Project Overview

Type of application: **New**

Proponent name:	Bhabesh Roy
Company:	GN-CGS

Schedule:

Start Date:	2020-03-30
End Date:	2030-03-29
Operation Type:	Annual

Project Description:

Executive Summary of the Hamlet of Resolute Bay Water Licence # 3BM-RUT 1520. The Hamlet of Resolute Bay is located on the south coast of Cornwallis Island on the Perry Channel at 74043’01N and 94058’10”W. The current population of the town is 279 (2019). During summer, the town population is increased to about 800 due the presence of the Military. There are (3) three water licenses in the community. The Government of Nunavut Community and Government Services (GN-CGS) is the licensee of the Utilidor system and the Water Licence number is 3BM-RUT 1520. This licence was issued on March 30, 2015 and this will expire on March 29, 2020. Char Lake is the approved water source in the Community. A hydrology study conducted by exp Services Inc. shows that there was sufficient stored volume between the extreme of ice thickness and the raw water intake to support two (2) successive years of extreme high demand like 300,000 cubic meters annually combined with extreme low precipitation (78.2 mm total) just prior to the replacement period of the buried pipes. The pump station has a meter to record the annual extraction volume from the Lake. The total extraction volume in 2018 was 156,062 cubic meters. The Airport facilities shared 5,000 cubic meters annually. Water Truck is the only mode of distribution system for the Airport facilities. Sewage is also collected by sewage trucks from house to house and dumped into a sewage lagoon which is operated under a different water licence. The Utilidor system consists of a pump station at Char Lake, intake pipe, water treatment plant at Signal hill, water distribution and sewer lines, fire hydrants, access vaults and a macerator unit. The Utilidor system was built in 1970’s without a wastewater treatment plant. In 2016, the entire buried utilities were replaced and also expanded. In 2020, the construction of the pump station at Char Lake and is the existing water treatment plant at Signal Hill is scheduled to be completed. The sewage effluent via wastewater pipes is diluted before entering into the sea. The effluent discharge occurs just above the low tide mark. The effluent is discharged continually into the ocean at high tide and on land at low tide. Following the condition in part C, item 4 of the existing water licence; a site specific study for the determination of Fecal Coliform limit for sewage disposal facility was determined and has been submitted to the Water Board. A consultant is hired to conduct a site selection study to build a new mechanical wastewater treatment plant. The design concept was initiated and needs to be revised and upgraded. The new plant is anticipated to be built and commissioned in 2024. This plant will also receive truck sewage coming from the Airport facilities. The airport sewage lagoon will be decommissioned soon after the new Mechanical wastewater treatment plant is commissioned. A consultant is engaged for replacing the Char Lake existing Pump station, Signal Hill Water Treatment plant upgradation and also building a new mechanical wastewater treatment plant to improve the overall water distribution system ; wastewater collection and Treatment process to bring the Utilidor water licence into full compliance. The entire Utilidor system operation was contracted out to the Contractor ATCO and they day to day run and monitor these facilities. The summer samplings are taken and get tested by the Ottawa based Accredited Caduceon Lab. The annual report is submitted on time. The O&M manuals will be submitted to the Water Board soon after the constructions of the all three structures are completed. The daily water extraction volume exceeds 300 cubic meters/day and also exceeds the annual extraction volume 60,000 cubic meters. 2018 Annual Report identifies that Resolute Bay consumed 152,062 cubic meters, therefore, a ten years term for renewal of the Type A licence is recommended with 160,000 cubic meters of usage. The time period of ten years is expected to provide a realistic opportunity for the licensee to meet the long term requirements of the Licence and establish a consistent compliance record. ᐊᖓᔪᖅᑳᒻᒪᕆᖕᒍᑦ ᓇᐃᓈᖅᓯᒪᔪᖅ Hᐋᒻᒪᓚᒃᑯᑦ ᖃᐅᓱᐃᑦᑐᒥ ᐃᒪᕐᒧᑦ ᐱᔪᓐᓇᐅᑎ # 3BM-RUT 1520. Hᐋᒻᓚᒋᔭᐅᔪᖅ ᖃᐅᓱᐃᑦᑐᒥᐅᓄᑦ ᐃᓂᖃᖅᐳᖅ ᓂᒋᐊᑕ ᓯᒡᔭᖓᓂ ᒪᕿᓕᕿ ᐅᕙᓂ ᑕᓪᓗᕈᑎᐅᑉ ᐃᒪᖓ 74043’01ᐅᐊᖓᖅ ᐊᒻᒪ 94058’10”ᐱᖓᓐᓇᖅ. ᒫᓐᓇᓕᓴᖅ ᐊᒥᓲᓂᖏᑦ ᖃᐅᓱᐃᑦᑐᒥ 279 (2019). ᐊᐅᔭᐅᓕᕌᖓᑦ, ᓄᓇᓖᑦ ᖃᔅᓯᐅᓂᖏᑦ ᐅᓄᖅᓯᒋᐊᓲᑦ ᐃᒪᓐᓇᐸᓗᒃ 800 ᐱᓪᓗᒍ ᑕᐃᑯᙵᖃᑦᑕᕐᓂᖏᑦ ᐅᓇᑕᖅᑐᒃᓴᔭᑦ. ᐱᖓᓱᓂᒃ ᐃᒪᕐᒧᑦ ᐱᔪᓐᓇᐅᑎᑕᖃᖅᑐᖅ ᓄᓇᓕᖕᒥ. ᓄᓇᕗᒻᒥ ᒐᕙᒪᒃᑯᑦ ᓄᓇᓕᖕᓂ ᒐᕙᒪᒃᑯᓐᓂᓗ ᐱᔨᑦᑎᕋᖅᑎᒃᑯᖏᑦ ᐱᔪᓐᓇᐅᑎᖃᖅᑎᑦᑎᔨᐅᔪᑦ ᐃᒪᖃᐅᑎᖃᕐᕕᖓᓂ ᐃᒪᕐᒧᓪᓗ ᐱᔪᓐᓇᐅᑎᖓᑕ ᓈᓴᐅᑖ 3BM-RUT 1520. ᑖᓐᓇ ᐱᔪᓐᓇᐅᑎ ᑲᔪᓯᑎᑕᐅᓪᓗᓂ ᒫᑦᓯ 30, 2015 ᐃᓱᓕᕝᕕᖃᓛᕐᓗᓂᓗ ᒫᑦᓯ 29, 2020. ᐊᖅᑰᒑᕐᔪᒃ ᐊᖏᖅᑕᐅᓯᒪᔪᖅ ᐃᒪᖃᕐᕕᐅᓪᓗᓂ ᓄᓇᓕᖕᒥ. ᐃᒪᓕᕆᓂᕐᒥ ᖃᐅᔨᓴᕈᑎᑦ ᐱᓕᕆᐊᖑᔪᖅ ᐊᒃᔅᑉ ᐱᔨᑦᑎᕋᖅᑎᒃᑯᑦ ᑎᒥᕐᑯᑖᓄᑦ ᑕᑯᑎᑦᑎᓪᓗᓂ ᐊᒥᓚᙱᑦᑐᒥᒃ ᐃᓕᓯᒪᔪᓂᒃ ᐅᓄᕐᓂᖏᓐᓂ ᐊᑯᓐᓂᖓᓂ ᓂᓚᐃᑦ ᐃᔾᔪᕐᔪᐊᖅᑐᑦ ᐃᒪᒻᒪᓇᒃᓗ ᐱᕙᓪᓕᐊᔭᖓ ᐃᑲᔪᕐᓗᒋᒃ ᒪᕐᕉᖕᓄᑦ ᑲᔪᓯᑦᑎᐊᖅᑐᓂᒃ ᐊᕐᕌᒍᑦ ᐱᔭᕆᐊᖃᒻᒪᓇᒃᑐᓂᒃ ᓵᕐᓗ 300,000 ᑭᑉᐹᓇᒃᑐᑦ ᒦᑕᑦ ᐊᕐᕌᒍᑕᒫᑦ ᑲᑎᑎᓪᓗᒋᑦ ᐊᑦᑎᒃᑐᒥ ᖃᐅᓯᕐᓇᖅᑐᖅ (78.2 ᒥᓕᒦᑕ ᑲᑎᓪᓗᒋᑦ) ᑎᑭᐅᑎᙱᑎᓪᓗᒍ ᐊᓯᔾᔨᖅᑕᐅᕝᕕᒃᓴᖓᑕ ᐊᕐᕌᒍᒥ ᓴᐅᓯᒪᔪᑦ ᓱᓪᓗᓕᖏᓐᓂ. ᒥᓪᓗᐊᕐᕕᒃ ᐆᒃᑐᕋᐅᑎᖃᖅᑐᖅ ᑎᑎᕋᖅᓯᕙᒃᓱᓂ ᐊᕐᕌᒍᑕᒫᑦ ᐲᔭᖅᑕᐅᕙᖓᑕ ᐊᒥᓲᓂᖏᑦ ᑕᓯᕐᒥ. ᑲᑎᔅᓱᒋᑦ ᐲᔭᖅᑕᐅᔪᑦ ᐊᒥᓲᓂᖏᑦ 2018–ᒥ 156,062 ᑭᑉᐹᓇᒃᑐᑦ ᒦᑕᑦ. ᒥᕝᕕᖕᒥ ᐃᒡᓗᖏᑦ ᐱᖃᑕᐅᕝᕕᖃᕐᓗᑎᒃ 5,000 ᑭᑉᐹᓇᒃᑐᑦ ᒦᑕᑦ ᐊᕐᕌᒍᑕᒫᑦ. ᐃᒥᖅᑕᖅᑎ ᓄᓇᓯᐅᑎ ᐊᑐᕈᓐᓇᖅᑐᑐᐊᖑᔪᖅ ᐃᒪᖃᖅᑎᑦᑎᓂᕐᒥᒃ ᒥᕝᕕᖕᒥ ᐃᒡᓗᖏᓐᓂ. ᑮᓇᓗᐃᑦ ᐱᔭᐅᖃᑦᑕᕐᒥᔪᑦ ᐊᓇᖅᑕᖅᑎ ᓄᓇᓯᐅᑎᒧᑦ ᐃᒡᓗᒥ ᐃᒡᓗᒧᑦ ᑯᕕᑎᑕᐅᓪᓗᓂᓗ ᑭᓈᓗᖃᕝᕕᖕᒧᑦ ᐊᐅᓚᓂᖃᖅᑐᒥᒃ ᐊᔾᔨᙳᕆᑖᒍᑦ ᐃᒪᕐᒧᑦ ᐱᔪᓐᓇᐅᑎᒧᑦ. ᐃᒪᖃᐅᑎᖃᕐᕕᖓ ᒥᓪᓗᐊᕐᕕᖃᖅᑐᖅ ᐊᖅᑰᒑᕐᔪᖕᒥ, ᐱᕙᓪᓕᐊᔪᖅ ᓱᓪᓗᓕᒃ, ᐃᒪᑦᑎᐊᕙᓕᐅᕝᕕᒃ ᐳᓯᙵᓘᔭᖅ ᖃᓕᕈᓯᕐᒥ, ᐃᒻᒥᖅᓱᐃᕝᕕᑦ ᑭᓈᓗᖃᕝᕕᖕᒧᓪᓗ ᑐᑭᓕᐊᖓᔾᔪᑎᑦ, ᖃᑦᑎᓇᔾᔪᑎᑦ, ᐊᖅᑯᑎᖃᕈᑎᑦ ᐊᒻᒪ ᐊᓇᕐᓂᒃ ᓯᖃᑦᑎᓇᔾᔪᑎᑦ. ᐃᒪᖃᐅᑎᖃᕐᕕᖓ ᓴᓇᔭᐅᓚᐅᖅᓯᒪᔪᖅ 1970-ᖏᓐᓂ ᐃᒪᕐᔫᑎᓂᒃ ᐃᒪᑦᑎᐊᕙᓕᐅᕈᑎᖃᙱᑦᓱᓂ. 2016–ᒥ, ᑕᒪᕐᒥᒃ ᓴᐅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᔾᔪᑎᑦ ᐊᓯᔾᔨᖅᑕᐅᓪᓗᑎᒃ ᐊᖏᒃᓕᑎᑕᐅᒋᐊᕐᕈᑎᒃᓗ. 2020–ᒥ, ᓴᓇᔭᐅᓂᒃᓴᖓ ᒥᓪᓗᐊᕐᕕᒃ ᐊᖅᑰᒑᕐᔪᖕᒥ ᐊᒻᒪ ᐱᑕᖃᖅᑐᖅ ᐃᒪᑦᑎᐊᕙᓕᐅᕝᕕᒃ ᐳᓯᙵᓘᔭᖅ ᖃᓕᕈᓯᕐᒥ ᐃᓂᒃᓴᖃᖅᑎᑕᖅ ᐱᔭᕇᖅᑕᐅᓂᐊᕐᓗᓂ. ᑭᓈᓗᒃ ᑯᕕᔪᖅ ᐃᒪᑦᑎᐊᕙᐅᙳᕆᑦᑐᑦ ᓱᓪᓗᓕᒃᑯᑦ ᐃᒪᓕᖅᑕᐅᕙᒃᑐᖅ ᐃᒪᕕᖕᒧᐊᖅᑕᐅᓚᐅᙱᓐᓂᖓᓂ. ᑯᕕᓯᓂᖅ ᐊᑐᖃᑦᑕᖅᑐᖅ ᖁᓛᓂᖅᐸᓯᒃ ᑎᓂᕝᕕᐅᑉ ᓇᓛᓂ. ᑯᕕᑎᑕᐅᖏᓐᓇᖃᑦᑕᖅᑐᖅ ᐃᒪᕕᖕᒧᑦ ᐅᓕᙵᓕᒑᖓᑦ ᓄᓇᒧᓪᓗ ᑎᓂᙵᓕᒑᖓᑦ. ᒪᓕᒃᓱᓂ ᖃᓄᐃᓕᖓᓂᖓᓂᒃ ᐃᓚᖓ C, ᐱᖅᑯᑎ 4 ᐱᑕᖃᖅᑐᒥ ᐃᒪᕐᒧᑦ ᐱᔪᓐᓇᐅᑎ; ᐃᓂᖓᓃᓪᓚᓇᒃᑐᒥᑦ ᖃᐅᔨᓴᕈᑎ ᖃᐅᔨᓇᓱᒃᓗᑎᒃ ᖃᓇᕐᓂᙶᖅᑐᑦ ᐃᓱᓕᕝᕕᓕᒃ ᑭᓈᓗᖕᓂᒃ ᐃᒋᐅᖅᑲᐃᕕᒃ ᖃᐅᔨᔭᐅᓚᐅᖅᑐᖅ ᑐᓂᔭᐅᓪᓗᓂᓗ ᐃᒪᓕᕆᔨᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ. ᖃᐅᔨᓇᓱᒃᑎ ᐃᖅᑲᓇᐃᔭᖅᑎᑕᐅᓪᓗᓂ ᐱᓕᕆᐊᖃᕐᓗᓂ ᐃᓂᖓᓂ ᓂᕈᐊᕐᓂᕐᒥ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ ᓴᓇᓂᐊᕐᓗᑎᒃ ᓄᑖᒥᒃ ᐃᒪᑦᑎᐊᕙᓕᐅᕈᑎᒥᒃ ᐱᓕᕆᕝᕕᖕᒥ. ᐋᖅᑭᒃᓯᒪᓂᒃᓴᖓᓄᑦ ᐃᓗᓕᖏᑦ ᑲᔪᓯᑎᑕᐅᓚᐅᖅᑐᖅ ᕿᒥᕐᕈᔭᐅᒃᑲᓐᓂᐊᖅᑲᕐᓗᓂᓗ ᓄᑖᙳᕆᐊᖅᑕᐅᓗᓂᓗ. ᓄᑖᖅ ᐃᒥᖅᑕᕐᕕᒃ ᐱᓇᓱᒃᑕᐅᔪᖅ ᓴᓇᔭᐅᓗᓂ ᐱᔭᕇᖅᑕᐅᓗᓂᓗ 2024–ᒥ. ᑖᓐᓇ ᐱᓕᕆᕝᕕᒃ ᐱᓂᐊᕐᒥᔪᖅ ᓄᓇᓯᐅᑎᒥᒃ

ᐊᓇᖅᑕᐅᒻᒥᒃ ᒥᕝᕙᖕᓂᙶᖅᑐᓂ. ᒥᕝᕙᖕᒥ ᑭᓈᓗᖃᕝᕙᒃ ᐱᔭᓈᖅᑕᐅᒃᑲᓐᓂᕐᓂᐊᖅᑐᖅ ᓄᑖᖅ ᐃᒪᑦᑎᐊᕙᓕᐅᕐᕙᒃ ᐱᔭᓈᖅᑕᐅᓚᐅᖅᑎᓪᓗᒍ. ᖃᐅᔨᓇᓱᒃᑎ ᐃᓚᐅᖃᑕᐅᑎᑕᖅ ᐊᓯᔾᔨᕐᓗᒍ ᐊᖅᑰᒐᕐᔪᒃ ᒥᓪᓗᐊᕐᕙᖓ, ᐳᓯᙵᔫᔭᖅ ᖃᓕᕈᓯᕐᒥ ᐃᒪᑦᑎᐊᕙᓕᐅᕈᑎᖓ ᓄᑖᙳᕆᐊᖅᑕᐅᓗᓂ ᐊᒻᒪᑦᑕᐅᖅ ᓴᓇᓂᖅ ᓄᑖᒥᒃ ᓴᓇᔪᓕᕆᕝᕙᒃ ᐃᒪᑦᑎᐊᕙᓕᐅᕐᕙᖓ ᐱᐅᓯᒋᐊᕐᓗᒍ ᑕᒪᒃᑭᖅᑐᖅ ᐃᒪᕐᓄᑦ ᑐᓂᐅᖅᑲᐃᓂᖅ ᐊᑐᖃᑦᑕᖅᑕᖓᓂ ; ᐃᒪᑦᑎᐊᕙᐅᙱᑦᑐᓂᒃ ᐊᕝᕗᐃᓂᖅ ᐃᒪᑦᑎᐊᕙᓕᐅᕐᓂᕐᓄᓗ ᐱᕙᓪᓕᐊᔾᔪᑎ ᐃᒪᓕᕆᓂᕐᒧᑦ ᐱᔪᓐᓇᐅᑎ ᑕᒪᐃᓐᓂᒃ ᒪᓕᓕᕐᑯᓪᓗᒍ. ᐃᒪᖃᐅᑎᖃᕐᕙᓕᒫᖓᓂ ᐊᑐᖃᑦᑕᖅᑐᖅ ᐊᐅᓚᓂᕐᓄᑦ ᐊᖏᕈᑎᒃᑯᑦ ᐱᓕᕆᐊᖃᕈᑎᐅᓚᐅᖅᑐᖅ ᐊᖏᕈᑎᒃᑯᑦ ᐱᓕᕆᐊᖃᖅᑎᐅᔪᓄᑦ ᐋᑦᑯ ᖃᐅᑕᒫᓪᓗ ᐃᖏᕐᕋᑎᓪᓗᓂᔾᔪᒃ ᖃᐅᔨᓴᐃᓐᓇᕐᓗᒋᓪᓗ ᑖᒃᑯᐊ ᐱᓕᕆᕝᕙᑦ. ᐊᐅᔭᒃᑯᑦ ᖃᐅᔨᓴᕈᑎᑦ ᐱᔭᐅᓪᓗᑎᒃ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᒃᓗ ᐋᑐᕚᒦᑦᑐᓄᑦ ᐊᑐᖅᑎᑦᑎᔨᑦ ᖃᐅᔨᓴᕐᕙᖓ. ᐊᕐᕋᒍᑕᒫᖅᓯᐅᑦ ᐅᓂᒃᑳᖅ ᑐᓂᔭᐅᖃᑦᑕᖅᑐᖅ ᓈᒻᒪᓈᕐᓗᑎᒃ. ᐊᐅᓚᑦᑎᔾᔪᑏᑦ ᐋᕿᐅᒪᔾᔪᑏᓗ ᒪᓕᒋᐊᓕᖏᑦ ᑐᓂᔭᐅᓇᔭᖅᑐᑦ ᐃᒪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᓐᓄᑦ ᓴᓇᔭᐅᕌᓂᑐᐊᖅᐸᑕ ᑖᒃᑯᐊ ᐱᖓᓱᑦ ᐋᖅᑭᒃᓯᒪᓂᒃᓴᑦ. ᖃᐅᑕᒫᑦ ᐃᒪᐃᔭᖅᑕᐅᓂᖅ ᐊᖏᓂᖓ ᐅᖓᑖᓄᐊᓲᖅ 300 ᑭᑉᐹᓇᒃᑐᒧᑦ ᒦᑕᑦ/ᐅᓪᓗᕐᒥ ᐅᖓᑖᓄᐊᕈᔾᔨᕙᒃᑭᓪᓗᓂ ᐊᕐᕋᒍᑕᒫᖅᓯᐅᑦ ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐊᖏᓂᖓᓂᒃ 60,000 ᑭᑉᐹᓇᒃᑐᒧᑦ ᒦᑕᑦ. 2018 ᐊᕐᕋᒍᑕᒫᖅᓯᐅᑦ ᐅᓂᒃᑳᖅ ᖃᐅᔨᑎᑦᑎᔭᖅ ᖃᐅᓯᐃᑦᑐᖅ ᐱᓪᓗᑎᒃ 152,062 ᑭᑉᐹᓇᒃᑐᒧᑦ ᒦᑕᑦ, ᑕᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ, ᐊᕐᕋᒍᓄᑦ ᖁᓕᓄᑦ ᐊᑯᓂᐅᑎᒋᔭᒃᓴᖅ ᓄᑖᙳᕆᐊᕐᓗᒍ ᖃᓄᐃᑦᑑᓂᖓ A ᐱᔪᓐᓇᐅᑎ ᐱᖁᔭᐅᔪᖅ 160,000 ᑭᑉᐹᓇᒃᑐᒧᑦ ᒦᑕᑦ ᐊᑐᕐᓗᑎᒃ. ᐊᑯᓂᐅᓂᖓ ᐅᑭᐅᓄᑦ ᖁᓕᓄᑦ ᐱᑎᑦᑎᓇᔭᖅᑐᖅ ᑐᑭᖃᑦᑎᐊᖅᑐᒥᒃ ᐱᕕᒃᓴᒥᒃ ᐱᔪᓐᓇᐅᑎᖃᖅᑎᑦᑎᔨᒧᑦ ᓇᓗᓇᐃᕆᓗᓂ ᐊᔪᙱᓂᖓᓂᒃ ᐊᑯᓂᐅᔪᒃᑯᑦ ᐱᔭᕆᐊᓕᖕᓂᑦ ᐱᔪᓐᓇᐅᑎᒥᒃ ᐋᖅᑭᒃᓯᓗᑎᒃᓗ ᒪᓕᑦᑎᐊᖅᑐᓂᒃ ᒪᓕᒋᐊᓕᖏᓐᓂ ᐅᓂᒃᑳᓂᑦ.

Personnel:

Persons:	2
Days:	365

Project Map

List of all project geometries:

ID	Geometry	Location Name
5813	point	New project geometry

Planning Regions:

Kivalliq

Affected Areas and Land Types

Municipal

Settlement Area

North Baffin Planning Region

Project Land Use and Authorizations

Project Land Use

All-Weather Road Access

Pipeline

Licensing Agencies

NWB: Type B Licence

Other Licensing Requirements

No data found.

Material Use

Equipment

Type	Quantity	Size	Use
Heavy	7300	Unknown	two (2) equipment per day, 365 days and 10 yrs.7300 term

Fuel Use

Type	Container(s)	Capacity	UOM	Use
Diesel	7300	200	Liters	Average two equipment per day , 365 days and 10 yrs. operation.

Hazardous Material and Chemical Use

Type	Container(s)	Capacity	UOM	Use
NIL	0	0	Liters	0

Water Consumption

Daily Amount (m^3)	Retrieval Method	Retrieval Location
427.57	Pumping	Char lake

Waste and Impacts

Environmental Impacts

NIL

Waste Management

Waste Type	Quantity Generated	Treatement Method	Disposal Method
Sewage (human waste)	427.57 cubic meters/day	Using a Macerator unit currently. Expected a new Wastewater Treatment Plant in 2024	pumping though the pipe