

Ross Haven – Proposed Sewer Project Information

Council, with your input, compiled a list of questions pertaining to the proposed sewer project. The questions and answers are in Schedule A. Unless otherwise noted, the answers were derived from the documentation that was received from the North 43 Lagoon Commission – which have been provided in Schedule C.

We believe that all the questions and concerns have been adequately answered. It is council’s intent to make the “Go / No-Go” decision during the February Council meeting. The decision will be based on these financials, as well as input from the village survey. If we proceed with the project, next steps will occur as per Schedule B. Part of the next steps is to re-tender the project, confirm grant money and financing costs. If costs to the village increase, then we can say “no”.

Council is recommending that if we proceed:

- 1) Lots that connect to the system will be charged a higher fee than those that are not connected. The more people that connect, the lower the connected fees will be. This fee will replace the \$175 annual fee that was on your Property Taxes for the Water / Sewer Fund. Scenarios for monthly costs are:

Percentage that Connects	30%	45%	60%
Monthly Fees for those that Connect	\$62	\$50	\$44
Monthly Fees for those that DO NOT Connect	\$25	\$25	\$25

- 2) The village will use \$785,000 from our reserves to pay for a portion of the amount that the village is responsible for. For the remaining \$316,000, a loan from the North 43 lagoon commission will be utilized.
- 3) The annual fees identified in point 1 will be assessed on the property tax bill and will be reviewed and adjusted on an annual basis.

Benefits of this Sewer System for the Summer Village of Ross Haven

- The Summer Village of Ross Haven is benefitting from a grant of 69%, or \$2,474,984 for infrastructure.
- If a high number of lot owners tie into the system, the benefits to the village include reduced smells while vacuum trucks are in the village, a safer community given fewer large trucks travelling in the village, and reduced maintenance costs on our village roads and Range Road 34.
- For lot owners that create a higher volume of effluent, this will be more economical than utilizing vacuum trucks. Emergency pump outs will not be an ongoing concern.
- For lot owners that do not immediately connect to the system, your annual fees payable to the village will only increase by \$125 annually (\$10.42 per month). You can choose to connect to the system at some point in the future.
- Access to a sewer system should reduce illegal dumping of grey or black water into water bodies or surrounding areas.
- Having access to a sewer system makes your property and the village more attractive to potential purchasers.

The [link](#) to the survey is available on the Ross Haven website, or by using the QR code below. We are hoping that everyone can complete the survey by 5:00pm on February 2.



Ross Haven Sewer Project
Schedule "A"
Questions and Answers

Provincial / Federal Government

1. What are the current requirements for dealing with sewer in a Summer Village around a body of water? Is the provincial or federal government considering changes to this?

{There are no current Provincial/Federal requirements mandating the installation of municipal wastewater collection/transmission systems for rural communities or summer villages. However, Alberta Environment and Parks fully supports the collection and transmission of domestic wastewater to an approved wastewater treatment facility. AEP has indicated that they are reviewing their policy on the requirement for collection of wastewaters around lakes in Alberta.}

2. Confirm grants available to the village, or Lagoon Commission, and requirements for those grants to be provided.

{At this time, only the Detailed Design and Tendering of the Project are receiving a Water for Life (W4L) Grant in the amount of 69.22% of eligible costs. If the Project is re-tendered and firm prices received from a qualified contractor, the Commission will then apply to Alberta Transportation for an additional W4L Grant for the construction of the Project. Approval is required from Alberta Transportation for any increase to the W4L Grant.}

Engineering

1. The proposed system will have maintenance on the lines, check valves, and pumps. In addition, homeowners will need to invest money to tie into the system. If everyone tied into the system, the homeowner investment will likely exceed \$2,270,000 (227 lots at \$10,000 each). What is the total cost of the system, broken out into homeowner and village costs? Please include and breakout forecasted annual maintenance, based on experiences from other villages.

{Any project, after it is built, has cost to Operate and Maintain the project. There are now 2 components to the project that need to be operated and maintained. There is the portion on PRIVATE PROPERTY (holding tank, pump, pump controls/electrical, piping/valving/back-flow prevention, service line to property line, etc. on private property) and this is the responsibility of individual lot owner. The amount spent each year by the resident is up to the resident. Some residents will have a specific level of O&M and some residents will be less specific. It is up to the individual lot owner to determine the level of annual O&M, based on the amount and type of wastewater that is permitted to enter your holding tank.

The second component of Operation & Maintenance is the responsibility of the Commission for the Wastewater Collection and Transmission Lines and the Wastewater Lagoon System. If the Project was to proceed the Commission would prepare an Annual O&M Budget for the North 43 Collection and Transmission System and Lagoon System that would include the SV of Ross Haven. At this time, this proposed Annual O&M Budget is based on O&M costs from installations that occurred in previous installations, The O&M Costs directly associated with the SV of Ross Haven are expected to be \$80,000 per year.

In addition to the Annual O&M Costs, the residents are also responsible for any improvements on their private property and the SV of Ross Haven is responsible for any Capital Cost of the Collection and Transmission System over the W4L Grant received for the Project.}

2. With the total cost of the system in mind, have alternate systems been considered?
 - a. Drainage based system. What would a ballpark cost be for a drainage-based system? Would this system have any investment required by each homeowner?

{A low-pressure sewer system is often used in retrofit situations where construction of a gravity sanitary sewer is considered not viable due to factors that may include available space for sewer trenches, potential impact on roads/pavement, topography disruption to residents or capital cost. Though a full design and cost projection was not developed for a gravity sewer system in this instance, a similar exercise was completed for other Alberta communities and revealed costs for a retrofit gravity collection system to be 2-3 times the cost of a low-pressure sewer system.}

- b. Other systems?

{The types of sewer systems are gravity or low-pressure systems or combination of both.}

3. Has the head pressure from the top of the hill to Parkins Avenue been considered? Will a pump installed in a homeowner's tank be able to exceed the head pressure? Will several homeowners' pumps need to pump to exceed the head pressure?

{The design of low-pressure sewer systems recognizes that homes are at different elevations and as such, the elevation of the line will vary throughout the system. It is important to both standardize pumps and ensure that air does not get locked in the system. As not all pumps are compatible and with the variation in pumping elevation, there is a risk of locking out lower elevation pumps for a period. Therefore, the North 43 Lagoon Commission has standardized pump type and size in addition to requiring tanks sized to have sufficient storage, so backups will not occur if pumps are impeded by those at higher elevations. These considerations led to the selection of Orenco pumps for this system during the Preliminary Design. Air release valves are also planned to be installed at the highest points of the system to automatically release air that can build up.}

4. Will a lift station be required in the future?

{There is no need for a lift station to serve the Summer Village of Ross Haven given that the recommended system will be a "low pressure wastewater system". This low-pressure system can be expanded to allow for additional development and/or developments in the Ross Haven and Gunn areas. The overall system is designed to handle approximately double the number of current lots in Castle Island, Yellowstone, Ross Haven, and Gunn area.}

5. Was an engineering review completed by an alternate engineer?

{To date, the following Engineering Consultants have been engaged for the various Phases of the Project:

- *Study and Conceptual Design – DCL Siemens Engineering Ltd.*
- *Pre-Design - MPE Engineering Ltd.*
- *Detailed Design/Construction Services (Gunn Area) – OPUS Stewart Weir Ltd.*
- *Detailed Design/Construction Services (Ross Haven) – Stantec Ltd.*
- *Construction of the Gunn Area Project was completed by Tyschuk Construction Ltd.}*

6. If the system does not work as intended, does the engineering firm have insurance to cover the additional costs needed to make the solution workable?

{A requirement for the selection of an Engineering Consultant is the need for Errors and Omissions Insurance (EOI) and all Consultants engaged for this project have EOI. If there are concerns with the project the Commission can review the situation with the Engineering Consultant and if an amicable solution cannot be found, the Commission has the option of legal action.}

7. What warranty period exists with respect to the engineering?

{There is no specific time outlined in any contract with the Consultant, but this is a matter that can be decided by the courts.}

8. Was installation of water lines at the same time considered? What would those expected costs be?

{The Summer Village of Ross Haven has received questions from residents regarding the potential for installation of a water distribution system. While a water distribution system has not been contemplated as part of this project, it is expected that such a system, not sized for fire protection would have a similar cost to the sewer system. However, it would also require a potable water storage reservoir and pumping station. At this time no consideration has been made for a water distribution system.}

Homeowner Portion

1. At what point is the equipment a homeowner's responsibility versus others?

{The homeowner will own and maintain the system on private property, including the service line, tank, and pump (a design-compliant tank and pump system standard was previously provided to the Summer Village as part of a public information package). While the service life of tanks and pumps will vary based on usage, pumps will often last for approximately 10 years, and new tanks may last for 50-75 years or longer.}

{Council Commentary: The cost for the homeowner to install and connect the pump, including electrical will vary by household. Estimates that have been received in the village have ranged between \$7,000 and \$15,000 per lot. If we proceed with the project, the village will work with those desiring to connect and vendors to leverage volume discounts and reduce overhead.}

2. Are there any limitations to what types of tanks are needed to be used with this system?

- a. Plastic tanks? *{Any CSA Approved Tank is acceptable.}*
- b. Minimum tank capacity? *{A minimum 500 gallons storage capacity is required.}*
- c. Minimum number of access points to the tank? *{One}*

3. What are the approved installation methods for tanks?

{The North 43 Lagoon Commission has accepted three methods of installation of the pumping system:

- a. *Two compartment tank with pumping system installed in second tank (recommended).*
- b. *One compartment tank with pumping system installed in tank (recommended with filter sleeve which requires more homeowner maintenance).*
- c. *One compartment tank with pumping system adjacent to tank in a manufacturer supplied pumping cylinder. Storage is handled by the one compartment tank.}*

4. In winter months, if the system is not used frequently by a homeowner, does the pump need to be pulled?

{The homeowner should undertake a Risk Assessment and undertake whatever activities they are confident with. Some homeowners have not taken any specific actions; some have just used the pump in the holding tank and pumped down to the lowest level. Each installation and each homeowner is unique and there is no hard and fast rule.}

5. How often does the pump need to be cleaned or serviced?

{The homeowner will own and maintain the system on private property, including the service line, tank, and pump (a design-compliant tank and pump system standard was previously provided to the Summer Village as part of a public information package). While the service life of tanks and pumps will vary based on usage, pumps will often last for approximately 10 years, and new tanks may last for 50-75 years or longer.}

The homeowner must ensure that no deleterious materials go down their drains, as they can damage and/or clog the pump or clog the check valve at the end of the pump, and potentially cause sewer backups. Items such as wet wipes, sanitary napkins, floss, and other hygiene products are known to clog and damage pumps, with repair costs often potentially exceeding \$2,000, and pump replacement costs being in the order of \$5,000. A two-compartment holding tank is recommended so that these or other materials have the chance to settle out prior to entering the pump, thereby reducing the risk of pump failure.}

6. How many check valves are recommended to be installed and where? What is the maintenance and frequency for these check valves?

{One double check valve after the pump and prior to service shut-off valve at property line. It should be checked yearly as per the guidelines provided by the check valve manufacturer.}

7. If there is more than one check valve to ensure no backups, how do you know if one check valve has failed?

{Failure is recognized by wastewater back flowing into tank.}

8. Can items such as dental floss, sanitary napkins (not supposed to be in the system) or other items cause a check valve to fail? *{See answer to question 4.}*

9. Does homeowner insurance cover sewer backup from this type of system? Are there limitations to this coverage?

{Each resident should check with their Insurance Provider as to coverage.}

10. In the event of a power failure, what are the impacts (if any) on the system.

{In the matter of a power failure the pumps in the various holding tanks will not be able to operate, unless each individual lot owner has a back-up power supply. Therefore, the amount of wastewater that can be accepted by the holding tanks is dependent on the level in the holding tank at the time of power failure and the duration of the power failure. Each homeowner should do a Risk Assessment at the time of the power failure; check level in holding tank, minimize wastewater generation, etc. It should be noted that if there is a power failure in the area, this will also stop a water pump from pumping water and generation of wastewater.}

11. How often is it recommended that the septic tank be pumped out to remove built up solids.

{This is dependent on the wastewater generated by the homeowner; size of tank; type of tank – 1 compartment vs 2 compartment. Tank solids build up should be monitored by the homeowner and pumped out as required and when the homeowner decides.}

12. Will there be a mechanism or checks in place to ensure that homeowner's septic tanks are not leaking?

{Council Commentary: Homeowners are responsible to ensure their holding tanks are operating correctly. Council reserves the right to inspect holding tanks on personal property if there are concerns with their operation.}

13. What is the lifespan or replacement schedule of the homeowner components? *{See question 4 above.}*

14. If a lot is sold or transferred to new owners, will the village place a lien on property forcing future owners to tie into the system.

{Council Commentary: If the project proceeds, the SV of Ross Haven council will not pass a bylaw that forces new homeowners to tie into the system.}

Sewer Main Questions

1. After the system is installed, who is the owner of the system – the village or the lagoon commission?

{The low-pressure sewer system is being developed by, and will be owned and maintained by, the North 43 Lagoon Commission. Presently, the Commission has contracted Lac Ste Anne County for system operations for items such as monitoring, reporting, routine maintenance, and response to issues where they arise.}

2. If there is a leak in the system, that is NOT the responsibility of the homeowner, who is responsible for this?

{The North 43 Lagoon Commission of which the SV of Ross Haven is a member.}

3. Does the owner require insurance to cover potential future issues? If so, what is the cost of insurance.

{Each resident should check with their Insurance Provider as to coverage.}

4. What are the maintenance requirements and costs of the sewer main components? Valves, clamps, pipe, etc.

{The North 43 Lagoon Commission prepares an Annual O&M Budget that provides yearly Small Repairs Budget item, Major Line Repairs, etc.}

5. What is the lifespan or replacement schedule of various components?

{Wastewater transmission lines situated in the municipal right-of- ways have an expected life of 75 to 100 years. Pumps and electrical systems on private property have life expectancy of 15 to 25 years.}

6. Is there an opportunity for the system to be run like a utility? For example, the utility company gets the grant money and other funding, installs the sewer main, is responsible for it, etc. Homeowners only pay if they choose to join.

{The North 43 Lagoon Commission operates the system as a Utility and allocates the financial responsibility of the operation among its members on a proportional basis. To meet the financial obligations the members must ensure that they meet their assessments. A Utility cannot operate without revenue.}

Lagoon

1. Currently, all residents are paying an annual amount of \$175 for the Water / Sewer fund. Is that money being collected for future use? If so, how much money has been saved. If this money is being spent, what is it spent on?

{Council Commentary: If the project proceeds, the SV of Ross Haven council will allocate 100% of all money that was previously collected from this Water Sewer fund towards the initial cost of this project.}

2. What communities, villages, or other municipalities are currently using the lagoon?

{Low pressure sewer systems service hundreds of thousands of homes across North America in many communities. Locally, low pressure systems are present in the Hamlets of Rochfort Bridge, Greencourt, Cherhill, Glenevis and Darwell. All these systems are operating reliably and have been for years.}

3. Are dumping fees expected to increase?

{The North 43 Lagoon Commission currently charges septage truck haulers \$55.00 per legal load. The 2022 legal truck load rate will be increased to \$65.00 on January 1, 2022. It is anticipated that truck haul rates will continue to increase in 2023.}

4. How long will the lagoon fees remain the same? What variables will cause the lagoon fees to increase?

{The Commission prepares Annual O&M Budgets for the Lagoon and the Collection and Transmission System. Currently the only significant variable in the preparation of the budgets has been inflation.}

5. Will the lagoon run out of capacity? If so, when is it expected to need more capacity?

{The existing North 43 Lagoon System is the treatment facility where the wastewater from the SV of Ross Haven is treated. The wastewater currently enters the facility via septage trucks and low-pressure system currently connected to the Summer Villages of Yellowstone, Castle Island and Gunn. If the Ross Haven collection/transmission system is constructed, wastewater from the SV will be conveyed by the same pressure pipe system. The current users of the North 43 Lagoon System are the members of the Commission: SV of Yellowstone, SV of Castle Island, SV of Ross Haven, and Lac Ste. Anne County (Gunn Area).}

The capacity of the Lagoon System is such that it can accommodate about double the amount of wastewater that currently is being hauled or piped to the facility. This doubling of flow will only occur if more Summer Village residents become "full time" residents and additional land development occurs in the collection/transmission system. This growth of "full time" residents and land development will be over several years. There are no immediate concerns that the lagoon facility needs to be upgraded.}

6. As more people tie into the system, more fluids may enter the lagoon than are entering from septic trucks. For example, homeowners may not be as concerned about water conservation, or perhaps grey water that is handled differently may be diverted into this system. Has this been considered when reviewing lagoon capacity?

{Yes}

7. Can anything be done to minimize future cost increases? Are there alternate ways to treat the sewage that could minimize required expansion?

{The North 43 Lagoon Commission will be required to meet all Provincial Requirements.}

Benchmarking

1. Please identify the villages that have tied into the system and the following data from each:

- a. Number of lots within village

{All lots within SV of Yellowstone, SV of Castle Island, and County lots adjacent to the collection and transmission lines are provided with a service connection. Connection to the system is not mandatory but financial obligations have been imposed by the Summer Villages on their serviced lots. The Summer Villages of Yellowstone and Castle Island, and Lac Ste Anne County have accepted their financial responsibility and it is not dependent on the number of connections made to the system.}

- b. Number of lots connected to date on system:

{Castle Island 16/19 lots (84%), Yellowstone 45/165 lots (27%), Lac Ste Anne County 41, Waters edge 86/132 (65%) are connected}

- c. Number who have tied in. Provide comments as to this number compared to the number of lots.

{Number of lots connected may be a function to number of permanent residents.}

- d. List known issues from the sewer main or from homeowners. We have heard rumors of pumps needing to be replaced numerous times, basements filled with sewage, and problems with the sewer main lines within our neighboring villages.

{There have been a small number of issues regarding the connection and operation of the new system, but they have been minor connections issues to the overall system.}

- e. Provide list of similar municipalities that have this system. Provide similar data as identified in the previous point.

{Low pressure sewer systems service hundreds of thousands of homes across North America in many communities. Locally, low pressure systems are present in the Hamlets of Rochfort Bridge, Greencourt, Cherhill, Glenevis and Darwell. All these systems are operating reliably and have been for years.}

Newspaper Articles

{*Council Commentary:* Hundreds of thousands of homes have tied into low pressure systems across North America. We do not hear about all these success stories in the news.

The summer village of Ma-Me-O Beach on Pigeon Lake, as identified in the press releases in the hyperlinks below, has had issues with its sewer installation and operation. It was forced to use a shallow sewer line system because that village is located on 7 to 10 meters of sand. Ma-Me-O Beach's issues can be attributed to the fact that its sewer distribution lines could not be buried below the frost line due to topography, and although heat trace lines were specified for this design, the contractors either did not install heat trace, or it was installed incorrectly. This issue is being rectified. The neighbouring villages of Crystal Springs and Grandview have wastewater systems like the one proposed for Ross Haven. Conversations with the mayor/deputy mayors of those villages reveal that they had good experiences with the installations of their systems. Over 2 years have passed, and they claim their people are very happy with how things are working.

Numerous other villages around Pigeon Lake, and villages around Sylvan Lake and Lac Ste Anne, have installed a low-pressure system without significant issues. Locally, low pressure systems are present in the Hamlets of Rochfort Bridge, Greencourt, Cherrill, Glenevis and Darwell. All these systems are operating reliably and have been for years.}

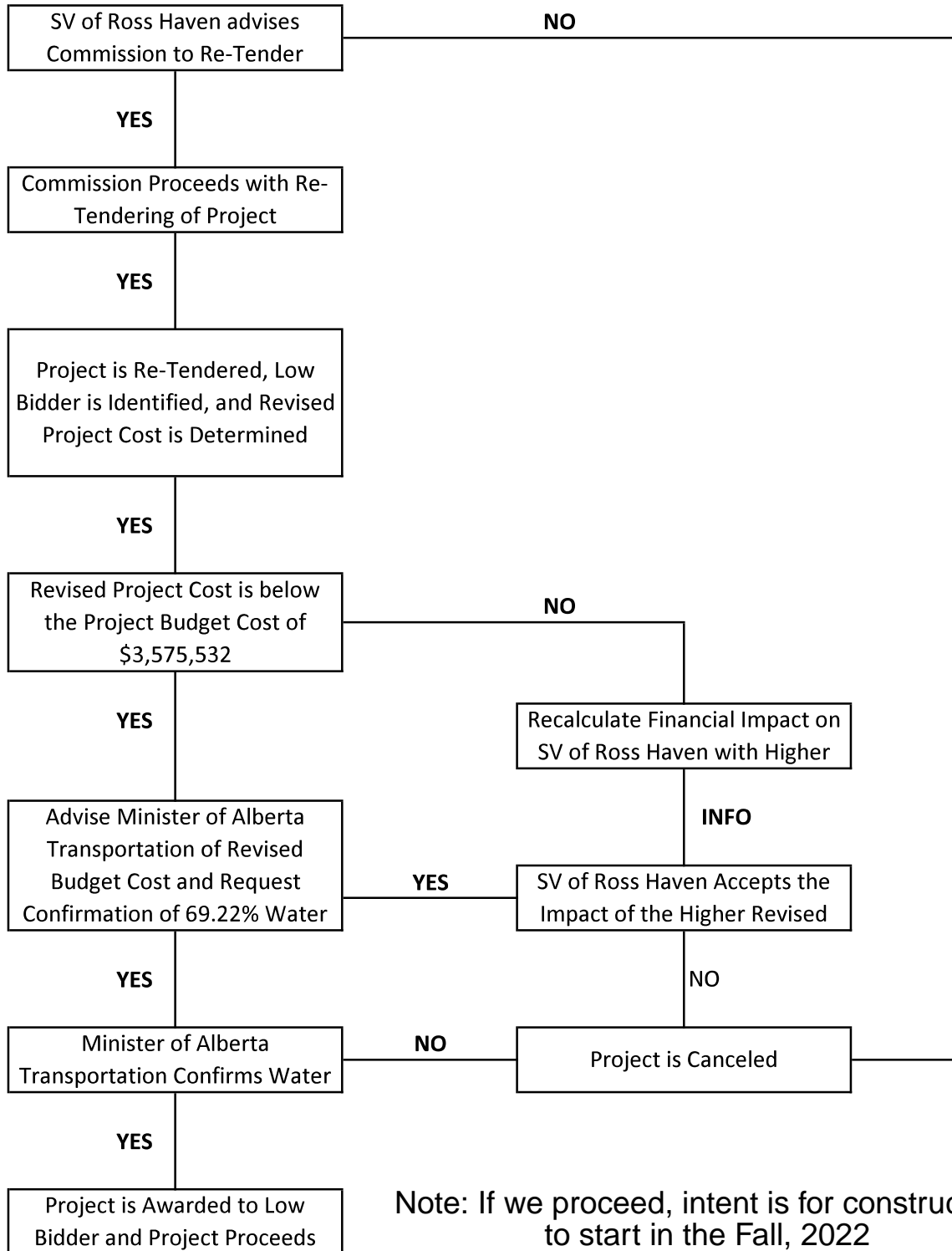
1. Mameo Beach Ongoing Issues

- a) <https://www.cbc.ca/news/canada/edmonton/mameo-beach-pigeon-lake-1.5288409>
- b) <https://www.cbc.ca/news/canada/edmonton/ma-me-o-beach-new-sewage-system-1.5113583>
- c) <https://www.pipestoneflyer.ca/local-news/ma-me-o-beach-residents-concerned-over-continuous-waste-sewage-system-issues/>
- d) <https://edmontonjournal.com/opinion/letters/tuesdays-letters-dont-exaggerate-progress-at-pigeon-lake>
- e) <https://esemag.com/wastewater/village-shuts-down-wastewater-system-winter/>

**Schedule "B"
Next Steps - Decision Tree**

NORTH 43 LAGOON COMMISSION

SUMMER VILLAGE of ROSS HAVEN PROJECT DECISION TREE



Note: If we proceed, intent is for construction to start in the Fall, 2022

To:	Joe Duplessie,	From:	Stephan Weninger, P.Eng.
	North 43 Lagoon Commission		Stantec Consulting Ltd
File:	Summer Village of Ross Haven Clarifications Memo	Date:	November 29, 2021

Reference: Ross Haven Regional Wastewater Collection and Transmission System

Pursuant to questions posed by the Summer Village of Ross Haven council and various community members, the North 43 Lagoon Commission has requested Stantec, as the currently retained engineering consultant, provide this technical memorandum for clarification.

1. General Project Requirements

The North 43 Lagoon Commission took a proactive approach to the development of a regional wastewater collection and transmission system to aid in the protection of Lac Ste. Anne, such that domestic wastewater would be collected and treated in an acceptable wastewater treatment facility. The Commission was aware of numerous existing holding tanks that were not meeting Safety Codes leading to the possibility of domestic wastewater entering Lac Ste Anne.

There are no current Provincial/Federal requirements mandating the installation of municipal wastewater collection/transmission systems for rural communities or summer villages. However, Alberta Environment and Parks fully supports the collection and transmission of domestic wastewater to an approved wastewater treatment facility. AEP has indicated that they are reviewing their policy on the requirement for collection of wastewater around lakes in Alberta.

2. Process of Engineering Consultant Selection

The North 43 Lagoon Commission utilizes a quality-based process for the selection of engineering consultants. This ensures that only qualified engineering consultants are requested to submit proposals for the required work on a Project. The Consultant with the highest rated qualifications and reasonable cost is selected by a Technical Review Committee.

There are three basic engineering phases for the implementation of a Project:

- Study and Conceptual Design;
- Pre-Design; and
- Detailed Design/Construction Services

For each phase of the Project, Terms of Reference are prepared and issued for review by the Technical Review Committee. A select number of engineering consultants are invited to submit a proposal for the necessary work as outlined in the Terms of Reference. The Terms of Reference for the Detailed Design for the Summer Village of Ross Haven Regional Wastewater Collection and Transmission Lines is attached as an example of Terms of Reference.

Reference: Ross Haven Regional Wastewater Collection and Transmission System

To date, the following Engineering Consultants have been engaged for the various Phases of the Project:

- Study and Conceptual Design – DCL Siemens Engineering Ltd.
- Pre-Design - MPE Engineering Ltd.
- Detailed Design/Construction Services (Gunn Area) – OPUS Stewart Weir Ltd.
- Detailed Design/Construction Services (Ross Haven) – Stantec Ltd.

Construction of the Gunn Area Project was completed by Tyschuk Construction Ltd.

3. Project Funding and Timeline

The original application to Alberta Transportation for financial assistance was made in November 2007, based on the Cost Estimate prepared in the Study and Conceptual Design phase of the project.

Transmission System	\$ 4,970,406
Collection System	\$ 2,599,594
TOTAL	\$ 7,570,000

In June 2011, the Commission received AT Ministerial Approval for W4L grant of 90% of the estimated eligible costs (Transmission System only), or up to \$4,473,365 for the project with members of North 43 Lagoon Commission responsible for the Collection System.

In a letter dated July 11, 2014, the Mayor of SV of Ross Haven stated that "they can longer support the system as it is currently proposed". The Commission proceeded with the Project with the participation of the other members of the Commission.

In a letter dated August 27, 2015, and a meeting on August 28, 2015, the Commission reported to AT the status of the Project and submitted a Revised Cost Estimate (without Ross Haven) and a proposal to undertake the project on a "blended" grant percentage.

In a letter dated October 1, 2015, AT revised the funding percentage for the project to 69.22% as per the Commission's request of a "blended" grant percentage. The Total Amount of grant would be \$4,473,365.

In a letter dated December 18, 2018, the SV of Ross Haven requested the Commission undertake discussions with AT on the necessary funding for the evaluation of SV of Ross haven being served by the North 43 Wastewater Transmission and Collection System.

November 29, 2021

Joe Duplessie,
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Reference: Ross Haven Regional Wastewater Collection and Transmission System

In various letters, telephones discussions, emails, and meetings the Commission kept AT informed on the Progress of the evaluation of the Ross Haven system. It was decided that the Commission would proceed to obtain firm prices (tender the project) for Ross Haven before applying to AT for final financial assistance needs. This was confirmed in an AT letter dated September 30, 2020.

Detailed design was completed, a virtual public meeting was held on November 16, 2020, and tenders closed on January 15, 2021.

The low bid was higher than the Engineer's estimate and the Financial Summary Comparison was prepared. Due to the lack of SV of Ross Haven representation, this Summary was not presented to anybody.

Project Capital Cost	\$ 3,575,533
Possible W4L Grant	69.22% \$ 2,474,984
SV of Ross Haven	\$ 1,100,549

The amount of W4L Grant has NOT been confirmed by Alberta Transportation.

The financial impact (based on the low bid received January 15, 2021) to the Summer Village of Ross Haven was presented to the new SV Council on September 2, 2021 meeting with North 43 Lagoon Commission. It should be noted that these costs need to be re-assessed based new bids received, should the Project be re-tendered.

4. Sewer System Operations

The low-pressure sewer system is being developed by, and will be owned and maintained by, the North 43 Lagoon Commission. Presently, the Commission has contracted Lac Ste Anne County for system operations for items such as monitoring, reporting, routine maintenance and response to issues where they arise.

5. Sewer system Design Information

A low-pressure sewer system is often used in retrofit situations where construction of a gravity sanitary sewer is considered not viable due to factors that may include:

- Available space for sewer trenches
- Potential impact on roads/pavement
- Topography
- Disruption to residents
- Capital cost

Reference: Ross Haven Regional Wastewater Collection and Transmission System

Though a full design and cost projection was not developed for a gravity sewer system in this instance, a similar exercise was completed for other Alberta communities and revealed costs for a retrofit gravity collection system to be 2-3 times the cost of a low-pressure sewer system.

The design of low-pressure sewer systems recognizes that homes are at different elevations and as such, the elevation of the line will vary throughout the system. It is important to both standardize pumps and ensure that air does not get locked in the system. As not all pumps are compatible and with the variation in pumping elevation, there is a risk of locking out lower elevation pumps for a period of time. Therefore, the North 43 Lagoon Commission has standardized pump type and size in addition to requiring tanks sized to have sufficient storage, so as not to backups will not occur if pumps are impeded by those at higher elevations. These considerations led to the selection of Orenco pumps for this system during the Preliminary Design. Air release valves are also planned to be installed at the highest points of the system to automatically release air that can build up.

The line is designed to have a depth of cover that meets or exceeds 2.70 meters below ground surface to avoid frost penetration and reduce the risk of freezing during the winter. High density polyethylene pipe (HDPE) DR11 pipe is typically what is used for directional drilling. It has a pressure rating that is considerably higher than what will be observed during line operation and has a low risk of breaking or squishing under road traffic. The high tensile strength of HDPE DR11 is required not for operations, but for the installation during construction, in which the line is pulled through the ground. The design also includes the installation of flushouts, air-release valves, and standard shutoff valves in select locations throughout the system.

Flushouts are used as part of semi-annual to annual maintenance procedures in which clean water is pumped through the system at relatively high velocities to clear buildup of sediment and prevent potential blockages. The flushouts are installed at the branched line ends and are spread over the span of the system, spaced approximately 200-300 meters apart. In addition to flushing, the flushouts can also assist with emergency repairs of broken lines by providing a temporary release point in which a collection truck can temporarily relieve sewage for areas that are upstream of the system outlet and outside of the zone in which the repair is being made. Thus, reducing the number of lots that are impacted by a temporary repairs.

No additional facilities, such as lift stations, are planned for the low-pressure sewer system at this time. The standardized pump design is set to overcome the approximate 30m maximum elevation gained by the system as well as friction losses throughout. Should community growth take up significant capacity in the system, it may facilitate the need for future lift station installation.

6. Water Distribution

The Summer Village of Ross Haven has received questions from residents regarding the potential for installation of a water distribution system. While a water distribution system has not been contemplated as part of this project, it is expected that such a system, not sized for fire protection would have a similar cost to the sewer system. However, it would also require a potable water storage reservoir and pumping station.

7. Homeowner Maintenance

Homeowners can connect their pumps to the sewer system following completion of collection system construction with prior approval. Timing and procedures for system connections after construction of the low-pressure sewer lines are governed by the Summer Village.

Reference: Ross Haven Regional Wastewater Collection and Transmission System

The homeowner will own and maintain the system on private property, including the service line, tank, and pump (a design-compliant tank and pump system standard was previously provided to the Summer Village as part of a public information package). While the service life of tanks and pumps will vary based on usage, pumps will often last for approximately 10 years, and new tanks tank may last for 50-75 years or longer.

The homeowner must ensure that no deleterious materials go down their drains, as they can damage and/or clog the pump or clog the check valve at the end of the pump, and potentially cause sewer backups. Items such as wet wipes, sanitary napkins, floss, and other hygiene products are known to clog and damage pumps, with repair costs often potentially exceeding \$2,000, and pump replacement costs being in the order of \$5,000. A z-compartment holding tank is recommended so that these or other materials have the chance to settle out prior to entering the pump, thereby reducing the risk of pump failure.

As with an urban wastewater collection system, there is potential for system backups, both from the utility side, and from the homeowner side. In the case of low-pressure sewer systems, backups to the home can often be a result of clogged or failed pumps. It is recommended that homeowners have their pumps and tanks cleaned out and inspected after one year of operation to ensure the system is operating properly and to gauge the amount of sludge build up in their tank. Following that, cleanouts should be scheduled based on individual usage. For homes unoccupied in the winter months, it is recommended that the tanks be pumped down in the winter to limit freezing potential. It is also recommended that all homeowners review their insurance policies to confirm coverage for backups.

8. Existing North 43 Lagoon System

The existing North 43 Lagoon System is the treatment facility where the wastewater from the SV of Ross Haven is treated. The wastewater currently enters the facility via septage trucks and low-pressure system currently connected to the Summer Villages of Yellowstone, Castle Island and Gunn. If the Ross Haven collection/transmission system is constructed, wastewater from the SV will be conveyed by the same pressure pipe system. The current users of the North 43 Lagoon System are the members of the Commission; SV of Yellowstone, SV of Castle Island, SV of Ross Haven, and Lac Ste. Anne County (Gunn Area).

The capacity of the Lagoon System is such that it can accommodate about double the amount of wastewater that currently is being hauled or piped to the facility. This doubling of flow will only occur if more Summer Village residents become "full time" residents and additional land development occurs in the area of the collection/transmission system. This growth of "full time" residents and land development will be over several years. There are no immediate concerns that the lagoon facility needs to be upgraded.

9. Septage Haul Rates

The North 43 Lagoon Commission currently charges septage truck haulers \$45.00 per legal load. The 2022 legal truck load rate will be increased to \$55.00 on January 1, 2022. It is anticipated that truck haul rates will continue to increase in 2023.

It is assumed that the Summer Village of Ross Haven is currently charging their residents the annual amount of \$175.00 for the Water/Sewer Fund. It is up to the SV to determine the applicability of these funds, not the Commission.

November 29, 2021

Joe Duplessie,

Page 6 of 6

Reference: Ross Haven Regional Wastewater Collection and Transmission System

10. Benchmarking

Low pressure sewer systems service hundreds of thousands of homes across North America in many communities. Locally, low pressure systems are present in the Hamlets of Rochfort Bridge, Greencourt, Cherhill, Glenevis and Darwell. All of these systems are operating reliably and have been for years.

Should you have any questions or concerns about the information presented herein please contact the undersigned.

Stantec Consulting Ltd.

Stephan Lorne

Weninger -- P.

Eng. - APEGA

Stephan Weninger, P.Eng.

Principal

Stantec Consulting Ltd.

Phone: 403-341-3320

Email: Stephan.weninger@stantec.com

Digitally signed by
Stephan Lorne Weninger
-- P. Eng. - APEGA
Date: 2021.11.29 16:08:14
-07'00'

Attachment: Example Terms of Reference

c. C.C.

REQUEST FOR PROPOSALS
for
**SUMMER VILLAGE of ROSS HAVEN REGIONAL WASTEWATER COLLECTION and
TRANSMISSION LINES**

INFORMATION AND INSTRUCTIONS TO PROPONENTS

1. GENERAL INFORMATION

- 1.1. Lac Ste. Anne County (County), in association with the North 43 Lagoon Commission, is seeking proposals from the County's pre-qualified engineering consulting firms. Engineering Services will include but are not limited to; Project Management, preliminary design, detailed design, and tender preparation documents, tender services, construction supervision including commissioning, and post-construction services. The project includes Service Connections, and Wastewater Collection and Transmission Lines to serve the Summer Village of Ross Haven by the North 43 Lagoon Commission Wastewater Transmission Line.
- 1.2. The proponent shall submit only one (1) electronic copy (PDF format) of the Proposal. Proposals to be emailed to bhartman@lsac.ca by 1400 hours, Mountain Standard Time, by Thursday, May 21, 2020, and ATTENTION: Brian Hartman, Instructure Manager.
- 1.3. Questions pertaining to the RFP process should be directed to Joe Duplessie, General Manager of Utilities & Special Projects at (780) 284-3270 or jduplessie@lsac.ca.
- 1.4. The County shall not be held responsible for any verbal instructions provided over the telephone. Any changes to this RFP will be in the form of an addendum, which will be provided to all firms invited to submit a RFP.
- 1.5. The County reserves the right to reject any or all RFPs, to waive any informality or irregularity in any RFP received, and to be the sole judge of the merits of the respective RFPs received.
- 1.6. General details pertaining to the wastewater collection and transmission lines project are:
 - 1.6.1. **SUMMER VILLAGE of ROSS HAVEN**
 - 1.6.1.1. The North 43 Lagoon Commission – Gunn Regional Forcemain Project was to provide wastewater collection and transmission lines to service the SVs of Castle Island, Yellowstone, and Ross Haven; and areas in Lac Ste Anne County (Gunn area). In September of 2014, the SV of Ross Haven withdrew from the project. The County and the other SVs proceeded with the project which has now been completed and in operational.
 - 1.6.1.2. The SV of Ross Haven now wishes to proceed a collection and transmission system to complete the North 43 Lagoon System.
 - 1.6.1.3. The SV of Ross Haven has indicated that there are some 217 developed lots and 13 undeveloped (vacant) lots in the SV. It is proposed to service the

all lots in Ross Haven in the same manner as the Gunn Regional Forcemain Project.

1.6.1.4. The successful proponent will have access to review the plans and specifications prepared by OPUS for the Gunn Regional Forcemain Project and a Design Brief prepared by Opus for the project.

1.7. The successful firm will be selected on the basis of qualifications based on project understanding, ability to meet the service requirements, RPF quality and clarity, project team experience and qualification, project schedule, fees for service, and working relationship. (More details are available in section 3.3 – Proposal Evaluation Criteria).

2. SCOPE OF WORK

2.1. The work shall include:

- 2.1.1. Review of all existing facilities serving the North 43 Lagoon Commission.
- 2.1.2. Review of all existing reports and documents pertaining to the project.
- 2.1.3. Review and update the design briefing report to include two new servicing areas.
- 2.1.4. Participation and preparation for regular scheduled meetings with the Project Working Committee.
- 2.1.5. Participation and preparation for public meetings with residents of the Summer Village of Ross Haven (1 public meeting to be included in project budget).
- 2.1.6. All investigations and acquisitions of Environmental Approvals required for the project.
- 2.1.7. Updates and changes that may be required to the North 43 Lagoon Commission's Licenses from Alberta Environment and Parks.
- 2.1.8. Assist in obtaining any necessary easements, right-of-way's, land purchases, etc. that may be necessary for the project.
- 2.1.9. Preliminary Design (including updated cost estimates), Detailed Design, and Preparation of Tender Package Services.
- 2.1.10. Preparation, Issuance, Receiving, Evaluation, and Recommendation for Prequalification of Contractors.
- 2.1.11. Tender Issuance and Procurement.
- 2.1.12. Contractor Award Recommendations.
- 2.1.13. Construction Monitoring and Project Control.
- 2.1.14. Commissioning of the Project.
- 2.1.15. Coordination and delivering of As-built drawings.

3. PROPOSAL FORMAT

3.1. The firm will be selected through a Qualification-based selection process as follows:

- 3.1.1. Firms must submit a Request for Proposal (RFP) that addresses the evaluation criteria in section 3.3. Applicants are encouraged to organize their submissions in such a way as to follow the general evaluation criteria. Information included within the RFP may be used to evaluate your firm as part of any criteria regardless of where that information is found within the RFP. Information obtained from the RFP and from any other relevant source may be used in the evaluation and selection process.

3.2. Cover Letter (1-page) containing at a minimum:

- 3.2.1. A cover letter, dated and signed by an official authorized to negotiate, make commitments, and provide any clarifications with respect to the proposal on behalf of the proponent.

3.3. Proposal Evaluation Criteria

3.3.1. Project Understanding (15 points)

- 3.3.1.1. Proponents are required to detail their firm's methodology used to demonstrate understanding of scope and objective, at a minimum, all aspects as outlined in the "Scope of Work"
- 3.3.1.2. Identify and discuss any potential problems during design and construction.
- 3.3.1.3. Identify and discuss methods to mitigate those problems

3.3.2. Ability to meet the service requirements (10 points)

- 3.3.2.1. Applicant's ability to meet the requirements detailed in the RFP.
- 3.3.2.2. Complete understanding of the project deliverables.
- 3.3.2.3. Ensure key services have all been met.
- 3.3.2.4. Recommendations that were above expectations.

3.3.3. RFP Submission quality and clarity (10 points)

- 3.3.3.1. Clear and easy to follow.
- 3.3.3.2. Successfully outline all information required in the submission.
- 3.3.3.3. Free from errors and omissions.

3.3.4. Project Team Experience & Qualifications (15 points)

- 3.3.4.1. Describe each team member's position within the firm. Provide resumes of each proposed team member in Appendix A. List professional experience and continuing education.
- 3.3.4.2. Briefly describe the role of each team member as it pertains to this project.
- 3.3.4.3. Provide the experience of the "Team" working together on similar projects.
- 3.3.4.4. Identify proposed sub-contractors or sub-consultants.

3.3.5. Project Schedule (15 points)

- 3.3.5.1. Describe your firm's project management approach and team organization during pre-design, design and construction phases.
- 3.3.5.2. Describe systems used for planning, scheduling, estimating and managing design and construction services.

3.3.6. Fees for service (25 points)

- 3.3.6.1. Detailed description of fee schedule.
- 3.3.6.2. Description on how fees are applied.
- 3.3.6.3. Provide estimated hourly quantities for project completion.

3.3.7. Working Relationship (10 points)

- 3.3.7.1. Current workload and ability to proceed promptly.
- 3.3.7.2. Describe your firm's project management approach and team organization during pre-design, design and construction phases.
- 3.3.7.3. Describe systems used for planning, scheduling, estimating and managing design and construction services.
- 3.3.7.4. Describe the firm's experience on quality assurance and dispute resolution.

4. SUBMITTAL REQUIREMENTS

- 4.1. The RFP shall include a single page cover letter plus a maximum of twenty-five (25) pages to address the RFP criteria specified in Section 3.3, (excluding Resumes). Table of Contents and section divider pages do not count towards the total page count. Resumes for each key team member shall be limited to no more than two pages and shall be attached as Appendix A.
- 4.2. The Proponent shall submit One (1) electronic copy (PDF format) of the Proposal. Proposals to be sent to bhartman@lsac.ca, by 1400 hours, Mountain Standard Time, by Thursday, May 21, 2020, and ATTENTION: Brian Hartman, Instructure Manager.
- 4.3. Failure to comply with the following criteria may be grounds for disqualification:
 - 4.3.1. Receipt of submittal by the specified cut-off date and time.
 - 4.3.2. The number of originals and/or copies of the submittal specified.
 - 4.3.3. Adherence to maximum page requirements.
- 4.4. Adherence to the maximum page criteria is critical; each page side (maximum 8 1/2" x 11") with criteria information will be counted. Pages that have photos, charts and graphs will be counted towards the maximum number of pages.

5. SELECTION PROCESS AND SCHEDULE

- 5.1. A Project Evaluation Committee will evaluate each Request for Proposals (RFP) according to the above criteria, as well as past performance evaluations may be considered.
- 5.2. All proposals received will be evaluated on the information submitted to the Committee. The Committee will select the firm whose proposal most closely meets the evaluation criteria outlined in this document.
- 5.3. The Project Evaluation Committee will provide their recommendation to Lac Ste. Anne County and North 43 Lagoon Commission who will accept or reject the recommendation.
- 5.4. The following tentative schedule has been prepared for these projects:

5.4.1. RFP Closing Date:	May 21, 2020, at 1400 hours, MST
5.4.2. Potential Contract Award:	June 13, 2020
5.4.3. Project completion:	Fall/Spring – 2020 / 2021
- 5.5. The project schedule is dependent on the approval of funding from Alberta Transportation.

First of all, let me clarify, what is involved in the financing of a project and then the Operation & Maintenance of a project.

Please refer to the August 31, 2021, Project Document that was reviewed with you at the September 2, 2021, meeting of the North 43 Lagoon Commission.

CAPITAL COST RECOVERY

Any project has a Capital Cost and in the case of the Wastewater Transmission and Collection System for the Summer Village of Ross Haven (SV), the estimated Project Cost (based on the tenders received January 15, 2021) is \$3,575,532.50. We are assuming that Alberta Transportation would extend the Water for Life grant percentage of 69.22% to the project. This grant percentage NEEDS to be confirmed.

Given these 2 assumptions, this would leave \$1,100,549 as the responsibility of the SV and it is the decision of the SV as to how the \$1,100,549 is raised is up to the SV. There are several options available to the SV:

1. Utilize existing municipal reserves to pay the \$1.1M in full;
2. Borrow the \$1.1M from Alberta Finance Corporation (AFC) at an interest rate and term (5, 10, 15, 20, 25, or other number of years).
 - a. Borrowing would require Alberta Municipal Affairs approval
 - b. Yearly debenture payments would be recovered from the SV's residents in a manner decided by the SV Council
 - i. One-time yearly charge of annual taxes
 - ii. Yearly, quarterly, or monthly utility charges to the residents
3. Have the North 43 Lagoon Commission borrow the \$1.1M from AFC and the SV agree to pay to Commission the yearly debenture amount.
 - a. Raising the yearly debenture amount would be up to the SV and could be in a manner outlined above.
 - b. This is basically the same as #2 except the Commission may have an easier process for obtaining approval for borrowing. The Cost to the SV, in turn its residents, is the same.
4. Any combination of use of reserve funds and borrowing.
 - a. The example discussed in the August 31, 2021, document was SV would provide \$595,910 from reserves and borrow (SV or Commission) \$504,639
 - b. Yearly debenture cost would be \$30,951.48 and it is the decision of the SV as to the method of taxation it uses to raise this amount of funds from its residents.
 - c. An annual cost per lot is provided for information ONLY and is not meant to indicate a method of raising the required annual debenture payment.

It is up to the SV to determine the level of use of reserve funds and borrowing amount. The Commission can provide the SV with the various financial scenarios, if the SV provides an indication of the level of reserve funds allocated to the project. This then provides a level of borrowing required and in turn the amount of yearly debenture payment. SV to provide this information to the Commission.

OPERATION & MAINTENANCE COST RECOVERY

Any project, after it is built, has cost to Operate and Maintain the project. There are now 2 components to the project that need to be operated and maintained. There is the portion on PRIVATE PROPERTY (holding tank, pump, pump controls/electrical, piping/valving/back-flow prevention, service line to

property line, etc. on private property) and this is the responsibility of individual lot owner. The amount spent each year by the resident is up to the resident. Some residents will have a specific level of O&M and some residents will be less specific. It is the individual lot owner to determine the level of annual O&M. The SV and/or the Commission may provide recommendations.

The second component of Operation & Maintenance is the responsibility of the Commission for the Wastewater Collection and Transmission Lines and the Wastewater Lagoon System. Appendix D of the August 31, 2021, document provided the members of the Commission with a possible 2022 Budget for the FORCEMAIN (Wastewater Collection and Transmission Lines) and the Lagoon.

Basically, the only revenue sources for the Commission are charges to the members of the Commission. There are "Disposal Fees" collected for the Lagoon O&M, but overall, the O&M costs are allocated to the members on a pro-rated basis (lot count).

It is the responsibility of each member to determine how they raise the required assessment of O&M costs. Appendix D provides an indication of the Projected Yearly Costs and a yearly cost per lot (for information only). Appendix D also includes the Yearly Debenture Cost if \$504,638.90 was borrowed at 2.03% over 20 years. This amount can be adjusted to a level that SV decides upon.

Therefore, in summary, there are many options, and the SV needs to make some decisions as to what they believe is the level of reserve fund contribution and borrowing amount that they want to evaluate.

ENGINEERING QUESTION #6

A requirement for the selection of an Engineering Consultant is the need for Errors and Omissions Insurance (EOI) and all Consultants engaged for this project have EOI. If there are concerns with the project the Commission has the opportunity to review the situation with the Engineering Consultant and if an amicable solution cannot be found, the Commission has the option of legal action.

ENGINEERING QUESTION #7

There is no specific time period outlined in any contract with the Consultant, but this is a matter that can be decided by the courts.

ENGINEERING QUESTION #9

In the matter of a power failure the pumps in the various holding tanks will not be able to operate, unless each individual lot owner has a back-up power supply. Therefore, the amount of wastewater that can be accepted by the holding tanks is dependent on the level in the holding tank at the time of power failure and the duration of the power failure. Each homeowner should do a Risk Assessment at the time of the power failure; check level in holding tank, minimize wastewater generation, etc. It should be noted that if there is a power failure in the area, this will also stop a water pump from pumping water and generation of wastewater.

O&M RESPONSIBILITY

As stated above, the homeowner is responsible for all assets located on Private Property. The North 43 Lagoon Commission will O&M all assets located in municipal road allowances, easements obtained for the work, and lands owned by the Commission.

FREEZING

All service lines, collections lines, and transmission lines are recommended to be installed below the frost line in the area. In cases where lines need to be installed in the frost area, these lines should be protected from freezing.

WINTER PUMP DOWN

The homeowner should undertake a Risk Assessment and undertake whatever activities they are confident with. Some homeowners have not taken any specific actions; some of just used the pump in the holding tank and pumped down to the lowest level. Each installation and each homeowner are unique and there is no hard and fast rule.

NORTH 43 LAGOON COMMISSION

GUNN REGIONAL SANITARY FORCEMAIN PROJECT

- 1 Original application to Alberta Transportation for financial assistance under Water for Life (W4L) was made in November 2007. Estimated cost was \$4,970,406.
- 2 See Attachment A for the Pros/Cons of Low Pressure Sewer System vs. Gravity Sewer System.
- 3 The application was amended to advise AT of the wastewater collection system costs which would be included in the Project.

Transmission System	\$	4,970,406
Collection System	\$	<u>2,599,594</u>
TOTAL	\$	7,570,000

- 4 In June 2011, Commission received AT Ministerial Approval for W4L grant of 90% of the estimated eligible costs (Transmission System only), or up to \$4,473,365 for the project. Members of North 43 Lagoon Commission responsible for Collection System.
- 5 Project proceeded through Preliminary Design and Detailed Design in the next 3 years.
- 6 Public meetings with residents from Lac Ste. Anne County (Gunn area), Summer Village of Castle Island, Summer Village of Yellowstone, and Summer Village of Ross Haven were held early in July of 2014.
- 7 In a letter dated July 11, 2014 the Mayor of SV of Ross Haven that "they can longer support the system as it is currently proposed".
 - a Cost of hook-up is too high
 - b Cost of operation is too high
 - c Possibility of freeze up of the pumping systems during winter months exists
 - d Lack of pumping solids is a negative
- 8 Commission re-evaluated the situation during the next year.
 - a Evaluated the possibility of the remaining members on proceeding.
 - b Completed Preliminary Design Report.
 - c Issued a RFP for Detailed Design and Construction Services
 - d Identified an environmental contamination concern in the vicinity of Gunn Store.

- 9 In a letter dated August 27, 2015, and meeting of August 28, 2015 the Commission reported to AT the status of the Project and submitted a Revised Cost Estimate (without Ross Haven) and a proposal to undertake the project on a "blended" grant percentage.
- 10 In a letter dated October 1, 2015 AT revised the funding percentage for the project to 69.22% as per the Commission's request of a "blended" grant percentage. The Total Amount of grant would be \$4,473,365.
- 11 Detailed Design proceeded and the Project was tendered in April, 2016. Construction started in May, 2016.
- 12 Majority of construction for the project was completed in 2017 and 2018. Additional work was identified south of SV of Castle Island and this work was completed in 2019.
- | | | |
|-----------------------------|-----------|-----------|
| Project Cost to end of 2019 | \$ | 5,696,321 |
| W4L Grant | 69.22% \$ | 3,942,993 |
- 13 In a letter dated December 18, 2018 the SV of Ross haven requested the Commission to undertake discussions with AT on the necessary funding for the evaluation of SV of Ross Haven being served by the North 43 Wastewater Transmission and Collection System.
- 14 In various letters, telephones discussions, emails, and meetings the Commission kept AT informed on the Progress of the evaluation of the Ross Haven. It was decided that the Commission would proceed to obtain firm prices (tender the project) for the Ross Haven before applying to AT for final financial assistance needs. This was confirmed in an AT letter dated September 30, 2020.
- 15 Detailed design was completed, virtual public meeting was held on November 16, 2020, and tenders closed on January 15, 2021.
- 16 The low bid was higher than the Engineer's estimate and the Financial Summary Comparison was prepared but due to the lack of SV of Ross Haven representation, this Summary was not presented to anybody.
- | | | |
|----------------------|-----------|-----------|
| Project Capital Cost | \$ | 3,575,533 |
| Possible W4L Grant | 69.22% \$ | 2,474,984 |
| SV of Ross Haven | \$ | 1,100,549 |
- 17 February 9, 2021 all tenders for the Project were cancelled and the Contractors were informed as such.
- 18 Project cost spent to April 30, 2021 are shown in Attachment B.
- 19 The Capital Cost Financial Summary, based on the Low Bid and the successful receipt of a 69.22% W4L Grant is shown in Attachment C. Other assumptions are that SV of Ross Haven would contribute \$595,910 in cash and be responsible for the borrowing cost on \$504,639.

20 Attachment D provides a Proposed 2022 Operating Budget for the North 43 Lagoon Commission. Based on the assumptions made in the preparation of the 2022 Budget the Equivalent Annual Cost per lot is shown for each member.

NORTH 43 LAGOON COMMISSION

WASTEWATER SYSTEM COMPARISON

LOW PRESSURE WASTEWATER SYTEM

- 1 Uses small-diameter service lines and force mains
- 2 Cost Estimate is \$3,575, 532 for Project
- 3 Potentail of 69.22% Water for Life Grant
- 4 Uses lightweight pumps, 30 lbs., 115 VAC, 10 gpm, 250 ft head
- 5 Easier to install when other utility conflicts occur
- 6 Can be installed at depths below freezing using directional drill method
- 7 Does require specific elevation control relative to existing ground profile
- 8 Watetight collection system largely immune to Infiltration/Inflow
- 9 Does not require lift stations
- 10 Less effect on the Lagoon System due to reduced volume (no I/I)
- 11 Requires on-property tankage.
- 12 Existing on-property tankage can be utilized
- 13 Cost of on-property requirements(pump, controls, piping) varies \$5,000 to \$10,000
- 14 Home Owner responsible for pump power costs and maintenance.
- 15 Tankage requires sludge clean-out once every 3 - 5 years.

GRAVITY WASTEWATER SYSTEM

- 1 Requires 100 mm service lines and 200 mm main lines
- 2 Requires 1 or 2 Lift Stations
- 3 Over Projcet Cost may be in the order of \$6M to \$9M.
- 4 Majority of the Project may NOT be eligible for W4L Grant
- 5 No on-property power costs.
- 6 Main lines installed at grade creating utility conflicts and major road repairs.
- 7 Overall collection system is subject to I/I.
- 8 Increased wastewaters flows to Lagoon System.
- 9 Increase O&M Costs for the North 43 Lagoon Commission
- 10 Cost of On-property connections are lower \$2,000 ro \$3,000

NORTH 43 LAGOON COMMISSION

SPENT TO APRIL 30, 2021

SUMMER VILLAGE of ROSS HAVEN TRANSMISSION & COLLECTION SYSTEM

Description	Budget		Spent to Date 04/30/2021
Construction			
Low Bid		\$ 2,959,575.00	\$ -
Engineering (as per proposal)			
Proposal	\$ 244,929.12	\$ 270,000.00	\$ 167,324.27
Engineering Contingency	\$ 14,463.66		
ECO No. 1 Legal Survey	\$ 8,765.00		\$ -
ECO No. 2 Addt. Printing Open House	\$ 1,842.22		\$ -
Project Management Services		\$ 50,000.00	\$ 37,183.31
Commission Costs		\$ 15,000.00	
Ross Haven Legal			\$ 2,125.60
Ross Haven Legal			\$ 5,396.40
Contingency (10% of Low Bid Price)		\$ 280,957.50	\$ -
TOTAL		\$ 3,575,532.50	\$ 212,029.58
		Less W4L Grant at 69.22%	-\$ 146,766.88
		Summer Village of Ross Haven Portion	\$ 65,262.70

SUMMER VILLAGE of ROSS HAVEN EXTENSION**FINANCIAL SUMMARY**

ITEM		COST
PROJECT CAPITAL COST		\$ 3,575,533
WATER for LIFE GRANT	69.22%	\$ 2,474,984
SUMMER VILLAGE of ROSS HAVEN RESPONSIBILITY		\$ 1,100,549
SUMMER VILLAGE of ROSS HAVEN CASH CONTRIBUION		\$ 595,910
SUMMER VILLAGE of ROSS HAVEN BORROWING at 1.88% OVER 20 YEARS		\$ 504,639
ANNUAL BORROWING REPAYMENT		\$30,951.48
TOTAL ANNUAL COST PER LOT PER LOT		\$ 134.57

**COSTS DO NOT INCLUDE INSPECTION FEES OR ON-SITE
INSTALLATION COSTS**

NORTH 43 LAGOON COMMISSION PROPOSED 2022 OPERATING BUDGET

REVENUE FORECMAIN

CODE	DESCRIPTION	PROPOSED 2022 BUDGET
1-551-20	Interest Earned on Account	-\$3,500
1-560-20	Leases	-\$6,000
1-350-20	Municipality Cost Share	-\$142,578
		<u>-\$152,078</u>

EXPENSES

2-234-20	Audit Fees	\$2,250
2-232-20	Legal Fees	\$1,000
2-210-20	Mileage/Expenses	\$750
2-110-20	Contracted Management Fees	\$11,455
2-250-20	General Maintenance/Repairs/MSC	\$9,546
2-191-20	Honorariums/Expenses	\$3,182
2-520-20	Materials/Supplies	\$1,273
2-274-20	Insurance/Leases	\$955
2-763-20	Transfers to Capital Reserves	\$106,667
2-766-20	Transfers to Repair/Maintenance Reserve	\$15,000
2-710-20	Amortization of Capital Assets	\$100,000
		\$252,078

NET FORECMAIN OPERTIONAL COSTS: \$100,000

SUMMARY:

TOTAL OPERATING	\$100,000
LESS DEPRECIATION ON CAPITAL ASSETS	-\$100,000
NET CASH FLOW (SURPLUS)/DEFICIT	\$0

REVENUE LAGOON

CODE	DESCRIPTION	PROPOSED 2022 BUDGET	PERCENTAGE INCREASE	0%
1-410-00	Disposal Fees	-\$25,000		
1-551-00	Interest Earned on Account	-\$3,500		
1-510-00	Accounts Receivable Penalties	-\$200		
1-560-00	Leases	-\$6,000		
1-350-00	Municipality Cost Share	-\$74,863		
1-920-00	Transfers from Reserves	\$0		
		<u>-\$109,563</u>		

EXPENSES

2-234-00	Audit Fees	\$2,250	\$2,250	\$2,250
2-232-00	Legal Fees	\$1,000	\$1,000	\$1,000
2-210-00	Mileage/Expenses	\$250	\$750	\$250
2-110-00	Contracted Management Fees	\$18,000	\$11,455	\$18,000
2-250-00	General Maintenance/Repairs/MSC	\$10,000	\$9,546	\$10,000
2-191-00	Honorariums/Expenses	\$1,818	\$3,182	\$1,818
2-520-00	Materials/Supplies	\$3,500	\$1,273	\$3,500
2-540-00	Telephone and Power	\$4,700	\$955	\$4,700
2-236-00	Lagoon Samples	\$2,500	\$106,667	\$2,500
2-255-00	Lagoon Inspections	\$3,000	\$15,000	\$3,000
2-274-00	Insurance/Leases	\$545	\$100,000	\$545
2-237-00	Survey	\$0	\$252,078	\$0
2-235-00	Groundwater Monitoring	\$2,000		\$2,000
2-763-00	Transfers to Capital Reserves	\$35,000		\$35,000
2-766-00	Transfers to Repair/Maintenance Reserve	\$25,000		\$25,000
2-710-00	Amortization of Capital Assets	\$40,000		\$40,000
		<u>\$149,563</u>		<u>\$149,563</u>

NET LAGOON OPERTIONAL COSTS: \$40,000

SUMMARY:

TOTAL OPERATING	\$40,000
LESS DEPRECIATION ON CAPITAL ASSETS	-\$40,000
NET CASH FLOW (SURPLUS)/DEFICIT	\$0

FORCEMAIN

PARTICIPATING MUNICIPALITY COST SHARE

				-\$142,578	
	PARCELS	PERCENT		2022 BUDGET	
ROSS HAVEN	230		31.81%	\$45,356.66	\$ 197.20 per lot
YELLOWSTONE	169		23.37%	\$33,327.28	\$ 197.20 per lot
CASTLE ISLAND	19		2.63%	\$3,746.85	\$ 197.20 per lot
LAC STE ANNE COUNTY	305		42.19%	\$60,146.87	\$ 197.20 per lot
	<u>723</u>			<u>\$142,577.67</u>	

LAGOON

PARTICIPATING MUNICIPALITY COST SHARE

				-\$74,863	
	PARCELS	PERCENT		2022 BUDGET	
ROSS HAVEN	230		31.81%	\$23,815.34	\$ 103.54 per lot
YELLOWSTONE	169		23.37%	\$17,499.10	\$ 103.54 per lot
CASTLE ISLAND	19		2.63%	\$1,967.35	\$ 103.54 per lot
LAC STE ANNE COUNTY	305		42.19%	\$31,581.21	\$ 103.54 per lot
	<u>723</u>			<u>\$74,863.00</u>	

COMBINED FORCEMAIN and LAGOON

PARTICIPATING MUNICIPALITY COST SHARE

				-\$217,441	
	PARCELS	PERCENT		2022 BUDGET	
ROSS HAVEN	230		31.81%	\$69,172	\$ 300.75 per lot
YELLOWSTONE	169		23.37%	\$50,826	\$ 300.75 per lot
CASTLE ISLAND	19		2.63%	\$5,714	\$ 300.75 per lot
LAC STE ANNE COUNTY	305		42.19%	\$91,728	\$ 300.75 per lot
	<u>723</u>			<u>\$217,440.67</u>	

SV of ROSS HAVEN BORROWING

	Principal	Rate	Term	Annual Payment	Parcels	
Debenture	\$ 504,638.90	2.03%	20 year	\$30,951.48	230	\$ 134.57 per lot

COMBINED FORCEMAIN, LAGOON, and DEBENTURE COSTS

PARTICIPATING MUNICIPALITY COST SHARE

	PARCELS		2022 BUDGET	
ROSS HAVEN	230		\$100,123	\$ 435.32 per lot
YELLOWSTONE	169		\$50,826	\$ 300.75 per lot
CASTLE ISLAND	19		\$5,714	\$ 300.75 per lot
LAC STE ANNE COUNTY	305		\$91,728	\$ 300.75 per lot
	<u>723</u>		<u>\$248,392.15</u>	