

**MINUTES
CITY OF IQALUIT
ENGINEERING AND PUBLIC WORKS COMMITTEE
OF THE WHOLE MEETING #01
January 15, 2015 at 6:00 PM
CITY COUNCIL CHAMBERS**

PRESENT FROM COUNCIL

Deputy Mayor Romeyn Stevenson
Councillor Terry Dobbin
Councillor Joanasie Akumalik
Councillor Simon Nattaq
Councillor Kenneth Bell
Councillor Stephen Mansell
Councillor Noah Papatsie

ABSENT

Mayor Mary Wilman

PRESENT FROM ADMINISTRATION

Keith Couture, Director, Public Works
Matthew Hamp, Director, Engineering and Sustainability
Joe Brown, Operations Superintendent
Paul Clow, Project Officer
Victoria Embree, Executive Assistant
Jeanie Eeseemailee, Senior Interpreter/Translator

ADOPTION OF AGENDA

Motion #EPW15-01

Moved by: Councillor Mansell
Seconded by: Councillor Bell

That the agenda is adopted 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) Presentation – City of Iqaluit Supplementary Water Supply
Paul Clow, Project Officer

Administration stated that exp Services Inc. has been invited to assist the department to present the City's Supplementary Water Supply Plan to the committee. The City will be forced to use an alternate water supply for its residents in the near future as Lake Geraldine nears its capacity. Mr. Boris Allard and Mr. John Sims will continue with the presentation of the plan.

Mr. Allard thanked the committee for giving him the opportunity to present. He noted that the City's current water supply is Lake Geraldine; it is currently nearing its capacity and will need to be replaced in the near future. The Niaqunguk River in Apex was identified as a possible supplementary source; the Apex drainage area is 12 times larger than the Lake Geraldine drainage area. Another drainage area was identified adjacent from the runway but is not as large as the Apex drainage area.

Exp Services Inc. was recruited in 2004 by the City to complete a study relating to the raw water supply and storage. To address continued growth in Iqaluit, a new water supply will need to be used to provide water to residents. The current dam was upgraded to its current capacity to accommodate additional supply while the City moved forward with the identification of a supplementary water supply.

Mr. Boris stated that their approach for the supplementary water supply was to review the water quality and quantity, follow a regulatory process and then complete a preliminary design.

Mr. Sims stated that the water quality and quantity was determined by developing a sampling plan; samples were collected on a weekly basis, between July and October 2014, along the river and a water quality analysis was then completed. It was identified that the water is similar to Lake Geraldine and acceptable to serve as a supplementary source. The same level of treatment would be required for this water source as the one at Lake Geraldine, which includes disinfection, sand filtration, chlorination and fluoride addition. The required flow is available; the volume will depend on climate conditions in any given year. Climate conditions

can change and are unpredictable; should there be a change in precipitation, there could be a change in stream flow.

Councillor Bell asked for clarification why fluoride is still added to water today.

Mr. Allard stated that he could not answer the question and that it should be referred to the Public Works Department.

Deputy Mayor Stevenson noted that the water was tested for its quality and it was indicated that the water quality was acceptable. He asked for clarification as to what was tested and what was found in the water. He asked what would happen to the water drainage area in the future if the city chose to develop the area.

Mr. Sims stated that the nature of the water is dependent on the natural environment and the rock type that it flows through. The quality of water was found to be very acceptable and of good quality and does not pose any concerns. The detailed analysis report can be provided to Council members if requested.

Deputy Mayor Stevenson asked if the Sylvia Grinnell River was considered as a supplementary water supply rather than using the Apex water shed and if studies will be conducted on the water shed area to be used, as there is a fish population.

Mr. Allard stated that the Sylvia Grinnell River was taken into consideration but the Apex River was identified as being more suitable due to its location and size. It was also identified that there is no recreational fishing in the top portion of the Apex River and only at the mouth of the river whereas recreational fishing can be found throughout the Sylvia Grinnell River.

Deputy Mayor Stevenson noted that it was also his understanding that the greater fish population is at the mouth of the river. He believed that fish actually came from the Sylvia Grinnell River in the summer and travelled until a fresh source of water is found, where they would stay for the remainder of the summer.

Mr. Allard believed that the application process would include protection to wildlife and fisheries and that the Department of Fisheries and Oceans if necessary, would review it. He does not anticipate affecting fisheries during this project as the fish are found at the mouth of Apex River and not at the top where they would be completing work.

Councillor Dobbin believed that Lake Geraldine could support a population of approximately 8,300 and that Iqaluit's current population was approximately 7,500. He asked if Lake Geraldine would be completely used before moving forward with the use of the Apex water shed area.

Mr. Allard noted that it would depend on the growth of Iqaluit, water consumption, possible leaks in the system, fires needing extinguishment, et cetera. The remaining supply at Lake Geraldine could be used much faster than anticipated and it is difficult to determine exactly when the Apex River water shed area would be required. The Department of Engineering and Sustainability would like to move forward with this project as soon as possible so that the supplementary water supply is ready when required.

The regulatory process would include a submission to the Nunavut Water Board, Nunavut Planning Commission and the Nunavut Impact Review Board. There may be a requirement to hold a public consultation as well as meetings with stakeholders; water source protection will also need to be reviewed and discussed during this process.

Mr. Allard stated that the objective would be to have Lake Geraldine full at the end of summer; water level variables would need to be monitored such as the population, consumption, leaks, climate conditions, fires, et cetera. The potential consequences would also be reviewed and discussed.

The system would include an intake location, intake system with three pumps, a pipeline measuring 1,400 metres, an outlet through gravity, an access road, extended power source from Road to Nowhere and contingency plans; the system would be similar to the one at Lake Geraldine.

Mr. Allard stated that the total estimated cost for the project would be \$6,300,000.00. This would include the piping, estimated to cost \$3,005,000.00, pumping and electrical for an estimated total of \$1,350,000.00 and the development of the building and the site for an estimated total of \$1,945,000.00. The estimated costs could vary significantly depending on the timing of the tender, schedule and contractors available.

He noted that the existing system is nearing capacity and the Apex River is a feasible water supply, in quality and quantity. The project would move forward contingent on Council's approval and regulatory approval and process to follow.

Councillor Bell stated that the estimated cost for the project is significant but this is a very important project and needs to move forward as soon as possible. He asked if there was an alternate supplementary water supply identified in the case where the regulatory process was not approved for the Apex River.

Mr. Allard stated that the immediate option would be to increase the height of the Lake Geraldine dam and identify how much water could be impounded from the water shed; seasonal and yearly variations would also need to be considered. Another option would be to identify other water sheds in the area, such as the Sylvia Grinnell River. The cost of using the Sylvia Grinnell would be much more

significant than the current one being proposed and regulatory processes and approvals may be more difficult.

Mr. Sims advised that another location was researched, further up from the Apex River, but it was identified that there was not sufficient water supply. The further the water supply is, the more the cost would increase and the more difficult it would be to service the location.

Councillor Bell asked if the pumping of the water would produce a significant amount of noise.

Mr. Allard stated that the pumps would be enclosed and would not produce noise any louder than a water booster station.

Deputy Mayor Stevenson asked if the study also reviewed the current water treatment system and if it will be capable to accommodate the additional water that will be processed.

Mr. Allard stated that the volume of water to be processed and held at once would not change; the system will be able to accommodate this new system. The new system will simply ensure that Lake Geraldine is full and that the supply to Lake Geraldine is continuous.

Deputy Mayor Stevenson stated that the current Lake Geraldine area is protected and does not permit residents to swim or snowmobile near the water supply. He asked if the supplementary water supply would also be protected as Lake Geraldine is.

Mr. Allard believed that the water supply would be protected as Lake Geraldine currently is and that residents would not be permitted to swim, snowmobile or conduct any recreational activities within a certain distance of the area. This would be included in the regulatory process and signage would be required to notify individuals of the area and what is not permitted. Water would not be withdrawn during the winter months meaning that the regulations surrounding the water supply area may be different from Lake Geraldine.

Councillor Dobbin asked if the pipeline would be located above ground or underground.

Mr. Allard stated that the pipeline would be very similar to the ones servicing residents; the pipeline would be located above ground but cased in for protection.

Chairperson Akumalik thanked Mr. Allard and Mr. Sims for their presentation and believed this to be a very important project and hoped that it would be move forward in the very near future.

Mr. Allard thanked the committee for their comments and questions and hoped that this provided them with a better understanding of what will be required in the near future.

Administration stated that the 2014 report reviewed the Sylvia Grinnell and Apex River as a potential water source. The report indicated that the Apex River was the most suitable water source as a supplementary water supply for Lake Geraldine. Within the General Plan, it is clearly indicated that no developments are permitted within water shed protection areas; a section of the water shed area is located outside municipal boundaries.

The Land Use plan includes a section for water source protection and the department will work with the appropriate departments on this matter. The City could also make application to include the section of the water source located outside municipal boundaries and expand the municipal boundaries. The department is currently seeking the committee's support to move forward with this project by making their submission to the Nunavut Water Board and any other agencies as required.

Councillor Mansell requested that the Engineering and Planning Departments work together to see if the cost of this project could be included in the development costs for the new subdivision along Apex Road.

Administration advised that the department will work with the Department of Planning on the matter and report back to the committee as soon as further information is available.

Motion #EPW15-02

Moved by: Councillor Bell

Seconded by: Deputy Mayor Stevenson

Committee recommends supporting the Engineering and Sustainability Department to move forward with the next steps for the Supplementary Water Supply. This includes submission to the Nunavut Water Board and ensuring that a public meeting is held.

Unanimously Carried

b) **Discussion Item – Safety Signage**

Councillor Bell stated that road crews that complete repairs and maintenance throughout the community do not use signage to indicate construction ahead or to reduce speed. These safety signs are seen everywhere else in Canada where repairs and maintenance are being completed on roads and enforce a fine for speeds not being respected. He suggested that the City begin using these types

of signs when completing repairs and maintenance on Iqaluit roads to increase safety for workers as well as residents.

Councillor Dobbin noted that the Trilingual Safety Signage By-law No. 585 indicates that safety signs must be displayed when roadwork is being completed and that this should be enforced.

Councillor Mansell agreed that safety signs should be required and that this should be addressed as soon as possible.

Councillor Papatsie expressed his support for the matter and believed that it was important to be safe while working on the roads and to protect pedestrians and drivers.

Administration believed that it was an outside company who was completing repairs to roads without using safety signs and this should be addressed directly with the company or the Workers' Safety compensation Commission. The City has spent a significant amount of money to ensure that all signs are trilingual and that there is a large inventory so that they are used when repairs and maintenance need to be completed. The department could improve in certain areas but does the best it can with the resources available.

It should be noted that the intent of the Trilingual Safety Signage By-law No. 585 is not to enforce road safety but that signage be in the three official languages. Perhaps the Safety Officer could look into signage requirements by working with the Workers' Safety and Compensation Commission and the Government of Nunavut; the City could then use this information to create a policy relating to safety signage.

c) Discussion Item – Garage Fencing

Councillor Bell noted that the City installed a fence around the City garage to protect equipment and the property and noted that the gates have never been closed. It was indicated to him that the gate could not be closed and he is unsure why; he suggested that the City address this matter as soon as possible.

Administration advised that the gate is closed. The Department of Public Works had to complete additional work on the gate in order to close it as it was very heavy.

d) Discussion Item – Water Booster Station Gate

Councillor Bell stated that the City spent a significant amount of money to install a safety gate at the water booster station so that children would not access the site. It has been noticed that the gate is left open during the day and this should not be permitted; the gate should be closed at all times.

Administration advised that the gate has been left open during the day when staff is working as they visit the water booster station frequently during the day. This was to prevent frozen locks and slowing down the refill process. The department did not feel that there were issues during the day of children climbing the station but this will be addressed and staff will be asked to close and lock the gate when finished at the station. The department has not received any complaints regarding children climbing the ladder or playing around the station.

6. **IN CAMERA SESSION**

None

7. **ADJOURNMENT**

Motion #EPW15-03

Moved by: Councillor Bell


Seconded by: Councillor Mansell

Committee adjourns at 8:20pm.

Unanimously Carried




Councillor Akumalik
Chairperson


Matthew Hamp
Director, Engineering

Approved by City Council on this 13 day of October, 2015, A.D.