next to the -- the runway, the water quality was considered contaminated, so we don't use that lake anymore.

So we have only the one lake, which is Char Lake. Now, you are asking for the fish habitat and the capacity. We are using a fish screen. Fish might be there. We don't have any kind of fish habitat study on the lake, but there is a fish screen at the end of the intake, and that intake is -- this contained -- considering where is the fish, considering there is a fish, and fish cannot go inside the pipe. That's why DFO, they have a special regulation to use the fish screen at the end of the intake. So we have the screen protecting. No fish can come inside the pipe.

Regarding the capacity -- so this is a hard question -- we have a hydrology test study and are -- are -- done two years ago, so we know the sustainability of the lake, what is the maximum capacity of the lake. And we -- we did that study, and, based on that, we know that -- how long the -- our present system can run. In one of the presentation, we indicated that 2040 -- after, the present bleeding system will be challenging because we should not go to extract more water, what is needed in 2040, because the lake has not an enough capacity to feed the entire consumption volume if the bleeding water's spent.

So in order to -- in answer to your question, our water permit we requested for 2040, and we are comfortable, and we have sufficient water in the lake

to supply water to our demand.

Tony, you want to add something? This is your -- another technical memo.

MR. WHALEN: Tony Whalen speaking.

No, Bhabesh. I think -- I believe you covered everything in there. Yeah. I think you addressed everything in there.

Thank you.

MR. ROY: Thank you, Tony. Thank you.

THE CHAIR: Thank you.

Staff, go ahead.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

Thank you, Sakaisie, for the question. Tonight is also the community session where we're hoping to have residents from the community attend to hear similar presentations, so it would be -- it would be acceptable to, again, tonight ask that question directly to the community members and generate some discussion around your traditional knowledge question.

THE CHAIR: Okay. Thank you. I think we are done with the Application [sic] -- questioning the Application with their presentation at the moment.

So before we are moving on to interveners, I'd like to get a break. 15-minute break.

(ADJOURNMENT)

THE CHAIR: So now we -- we turn to a presentation by interveners. I remind interveners that before they begin their presentation our legal counsel need you to swear or affirm and verify the materials you will be presenting and marketing as exhibit.

Teresa, please proceed with the procedural matters.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So it's my understanding that the next presenters will be Crown-Indigenous Relations and Northern Affairs, so if I can get you to come up to the interveners' table, please. If I can get the witnesses to state and spell your name for the record, please.

MR. OKONKWO: Thanks, Teresa. So my name is Godwin Okonkwo, so G-O-D-W-I-N O-K-O-N-K-W-O.

MS. FORTE: My name is Sarah Forte, S-A-R-A-H F-O-R-T-E.

MS. MEADOWS: Thank you. Teresa Meadows, legal counsel for the Nunavut Water Board.

Do the witnesses wish to be sworn or affirmed?

MR. OKONKWO: We can be affirmed.

GODWIN OKONKWO, SARAH FORTE, Affirmed

MS. MEADOWS: Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have two hard copy presentation

materials that I will be marking as the next two exhibits in this public hearing, being a copy of the presentation that Crown-Indigenous Relations and Northern Affairs is about to present in English and Inuktitut in one version, and then I also have the summary of Crown-Indigenous Relations and Northern Affairs Canada's review of the water licence application, and I propose to file those as the next two exhibits in this public hearing. And those are my procedural matters, Mr. Chair.

EXHIBIT 7 - Hamlet of Resolute Bay utilidor renewal application for Water Licence 3AM-RUT--- (English/Inuktitut)

EXHIBIT 8 - Summary of Crown-Indigenous and Northern Affairs Canada review of Water Licence Application 3AM-RUT--- (English/French/Inuktitut)

THE CHAIR: Thank you, Teresa.

So Crown-Indigenous Relations and Northern Affairs, go ahead with your presentation.

Presentation by Crown-Indigenous Relations and Northern Affairs Canada

MR. OKONKWO: Thank you, Mr. Chair.

So good day, everyone. My name is Godwin Okonkwo. I am the manager of watering resources from Crown-Indigenous Relations and Northern Affairs Canada.

I would like to thank the Nunavut Water Board for this opportunity to make a presentation and for the intervention regarding the Government of Nunavut, Community and Government Services' application to renew and amend its 3BM-RUT1520 water licence as a Type "A" water licence.

I am joined today by Sarah Forte, the water management specialist. She's the lead on this file. So if you have any questions, please send them to her. Just kidding.

On behalf of Crown-Indigenous Relations and Northern Affairs Canada, I would like to acknowledge the Nunavut Water Board's work in facilitating this licence application review process and the Government of Nunavut, Community and Government Services for their efforts to respond to our questions and concerns.

So as we do this presentation, I'd just like to state that I will do parts of the presentation, and Sarah Forte will do other parts of the presentation. Throughout this presentation, I will refer to Crown-Indigenous Relations and Northern Affairs Canada as "the department", and the acronym "CIRNAC" is used on the slides, and I will refer to the Government of Nunavut, Department of Government -- Community and Government Services as "the Applicant".

So I will start with a brief overview of

Crown-Indigenous Relations and Northern Affairs Canada's responsibilities with respect to the licence application. I will also list contributions that have been made by the department during this process. The topics of the technical review follow the list of issues identified by the Board in their prehearing conference decision. In the course of this process, the department raised nine technical comments, which have been assigned to different issues for discussions. The issues identified have been resolved through discussions at the technical meeting and updated materials submitted by the Applicant.

And so the issue areas are, Number 1, scope and term of licence, compliance, water supply, wastewater treatment, management plans and reports, monitoring, closure and reclamation planning.

So the department has a broad mandate for comanagement of freshwater resources and the management of Crown land in Nunavut under the Act, Regulations, and the Nunavut Agreement listed on the slides. The department administers and enforces regulatory authorizations that pertain to Nunavut's Crown land and freshwater resources. Now, the department participates in water licence processes administered by the Nunavut Water Board, along with other interested parties providing technical advice and expertise for the

Board's consideration. It's important to note, also, that the department also issues land-use permits and lessees for Crown land.

To date, the department has made full contributions in the course of the Government of Nunavut, Community and Government Services water licence application review. At the beginning of this application process, the department did a preliminary completeness review, and a written memorandum was provided on March 26, 2020.

Following the completeness review, the department conducted a technical review of the application. The comments and recommendations were provided for the Board's -- the Nunavut Water Board's consideration in a written memorandum on June 12th, 2020.

The department participated in a technical meeting and prehearing conference on July 14th, 2020.

The department also provided a final written submission to the Nunavut Water Board on September 24th, 2020.

So on the first issue, which is on the scope and term of the licence, the department agrees with the changes to the scope of the licence described in the prehearing conference decision report list of issues. It covers new infrastructure elements to be added to the licence and retains those which have not yet been

decommissioned.

During the technical meeting, there were discussions on the possibility of the Applicant requesting a licence term longer than ten years. On August 4th, 2020, the Applicant submitted an updated renewal application requesting a 20-year licence term. The department supports this request. We understand that during this 20 years there will likely be amendments, including the potential incorporation of facilities currently licensed under 3BM-RES2025, which covers the solid waste facilities.

At this point, I would like to call on Sarah to carry on with some more part -- technical parts of the presentation.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

MS. FORTE: So the recently expired licence for the Resolute Bay utilidor, which was 3BM-RUT1520, had several conditions which were not realized during the term of the licence. The department is of the opinion that they are being addressed during this renewal application process. The conditions can be grouped into four topics. Monitoring -- the first is monitoring water quantity at the intake and the outfall, and this is to be addressed by installing flow meters. Our understanding is that

there's already one that has been installed at the macerator building, and, just earlier, we were discussing the installation of the one at the pump house. And there's been a commitment to that, so we're satisfied, along with a timeline.

Another topic is the annual authorized water use. The previous licence authorized the use of 120,000 cubic metres a year, which was not enough to meet community needs, and with this application, an increased amount has been requested, and that's a positive step.

The third topic was a site-specific study for the determination of the fecal coliform limit, which was submitted on September 2nd of this year, and we'd like to flag an error in referencing in our final written submission. We had referred to this as "Licence Condition Part C, Item 4" when, in fact, it is "Part D, Item 4". So that was a mistake that might make reading our final submission a little bit more complicated.

And the fourth condition that hadn't been realized was updated operation and maintenance manuals. One for the -- the utilidor has been provided in the course of this application, and a timeline, based on the commissioning of new infrastructure, was agreed to for outstanding manuals, and the -- like, the ones for the pump house and water treatment plant.

So the third topic in the list of issues was the water supply, and the hamlet's water source is Char Lake, and a pump house on this lakeshore is used to draw water, which is piped to Signal Hill where there's a water treatment plant and storage tank. Water's distributed through the utilidor system built in 1978 and upgraded in the last five years. Water delivery to the airport sector is through truck services.

The department had three technical comments related to water supply. The first was the quantity of water requested, and I earlier asked for clarification, and -- and -- and we're satisfied now the -- on the quantity of water being requested and understand it to be unchanged at 216,528 cubic metres per year.

Work on upgrading the pump house and water intake started last year, continued this year, and we understand will be complete next year. The department had three recommendations regarding this work: The first was asking for an environmental management plan addressing concerns about potential environmental impacts, including the flushing of total suspended solids and hydrocarbon contaminated soils into Char Lake during the work. It was provided on August 12th and satisfied our concerns, although we understand that Environment and Climate Change Canada

have outstanding concerns and would like to see it updated, and we see -- we support their request.

We also asked for a decommissioning and remediation plan for the old pump house. In their June 29th response, the Applicant committed to providing a plan 60 days prior to starting decommissioning work; however, on September 25th, the applicant provided a decommissioning plan for both the pump house and the water treatment plant. This was submitted after we had shared our final written comments with the Board, so we haven't had a chance to give our technical review on this, and we'd like to flag that this plan does not cover some of the elements that are necessary for a reclamation plan, including what condition the site would be left in and, as Sergey mentioned earlier, the -- the intake and -- and how all of the old building and its foundation might be removed -- or left there.

And our third comment regarding the construction had to do with ensuring the integrity of the water intake pipe insulation during construction, and the applicant committed to considering constructions [sic] designs to ensure integrity.

And, finally, the last point on this slide has to do with leaks in the laterals of the utilidor. So as -- as discussed earlier, the utilidor system was

replaced in 2016, which is relatively recently, and -- and leaks aren't a big issue; however, during a meeting in the community in -- in December of last year, leaks -- individuals reported leaks from laterals connecting to homes and buildings, and the occupants did not know how to get -- who to contact to get the leaks fixed. The laterals are not the responsibility of the contractor servicing the utilidor, and in the course of the technical meeting, the Applicant clarified the different organizations that community members could contact to raise a concern or ask for help. And at the technical meeting, Steve Piercey from the Hamlet indicated he would make a public service announcement to share the information with the community.

Okay. All right. On to wastewater treatment: Currently the wastewater collected by the utilidor passes through a macerator to remove solids before being discharged into the ocean. Construction of a neuro-wastewater treatment plant is planned for 2024. The new plant would have the capacity to treat sewage from town, as well as sewage generated in the airport sector, which is currently sent to a sewage lagoon covered by Water Licence 3BM-YRB1621.

The department had comments regarding the plans for the new wastewater treatment plant, which is at the

predesign stage. Treatment targets for the plant were discussed at the technical meeting. The Applicant committed to submitting a detailed design brief and plans for the plant at least 60 days prior to construction, which would satisfy our concerns. The department recommends that the Nunavut Water Board consider including this as a condition in the new licence.

And then I'll pass it back on to Godwin.

MR. OKONKWO: Thanks, Sarah. So this is Godwin again, Crown-Indigenous Relations and Northern Affairs Canada.

So our fifth comment was on the management plan and reports. Management plans and operations and maintenance manuals describe concepts and strategies -- how concepts and strategies will be implemented. The review allows us to understand what actions will be taken on the ground to make sure things work as planned to protect water.

The department had three technical comments related to plans and manuals. Number 1: Operation and maintenance manuals for the infrastructure were missing from the application, in part, because all system components were or are undergoing upgrades. The department recommended plans be provided and is satisfied with the timelines discussed.

For the water treatment plant, the Applicant committed to providing an operation and maintenance manual for the wastewater treatment plant and pump house after commissioning. The department recommends that the Nunavut Water Board consider including this as a condition in a new water licence specifying a timeline.

The Applicant had also committed to providing a manual for the utilidor once the upgrades were completed, including the 500-metre outfall line into the ocean. The Applicant already provided this manual on September 25th, 2020, which is really encouraging to see. The department's comment on the submitted manual is that it is a significant improvement over previously submitted material because it details how to operate and maintain the utilidor system. However, we note that the cover page does not reflect the date of the latest update. We're expecting this manual would be updated again after the outfall line to the ocean is commissioned, unless operation information is included in another manual.

Also, a risk has been identified in the macerator building, and the department's concerns were satisfied by the submission of Resolute Bay sewage macerator facility operations and maintenance procedures on August 4, 2020. A further memo on the topic was

provided by the Applicant on September 25th, 2020.

Another plan, the spill contingency plan, included with the application material had certain sections which did not seem to be adapted for Resolute Bay. The Applicant addressed this in an updated plan submitted on June 29, 2020. The plan was resubmitted on September 25th, 2020, with a different cover page.

Another plan is the quality assurance and quality control plan. So some deficiencies were noted in the quality assurance and quality control plan that was submitted with the application. These were corrected to the department's satisfaction in an updated version submitted on June 29th, 2020. This same plan was resubmitted on October 19th with greatly improved formatting and some positive additions, like proper appendices.

Okay. So our sixth comment was on monitoring. The recently expired licence, the current licence, requires monthly samples at the Station RUT-2, the sewage outfall to the ocean. Several years of data are available and indicate the quality is not very variable, and it is possible to identify outliers with the current data. Quarterly sampling might be sufficient to flag any sufficient change and would facilitate easier compliance with licensed terms. The Applicant agrees to this change, so CIRNAC is

recommending that the Board considers modifying sampling requirements at RUT-2 until a water treatment plant is built.

Another comment that we had was on closure and reclamation planning. So the infrastructures being decommissioned will need to be reclaimed, including the macerator building and the blue building beside it, the old pump station, the old intake line, and the old outfall line. The applicant has committed to providing these plans should the requirement be in the renewed water licence. The department recommends that the Nunavut Water Board include provision of these reclamation plans as a condition in the new water licence.

About four slides ago we mentioned that the Applicant submitted a decommissioning plan for the Char Lake pump house and Signal Hill water treatment plant, which is an amazing first step; however, we mentioned that they had deficiencies with the reclamation -- the decommissioning plan. And, as stated by Sarah, the plan should have at least something put in it to identify what the -- how the Applicant hopes to leave the site after decommissioning. So reclamation, we would hope, is -- you're taking the environment back to what it was before and not just removing stuff from it.

CIRNAC supports the Government of Nunavut, Community Government Services' renewal application and recommends that it be accepted with due considerations given to our comments. Qujannamiik.

THE CHAIR: Thank you. Okay. Thank you for your presentation.

Does the GN-CGS have any questions to the interveners?

Stephanie, go ahead.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

Bhabesh, the Chair is directing a question to you, whether or not you have questions for CIRNAC at this time. We believe you may still be muted. If you could unmute your phone, please. Thank you.

MR. ROY: Yeah. Mr. Chair, I don't have any question, but if you allow me, I just do a clarification. Hello?

THE CHAIR: Hello. Teresa -- Teresa have to speak.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So I believe that -- correct me if I'm wrong, Mr. Roy, but that you wanted to make a clarification or a -- of -- of either something that Crown-Indigenous Relations and Northern Affairs Canada said, or is it a

clarification with respect to what was previously said by the Applicant?

MR. ROY: No. Thank you, Teresa and Mr. Chair.

My clarification to the presentation of CIRNAC, so if you allow me -- I don't have a question, but I just make a clarification so that the audience -- it's easy to understand how the system would be working inclusive until the new system onboard.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Thank you for that clarification. Mr. Chair has indicated that you can proceed.

Comment by the Government of Nunavut, Community Government Services

MR. ROY: Thank you, Mr. Chair.

Thank you for the presentation and acceptance of the documents submitted and the -- your analysis of different issues and so on. Thank you, CIRNAC.

So my clarification is the -- we are running the -- the pump station, and we are going to build and commissioning a new pump station within the parallel connection. So we cannot go for decommissioning until we see the new pump station is functioning to the satisfaction. So once we see a new pump -- the new pump station is functioning good, and then we are going

to decommissioning of the intake line of the old pump station.

So, again, the clarification is the same way at the outfall -- the macerator and the outfall line are different from the new wastewater treatment plant and the outfall line. So while the new wastewater treatment plant in built, the same way, we will test the new plant; we see how it works. And we have to make sure the new water -- wastewater treatment plant is working to the satisfaction, and then we'll disconnect the line, and we decommission the macerator building, blue building, and the outfall line. And the same way, once we are accepting the sewage from the -- the airport sewage lagoon, then -- to the wastewater treatment plant and it is functioning to the satisfaction, that building -- we'll be considering to start decommissioning of the airport sewage lagoon.

So this is the -- the transition and the replacement, new facility by the -- old facility by the new facility. So this is the course of action we have to continuing because system cannot be stopped for one second. System has to go. So this is why we are running the system in a way -- we are not going to decommission the old facility just like this until the new facility will be functioning to the satisfaction.

Thank you, Mr. Chair.

THE CHAIR: Okay. Thank you. Thank you, [sic] Roy. Okay. That was -- that wasn't really a question, so -- clarification. So thank you.

And I'd like to ask the -- Environment and Climate Change, do you have any questions or comments to the intervention from CIRNAC?

MS. GRAHAM: This is Anna Graham, Environment and Climate Change Canada. We have no questions at this time.

THE CHAIR: Thank you.

Does the Nunavut Water Board staff have any questions or comments?

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

The staff have no questions at this time. Thank you.

THE CHAIR: Thank you.

Does the Panel Members have any questions or comments? Okay. I get that there's none.

Thank you, CIRNAC, for your presentation.

So continue on with the intervention. Now I'd like to call upon Environment and Climate Change Canada to have a -- to present your presentation. So legal counsel will take over for your swear-in.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

If I can have the witnesses state and spell their name for the record, please.

MS. GRAHAM: Anna Graham, Environment and Climate Change Canada. A-N-N-A G-R-A-H-A-M.

MS. TOBIN: And Meagan Tobin, M-E-A-G-A-N T-O-B-I-N.

MS. MEADOWS: Thank you. Teresa Meadows, legal counsel for the Nunavut Water Board.

If I can have the witnesses affirm. When I complete the statement, if you can say "I affirm" and give your name for the record, that would be appreciated.

ANNA GRAHAM, MEAGAN TOBIN, Affirmed

MS. MEADOWS: Thank you. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have two exhibits to file in respect of the evidence about to be given by Environment and Climate Change Canada, and that consists of their presentation materials in English and in Inuktitut, and I will file those as the next two exhibits in the public hearing. And those are my procedural matters, Mr. Chair.

EXHIBIT 9 - PowerPoint presentation from Environment and Climate Change Canada to the Nunavut Water Board respecting the Resolute Bay Type "A" Water Licence Renewal

and Amendment (English)
EXHIBIT 10 - PowerPoint presentation from Environment and Climate Change Canada to the Nunavut Water Board respecting the Resolute Bay Type "A" Water Licence Renewal and Amendment (Inuktitut)

THE CHAIR: Thank you, Teresa.

So Environment and Climate Change Canada, you may go ahead with your presentation.

Presentation by Environment and Climate Change Canada

MS. GRAHAM: Thank you, Mr. Chair.

Good afternoon, everyone. My name is Anna Graham. I am an environmental assessment coordinator with Environment and Climate Change Canada. And with me, who just spoke as well, is our water quality analyst, Meagan Tobin.

I would like to thank the Nunavut Water Board for this opportunity to make an intervention for this water licence, as well as to Crown-Indigenous Relations Northern Affairs Canada, the Government of Nunavut, Community and Government Services, and the Hamlet of Resolute Bay.

I will start by presenting the department's mandate and briefly touch on the Act and Regulations that are relevant to Environment and Climate Change Canada and which guide a review of the current

application. Following that, Meagan will outline the comments and recommendations provided in our final submission regarding the application for a Type "A" water licence.

Environment and Climate Change Canada's mandate is to preserve and enhance the quality of the natural environment, including water, air, and soil quality.

Wait one moment.

Our mandate is also to conserve Canada's renewable resources, including migratory birds; conserve and protect Canada's water resources; forecast daily weather conditions, so meteorology; enforce those regulations --

THE CHAIR: Just hold on a second.

We have to negotiate here at the moment.

Staff.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

Mr. Chair, we're experiencing some technical difficulty with getting the presentation up on the screen, so if we could take a short five-, ten-minute break to -- to resolve that matter. I'd encourage the Panel and -- and members of the audience to help themselves to a coffee or a -- or a juice box or something, but we'll be back in a few minutes with -- with the presentation. Thank you.

THE CHAIR: Okay. Yeah, we'll -- we'll do that. Thank you.

(ADJOURNMENT)

THE CHAIR: Okay. Environment and Climate Change Canada, you may go ahead now with your presentation.

MS. GRAHAM: Thank you, Mr. Chair. Anna Graham, Environment and Climate Change Canada.

I will continue where I left off before the break. I was speaking to Environment and Climate Change Canada's mandate.

Our mandate is to preserve and enhance the quality of the natural environment, including water, air, and soil quality; to conserve Canada's renewable resources, including migratory birds; to conserve and protect Canada's water resources; to forecast daily weather conditions; to enforce those regulations; and to coordinate environmental policies and programs for the federal government. This mandate is governed by several Acts and Regulations, including the Department of the Environment Act, the Canadian Environmental Protection Act, the Pollution Prevention Provisions of the Fisheries Act, the Migratory Birds Convention Act, and the Species-At-Risk Act.

I will now pass this presentation over to my colleague, Meagan, for the discussion of our technical

comments.

MS. TOBIN: Thank you. So I will now speak to the comments that Environment and Climate Change Canada provided in our final submission.

So the first comment related to the new wastewater treatment plant, specifically Environment and Climate Change Canada, have requested additional details relating to treatment targets for the new treatment plant. As well, we were also looking for details on future toxicity testing, validation, and effluent data.

In response, the applicant has provided a memo indicating that the plant will be designed to be capable of meeting the limits of the federal southern Wastewater Systems Effluent Regulations and has made a commitment for toxicity testing and submission of effluent data. ECCC considers these comments to be resolved.

Next slide, please.

As part of the submission for renewal, the Applicant referenced fecal coliform studies that were not initially provided for review, and therefore ECCC recommended that this information be made available to reviewers. The Applicant has provided this analysis, and Environment and Climate Change Canada has no further comments; therefore, this comment is considered to be resolved.

In relation to management plans, Environment and Climate Change Canada made recommendations regarding the quality assurance and quality control program to include trip blanks in the program. We also identified several errors in the quality assurance and quality control plan, as well as the spill contingency plan. In response, the Applicant has provided updated plans incorporating our recommendations and addressing all of the errors. Environment and Climate Change Canada considers these comments to be resolved.

In response to the technical meeting, the Applicant provided an updated environmental management plan for the Char Lake pump house and Signal Hill water treatment plant construction. This plan includes implementing mitigation measures for erosion and sedimentation; however, Environment and Climate Change Canada noted that no associated water quality monitoring in Char Lake had been proposed and therefore recommended that turbidity monitoring be completed during in-water works.

Earlier in this hearing, clarification was provided by the Applicant on their turbidity monitoring associated with in-water construction, and, therefore, Environment and Climate Change Canada considers this comment to be resolved, pending this turbidity monitoring being described in the environmental

management plan.

I want to thank you for the opportunity to participate in this process, and we will now take any questions.

Thank you, Mr. Chair.

THE CHAIR: Okay. Thank you.

So questioning interveners to -- start with Applicants, CGS, if you have questions or comment.

MR. ROY: Thank you, Mr. Chair. No, I don't have any question or comments. Thank you very much.

THE CHAIR: Thank you.

Crown-Indigenous, do you have any questions?

MR. OKONKWO: Thank you, Mr. Chair. This is Godwin, Crown-Indigenous Relations and Northern Affairs. We have no questions for ECCC.

THE CHAIR: Thank you.

Water Board Staff, any questions?

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board. We have no questions at this time, Mr. Chair.

THE CHAIR: Thank you.

Panel Members, any questions? Okay. There's none. Thank you.

Thank you, ECCC, for your presentation.

MS. GRAHAM: Thank you, Mr. Chair.

THE CHAIR: Okay. We may take a recess for -- for now or -- because we have to come back here at 7:00 tonight for a community session.

Okay. You take the floor, Teresa.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel to the Nunavut Water Board.

So, Mr. Chair, there is an evening session starting at 7 tonight for the community, so a community information session in accordance with that agenda. But I note that we have gotten through the majority of the public hearing agenda today, and so following the community session tonight, if there is still time, we may close off the public hearing with final statements of the -- of the Applicant and the interveners.

And, also, we would like to close with the deferred responses from the -- from the Applicant being read into the record tonight. So if the Applicant can be prepared for that, we would very much appreciate it. It would mean that we were able to close our record and be able to begin decision-making for the file.

So with that, Mr. Chair, those are just sort of my advanced warning that we will be expecting responses to deferred questions at the end of the community session tonight.

Thank you, Mr. Chair.

THE CHAIR: Go ahead, Stephanie.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Water Board.

Mr. Chair, if I could just remind the parties that when we return to the venue tonight we will be asking that the questionnaire -- the health questionnaire and the temperature checks be conducted once again. So if parties could arrive a few minutes early to allow for that, we can begin our session closer to 7:00 as a reality, so I'd appreciate the consideration in that timing.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

So we take the recess now and then come back here, and if you have time, like the -- the staff -- legal counsel mentioned, we'll proceed with it. Thank you. Thank you all. See you again.

PROCEEDINGS ADJOURNED UNTIL 7:00 PM

(PROCEEDINGS RECOMMENCED AT 7:15 PM)

Community Session

Opening Remarks (Community Session)

THE CHAIR: Good evening. Everyone, welcome to the community session for the Nunavut Water Board public hearing for the application filed the Nunavut -- Community -- Government of Nunavut,

Community Government -- Community and Government Service Department. Where's my eye glasses? This one. Okay. I better put these on first. That better one. Okay. I can see better now.

I will refer to them "GN-CGS" for short -- to renew and amend their expired Type "B" Water Licence No. 3BM-RUT12 -- 1520 with a Type "A" Water Licence No. 3AM-RUT---

My name is Lootie Toomasie, and I'm -- I'm the Chair of Nunavut Water Board and the hearing Chair for this public -- public hearing. This public hearing is being conducted by the Nunavut Water Board to consider an application by GN-CGS asking the Nunavut Water Board to issue a renewed and amended water licence for a term of 20 years to authorize activities associated with continued service, use of the water, and disposal of sewage through the utilidor system at the hamlet of Resolute Bay.

I would like to note that some parties are joining the public hearing via Zoom conference call, so I would like to ask those participants who are calling in to mute their microphone to avoid any unnecessary noises.

I would also like to remind everyone to please -- to please turn off your cell -- cell phones or put them on silent before we begin.

Before we proceed with tonight's session, let us

begin with a prayer. Let's stand and pray. Let's pray.

Opening Prayer (Community Session)

THE CHAIR: For those of you who were not here this morning when we started the public hearing, I have a few briefing [sic] housekeeping and introductory remarks, and then I will turn the microphone over to the executive director and the staff of the Nunavut Water Board, the Applicants, and then to interveners.

Before I do, I would like to remind everyone that we are currently in the middle of the global pandemic, so we'll be discussing safety measures a lot. As everyone can appreciate, due to the public health risks associated with the COVID-19 pandemic, our proceeding may look different than usual as we have had to modify our normal plans to keep us all safe and in compliance with local public health requirement.

Tonight, to provide our health and safety briefing, we will have Teresa, legal counsel for the Nunavut Water Board, do the briefing on -- on -- on this protocol.

Teresa.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So, first and foremost, thank you everyone for coming out. As you can see, when you look around the

gym, we have some participants that are either on Zoom or on the telephone because they are from outside the territory, and with the travel restrictions into Nunavut, it is safest for them to be participating in their -- in their own homes and not travelling, coming into the territory.

And second thing you would notice is when you came in we gave you a questionnaire, a health-screening questionnaire, so that anybody who is experiencing symptoms is asked not to come in so that we can prevent the spread of COVID-19 or -- or the flu even. So we appreciate you filling out those forms.

We also ask you to sign in, and the reason for that is it's a requirement of the Government of Nunavut public health office to make sure that we can contact trace in the event that anybody did become ill after these meetings.

You will also notice that there are 'X's on the floor underneath all the chairs. That is so the chairs stay physically distanced, apart from each other, and that is so that we can, again, maintain a safe distance from each other.

You'll also notice we have little arrows on the floor. So when you came in over at that entrance, we ask that you move in one direction so that we're not bumping into each other or too close together.

You'll notice that the snack table has a number of snacks on it that are all individually wrapped, so please feel free to help yourself to snacks that are there. And there's also hand sanitizer on that table, if you want to use some hand sanitizer before you eat anything or before you touch anything that's on the table.

Some of us are also wearing masks. There are people in the group that came in from southern Canada. They are isolating here, and so they will have their masks on when we are close together in close proximity, less than 6 feet apart. We are wearing masks so that we keep ourselves and each other safe. If at any time you would like to wear a mask inside -- it's not mandatory; you don't have to, but if you want to, there are masks and there are gloves at the table that we can provide you with.

So, Mr. Chair, as much as we have a lot of things to keep us apart, we're very glad that you came together today and that you're here to join us in these proceedings as we entertain a very important application for the community water supply. So, thank you, Mr. Chair. Those are, sort of, the rundown on some of the changes to our process.

THE CHAIR: Thank you, Teresa.

Also, please note that there's interpretation

available throughout the hearing, and earpieces can be obtained from the table located just by the door as you came in. Channel 1's for English, and Channel 2 for Inuktitut.

I would also like to ask everyone to sign in and leave your contact information on the sheet located at the table by the entrance. Additionally, there are COVID-19 screening questionnaire forms available. Please fill them out. This is requirement imposed by the Department of Health for contact-tracing purposes, so we could -- so we would appreciate your help in making sure this information is provided.

There will be snack and refreshment, as the legal counsel mentioned, at the -- at the table. Please help yourself. Please remember to wash your hand and use sanitizer by [sic] touching the snack. Also, the snack will be individually packed, so please take -- try to take only item you are going to consume.

There's -- there -- agenda for the hearing and this community session available at the table at the entrance. Please take one and follow along.

Roll Call

THE CHAIR: Before -- before we proceed to the presentation on -- on the agenda, I would like to introduce the Board members and staff who are joining us today -- tonight. I will -- I will be chairing this

Panel, and with me today -- tonight, as members of the decision-making Panel responsible for this file, are Board members: Ross -- you aren't on my right -- left. Ross is on -- Ross Mrazek is on my -- on my -- on my left, and Sakiasie Sowdlooapik is on my right.

Several staff members who have contributed the -- to the Nunavut -- NWB's administration and technical review of this renewal application are present along with the legal counsel to the NWB, and I will introduce the individuals attending today -- tonight. When I say your name, please wave so that people will know who -- where you -- who you are: Stephanie Autut, executive director; Karén Kharatyan, director of technical services; Sergey Kuflevskiy, technical advisor; Robin Ikkutisluk, licensed administrator at the front entrance; Teresa Meadows from Meadow's Law, legal counsel to the Board.

In addition, we have two at -- interpretation throughout the hearing: Tapitia -- Tapitia -- sorry -- Qitsualik, who is originally from Gjoa Haven, and we supposed to have Martha Idlout also, but she's not here, so did not -- she had a family issue, kids -- related to her kids.

For audio support, we have with us Ryan Dempster from the PIDO. So if you have difficulty with your headsets, Ryan will be able to assist you.

To ensure accurate recording of proceeding is kept, we have with us a court reporter, Sara Anderson, from Dicta Court Reporting Incorporated. To assist Sara, I ask that all parties please state your name prior to speaking.

Additionally, since we are in the middle of the global -- global pandemic right now, I would like to ask everybody not to approach Sara, the court reporter, and Ross Mrazek, the Board member, directly because they travelled here from outside of Nunavut. Instead, please direct your question to Teresa, and she will relay them to Sara and Ross.

With that, I will now turn the microphone over to Stephanie Autut, executive director, to give you an overview of tonight's session.

Stephanie.

MS. AUTUT: Thank you, Mr. Chair.

The Board will start tonight's session with a presentation by the Nunavut Water Board's technical staff, which will be followed by a presentation by the Applicant, the Government of Nunavut, Community and Government Services Department. Following that, we will have presentations by Crown-Indigenous Relations and Northern Affairs and Environment and Climate Change Canada.

After each presentation, we will invite anyone who

wishes to ask questions or provide the Panel with their comments to step up to the microphone and speak on the record. If you are an Elder, you can speak at any time throughout these proceedings. We just ask that you raise your hand to be recognized by the chairman and wait to speak until one of our staff members can get a microphone for you so that we can ensure your comments are included on the record.

For everyone here tonight, I encourage you all to ask questions or share your comments with the Board by stepping up to the mic. You can direct your questions to the staff of the Nunavut Water Board, the Applicant, or the interveners, Crown-Indigenous Relations and Northern -- Crown-Indigenous Relations and Northern Affairs, and Environment and Climate Change Canada.

As Mr. Chair said at the start of the public hearing this morning, it is very important to the Nunavut Water Board that we have an accurate record of the information, the questions, and comments that we hear during this public hearing, so we ask that to assist our interpreters and the court reporter, please wait until you have a microphone before you speak, that you state your name and speak directly, clearly, and slowly into the microphone. Please be mindful of the interpreters as you go and avoid the use of abbreviations if you can. We appreciate your

participation and assistance in making sure we are all heard and understood in this hearing and that this hearing is conducted in a productive and respectful manner. I will now turn the microphone over to the Board's technical staff to walk you through how this amendment and renewal application has progressed to this point.

Sergey, if you could commence your presentation, please.

So we're just having a brief moment of technical difficulty getting the presentation onto the screen, Mr. Chair, so we will -- just bear with us for a couple of minutes. Thank you.

(ADJOURNMENT)

MS. AUTUT: Okay. Sergey, go ahead, please.

Presentation by the Nunavut Water Board Staff (Community Session)

MR. KUFLEVSKIY: Good evening, everybody. My name is Sergey Kuflevskiy from the Water Board, technical advisor from the Water Board, and I will give you a brief overview on the procedural history for this application and the brief introduction into the Water Board's licensing process.

Next slide, please.

This is the list of topics that I will be covering

tonight. I'll start with the general information about -- on the Nunavut Water Board, the types of authorizations and licenses that the Water Board issues. Then I will continue with the Type "A" water licence that we are here to discuss tonight. I will summarize the procedural history of the file and the comments submitted by the interveners and the Applicant, and then I will present -- I will present a brief summary on what's going to happen with the file following today's -- tonight's meeting.

Next. Okay. So --

THE CHAIR: Sergey, you're too close to the microphone.

MR. KUFLEVSKIY: Yeah. Okay.

Just as background -- background information, the Nunavut Water Board is an institution of public government that was established under Article 13 of the Nunavut Agreement, and Nunavut Board -- Water Board's responsibilities are basically to ensure that the water -- the Nunavut water is safe and that nothing dangerous goes into the water.

The main objectives of the Nunavut Water Board are the provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimal benefit from those waters for Nunavut's residents in particular and

Canadians in general.

The types of authorizations that the Nunavut Water Board can issue can vary. We have three different types of authorizations, actually, and it depends on how much water is going to be used for the project. If the project will consume less than 50 cubic metres of water per day, then the proponents will be advised to generally apply for an authorization without a licence. If the water quantities requested are between 50 cubic metres and 299 cubic metres per day, then this will generally qualify as a Type "B" water licence. And the quantities of water over 300 cubic metres per day will require a Type "A" water licence process.

This week's public hearing is for a Type "A" water licence, and this is based on the criteria set out in Schedule 2 and 3 of the Regulations. This is -- on this slide, you will see a brief overview of the licensing process for -- for a Type "A" file. First, the Water Board receives an application from an Applicant, then the application is reviewed by the Water Board staff, and if any documentation is outstanding, this information will be requested from the Applicant, and once everything is provided, the application is going to be distributed for a 30-day review for completeness check. This is the initial

step when the parties will be involved -- parties and the public will be involved to ensure that the application is complete and can be proceeded to a technical review stage.

So once the Water Board receives the confirmation from the parties or the public, if public decides to submit any comments -- so if the confirmation suggests that the package is complete and can be distributed for -- for a full technical review, the Water Board will distribute the package for a 30-day technical review. And this is the stage where the parties and the public will conduct a more detailed technical investigation and provide their comments and questions for the file under review.

So once all the questions are sorted out, one -- once all -- all the comments are addressed, the file goes to the next step, which is the technical meeting and the prehearing conference. At the technical meeting, the parties meet either in person or by teleconference, and this generally depends on -- on a lot of circumstances. Like, for this specific file, we had a teleconference technical meeting because of the restrictions imposed by the Department of Health and associated with the COVID-19 pandemic.

So once this stage is over, technical meeting and prehearing conference, the Water Board will issue a

prehearing conference decision that -- which will be distributed to -- to the interveners and to the public. So all this information is available and can be found on our website.

Following this step, the Water Board issues a notice of public hearing, and this generally happens 60 days prior to the public hearing. During this time, the parties exchange the written interventions, which means that parties will provide their final comments, and the proponent will try to respond to these comments, and the main point of this stage is to ensure that the file is ready and has almost no outstanding issues so that all issue -- most issues are resolved so that the file can definitely go to the public hearing stage.

And this brings us to the actual public hearing stage, which is the current stage. It's circled on the -- on the slide. So now what happens after that -- like, following the public hearing, the Water Board will issue a decision to approve or disapprove the application, and this decision will be -- the draft of this decision will be forwarded to the Minister of Crown-Indigenous Relations and Northern Affairs Canada who will further decide whether this project should go forward or not.

So now I will talk a little bit about the

application that we are currently reviewing. So the scope of this application is as follows: The Government of Nunavut, Community and Government Services, or "GN-CGS" for short, requested to allow for the continued use of water and disposal of sewage at the -- through the utilidor system in the hamlet of Resolute Bay. The term of the licence was initially ten years. So the initial requested term was 10 years, but then the licensee has adjusted this term -- this request to 20 years, so we're looking at the potential 20-year licence for -- which will govern the utilidor system in the hamlet of Resolute Bay.

The water volumes requested -- the -- the water use requested is as follows: The two parameters are of a particular interest. The first one is that the water is withdrawn from the Char Lake. I'm sure everybody knows where it is. And the second aspect is the volume of water, which is 216,528 cubic metres per year. So, additionally, GN-CGS requested for an approval to continue management of the utilidor system, which is operated by -- by ATCO, and future construction of the wastewater management plant -- wastewater treatment plant.

Now to get to the procedural history of the file. I'll just highlight the important milestones for the file. We'll start with the date when the application

was submitted, which is at the end of January, January 22nd. So then the application was reviewed between January 23rd and February 28th and distributed for an initial completeness check assessment on February 28th.

Following this stage, the comments were received from Crown-Indigenous Relations and Northern Affairs Canada, as well as Environment and Climate Change Canada. Between March 27th and April 22nd, the Applicant addressed the comments that were provided by the parties. On March 29th, 2020, the Type "B" licence, the current licence that governs the water use in this community, expired. On April 29th, the Water Board distributed the package for a full technical review, and the deadline for a full technical review was June 12th.

So following this -- following this stage, the Water Board scheduled a technical meeting and a prehearing conference for July 14th and July 15th of this year, so it's pretty much six months after the application was submitted. Both technical meeting and the prehearing conference were completed in a single day, July 14th, and the prehearing conference report was issued on July 27th.

Following this stage, the Applicant had almost two months to respond to the commitments that were listed

in the prehearing conference decision report and sort out any outstanding issues. On October 8th, the Water Board issued the draft agenda for the public hearing, and on the same day, the Water Board received a preliminary presentation for -- from the GN-CGS for the public hearing.

On October 14th and 15th, the Water Board received public hearing presentations from Crown-Indigenous Relations and Northern Affairs Canada, as well as a presentation from Environment and Climate Change Canada. On October 20th, the Nunavut Water Board distributed the final agenda to the distribution list, and on October 21st, the Applicant submitted a final presentation to the Water Board.

Now I'll explain how the interveners were involved in the licensing process in the application process for this file. The Applicant, Crown-Indigenous Relations and Northern Affairs Canada, and Environmental and Climate Change Canada have all contributed to the review process for the application. This means that these parties participated in a formal and informal discussions aimed at resolving relevant issues, as well as provided the Board and the proponent with valuable technical information, questions, or concerns on relevant issues.

The public was also invited to participate in the

application process. As I mentioned before, all of our correspondence goes to the distribution list, which includes all local organizations as well as the interveners and an Applicant. So the public also had a chance to submit their comments or concerns. No submissions have been received from the public to date.

If you have any questions or advices regarding this file, you are more than welcome to approach myself or Robin at the registration desk, and we can try to answer your questions and take notes of your advices or comments. Additionally, this information is available on the Nunavut Water Board website. Again, if you want to see this information or look at some files, Robin can provide you with this access. She can -- she can show you where the documents are located, and she'll also try to answer your questions.

Now I'll briefly explain what the next steps for the file are going to be. The public hearing this week is chaired by the Board Panel and is led by the -- by the Board's Chair. The Panel is -- usually consists of three Board members. As you can see, we have three members sitting at the -- at the table at the front. And the -- this Panel's entitled "Resolute Bay Panel" or "P21". The Panel is here to consider all the questions from the interveners and all the recommendations from the interveners, as well as the

recommendations and concerns presented by the parties.

Following this, the Panel will have 30 to 45 days to issue a decision, and, of course, the public will be informed about this decision once the decision is issued.

This is all for my presentation. Thank you very much. So we will have another presentation following this, the presentation by the Applicant, and the Applicant will provide more details on the project and on what is going on with the licence application and what is going on in the community, how your infrastructure is going to change, when the construction is going to be completed, and basically what to expect in the future. So just wait a little bit, and you'll -- you'll hear another presentation from the Applicant. Thank you.

MS. AUTUT: Thank you, Sergey.

So as Sergey just mentioned, this -- this presentation that's just been received is -- is just related to the Water Board's processing of the application. So are there from the public or any of the parties regarding the Board's processing of the application before them?

Okay. Seeing that there are no questions just yet, we'll move on to the Applicant. We ask that you make a brief presentation about the amendment

application that's being discussed here at this hearing.

So, Bhabesh, I assume that you'll be taking the lead on the presentation? Okay. So, Bhabesh, we are unable to hear you. Once again, you continue to be muted. If you could give us some indication of what your plan is, whether you will be presenting or if you want one of your representatives here in the room to present. Okay. Bhabesh, apparently you have hung up. Can you please try to call back in.

MR. ROY: Yeah, I've called back. I'm online.

MS. AUTUT: Very good. Can you please proceed with your presentation. Thank you.

Presentation by Government of Nunavut, Community Government Services (Community Session)

MR. ROY: Okay. Thank you.

Good evening, everyone. I am Bhabesh Roy. I'm going to present the Type "A" water licence application on the Resolute Bay utilidor system. In this presentation, I have a big team working with me. I am the licensee, and I am also the main contact of the licence and the leader of this application. I'm assisted by Janise Idlout, municipal technical officer working in my office, and also I am supported by the Municipality of Resolute Bay, Steve Piercey, chief

administrative officer. I'm supported by a group of seniors [sic] technical advisor from EXP, the -- Eric Bell, who is already in the conference room, and online is Tony Whalen and Daryl Burke. All three of them from EXP are highly involved in each and every component of the Resolute Bay utilidor system.

I'm going -- going back to a little history of -- of Resolute Bay and the current situation. When this community -- this settlement was formed 1970. It was designed in a way to accommodate 1,500 people. Today, in 2020, the population of the town is 290, but this 290 is a basic population. As you know, Resolute Bay is a training ground of Canadian military, so summertime, the military do come -- used to come there and get their training. That increased the population up to roughly 800.

So the resident of Resolute, you know that this town divided into two component. One is the main town, and another part is the airport area. The main town is supplied by pipe water system, and the water and sea are all utilidor -- what we call "utilidor system".

7 kilometre away, the airport -- there is the airport area. That area, almost 18 households -- I mean the 18 buildings, Government and others. Those areas have by truck system. This is a little tiny town. We have three water licence. The utilidor

itself a water licence. It belonged to the Government of Nunavut while I'm the licensee. The second licence is solid waste management, the landfill site. It belonged to the Hamlet. And third licence, the airport sewage lagoon, who is inherited from Transport Canada long time ago, and this licence belonged to, also, Government of Nunavut. It belonged the Department of Economic Development and Transportation.

In my presentation, the status of the licence present and the future -- the present licence is called "3BM-RUT1012". The licensee is Community Government Services of the Government of Nunavut. The type of the licence is called "Type "B"". Date of issue is March 30, 2015. Date of expiry is March 29, 2020. This was a previous licence. The annual water extraction, 126,020 cubic metre.

Now, as you see the previous presentation, seeing Water Board have a new regulation and from the extraction in this 300 cubic metre per day, the type of the licence will be Type "A". So we are following in that category. So our new licence will be a Type "A" licence, and there is not -- a number is not given yet. When licence is issued, the licence number will be 3AM-RUT, and there will be a number. The licensee will remain the same, Community Government Service of Government of Nunavut. It will be Type "A" licence.

This licence is requested for 20-years term, and the permit of the licence is 216,520 cubic metres. If you can express in litre, it should be two -- two thousand one hundred and sixteen million [sic] litres. There's a huge amount of water we need to extract from -- from Char Lake.

I have my colleague, Janise Idlout. I want Janise to take over from here until the sketch, three -- three slides. Historical water extraction, you start from there, and then Eric will continue, and I'll be doing the last slide.

Janise.

MS. IDLOUT: Thank you, Bhabesh. Janise Idlout here. Trucking to -- I don't know. No, no, no. No, I can't. Yeah.

MR. ROY: (INDISCERNIBLE)

MS. IDLOUT: Eric. I ...

MR. BELL: Janise has asked me to take over for a little bit, so I shall.

MR. ROY: Okay. Okay. Yeah, sure. Go --

MR. BELL: On this particular --

MR. ROY: Go ahead.

MR. BELL: On this particular slide, there is some historical flow data pertaining to the utilidor system as well as the trucking to the airport

system and then the totalized flow. You can see that on some of the years it is as low as 114,000 litres, and on other years, the number that has reported has been 400,000 litres -- or cubic litres. That is why the permit to request has been -- from the original licence of 126,000 cubic metres has been increased, so that we can meet the demand of the current and future needs.

MS. IDLOUT: Janise here.

Components of the future utilidor system.

MR. ROY: Yeah.

MS. IDLOUT: Status: The main buried water and sewer lines, main utilidor system upgraded in 2014. Vaults were upgraded in 2014. Fire hydrants upgraded in 2014. An intake from the Char Lake to the new pump station under construction 2020/2021. Fish screen will be provided at the end of the intake, 2020/2021. A new pump station at Signal Hill under construction 2020/2021. The standard flow meter will be installed at the new pump station, 2020/2021. Intakes from the new pump station to Signal Hill water treatment plant is constructed. A storage tank at Signal Hill is constructed.

Rehabilitation of the existing water treatment plant under construction in 2020/2021. New wastewater treatment plant, future construction anticipated in

2024. A new outfall from water -- wastewater treatment plant to the sea, future construction anticipated in 2024. A collection point to -- a collection point at wastewater treatment plant to receive truck sewage, future construction anticipated in 2024. The old pump station macerator unit, outfall line, and old water [sic] treatment plant building, future discommissioning [sic] anticipated in 2014 -- 2024. I'm sorry.

Components of the utilidor system: 40 [sic] kilometres of buried water in sewer lines; 23 fire hydrants; 36 access vault; a pump station at Char Lake; a 500-metre three-water storage tank at --

MR. ROY: Metre cube.

MS. IDLOUT: -- Signal Hill.

MR. ROY: Metre cube.

MS. IDLOUT: Water treatment plant at Signal Hill; macerator unit with no flow meter; a 150 -- millimetre?

MR. BELL: Millimetre, yeah.

MS. IDLOUT: -- millimetre 6 diameter water intake line from the Char Lake to the pump station; 150 millimetre 6 diameter water intake line from the pump station to Signal Hill water treatment plant; a 200 millimetre -- millimetre 8 diameter outfall line from macerator unit to sea. The original utilidor

system was built in 1978 and upgraded in 2014.

MR. ROY: Okay. Okay. Thank you very much. Before we hand over to Eric, I just make one correction.

Item Number 7, the flow meter in the macerator unit, it has been installed. So, yes, there is a flow meter in macerator unit.

Okay. Eric, please continue from here.

MR. BELL: Thank you very much, Bhabesh and Janise.

On this slide, there are two things that are being represented, the way the intake and treatment plant and utilidor is currently and how it will look in the future. Currently, water comes from Char Lake through the existing Char Lake pump house to Signal Hill water treatment plant. And as Janise mentioned earlier, there's a 500-cubic metre storage tank. The water is then sent through the municipality of Resolute Bay in a utilidor system, and upon the generation of wastewater, under the light green line, it goes through a macerator unit and then to the final outfall in the ocean. And the compliance point of measurement is at the shoreline.

In the future, water will come in from Char Lake through the new pump house and the new intake line through the treatment plant to be stored in the same

500-cubic metre tank down through the utilidor system in the municipality, and then the exit of it into the wastewater will be going into the proposed new wastewater treatment plant where the compliance point for that will be at the discharge of the plant.

Currently, trucks are filled with freshwater at the Signal Hill plant for the airport. That won't change. And in the future, wastewater trucks will be dumped at the new wastewater treatment plant.

The -- the quantity of water that has been requested has been estimated over the duration of this proposed construction project from 2020 to 2047. The community consumption in litres per day is estimated at 65,000 in 2020 all the way up to 90,000 in twenty seventy -- or 47. This is because of additional use and the growth of population.

Airport consumption also increases based on users, and the -- the bleed water that is used to keep the sewer system from becoming frozen also increases gradually over that time. In summary of this slide, the current estimated consumption is 160 cubic metres per day -- or per year, I should say. And in 2040, it is 216,000 cubic metres annually with the ultimate of 2047 being 236,000.

The total extracted water accounts for use within the community, the airport, and the bleed water into

the sewer system. Annual consumption for 2020 has been calculated at 160,000 cubic metres and up to twenty -- 236,000 cubic metres in 2047. Char Lake replenishment capacity is sufficient up until 2040 to supply water for the community based on these very conservative estimates. It is recommended that additional technologies be investigated, such as recirculation of heat-trace systems to replace the bleed water system to prevent water from freezing since Char Lake cannot supply this extreme demand past 2040. A water permit of 216 cubic metres is requested for the new Type "A" water licence that will expire in 2040.

The current state of Char Lake pump house and construction: A significant amount of work has been done during this construction year of 2020 at the Char Lake site. That includes installation of silt fencing around the worksite; excavation for the new pump house; concrete pours for the foundation; the new pump house building has been constructed; boilers and glycol pumps and pipes have been installed; gravel and bedding material has been placed in Char Lake with a turbidity curtain to prevent particulate matter from entering the raw water supply. And these new intakes will be then placed in 2021 construction season.

The Signal Hill water treatment plant upgrade has been recommended that the water treatment process

includes multiple filtration steps and disinfection with calcium hypochlorite or chlorine. The filtration will provide for the suitable protection of microorganism removal and small amounts of TSS that may be picked up by the Char Lake intakes. The chlorine addition will protect against viruses and microorganisms from the water source and provide protection for any cross-contamination that may occur in the collection system and distribution.

The first stage of the filters will be duplex backwashable media filters. And the media filter types -- this type of media filter will remove down to a 7-micron size, which is suitable for large turbidity and giardia cysts.

The second set of filters will be pleaded filters or cartridge filters which will filter down to 1 micron in size which is suitable for further removal of smaller particles, as well as cryptosporidium.

The disinfection method to be employed will be calcium hypochlorite or chlorine, and it will be delivered to the hamlet and prepared -- in dry format and prepared in a 24-hour period in a mix tank.

The upgrade to the water treatment plant on Signal Hill examines the requirements as outlined by the Canadian Drinking Water Guidelines. This includes the upgrade of disinfection equipment and filtration

equipment. The capital costs, as well as the operational needs, over 30 years operational life, were considered during equipment selection. The upgraded water treatment plant will be in the same building but in -- will incorporate the new filtration equipment, new disinfection equipment, new circulating pumps, a washroom facility, a storage area, as well as a laboratory area and a maintenance area.

The unused reservoir tank has already been removed, and the building will be expanded in an easterly direction. A significant amount of work has been completed in this year's construction season, and that includes site grading; concrete demolition; building addition, including concrete walls, roof, and cladding; and any old equipment and obsolete equipment has been removed.

As part of this ongoing construction project, a spill contingency plan has been put in place. The spill contingency plan is used to address the proper response to any anticipated spills that may occur during regular operation and in the hamlet facilities, including the wastewater treatment disposal, the water supply treatment, and solid waste disposal. The spill contingency plan presents potential contaminants and spill scenarios, existing preventative measures, and response organization.

The spill containment action plan includes potential impacts from and procedures for containing chemical spills, such as the sodium hypochlorite used to treat the water, and petroleum spills, such as diesel, used to power equipment. This plan also provides information in case of a spill and spill kit locations and spill reporting procedures, such as the form seen. It also includes the standard spill kit requirements.

At the wastewater treatment plant, a number of technical issues and concerns regarding the current and future wastewater treatment have been raised by stakeholders during this project. As such, we have prepared and submitted a technical memo addressing the recommended fecal coliform limits and operation and maintenance plan for the existing macerator equipment and building, a technical memo addressing ammonia for the new wastewater treatment plant, and a memo that reviews both the 2012 and the 2020 wastewater treatment plant designs.

The calculated fecal coliform values were determined based on 18 points from 2016 to 2020 and calculated using linear regression. And it should be noted that for flows of greater than 600 litres per person per day and a TSS of 80 milligrams per litre, the fecal coliforms were determined to be 157,000 CFUs

per hundred mills. For flows between 150 litres per person per day and 600 litres per person per day, the calculated fecal coliform value were determined to be 183,000.

There were a number of key design factors that remain very similar or unchanged between the original design of 2012 and the proposed evaluation of 2020. The most significant difference was the process technology with the intent to better balance the treatment performance with the requirements for the economics and operational challenges. We feel the result is a more cost-competitive system but is still compatible -- or capable of providing high-quality effluent.

MR. ROY: Okay. Thank you, Eric. Let me take over the last slide.

The last side is -- the rule of thumb of any wastewater treatment plant is we have to treat the wastewater and through to the receiving body. In this case, the receiving body is the sea. And rule of thumb is -- the water is going to the sea -- the quality must be better than sea water quality or at least equal to the seawater quality. So this process, we have to do the sampling. As Eric explained, there is a compliance point after the wastewater treatment plant. Today, at the outfall level -- so we have to take a sample in

summer every month, send it to water laboratory, and do the necessary testing.

Now, this particular slide, the future wastewater treatment plant -- there are some criteria given to us by ECCC. They are asking -- we have to -- from design and build the wastewater treatment plant so that effluent quality should satisfy -- we call it "CBOD", the carbonaceous biochemical oxygen demand, should be less than 25 milligram per litre. Total suspended solids should be less than 25 milligram per litre. Average concentration of total residual chlorine should be less than 0.02 milligram per litre. Maximum concentration of unionized ammonia should be less than 1.2 milligram per litre and be non-accurately lethal effluent.

So these are the parameters given to us. Accordingly, we have to design and build the future wastewater treatment plant so that we can bring water quality up to this level. It should be better than this, but at least satisfying this criteria before the effluent we are flowing to the sea.

So this is the last slide of our presentation, so we are ready to get your answers -- sorry, questions to answer.

MS. AUTUT: Thank you, Bhabesh, and your team members for the presentation.

At this point, we'll take questions from the floor. If anybody has questions for the Applicant, Government of Nunavut, please raise your hand, and we'll ensure that a microphone gets to you. Okay. Seeing that we -- are there any questions to the Applicant at this time from any other party?

THE CHAIR: The Panel members have a question related to -- Tapitia, I guess, we want to ask how delegate the -- Sakiasie about the question.

MR. SOWDLOOAPIK: Okay. Finally got it.

THE CHAIR: You gotta go, I guess.

Nunavut Water Board Questions the Community (Community Session)

MR. SOWDLOOAPIK: I'm getting old.

Thank you. Good evening, presenters this evening. My name is Sakiasie. I'm with the Water -- Water Board. I'm from Pangnirtung.

This morning I asked about the lake, Char Lake, and once I got the documentations last night, I've been fairly concerned about it. This morning I asked about Char Lake, which I like the name very much because I'm a fisherman. I'm -- I want to know if there -- from the community, if there is any activity for fishing in the lake and also if there is any ecosystems in the lakes being conducted as studies in the last few years.

So these are my questions, and if anybody can

answer them, I would very much appreciate it.

Qujannamiik.

MS. AUTUT: Thank you, Sakiasie.

So Sakiasie's question is for the community members. Is anyone interested in addressing that question at this time?

Okay. We'll get you a microphone, and then just state your name; okay?

TABITHA MULLIN: Char Lake. Yes. Long as I've been here, I know there's fish there. Very little fishing is done there for the fact that we know it's our drinking water. We know it's clean. I don't really recall of that lake being studied, but the fish were done by the help with a local lady, Debbie Ikaluk, and her son was a researcher. And we sort of heard that the fish are healthy. They were coming back, so it sounded good. Perhaps get a copy of that report. He comes up here every -- every summer. I remember -- I don't remember his name, though. Sorry.

But that's all I know about the studies with the -- with the Char Lake being done. And normally they come in through Polar Shelf, with the support of Polar Shelf. They do these lakes around here, upon Ellesmere Island too. So he's got a good name behind him in search of -- research for the fish and lakes.

MS. AUTUT: Okay. Thank you.

Can I -- one more question for the audience. Can we -- can we just get your name for the record. That's okay.

TABITHA MULLIN: I got so nervous. It's Tabitha Mullin.

MS. AUTUT: Thank you, Tabitha.

Sakiasie, does that answer your question, or do you have a follow-up?

MS. SOWDLOOAPIK: Mr. Chairman and the Panel, technical staff, and Tabitha, Qujannamiik. Yes, that answers my question. Qujannamiik.

MS. AUTUT: Great. Thank you.

Are there any other questions on the floor or from any party for the Applicant? We'll get -- we'll get the young gentleman there a microphone. If you could state your name, please, on the record.

The Community Questions the Government of Nunavut, Government Community Services (Community Session)

JOADAMEE IQALUK: Jaodamee Iqaluk.

In recent years, our road going to the airport used to overflow and get washed out. It doesn't do that anymore. Is that due to the difference in consumption, or -- because every -- every time our water used to -- river used to flow, it used to wash out our road every year. I wonder if that's due to different consumptions or leaks underground. Because

40 feet is pretty deep, 'eh? Some areas are really deep, and I'm pretty sure it's due to leakage. It's -- it was normal for that road to be washed out but not anymore. Thank you.

MS. AUTUT: Okay. Joadamee, thank you for that question. I'm going to hand that question over to Bhabesh as the Applicant.

Bhabesh, if you could respond to that question, please.

MR. ROY: Yes. Thank you, Teresa [sic].

Yeah. Thank you, audience, for a very interesting question. The road to the airport -- the answer to your question is I have been watching this facility -- it's now 16 years. I don't foresee any kind of leak from the lake passing through the road to -- to the sea. Again, though, the lake is other lake, and there is no liners. The overflow above the road is due to the maintenance issue. Sometimes coin -- the road is not properly maintained. There is a hydrant. If this hydrant is blocked, then the rainfall water or the snow melt water overflowing the road. So either the drainage is blocked, or there is no drainage at this site for some reason.

So your concern I will be dealing with the Hamlet, and they'll be looking after this issue. Thank you.

MS. AUTUT: Thank you, Bhabesh.

Joadamee, did that answer your question?
JOADAMEE IQALUK: Not really.
MS. AUTUT: Not really. Okay.
Bhabesh, the question has not been answered to the satisfaction of the floor. Did you wish to add to the -- add to your answer?
MR. ROY: As I said -- yes, please. I'd be -- my -- I'll just clarify to the question. The gentleman is thinking the water may be uprooted from the -- from the Char Lake and running over the road to -- going to the sea. It might not be the case because the -- that lake -- lake water cannot run over -- cannot be percolated because in wintertime it is totally frozen, and permafrost in Resolute Bay is too deep. So wintertime we cannot even think about.
Summertime, the water is the surface runoff. There is --
JOADAMEE IQALUK: No, no, no.
MR. ROY: -- the snow melt.
So if you slowly drive around from the town to the airport, you will see there is this hydrant, and --
JOADAMEE IQALUK: No, I know --
MR. ROY: -- many times there are so many small, small culverts. Many times I saw the culverts are blocked, so water overflows. Sometimes the drainage is blocked with the garbage, with the

paper, so the water cannot pass through. Then it overflow.

So I cannot give you any kind of scientific answer when I have to do the water testing from in and out or doing some kind of test to see if the water is percolating, but, from my experience, I assure you that this water is not coming from the Char Lake.

MS. AUTUT: Okay. Thank you for that.

Any further follow-up questions?

JOADAMEE IQALUK: Yeah. That's not exactly what I was saying. Is -- it is normal for water to be overflowing in the river. I'm asking, is the consumption different because the lake is deeper, emptying out? Like, you know, the more water we use the deeper it gets; right -- or the more shallow it gets, I should say. And every year when the snow starts melting and flowing into the lake, it just stays in the lake now; it doesn't go through the river anymore.

So I'm asking, is that from a different consumption of the lake being emptied during the winter?

MR. ROY: Eric, do you want to comment on it?

MS. AUTUT: Thank you for the question, Joadamee.

Bhabesh?

MR. ROY: Yes. I'm asking Eric and Tony to add some points.

MR. BELL: Thank you very much, Bhabesh.

From what you're describing, I understand that the spring runoff hasn't been as excessive as it has been historically. And if it isn't flowing over the road as much as it has in past years, your question is, over the course of the winter, did we deplete the lake to the point where perhaps it needed extra to fill up.

At this particular point, I can't answer that question, but I can make a few suggestions that, more than likely, the -- the lack of overflow from the lake could potentially be due to changes in how the snow is falling and how the snow has been ploughed. I only say that because in my brief period here in Resolute, I've -- I've noticed a big change in the last eight years about how extensive the snow removal has been. So I could offer that.

The other thing would be if anything has changed with regards to how much melt would be going into the lake, and I don't think anything's changed there.

So your question is very interesting, and I think if it were to warrant anything, it would be to talk to someone who is an expert in hydrology or looking at that immediate lake and how the water moves around that

lake.

I -- I wish I could provide a better answer for you. It's a -- it's a very interesting question, and -- but at this stage, I don't really have a solid answer for you.

Tony, is there anything you think we should add to that?

MR. WHALEN: Thanks, Eric.

Yeah, I -- I'm not sure I can add to that. The only thing I wondered is that when the utilidor was upgraded in 2015, it is possible that additional culverts were put in place that would prevent the road from washing out like it did historically. But I -- I wasn't involved in any of that project back then, so I can't know for certain. But it's a possibility that there was additional culverts installed to -- to move that water under the roads as opposed to washing them out.

Thank you, Mr. Chair.

MS. AUTUT: Okay. Thank you to the Applicant.

Joadamee, next question.

JOADAMEE IQALUK: Yeah. I -- yeah. I used to run this utilidor system, and all these units, they used to have little quarter-inch lines, quarter-inch. Why are they 1 inch now? Like, that -- that's a big

jump from a size of a hose. I mean, a quarter inch to 1 inch, that's three quarters difference; that's three times the mark of consumptions too. So, you know, there's a lot being wasted there too because we used to have little quarter-inch lines in the units, but now they're 1 inch.

MS. AUTUT: Okay. Thank you, Joadamee. Applicant. Bhabesh?

MR. ROY: I think -- thank you for this question. I think he's talking about the lateral line. The -- the lateral line is not the -- part of the utilidor system. It has been built according --

JOADAMEE IQALUK: (INDISCERNIBLE)

(SIMULTANEOUS CROSSTALK)

MR. ROY: -- to the housing, private or not, they -- their own connection. It has nothing to do with the utilidor system.

JOADAMEE IQALUK: Actually, it does. Because the bleed line used to be a quarter of an inch; now it's 1 inch, so that is three times the amount of water going through the drain system.

MR. ROY: Okay. So I think --

JOADAMEE IQALUK: I know for a fact because I was helping maintain that.

MS. AUTUT: Okay. Just point --

MR. ROY: Yeah. Eric or --

MS. AUTUT: Point of order. Bhabesh?
MR. ROY: -- Tony to answer this question.
MS. AUTUT: Okay. So great questions. I just need to ask that we not talk over each other. Let each other respond to the questions on the floor.
So, Bhabesh, if you could respond, please.
MR. ROY: Yes. I'm asking the technical support from Tony and Eric.
MS. AUTUT: Eric.
MR. BELL: Okay. Thank you, Bhabesh.
If we're talking about the bleed lines specifically, okay, that are a full 1 inch in diameter, that is -- you're quite right; that is a large amount of flow. There must be incorporated into the original design some sort of throttling that would be on those 1-inch lines, whether it's a valve or a pinch in the pipe or -- it should be an adjustable needle valve, is what I would assume it would be, and that should make the flow rate adjustable from either a high rate to a low rate on those 1-inch lines.
I think the justification for going to a larger line is that the -- it would have a little bit more heat in it, and it wouldn't potentially freeze off so quickly if there was an accident where the -- the water stopped flowing through it, and the permafrost could

really take hold. I believe that's the design, why they went with the larger one. But, of course, having to be able to throttle it with a smaller valve is likely what the -- what the impact is on that big line and how they address that.

MS. AUTUT: Okay. Thank you, Eric.

Joadamee, any further questions?

JOADAMEE IQALUK: Yeah. So what you're saying is that the circulation pump is no use?

MS. AUTUT: Eric.

MR. BELL: No, I'm not saying the circulation pump is no use. It's very useful. Because if we don't have that small amount of pressure, then we'll never get any water back up the hill.

JOADAMEE IQALUK: Okay.

MS. AUTUT: Thank you.

To the floor, any further questions?

Tabitha.

TABITHA MULLIN: Thank you. Do I say my name again? No? Tabitha Mullin here.

Just looking at this historical water extraction volume. In 2015, we had a big jump of water consumption, but in the quantity of water requested, it's a very gradual increase by ten-year increments and just wondering if we should get that much -- I think that was the year when the military was here for their

big exercise, and so we had a lot -- a lot of military personnel and all the others.

If that has been put into -- to any thought, if Resolute should do another exercise of some similar thing in the future? Thank you.

MS. AUTUT: Thank you, Tabitha.

I'll pose that question to Bhabesh. If you would like to address that, please.

MR. ROY: Yes. Your concerns might be partially right, not totally right. You see the water extraction volume 2015 and 2016. 2015 is the highest in the last -- last five years, and then next highest is 2016. So prior to upgrading to the utilidor system, there was a massive leak here and there. All the walls are flooding almost everywhere, every -- each and every section of the town.

So there is a leakage. The water is coming. Water is leaking through to the road and running to the sea. There is a waste of water. So there is the leak water, the -- leak through the pipes, leak through the sewer line, water line, et cetera, et cetera. So that's why we had to pump out the excessive amount of water to satisfy the demand and, you know, considering the loss.

Now, 2016, also, the figure is very high because once we repaired the leak, we need to do the test of

the pipe. We call it -- in engineering science, it is called "hydraulic test", to see if there is any leak in a pipe anywhere, any joint, or anywhere. So that's why we have to fill the pipe and keep the pipe for -- you know, hours, just totally water inside. So the very reason we have to take the excessive amount of water from Char Lake.

So these are the two reason. One for the leak purposes. We need sufficient water to do the hydraulic test, 2016. And 2015, as I say, there is a huge, huge amount of leak. In the history of utilidor system, this year there was a maximum water loss.

Now, in addition, probably -- I can't remember -- there might be a significant amount of military presence who is actually -- it's not in my record. You might be correct. Thank you.

MS. AUTUT: Thank you, Bhabesh.

Tabitha, does that answer your question?

TABITHA MULLIN: Tabitha Mullin.

Yes, you're right. I forgot about that water leak big time. We had trouble keeping it off the roads and stuff like that. Sorry for -- I -- no, not sorry. I'm thankful for his answer. Thank you.

MS. AUTUT: Thank you, Tabitha.

Any further questions? If not, I'll propose a ten-minute break for folks to get a snack, a coffee,

and -- and a health break, and then we'll come back, and we'll expect a presentation from CIRNA. Thank you.

(ADJOURNMENT)

MS. AUTUT: Okay. Thank you. So moving on, we've got a presentation from Crown-Indigenous Relations and Northern Affairs, so I'll hand the mic over to Sarah and Godwin.

Presentation By Crown-Indigenous Relations and Northern Affairs (Community Session)

MR. OKONKWO: Thank you, Stephanie. (OTHER LANGUAGE SPOKEN)

So I'm Godwin Okonkwo, manager water resources, Crown-Indigenous Relations and Northern Affairs Canada, and I'm joined here by Sarah Forte. She's a water management specialist for the office, and she's the lead -- the expert lead on this file.

I'd like to thank the Nunavut Water Board for the opportunity to make a presentation regarding the Government of Nunavut, Community and Government Services application to renew and amend this 3BM-RUT1520 water licence as a Type "A" licence.

On behalf of Crown-Indigenous Relations and Northern Affairs Canada, I'd like to thank the Hamlet of Resolute Bay for welcoming us to their beautiful community. I would also like to thank -- to acknowledge the Nunavut Water Board for their work in

facilitating this licence application review process and the Government of Nunavut, Community and Government Services efforts to respond to our questions and concerns.

So throughout this presentation, I will refer to Crown-Indigenous Relations and Northern Affairs Canada as "the department", and I will refer to Government of Nunavut, Department of Community and Government Services as "the applicant".

So the -- so I -- I will just go ahead to list a -- as where the department has made contributions in this water licence amendment and renewal process. So some of the key areas that we have provided comments on include, Number 1, the scope and term of the licence; Number 2, compliance; Number 3, water supply; Number 4, wastewater treatment; Number 5, management plans and reports; Number 6, monitoring; and Number 7, closure and reclamation planning.

So the department has a broad mandate for comanagement of water -- freshwater resources and the management of Crown land in Nunavut under the Acts and Regulations listed on the slide, as well as the Nunavut Agreement. The department administers and enforces regulatory authorizations that pertain to Nunavut Crown land and freshwater resources. So the department participates in water licence processes administered by

the Nunavut Water Board, along with other interested parties, usually by providing technical advice and expertise for the Board's consideration in their decision.

So the -- the contributions that the department has made in this process -- thank you to the Water Board. When he did his presentation, I think he mentioned all the dates, so I'll just say from -- from March -- so the department has made submissions, comments, and recommendations from March 26th to September 24th, and the department has participated in technical meetings, the prehearing conference, and we're participating now in this public hearing.

So I'll start with the first comment we had; it was in the scope and term of the licence. So on August 4, 2020, the Applicant submitted their -- an updated renewal of the application requesting a 20-year licence term, and the department supports these requests. We understand that during this 20 years there will likely be amendments, including potential incorporation of facilities currently under -- licensed under 3BM-RES2025, which covers the solid waste facilities.

So at this point, I will call on Sarah to do some of the rest of the technical presentations.

MS. FORTE: Thank you, Godwin.

So this next slide is about compliance. The recently expired licence for the Resolute Bay utilidor had several conditions which were not met during the term of the licence, and they can be divided into four topics: first, monitoring water quantity at the intake and the outfall; the second is the annual authorized water use; the third was a study to determine fecal coliform limit for the effluent from the macerator building; and the fourth was updated operation and maintenance manuals.

So in all these topics we've had discussions, and we've -- the department is of the opinion they are being addressed during this renewal application.

Next slide.

Next topic we touched on was water supply. So as mentioned just earlier this evening, this hamlet's water source is Char Lake, and Eric showed a cartoon with a -- different system components and showed how they worked together. The department had three technical comments that have all been resolved. The first was about the quantity of water requested. We wanted to make sure that the -- there was enough water for the hamlet 's needs and also that the lake -- not too much water was being taken out of the lake that it wouldn't get filled up again every year.

We also had comments about plans for the pump

house that is currently being built -- or up -- upgraded, and we also spoke about leaks in the laterals of the utilidor. And all these questions, we've -- we've sorted through them, and our concerns are addressed.

We also spoke about wastewater treatment. So, currently, wastewater collected by the utilidor passes through a macerator to remove the solids before being discharged in the ocean, and as discussed earlier this evening, a new wastewater treatment plant is in the predesign stage for construction in 2024. And because the Applicant has committed to providing plans for the wastewater treatment plant before they construct it, the department is satisfied with this commitment.

Do you want to -- okay. I'll keep going.

All right. So management plans and operation and maintenance manuals describe how concepts and strategies will be implemented, and reviewing them allows us to understand what actions will be taken by people on the ground to make sure things work as planned to protect the water. And the department had comments on three -- the three bullets listed here, some operation and maintenance manuals. There's the spill contingency plan and quality assurance and quality control plan, and deficiencies noted in these manuals have been corrected, or, alternatively, some

manuals have not yet been provided because the infrastructure is still undergoing upgrades, but we know when the new manuals will be provided based on the timing of commissioning.

Next one.

Okay. We also had one comment regarding monitoring. The water licence has instructions on where to take water quality samples and how often. One of the places is the sewage outfall to the ocean, and the -- the currently expired licence requires a sample every month, which is difficult to do. And because we have five years of data, we can see what we can expect, and it doesn't change very much, and so we are suggesting that maybe sampling a bit less frequently would be -- give us the same information, and we ask the Board to consider this.

Next one.

And this was the last topic which -- for which we had comments, the closure and reclamation planning, so that's basically how we clean things up when -- when we no longer use a building. So, for example, they are building a new pump station. Well, what will we do with the old pump station? You need a plan of how you will clean that up. And the Applicant has provided to -- committed to providing these plans as -- when they -- they -- the new facility is built, then -- and

commissioned and they know it's working well, then they will provide a plan to clean up the old building, which is good.

Pardon me? Okay.

So, in conclusion, we'd like to say that the department supports the Government of Nunavut's renewal application and recommends that it be accepted with due consideration given to our comments.

And next slide.

And we'd be happy to answer questions.

MS. AUTUT: Thank you, Sarah and Godwin, for your presentation.

So we'll put it to the floor. Does anyone have questions for CIRNAC and the -- the responsibility they have to this file?

Joadamee.

The Community Questions Crown-Indigenous and Northern Affairs Canada (Community Session)

JOADAMEE IQALUK: This is about the consumption of water; right? Were you guys aware -- aware that our lake was maxed out a couple of times?

MS. AUTUT: Thank you for that question.

CIRNA?

MS. FORTE: I -- I don't think I understand what you mean by "maxed out".

JOADAMEE IQALUK: The water was pumped right

maxed. We were on the last few -- few feet in the tank in the recent couple years, and our -- literally it was drained right out to the pump. I'm wondering if you guys were ever aware of that?

MS. AUTUT: Okay. CIRNAC.

MS. FORTE: So it was the lake that was or the tank?

JOADAMEE IQALUK: The lake was pumped to the max, drained to the max, 40 feet. That's pretty deep. And we are on last 10 feet of water in our tank until the -- until the snow melted and drained into the lake. That -- that spring runoff really saved us. So it is natural for our lake to run off over through the road because we were pumped to the max, 40 feet.

MS. AUTUT: Okay. Thank you for that question. Can I just ask that all parties state their name when they're responding to the questions for the benefit of the court reporter.

So, Sarah, I'll hand the mic back to you if you wish to respond.

MS. FORTE: So Sarah speaking here.

Thanks for that comment. No, I wasn't aware that the lake was pumped out to the max.

MS. AUTUT: Thank you, Sarah.

Did the Applicant wish to respond to that at this point? Bhabesh?

MR. ROY: I don't think that the lake is pumped out to the max. I don't think so. Because it has a catchment area, and every end of the wintertime, the snow melted out, and the water is coming down to the lake. So it's not maximum pumping out. But, eventually, as population going up and, as you'll see, our chart of the demand, we need to extract more amount of water for 50 years.

MS. AUTUT: Okay. Thank you.

Any further questions from the floor?

JOADAMEE IQALUK: Yes. Joadamee Iqaluk here again.

It was pumped out to the max because I seen an actual hose going through the ice, another added line to go to the water to go past the pipe. I don't know if anybody's ever aware that our lake does get pumped out to the max, but nobody wants to believe. I see it. I see the -- I see the water hoses going through the ice during that time of the year.

MS. AUTUT: Okay. Thank you, Joadamee, for that comment. That is noted on the record, okay, for the Board's consideration of the transcript.

Any other questions? If not, thank you, CIRNA, for your presentation.

We will now move on to Environment and Climate Change Canada, who is on the -- on the screen. If we

can get their presentation up.

Anna, it's my understanding you'll be sharing your presentation.

MS. GRAHAM: Yes. This is Anna Graham, Environment and Climate Change. I will just be a moment here. Can my screen be seen?

MS. AUTUT: We can see your name, and that's it.

MS. GRAHAM: Okay. There we go. Can you see it now?

MS. AUTUT: Yes. Please proceed.

Presentation by Environment and Climate Change Canada (Community Session)

MS. GRAHAM: Okay. Thank you.

Good evening, everyone, and thank you for this opportunity to present. My name is Anna Graham, and I am an environmental assessment coordinator with Environment and Climate Change Canada. Also on Zoom here with me today is our water quality analyst, Meagan Tobin.

I will start by just reviewing what our presentation will cover, including the general role of Environment and Climate Change Canada or the -- also the department's mandate, and I will touch on the Acts and legislation that are relevant to Environment and Climate Change Canada and the Acts that have guided our

review of this application. Meagan will take over after I go through the mandate and Acts and will -- she will outline the comments and recommendations that we provided regarding the Type "A" water licence application.

The mandate of Environment and Climate Change Canada is to preserve and enhance the quality of the natural environment, including water, air, soil quality, and to conserve Canada's renewable resources, including migratory birds, to protect Canada's water resources; to forecast daily weather conditions; to enforce regulations; and to coordinate environmental policies and programs for the federal government.

Environment and Climate Change Canada has been involved in the water licence application as a reviewer and commenter. Throughout the process, we have provided comments on different aspects of the technical application details. Our involvement in this application is in accordance with the mandate of Environment and Climate Change Canada.

The mandate is formed and governed by various Acts, including those listed here: The Department of the Environment Act, Canadian Environmental Protection Act, the pollution prevention parts of the Fisheries Act, and the Migratory Birds Convention Act, and the Species-At-Risk Act.

I will now pass the presentation over to Meagan to summarize our technical comments.

MS. TOBIN: Thank you.

So I will speak to the comments that were provided in our final submission. The first of which relates to the new water -- wastewater treatment plant. So Environment Canada have requested additional details related to treatment targets for the new water -- wastewater treatment plant, as well as monitoring.

In response, the Applicant has indicated that the new plant will be designed to be capable of meeting the limits of the Federal Southern Wastewater Effluent Regulations and has made commitments for toxicity testing as well as submission of effluent data, and so Environment and Climate Change Canada considers these comments to be resolved.

So related to fecal coliforms: As part of the submission for renewal, the Applicant referenced a fecal coliform study that was not initially provided for review, and, therefore, Environment and Climate Change Canada recommended that this information be provided to all reviewers. The Applicant has provided this analysis, and Environment and Climate Change Canada has no further comments on this document as compliance limits for fecal coliforms is primarily related to human health and therefore falls outside of

the mandate of our department.

We also have comments related to management plans, specifically the quality assurance and quality control program, as well as the spill contingency plan. In response, the Applicant has updated these plans in accordance with our recommendations and addressed several errors that were identified, so Environment and Climate Change Canada also considers these comments to be resolved.

Finally, as an outcome of ongoing discussions, the Applicant provided an environmental management plan for the construction of the Char Lake pump house and the Signal Hill water treatment plant. This plan includes measures to prevent erosion and sedimentation. The Environment and Climate Change Canada did note that there was no description of water quality monitoring and therefore recommended additional information on any proposed monitoring.

Earlier in the hearing today, clarification was provided by the Applicant on the turbidity monitoring associated with the in-water construction, and, therefore, Environment and Climate Change Canada considers this comment to be resolved pending turbidity monitoring being described in an update to the environmental management plan.

That is all of the comments that we had in our

final submission, so I thank you for the opportunity to participate, and I will now take any questions.

MS. AUTUT: Thank you, Meagan and Anna, for the presentation.

Are there any questions from the floor related to the Environment Canada [sic] Climate Change presentation? Okay. Any questions from any other party or the Board?

If not, I understand the staff have one request for clarification, Sergey?

Nunavut Water Board Staff Questions Environment and Climate Change Canada (Community Session)

MR. KUFLEVSKIY: Thank you, Stephanie. This is Sergey from the Water Board.

I just wanted to ask for a clarification from the Environment and Climate Change Canada with respect to the fecal coliform study that was done and submitted to the Water Board.

From our understanding, this was submitted as a follow-up to the expired licence. This was a condition in the expired Type "B" licence. That's why this information was requested and provided, and it is only applicable to the sewage that is currently being disposed from the utilidor system.

So now the question is, once the wastewater treatment plant is finished, when it's ready and

operational, from our understanding, the fecal coliforms are, like, definitely -- they can be -- they can present a risk to human health, but there's no specific regulations in the -- no specific -- specific wastewater treatment regulations for municipalities. And the question is -- under existing regulations. So the question is how would it -- Environment and Climate Change Canada -- what would be the view of the Environment and Climate Change Canada on this aspect?

Thank you.

MS. TOBIN: Thank you for the question. I will respond, and I'll also allow Meagan to correct me or add on if -- if I miss anything.

My understanding is that this -- because this is a human health concern, Environment and Climate Change Canada would defer to the expertise that could be provided by a different department.

Meagan, would you like to confirm that.

MS. TOBIN: Hi. Meagan Tobin, Environment and Climate Change Canada.

So Anna is correct. As you mentioned, Sergey, the -- there's no federal regulation related to wastewater that outlines fecal coliform limits, and as fecal coliform concentrations are primarily related to human health, we would -- as Anna said, we would defer to the expertise of departments that have a mandate

for -- for human health.

MR. KUFLEVSKIY: Thank you, Meagan. Thank you, Anna. This answers my question.

MS. AUTUT: Thank you, all.

Any other questions for Environment and Climate Change Canada? If not, thank you, ladies, for your presentation.

At this time, Mr. Chair, I'd like to return the mic to you to close off the community session portion of this public hearing.

Closing Remarks (Community Session)

THE CHAIR: Thank you, Stephanie, and everyone who attends tonight's community session here in Resolute Bay. Your questions and comments about GN-CGS renewal and amendment application were appreciated by me and also my Panel members, Ross Mrazek and Sakiasie Sowdlooapik.

On behalf of the Nunavut Water Board, I would also like to thank the Applicant and interveners for their presentation and answers to questions from the members of the public here tonight.

Special thanks to all the community members of Resolute Bay for sharing their real stories and information with the Panel and the participants and contributing to a productive and respectful community session.

The community session is now adjourned. Let's stand, say -- say a prayer, closing prayer.

Closing Prayer (Community Session)

THE CHAIR: We'll take a five-minute break, and then we'll continue with our -- today's actual public hearing agenda.

Community Session Concluded

(ADJOURNMENT)

Discussion

THE CHAIR: Okay. We will start -- reconvene from today's -- with today's agenda. Before we go to agenda, I'd like to have legal counsel take the housekeeping.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have a couple of procedural matters, and then there are deferred questions from this afternoon that are going to be responded to by the Government of Nunavut, Community and Government Services.

So the first housekeeping matter, Mr. Chair, is that we received the community presentation that was provided by the Government of Nunavut, Community and Government Services in electronic form only, so we have marked that as the -- as the next exhibit in the public hearing.

And, in addition -- I forgot to mention before the Nunavut Water Board presented that I had also marked their presentation as an exhibit as well, so those two exhibits have been marked in the proceedings for the public hearing.

EXHIBIT 11 - Nunavut Water Board community session presentation regarding a new Type “A” Water Licence 3AM-RUT--- Hamlet of Resolute Bay utilidor system (English/Inuktitut)

EXHIBIT 12 - GN-CGS community session PowerPoint presentation for the Type "A" Water Licence application of the Resolute Bay utilidor system (English)

MS. MEADOWS: And, Mr. Chair, it's my understanding that the technical staff have been provided with some of the responses that will be presented by the Government of Nunavut, Community and Government Services in electronic form, and we'll mark those two as the next exhibits following the presentation of the response to deferred questions by the Government of Nunavut, Community and Government Services.

So thank you, Mr. Chair. Those are all my procedural matters.

EXHIBIT 13 - Electronic copy of the Resolute bleed water clarification memo

dated October 27, 2020 (English)
EXHIBIT 14 - Electronic copy of email from Daryl Burke sent October 27, 2020, at 5:29 PM to Roy, Bhabesh, Subject: RE: Outstanding Issues for RB WLs (English)

THE CHAIR: Thank you.

Now, we turn to our opportunity for each of the parties to provide us with brief closing remarks -- okay. Before we're doing that? Okay. Go ahead.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I believe the Community and Government Services, Bhabesh, would like to follow up with respect to those answers to Sergey's three questions that were still outstanding first. Thank you, Mr. Chair.

THE CHAIR: Okay. Yeah. I completely forgot it right away, immediately. I think I'm still rushing to get this done. Anyway, continue.

So we need the answers, CGS. Bhabesh, you are -- you still online?

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

Bhabesh, the floor is yours, please, to respond to the deferred questions from earlier today.

MR. ROY: Actually, my -- I was on mute. I did not hear the question. Can you please -- can I

request to repeat the question again for me.

MR. KUFLEVSKIY: Hi, Bhabesh. This is Sergey from the Water Board. Mr. Chair and Stephanie basically asked you to follow up on the deferred questions that the Water Board asked you during the -- earlier during the hearing today. And from my understanding, you would like Eric to respond to these three questions that were asked before and that you provided an electronic answer to us already.

Is this correct?

MR. ROY: Yes. Thank you, Sergey. Yes. I am requesting Eric to go over those questions answered by Tony and Daryl -- Daryl Burke.

Eric, please.

Response to Deferred Questions by Government of Nunavut, Community and Government Services

MR. BELL: Thank you very much, Mr. Roy.

There was a question that was asked about the reported concentrations for the wastewater influent characteristics for design and whether or not this included both the town and the airport sites.

So the response is as follows: Based on the current data that we have, we believe the concentrations for design reported in the EXP technical memo dated March 20th, 2020, to be reflective of the combined wastewater from both the town and the airport

sites. The recommended values of BOD and TSS were 110 milligrams and 125 milligrams respectively.

These concentrations were recommended based on the current flow data we have available. With the installation of the new flow meter, we anticipate that we will have access to better flow data which may change both our future wastewater flows and concentration values for design. This would be revisited and recalculated prior to preceding -- proceeding to the detailed design after better flow data is established. As a point of comparison, the highest values we have seen in 2019 sample data on the raw wastewater for BOD and TSS were 18 and 35 milligrams respectively.

Okay. There was another question asked about the proposed size of the wastewater treatment plant facility. Our response is: A conceptional building size of 36 metres by 30 metres has been proposed. Based on current conceptual treatment process sizing, this would house all mechanical and biological treatment equipment, as well as other support spaces such as labs, office, washroom, and maintenance area.

Okay. There was a third question that related to the amount of bleed water that was being utilized in the utilidor and how we forecasted that moving forward. It was a question as to the total percentage of water

extracted compared -- when comparing 2020 to 2030 to 2040.

The reason for the different percentages is a simple rounding error. This table that has been included has two decimal places added in -- this is the digital response so that you can see what the actual values are to more decimal places.

We would expect that there would be some degradation of the utilidor, sagging, minor leaks, et cetera, over time. As the wastewater collection system gets older, it will require more and more bleed water. Bleed water flow into the sewage collection system network is required to offset the heat loss from the piping. It was initially estimated at 1.8 litres per second in 2020 and rises to 3 litres per second at the end of the design period.

Those are our responses to the three questions. Is there any other questions you'd like to talk about, Sergey, or -- or is that the three?

MR. KUFLEVSKIY: Thank you, Eric. This addresses -- this information addresses my questions.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Teresa.

MS. MEADOWS: Thank you, Mr. Chair. So that concludes all of the outstanding matters and all of the

housekeeping matters that I had, Mr. Chair.

Thank you.

THE CHAIR: Thank you. Now get back to the agenda.

Now, we took the opportunity for each of the parties to provide us with brief closing remarks starting with the interveners and ending with the Applicant, closing remarks. Start with Crown-Indigenous and Northern Affairs Canada.

Closing Remarks by Crown-Indigenous and Northern Affairs Canada

MR. OKONKWO: Thank you, Mr. Chair. Again, my name is Godwin Okonkwo, Crown-Indigenous Relations and Northern Affairs Canada.

On behalf of Crown-Indigenous Relations and Northern Affairs Canada, I would like to thank the Nunavut Water Board for the opportunity to participate in the renewal and amendment of the 3BM-RUT1520 water licence as a Type "A" water licence. I would also like to thank the hamlet of Resolute Bay for welcoming us and for their participation in the community session. And, finally, I would like to thank the Government of Nunavut, Community and Government -- CGS, Community and Government Services, for their application and their efforts to respond to our concerns.

CIRNAC recommends that the -- the renewal

application be accepted with due considerations to our comments and our final recommendations.

Thank you. Qujannamiik.

THE CHAIR: Thank you, CIRNAC.

All right. I'd like to call Environment and Climate Change Canada for your closings remarks.

Closing Remarks by Environment and Climate Change Canada

MS. GRAHAM: This is Anna Graham, Environment and Climate Change Canada.

Thank you, Mr. Chair. I would like to thank the Water Board for the opportunity to present today.

And I would also like to thank the translators and the technical staff at Resolute Bay for making our participation possible today and very smooth, so thank you.

Environment and Climate Change Canada has presented comments on the water licence application. Our comments have -- are considered resolved, and we have no further items to bring forward at this time.

Thank you.

THE CHAIR: Okay. Thank you.

Now I'd like to call Applicant to have your -- to have your closing remarks.

Closing Remarks by Government of Nunavut, Community and Government Services

MR. ROY: Thank you, Mr. Chair. This is the opportunity -- we'll finally -- you are going to conclude our technical meeting and public hearing today. I thank you, the Water Board, and the -- the Chair Members, executives, and the technical advisors, also the IT personnel.

I must also thank the citizens of Resolute Bay, the members who attended this meeting and contributed.

I must thank our consulting team, Eric, Tony, and Daryl. They are the highest contribution to make our application and today successful.

I must appreciate my colleague, Janise Idlout. This is her first time -- appearance in this kind of big -- you know, the meetings and audience.

So, finally, thank you very much for accepting my application for 20 years' time. I'm happy, and I'm looking forward getting the licence. Thank you, Chairs, and thank you audience, everyone. Have a good night.

Closing Remarks by the Chair

THE CHAIR: Thank you.

As we bring this public hearing to a -- to a close, on behalf of the Board and my fellow Panel members, I would like to thank all the parties and -- parties who contributed to making this public hearing and community session a success, especially the

Applicants, GN-GCS, and their technical representative; interveners, Crown-Indigenous Relations and Northern Affairs and Environment and Climate Change Canada; NWB staff and legal counsel; interpreter, Tapitia Qitsualik; the reporter -- our court reporter, Sara Anderson; sound condition, Ryan -- Ryan Dempster; all the community members for their valued participation in this hearing.

Thanks also the caterers and the -- and the Hamlet of Resolute Bay for their outstanding hospitality and patience with the Board.

In closing, I would like -- I want to let the parties know that -- what happen next for the application. The Board -- the Board will now close the public hearing record. What this means, that all evidence with regards to the amendments and renewal application is now before the Board, and no further information will be considered by the Panel before they make their decision about the application.

Now that the record is closed, the Board will remit the file to the Panel to -- to decide whether or not to grant a Type "A" water licence to GN-CGS. Within 30 days to 45 days after the public hearing record closes, the NWB will issue its record of proceeding and decision to the Minister of Northern Affairs. If the Board decision is to grant the

application, the Board -- the Board will also attach the Minister's approval, a draft of recommended amendments and renewed water licence. That concludes the public hearing component of the Nunavut Water Board's consideration of GN-CGS water licence amendment and renewed application.

The Board and I wish to -- wish you all a good -- good evening and safe return travel to -- for all the visitors to Resolute Bay. Let's have a closing prayer for this -- regards to this -- our public hearing. Let's stand. Let's pray.

Closing Prayer

THE CHAIR: Thank you all.

PROCEEDINGS CONCLUDED

CERTIFICATE OF TRANSCRIPT:

I, Sara Anderson, certify that the foregoing pages are a complete and accurate transcript of the proceedings, taken down by me in shorthand and transcribed from my shorthand notes to the best of my skill and ability.

Dated at the City of Calgary, Province of Alberta, this 12th day of November 2020.

Sara Anderson

Sara Anderson, CSR(A)
Official Court Reporter

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