

**MINUTES
CITY OF IQALUIT
ENGINEERING AND PUBLIC WORKS
COMMITTEE OF THE WHOLE MEETING #02
AUGUST 25, 2022 at 6:00 p.m.
CITY COUNCIL CHAMBERS**

PRESENT FROM COUNCIL

Councillor Romeyn Stevenson, Chair
Mayor Kenny Bell
Councillor Ookalik Curley
Councillor Simon Nattaq
Councillor Kimberly Smith

ABSENT

Deputy Mayor Solomon Awa
Councillor Paul Quassa
Councillor Kyle Sheppard

PRESENT FROM ADMINISTRATION

Amy Elgersma, Chief Administrative Officer
Katrina Sarmiento, Executive Assistant/Acting City Clerk
Geoffrey Byrne, Economic Development Officer/Acting Communications and Customer Service Manager
Sumon Ghosh, Director of Engineering and Capital Planning

ADOPTION OF AGENDA

Motion EPW 22-04

Moved by: Mayor Bell
Seconded by: Councillor Smith

Adoption of agenda as presented.

Unanimously Carried

1. MINUTES

None

2. DECLARATION OF INTEREST

None

3. **DELEGATIONS**

None

4. **DEFERRED BUSINESS AND TABLED ITEMS**

None

5. **NEW BUSINESS**

a) **Request for Decision – Public Works Granular Material Supply Contract Award**

Amy Elgersma, Chief Administrative Officer, presented a Request for Decision to award the tender for the supply of granular material. She noted that the tender was issued to supply granular material for a two-year period in order to obtain a better price.

Ms. Elgersma advised that the granular material would be used this year for:

- Akilliq Drive maintenance - Government of Nunavut Department of Economic Development and Transportation recently approved funding in the amount of \$250,000 for Akilliq Drive maintenance, which will make the road usable, but is not a long-term solution
- Plateau Road – Operating Budget includes funds in the amount of \$100,000
- Winter Road Sand – Operating Budget includes funds in the amount of \$140,000

Motion EPW 22-05

Moved by: Mayor Bell

Seconded by: Councillor Nattaq

Committee recommends that Council award the contract for the supply and delivery of granular material to 5550 Nunavut Ltd. (BBS) in the amount of \$478,992 plus GST in 2022 and \$493,600 plus GST in 2023, pending 2023 budget approval.

Unanimously Carried

Mayor Bell asked if the granular material was coming from the rock extracted from the new landfill site. Ms. Elgersma explained that material is from the quarry where a number of companies are extracting and processing material. She noted that a quarry plan for capital projects is being developed with various options being considered.

b) **Emergency Pump Update – Verbal**

Amy Elgersma, Chief Administrative Officer, indicated that pumps have been sourced for the emergency pumping project and will arrive on Friday by Canadian North. She thanked Canadian North for helping to expedite the shipping.

Ms. Elgersma advised that hoses were laid out today and the generator has been moved to the site.

Ms. Elgersma explained that an emergency amendment to the Water License has been recommended by the Nunavut Water Board to Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and approval is pending.

Ms. Elgersma noted that it has been raining since Tuesday, which has helped to increase the water levels. She noted that the rain will reduce the number of days that pumping is done from Unnamed Lake.

c) 2022 Capital Spending Plan Status Update – July 31, 2022

Sumon Ghosh, Director of Engineering and Capital Planning, provided a 2022 Capital Spending Plan status update. The following are the highlights:

- Operations Centre – 2022 budget included \$9.6 million but \$22.6 million has been committed. This overage will be adjusted in the 2023 and 2024 budgets.
- Solid Waste Facility Upgrades – forecast an additional \$18.5 million
 - Landfill site costs were \$3 million more than the budget
 - Waste Transfer Station tender will close on August 26

Councillor Stevenson asked for clarification on the \$18.5 million. Mr. Ghosh advised that the \$18.5 million does not include monies for the Waste Transfer Station tender. He noted that the total budget amount for the Solid Waste Facility Upgrades is \$35 million.

Ms. Elgersma noted that the Block Funding in the amount of \$4 million is received annually from the Government of Nunavut, which has been dedicated to the Solid Waste Facility project. She explained that an additional \$4 million was requested in the next Block Funding agreement, for a total of \$8 million, based on the fact that the amount of Block Funding has remained the same for a number of years and the city is growing.

Councillor Stevenson asked for an update on the Apex Road crosswalk installation.

Mr. Ghosh advised that the design is in the final stages and the crosswalk will not be installed this year. He explained that discussions are being held with Qulliq Energy Corporation (QEC) to determine who will be responsible for lighting maintenance.

Councillor Stevenson expressed his concern that the City has been negligent with the lack of a crosswalk at a dangerous place. He encouraged staff to have the crosswalk completed this year.

Mr. Ghosh noted that once the design has been completed, a tender will be called, however, he does not expect that competitive bids will be received due to the time of year.

Ms. Elgersma noted that the design is meant to be a standardized design to be used in other areas of the city. Therefore, there is a considerable amount of work that needs to be defined and the electrical component requires discussions and decisions with QEC.

Mayor Bell commented that there are crosswalks all over Canada and noted a standard design could be used.

Councillor Stevenson noted that Council approved that three Pride crosswalks be painted this year and the paint has worn off within a month. He suggested that other paint could be used so it lasts longer.

Ms. Elgersma explained that the road crew is sourcing crosswalk paint and line painting equipment to be included in next year's budget.

d) Request for Decision – Long-Term Water Project – Evaluation of Long-Term Water Supply Options

Sumon Ghosh, Director of Engineering and Capital Planning, presented a Request for Decision regarding the evaluation of the long-term water supply options.

Mr. Ghosh noted that Nunami Stantec made a presentation to Council on June 23, 2022 on available options as follows:

- Seasonal (summer) supplementation from Unnamed Lake
- Continuous (including over-winter) supplementation from Unnamed Lake
- Summer supplementation from Sylvia Grinnell River
- Permanent supplementation from Apex River

Mr. Ghosh advised that staff are recommending seasonal (summer) supplementation from Unnamed Lake.

Councillor Nattaq expressed concern using the Sylvia Grinnell River due to the fish habitat going downstream. He noted that the Sylvia Grinnell River is in close proximity to Lake Geraldine and there are trails used by snowmobiles and four wheelers to access the Sylvia Grinnell River. He felt that careful consideration should be given to the long-term water supply options.

Councillor Smith asked if the pipeline would be permanently installed, whether it would be used year-round or only during the summer. She noted that no matter where the pipeline was installed, it would have to be protected.

Mr. Ghosh explained that the pipeline would be permanently installed over the ground. The concept design has not been started.

Councillor Smith noted that the pipeline would be very long and she wanted to ensure that there would be places that snowmobiles and four wheelers could cross over the pipeline without causing damage.

Mr. Ghosh noted that there would be areas for crossing over the pipeline, which would be included in the concept design.

Mayor Bell asked how long it would take to expand the reservoir.

Mr. Ghosh could not provide a timeline and noted that it is anticipated to be a long process for licensing and permitting, as a considerable amount of data will be required. He noted that the process has already started with the implementation of equipment that will provide historical data. He is anticipating that the license and permit process will be done in 2023 and construction can start in 2024.

Mayor Bell expressed concern regarding water availability during the winter months in the event of a fire. He asked what would happen if a continuous water supplementation option was not chosen.

Mr. Ghosh explained that additional reservoir storage will be 1.5 times the amount of the current water storage, which will be a total of 2.7 to 3 million litres of water storage capacity. He noted that in the event of a fire during the winter, the additional reservoir storage should be sufficient.

Councillor Nattaq noted that there are snowmobile and four wheeler routes used surrounding the Sylvia Grinnell River to access year-round cabins, as well as routes in the Plateau. He advised that all snowmobile and four wheeler routes must be considered when determining what areas will cross the pipeline.

Councillor Smith noted that all activities are banned on Lake Geraldine and asked if the same rules will apply to Unnamed Lake if it is chosen as the long-term water supply.

Ms. Elgersma advised that staff are working on a Waterways Protection By-law to present to Council, which will have stringent protection measures and penalties on drinking water sources to prevent people from using them as a recreational area. She explained that Lake Geraldine and Unnamed Lake should have no motorized vehicles, camping or dog feces, as any small amount of contamination can cause problems. She noted that drinking water sources should remain as pure as possible.

Councillor Nattaq noted that water running into the Sylvia Grinnell River comes from various lakes on Baffin Island. He noted that there are old vehicles disposed by the army near the Sylvia Grinnell River and other lakes.

Councillor Nattaq expressed concern that people are letting their dogs swim in Lake Geraldine.

Councillor Smith was pleased to hear that there would be a Waterways Protection By-law.

Councillor Stevenson noted that councillors are asked to make a decision on the long-term water supply without knowing the long-term effect of drawing water from Unnamed Lake. He noted that the Sylvia Grinnell River has a massive watershed area that comes from two larger source lakes, therefore, there is no concern that water could not be accessed from the Sylvia Grinnell River over a long period of time. Councillor Stevenson noted that water has only been taken once from Unnamed Lake and there is little data on the water being replenished.

Councillor Stevenson was in favour of continuous pumping and noted that it is difficult to make a decision on a long-term water supply from a lake with no historical data regarding the water being replenished.

Councillor Stevenson noted that there has been some opposition regarding the Sylvia Grinnell River. He pointed out that Council has done their due diligence on how the water would be pumped. He felt that making a decision on the long-term water supply should be made based on the best option for the city.

Councillor Nattaq asked if there have been aerial observations of the water sources. Ms. Elgersma advised that there has been some drone footage taken of the area and satellite imaging has been used by the consultants.

Mayor Bell noted that meetings have been held with the Hunters and Trappers Organization (HTO) who oppose using the Sylvia Grinnell River. He suggested that perhaps Council could meet with the HTO to explain the rationale for using the Sylvia Grinnell River. He noted that Deputy Mayor Awa suggested at an earlier meeting that a meeting be held with the HTO.

Mayor Bell asked the urgency to make a recommendation to Council. Councillor Stevenson understood that a decision was needed in order to go forward with the regulatory applications. He noted that the project is stalled until Council makes a decision.

Mayor Bell understood the urgency and indicated that a decision on a long-term solution should have all available information. He suggested that a meeting be held with the HTO and then a decision can be made by Council without coming back to the Committee.

Councillor Nattaq noted that he would prefer using Unnamed Lake and other water sources could be considered for the long-term water supply.

Councillor Smith noted that the Nunami Stantec presentation indicated that based on a high population growth, the Unnamed Lake could supply water until 2040 and the Sylvia Grinnell River could supply water until 2050.

Mr. Ghosh noted that the Sylvia Grinnell River has a large watershed area and year-round pumping is not possible. He indicated that once the population growth has reached a certain amount, additional water storage would be required.

Councillor Stevenson noted that there would always be sufficient water in the Sylvia Grinnell River, but there would be a concern for reservoir storage.

Councillor Stevenson commented that there are a lot of positives to use Unnamed Lake. It is downhill, not used as a recreational area (at this time) and is not used as the normal traffic flow to a water source. Councillor Stevenson reiterated that he has concerns regarding Unnamed Lake being able to replenish based on the water taken from the lake.

Councillor Smith advised that even though there is not a lot of historical data on Unnamed Lake, she is in favour of year-round pumping from Unnamed Lake based on the studies. She noted that it appears that in 2040 or 2050, other options will have to be considered for long-term water supply whether Unnamed Lake or Sylvia Grinnell River is chosen.

Councillor Nattaq commented that when he was younger, he observed Unnamed Lake and there is a lot of water flowing into the lake. He also noted that it is not easy to access Unnamed Lake as the area surrounding the lake is rough. He felt that it is the ideal solution at this time for a water source. Councillor Nattaq reiterated that he likes the option of the Sylvia Grinnell River, as there are a number of rivers running into the Sylvia Grinnell River.

Motion EPW 22-06

Moved by: Councillor Curley

Seconded by: Councillor Nattaq

Committee recommends that Council pursue Option 1 as identified, as the preferred long-term water source, which includes developing Unnamed Lake as summer only supplementation design.

Unanimously Carried

Councillor Stevenson noted that in the Request for Decision, staff recommended Option 1 - seasonal (summer) supplementation from Unnamed Lake, but during the presentation in June, Option 2 – continuous supplementation from Unnamed Lake was suggested. He asked for an explanation why summer supplementation was now being suggested.

Mr. Ghosh advised that there was an operational maintenance concern regarding continuous pumping, which would be challenging and costly to maintain the pipeline during the winter months.

Councillor Stevenson understood from the presentation that the consultants did not feel there would be problematic concerns for continuous pumping.

Ms. Elgersma noted that discussions have been held with Public Works staff regarding maintenance and challenges. She explained that access vaults would be placed along the

land with recirculation lines that would require pumps, which is basically a utilidor system, with considerable amount of risk and challenges during the winter. She noted that there is an opportunity to have hydropower instead of fuel pumps and generators.

Councillor Stevenson noted that staff are capable of maintaining a utilidor line, and maintaining the water line would require additional work, which is part of city growth.

Mr. Ghosh noted that the capital startup cost for continuous pumping would be less. He commented that the lifecycle cost for continuous supplementary pumping would be greater due to the increased use of pumps and pipes compared to summer supplementary pumping.

Mr. Ghosh and Ms. Elgersma explained operational maintenance and requirements to ensure that pipes and pumps could be used when needed for pumping during the winter months.

Ms. Elgersma pointed out that there would be additional reservoir storage to ensure there was sufficient water in the event of an emergency during the winter months.

Councillor Smith confirmed that if additional water is required during the winter months, the summer pumping pipeline could be retrofitted to pump water during the winter. Mr. Ghosh confirmed that it is possible with additional work and planning.

Mayor Bell noted that the additional reservoir would not be completed for two years and there was a concern that summer supplementary pumping may not be sufficient should a fire emergency occur during the winter. He asked if enough water could be pumped to fill both Lake Geraldine and the additional reservoir during the summer months once the additional reservoir was completed.

Mr. Ghosh noted that based on the preliminary studies carried out by Nunami Stantec, both reservoirs could be filled and there would not be a reduction in the quantity of water available in the Unnamed Lake.

Mayor Bell commented about contractor surety regarding recommendations.

Councillor Stevenson reiterated his concerns regarding the water not replenishing in Unnamed Lake, concerns about constructing a reservoir, and what would be the turning point where the chosen option was not viable and when to take another approach.

Councillor Stevenson noted that there is a lot of responsibility to ensure the safety of residents and being cognizant in spending large federal funding money.

e) Long-Term Water Supply and Storage Project Strategies

Sumon Ghosh, Director of Engineering and Capital Planning, presented strategies for the Long-term Water Supply and Storage Project. The following are the highlights:

- Four components
 - Raw water extraction
 - Raw water conveyance
 - Raw water storage – additional reservoir
 - Treated water network upgrades – to existing distribution system
- Permitting and Licensing Process
 - Nunavut Water Board
 - Department of Fisheries and Oceans
 - Nunavut Planning Commission
 - Nunavut Impact Review Board
- Adequate information must be submitted for permitting and licensing
 - Raw water source flow data for one year
 - A weir will be installed at Unnamed Lake to collect data
 - Request for Proposal is ready to be issued
 - Raw water quality analysis
 - Previous tests have been carried out
 - Additional tests are required
 - Greenhouse Gas (GHG) Emissions Report
 - Mandatory for funding from Disaster and Mitigation Adaption Fund
- Project organization and breakdown
 - Project Management Consultant for the project
 - Request for Proposal is ready to be issued
 - Work Package 1 – raw water extraction and storage
 - Design and Supervision Consultant (Engineering Consultant) – provide concept plan
 - Design Build Contractor – responsible for both design and construction
 - Environmental Consultant
 - Work Package 2 – raw water conveyance and treated water upgrades
 - Design Build model
 - Design and Supervision Consultant
 - Contractor
- Milestones
 - Finalize Project Management Consultants – September 2022
 - Work Package 1
 - Finalize Design and Supervision Consultant – October 2022
 - Finalize Environmental Consultant – GHG Emissions Report – November 2022
 - Work Package 2
 - Finalize Design and Supervision – November 2022

Councillor Stevenson asked if the reoccurring water shortage could be used to prioritize and expedite the licensing and permitting process. He noted that monitoring the water source could affect the outcome of the project. Councillor Stevenson felt that a

monitoring station in Unnamed Lake should have been installed in June to collect data from this year.

Mr. Ghosh explained that a Request for Proposal is ready to be issued, once approval is received, for the installation of a weir at Unnamed Lake to collect data.

Mr. Ghosh noted that a research team from Carleton University was engaged to collect data at Unnamed Lake over the summer.

6. **IN CAMERA SESSION**

() As per Section 22 (2) (a) CTV Act and By-law 526 Section 67

7. **ADJOURNMENT**

Motion EPW 22-07

Moved by: Mayor Bell

Seconded by: Councillor Smith

Committee adjourns at 7:28 p.m.

Unanimously Carried





Romeyn Stevenson
Chair



Tammy Ernst-Dorron
City Clerk

Approved by City Council on the 13th day of September 2022.