Sewer Treatment Property Purchase Referendum Frequently Asked Questions

Last Updated: November 23, 2017

In order to take the next step in planning sewer treatment infrastructure for the municipality, Council is proposing the purchase of District Lot 18, located at 4603 Martynuik Road. This approximately 78 acre property would become the site of a sewer treatment plant capable of covering the majority of the municipality, including Skidegate Landing. The size of the property also opens the possibility of addressing some of our housing issues as lots could be subdivided and sold to individuals or developers. All background information and Council staff reports pertaining to this Referendum have been posted on the Village website at:

www.QueenCharlotte.ca

The goal of the Village's public outreach for the Sewer Treatment Property Purchase Referendum is to have a high voter turnout where residents will make an informed decision based on accurate, unbiased information. This handout provides answers to common questions and will be updated from time to time and noted in red. If you have questions not covered in these FAQs, please send them to office@queencharlotte.ca and we will respond as soon as possible.

Q1 Why are we holding a Referendum?

A. The proposed property purchase would be financed through the Municipal Financing Authority (MFA). In order to borrow the funds Council needs electoral assent through a Referendum as per Section 85 of the *Community Charter*. Council will also need approval of the Inspector of Municipalities for the Loan Authorization Bylaw, and approval of the North Coast Regional District (NCRD) as borrowing from the MFA impacts the borrowing power of all of the communities within the RD. Approval of the NCRD will come after the Referendum, if it passes.

Q2 When will the Referendum be held and what percentage of the vote is needed for it to pass?

A. The Referendum will be held on **February 24, 2018**. If a majority of voting eligible voters vote in favor, the referendum is passed.

Q3 What will the Referendum Question be? (added Nov 15/17)

A. Should the Village of Queen Charlotte borrow $625,000 to purchase PID: 009-020-047, located at 4603 Martynuik Road, Queen Charlotte BC, for the purpose of building a sewer treatment facility?

Q4 Who is eligible to vote in the Referendum?

A. You are eligible to vote in the Referendum if you are:

1. 18 years of age or older on general voting day for the referendum; and
2. A Canadian citizen; and
3. A resident of BC for at least 6 months immediately before the day of registration; and
4. A resident of the Village of Queen Charlotte for at least 30 days immediately before the day of registration; and
5. Not disqualified under the *Local Government Act* or any other enactment from voting in an election or assent voting and not otherwise disqualified by law.

NON-RESIDENT PROPERTY ELECTORS:

- Same as 1, 2, 3 and 5 above, and

- A registered owner of real property in the Village of Queen Charlotte for at least 30 days immediately before the day of registration; and
- Are not entitled to register as a resident elector; and
- If there is more than one registered owner of the property, only one of those individuals may, with the written consent of the majority of the owners, register as a non-resident property elector.

Q5 How/when can I register to Vote?

A. Eligible voters can register as an elector at the time of voting by completing an application and bringing identification that confirms the applicant's identity and location of residence. Eligible voters can also register in advance at the Village Office any time before **January 2, 2018**.

Q6 Will there be an opportunity for advance voting?

A. Advance voting will be available at the Village Office during office hours of 8:00 am to 8:00 pm on **February 14, 2018**.

Q7 How can non-resident property owners participate?

A. Non-resident property owners have to be present in the community on the advance voting day or on the date of the Referendum to vote as we do not accept mail in ballots.

Q8 What opportunities will I have to talk to the Village and have my concerns heard and questions answered?

A. The Village is planning a number of opportunities for residents to learn about the property purchase proposal and be as informed as possible when they make this decision. Information about public events will be posted on the Village Facebook Page, distributed in posters around town, highlighted in the Village Voice newsletter, and listed in the Haida Gwaii Observer and the Haida Gwaii Trader and will include:

- Coffee Chats at Queen B's
- Open House at Oceanview Restaurant
- Targeted Information Sessions for large employers or specific groups (i.e. Senior's Centre, FLNRO, Northern Health, School District 50, etc)
- Rotating Information Kiosks which will move around the community and share information on the Referendum
- Council Q&As

In addition, the CAO and Superintendent of Public Works will be meeting one-on-one with direct neighbors of the properties and posting all background information to the Village website at www.QueenCharlotte.ca.

Q9 Are there any potential conflicts of interest for Mayor, Council or staff? *(updated Oct 11/17)*

A.

Conflict of Interest	Conflict Management
The Chief Administrative Officer's (CAO) personal residence is located beside the property adjacent to the Helipad/Boat Launch property which has been identified as one of the properties the Village could sell to help offset the debt servicing costs.	If Council decides to sell the property, the sale will be managed by the Chief Financial Officer and the Superintendent of Public Works. The CAO will not be involved in any discussions or meetings related to the sale. To date, during Council's confidential discussion of this proposal the CAO has declared her conflict and stepped out of the discussions about this property. This is recorded in the minutes of the meetings.

Q10 How much will it cost to purchase the property?

A. The negotiated purchase price of the property is **$625,000**. Closing costs will be approximately $32,071.58 of which **$31,250.00** is GST and will be reimbursed, the remaining **$821.58** relate to Land Title registration and legal fees. The municipality is exempt from the Property Transfer Tax. Other costs include approximately **$3,000** for our public outreach campaign and approximately **$10,000** for the Referendum. The registration, legal fees and other costs will be paid for out of the Village surplus.

Q11 How does the price of District Lot 18 compare to other recent sales?

A.

Property	Type	Sq Feet	Sale Price	Cost per Sq Ft
DL 18	House/78 acres bare land	339680	$625,000	$1.84
Lot 20, Block 8, DL 16A	Bare land/double lot	24000	$85,000	$3.54
Parcel B, Block 11, DL 15	Bare land	12000	$95,000	$7.92
Parcel A, Block 2, DL 15	House/double lot	12000	$256,500	$21.38
Lot 9, Block 5, DL 16A	House/double lot	12000	$300,000	$25.00

Q12 Can the Village do anything to reduce the cost of borrowing?

A. The Village is looking into the possibility of selling our Kagan Bay property (with the condition that public access to the beach be maintained), and subdividing off and selling the property beside the Helipad/Boat Launch facility. Once the properties sell, the sale proceeds would be placed in an interest earning account and be used to pay down the borrowed principal as per the terms of financing. If the referendum passes, it is anticipated that the Village will be able to subdivide portions of District Lot 18 and sell the lots to developers and/or individuals. This would happen over time, with all sales going towards paying off the principal of the property purchase loan as per the terms of financing, and any interim interest helping with the annual debt financing costs. Once sewer (and possibly water services) are installed and connected, the lots will increase substantially in value, so the highest value lots could be sold off last.

Q13 What are the terms of the financing (i.e. interest rate, borrowing and repayment)?

(updated Nov 21/17)

A. The final interest rate will be set by the Municipal Finance Authority (MFA) once the results of the Referendum are in, but it is anticipated to be in the range of **3.5%** with an actuarial rate of **3%**. The maximum term for borrowing is a 30 year term. Each new long term loan (25 or 30 years) is locked in for a 10 year term with the current interest rates. After the first 10 years the lending rate will be reset starting in year 11 and every 5 years after that with the new current lending rates until the loan is repaid. Interest will be paid twice a year. Principal will be paid once a year commencing one year after the funds have been received. Members wishing to repay their loan early may do so at any of the stated rate reset dates after the first 10 years. Members wishing to payout must provide advance notice to the MFA. One of the benefits of accessing financing through the MFA is the actuarial rate noted above. The actuarial rate can change over time, but if interest rates go up the actuarial rate will also rise. Each time the municipality makes a principal payment, the MFA 'holds back' 1% which is then invested. The actuarial reflects the interest the MFA earns on the **1%** holdback, and the holdback is returned with interest once the loan is fully repaid. This means that **1%** of the **$625,000**, or **$6,250** plus interest, is deducted from the final amount owing at the end of the loan.

Q14 How much will it cost to service the debt each year of the loan?

A. For the purpose of the property purchase loan of **$625,000** amortized over **30 years**, the annual debt servicing costs are anticipated to be **$35,012.04** at an interest rate of **3.5%**. This will be offset as properties sell and we use the interest earned to reduce the debt servicing further. The goal is to accumulate funds through these property sales to substantively pay down the principal at the 11 year rate reset date.

Q15 Will purchasing this property increase the property taxes I have to pay?

A. Yes. There were two options that Council considered for debt financing, and Option 2 was selected as it was felt to distribute the debt financing more equitably across the municipality.

1. The first option considered was to increase the Sewer Frontage on properties connected to the existing sewer system. The Sewer Frontage rates have not been increased since incorporation and currently are set at **$1.16** per taxable meter. There are 9,017 meters, which provides a total annual Frontage of **$10,460**.

   This money is used for annual operating and maintenance costs. To finance this property purchase, the rates would need to be increased to **$5.04** per taxable meter to bring the collected annual Frontage to **$45,472.04**. Under this option, only the current sewer users would pay the debt financing costs until the point at which the sewer treatment plant is completed and the rest of the municipality is hooked up and paying Frontage.

2. The second option was to increase taxes overall in the municipality so that all property owners would share the debt servicing costs. For a residential property valued at **$100,000**, this would equate to a **$29.75** annual increase in taxes beginning in 2018. For a business property, the annual increase would be **$67.71** per **$90,000** in assessed value as businesses receive a **$10,000** exemption.

Once some properties sell, the proceeds will be placed into an interest bearing account and the annual interest will be used to reduce the debt servicing further. The goal is to accumulate funds through these property sales to substantively pay down the principal at the 11 year rate reset date.

Q16 Why do we need a sewer treatment system?

A. In 2009, an Inspector's Direction under the *Fisheries Act* was issued by Environment Canada pursuant to subsection 38(6) of the Federal *Fisheries Act*. The Direction required the Village to submit a report that outlined a strategy for treatment and disposal of the Village's sewage as untreated sewage is considered a substance that is harmful to fish. The Village completed the requirements and submits monthly testing of sewage to the Federal government. We currently have until 2020 to take significant action towards sewer treatment, however we are awaiting a decision that may move that date to 2040. Regardless of the outcome of that decision, if we do not make progress towards a sewer treatment system the Village could face fines and/or other legal consequences.

Q17 What type of sewage system is currently in place?

A. The Village sewage system was constructed in 1984, with only minor extensions since that date. It comprises a series of 150 mm to 250 mm gravity-fed sewer lines that drain to five pumping stations. Each pumping station conveys sewage to the next station terminating at Pump Station No. 5 just east of Smith Point. Pump Station No. 5 (the outfall pump station) includes a comminutor (which reduces the particle size of wastewater solids through a grinding process) and the sewage is pumped through a 1200 m long 200 mm outfall into Bearskin Bay. The outfall terminates at a depth of 20 m below low water. The outfall was dive inspected in 2012 and was found to be in good condition. The Village's sewage discharge is authorized under Ministry of Environment Permit No. 6427. The system has 403 residential and commercial service connections and does not provide sewer service to about half of the municipality. The remainder of the municipality relies on septic tanks or composting toilets. A diagram of the current sewer system coverage area can be found below.

Q18 What is the lifespan of the current sewer system?

A. The current sewer system is 33 years old this year. The Village will be applying for a grant to conduct an Asset Management study similar to the one that was completed in 2016 for our Road Network. The Asset Management study will provide data on our system and highlight any areas of immediate concern, as well as projecting a lifespan for all of the components of the system. This study will be especially important as we move forward with plans for a sewer treatment plant as it will identify the anticipated replacement schedule and inform our maintenance planning. There are many factors to consider as each separate component of the system has an independent 'life cycle' such as the holding tanks, the pipes, or the mechanical components of the lift stations.

Q19 What are the operating and maintenance costs of the current sewer system?

A. Annual operating and maintenance costs of the sewer system have been an average of **$133,264** per year over the last 5 years. This includes staff wages and training as we are required to maintain certifications but does not include administration or reserves. The annual costs are covered by a combination of Sewer Frontage and User Fees. The sewer system requires daily maintenance and inspection of our 5 pumping stations, monthly, quarterly, bi-annual and annual equipment maintenance and part replacement. We do a Hydraulic Flush of the sewer mains every 5 to 7 years which is one of the most expensive maintenance items (last completed in 2015 at a cost of **$24,780**), but is also one of the most cost effective as it can identify problems and helps keep the whole system running smoothly.

Q20 Does the Village have any Sewer Reserves and can they be used to buy the property?

A. The Village has been accumulating by-lawed Sewer Reserves since incorporation and they currently sit at approximately **$257,770**. The reserves are established to ensure that the municipality has the funds to deal with emergency situations or failures in the system. The current reserves should be sufficient to deal with the total failure of a pumping station, but may not fully cover the costs of replacement if that were necessary. It is not recommended to utilize these reserves for the property purchase as that would leave the community in a very difficult situation if there were a system failure that required a significant replacement or repair. Even without a system failure, the reserves are in place to prudently plan for replacement costs of various sewer system components.

Q21 Our population has been shrinking. Why are we planning for a sewer system that can support 2,000 residents? *(updated Nov 21/17 – correct to reflect study information)*

A. Planning in the municipal context deals with land use, social and community services, housing, cultural and heritage resources, economic development, finance, environment, transportation and infrastructure. It is vital to the sustainability of communities that when municipal governments provide sewer collection/treatment and other infrastructure, doing so does not compromise future generations. This is accomplished by addressing environmental, economic and social dimensions.

As the purchase of District Lot 18 opens up the possibility of increasing residential land available for development, we need to plan for a corresponding growth in population. The feasibility studies completed by Opus Dayton and Knight in 2010 and 2013 were based on a 30-year design for a population of 2,000 to allow for growth, which is a common approach to infrastructure planning. Planning for a population of 2,000 is still considered to be adequate to provide for the anticipated growth development of this property may bring given our current population of 852 (2016 Census). The final decision on planned population size will be made when the STP planning is completed.

Q22 Has the Village done any feasibility studies to support purchasing a property for sewer treatment?

A. In 2010, the Village completed a Sewage Treatment and Disposal Feasibility Study, and in 2013 another study was conducted regarding a Village/Skidegate Band Joint Sewage Treatment Concept Design Study. At the time of the studies, Skidegate West and Skidegate East were both considered to best meet the siting criteria.

Q23 What are the criteria that the Studies used for identifying a treatment plant location?

A. The ideal treatment plant siting criteria were identified as:

- Isolated from residential development and public use areas, ideally within industrial or agricultural zoned land
- A minimum of 0.11 ha (0.27 acres) and up to 0.86 ha (2.13 acres) for a 'small footprint' type of treatment plant for a population of up to 3,000
- A minimum of 6.0 ha (14 acres) for a long detention treatment such as aerated lagoons for a population of up to 3,000
- Near sea level to minimize pumping
- Located in an area that provides good integration of the effluent into the seawater mass
- Location of outfall must minimize impacts on fisheries resources and recreational use of water
- Location of treatment plant should consider the potential for odor and noise nuisance
- Must not impact archaeological sites

Q24 What locations were considered for sewer treatment in the Studies? *(updated Nov 21/17)*

A. There were 5 potential locations that were reviewed in the studies. The estimates are shown below and are for plant construction only. They do not include ongoing operations and maintenance, connecting the existing system, or hook-ups to the new system. Locations 3 and 4 met the majority of the ideal plant siting criteria.

Option	Study Estimate	% Added to Study $*	2017 Estimate	Does the Village own property in this area?
1. Smith Point Area	$5,699,000	20%	$6,838,800	No
2. Central Area	$6,305,000	20%	$7,566,000	Helipad/Boat Launch
3. Skidegate Landing West	$7,158,000	20%	$8,589,600	No
4. Skidegate Landing East	$7,803,000	20%	$9,363,600	No
5. Village/Skidegate Joint Sewage	$11,800,000	12%	$13,216,000	n/a

*added 20% to 2010 Study estimates 1 to 4, and 12% to 2013 Study estimate 5 to account for years of inflation

Q25 Were any other properties considered, and if so, why were they not selected?

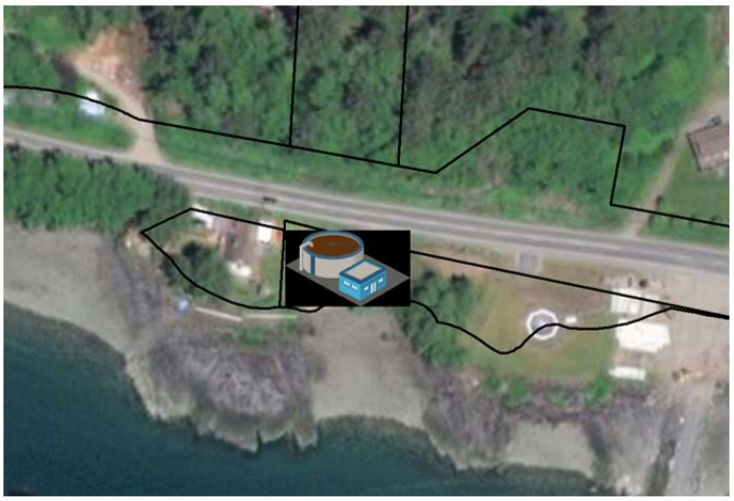
A. In total, three properties were considered in detail through the July 17, 2017 Sewer Treatment Property Update staff report to Council which can be found on the Village website at www.QueenCharlotte.ca. The first was the Helipad/Boat Launch Facility (see FAQ below), the second was District Lot 18 (the subject of the Referendum) and the third was a 47.78 acre lot immediately to the East of District Lot 18. The 47.78 acre parcel is situated on the upland side of Oceanview Drive and does not have any foreshore that could be used for an outfall so another ocean front location would need to be identified. The asking price was between **$600,000** and **$650,000**, and there is currently no road access although there is an undeveloped road right-of-way that could be used.

There were several similarities between District Lot 18 and this property, and both require additional surveying and engineering to fully develop plans for the best use of the land for Village purposes. Both properties have additional potential to open up new fee simple property for residential or other development. Both properties also have trees that would have value when harvested, and rock that might be suitable for road building purposes. As this 47.78 acre property is significantly smaller, and had a similar price point, Council decided to move forward with District Lot 18 as it has three potential outfall locations and the size of the property will allow the most flexibility in sewer treatment type and potential for cost recovery by selling off subdivided parcels.

Q26 Why don't we just use the Helipad/Boat Launch property?

A. The Helipad/Boat Launch property has approximately 0.22 acres of useable space and is owned by the Village of Queen Charlotte. The property has been consolidated with the Helipad/Boat Launch property to the East.

Immediately to the West of the property is a residential property that is used as a home based business bed and breakfast accommodation. The property is sloped towards the ocean and treed along the South East edge. There is a rocky beach on the foreshore. According to the 2010 Sewage Treatment and Disposal Feasibility Study written by Dayton and Knight, the smallest size of sewer treatment facility for a population of 3,000 would require approximately 0.11 ha (0.27 acres) without any buffer for adjacent properties, or 0.86 ha (2.13 acres) with a minimum buffer. As this property is only 0.22 acres, even the smallest sewer treatment facility without any buffer for adjacent properties would be too large to accommodate within the useable space. The additional challenges of the sloping lot, potential impact to the neighboring property values, and visual impact along the scenic highway would make this the most challenging location for a sewer treatment facility. To give a sense of the proportions, below is a diagram showing the property with the footprint of the smallest size (0.11 ha / 0.27 acres) sewer treatment plant.



Q27 How does District Lot 18 compare to the ideal siting criteria?

A. This property addresses all of the ideal treatment plant siting criteria, except for being near sea level, however, there is potential to use the gravity feed at the outfall for power generation which could offset the power required for pumping up the hill. In addition, this property could assist the Village with addressing our housing challenges (and offset the land purchase costs) through future subdivision and sales. Council could choose to zone the parcels specifically for conservation style subdivisions only, which could include tiny homes or cooperative housing, preserving the natural features for the enjoyment of the residents. The property includes three separate oceanfront sections that could be used for an outfall, or sold to recover purchase costs.

Q28 What are the pros and cons of purchasing District Lot 18?

A.

Pros	Cons
• The property is the largest fee simple property in the municipality and this would give the citizens more control over how it is developed • The location would allow coverage for the majority of the municipality as the developments in Skidegate Landing could be gravity fed back towards the property • The location meets the requirements laid out in the 2010 Dayton and Knight Sewer Treatment study	• The purchase would add additional costs to taxpayers • Potential to find Archeological features (none pre-identified) • Village would need to bring Eagle Hill Road up to an appropriate standard for the Village to take over operations and maintenance, which will also require a budget
• The property has three ocean side locations that could potentially be utilized for an outfall which would minimize impacts on fisheries resources and recreational use of water • Once serviced, the remainder of the property could be subdivided and sold at different stages to help offset the costs of the land purchase and to assist with opening up new fee simple property for residential and other purposes • Developers could be charged latecomer fees to recover upfront Village infrastructure costs (i.e. road building) • Environmental damage to Skidegate Inlet would be reduced and/or mitigated • The future sewer treatment plant will be protected from sea level rise as a result of climate change • The Village would be in compliance with Federal requirements for making progress on sewage treatment • The lot is large enough that sewer treatment could be isolated from any residential developments and public use areas through subdividing it and zoning the portion to be used for sewer treatment as “industrial” • The property allows the most flexibility for developing a sewer treatment facility that will meet the community needs in the future as the lot is large enough to accommodate either a small footprint facility (0.27 acres to 2.13 acres) or a long detention treatment option such as an aerated lagoon (14 acres)While the location would likely require the sewage to be pumped up the hillside, the outfall would be gravity fed and could be configured to include secondary power generation • The existing outfall could revert to an emergency overflow for Pump Station No. 5	• The subdivision/housing opportunities will take a few years before they are realized • We could build the treatment facility too big and never fully utilize it • We could have difficulty selling the subdivided parcels or we might not get our asking price • Direct neighbors may have concerns about having a sewer treatment plant adjacent to their properties • The overall costs of developing this property, building a sewer treatment plant, and expanding our water system might be beyond the communities ability to pay • Once the Village purchases the property the municipality will lose those property taxes until new subdivisions are created and sold

Q29 How would building a sewer treatment plant impact the neighboring properties?

A. One of the concerns with this location would be the potential impact on the current residential neighbors. Given the size of the property, siting and zoning of the treatment plant could take that into consideration and a large buffer zone can be planned. As well, the Village would take over and maintain Eagle Hill Road, which would benefit all neighboring residents who currently pay to maintain it. Eventually, it would be upgraded to a 2-lane paved surface as they are more durable and easier to maintain (i.e. lower ongoing operating and maintenance costs). Development of additional subdivisions are expected to increase traffic on Eagle Hill Road which could be seen as a negative outcome for current residents.

Q30 How much will the sewer treatment system cost?

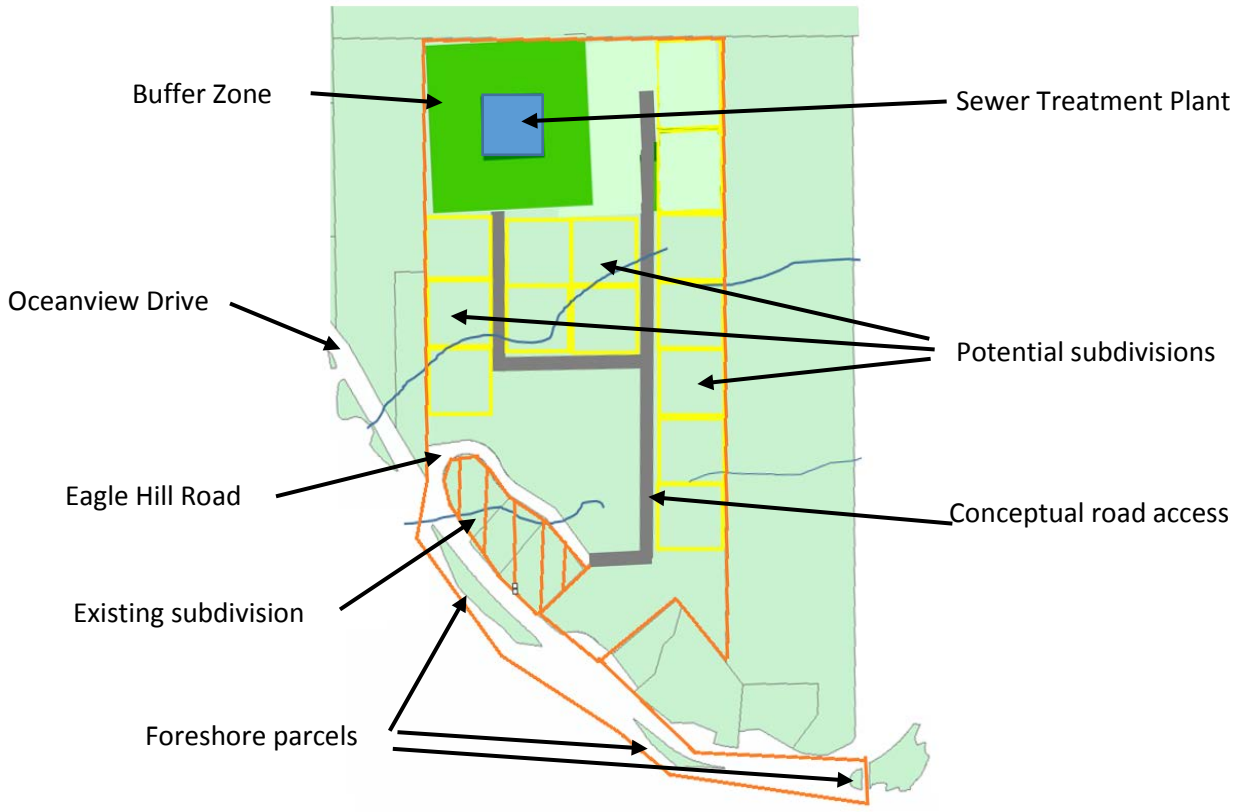
A. Purchasing the property is the first step as the Village cannot expend funds to develop plans until a location is identified. The process for selecting the type of sewer treatment system will require public consultation and costs will be dependent upon the system that is selected. The full costs of the system will include the cost of running lines, pump stations, and development of the outfall. The costs for individual properties to connect to the system once it is installed and operational will be the responsibility of each property owner.

Q31 What will the development costs be?

A. The full development costs cannot be determined until the property is purchased and additional work is done to survey the parcel in detail, select a type of sewer treatment, and complete the required engineering. The best approach to subdivision of the property will be determined once the property is purchased and the Village can secure grant funding to develop a plan. Public input will also be a part of this process.

Q32 Is there a conceptual design for how the property will be laid out?

A. The initial concept is to have the sewer treatment plant located in the farthest corner of the property to isolate it as much as possible from residential subdivisions. A large buffer zone would surround the plant and developable parcels would be surveyed off the main access road. The foreshore parcels would be assessed for use as an outfall location, and if possible, subdivided and sold. More work will need to be done to survey the property and develop a plan for the best use of the land, and the layout of roads and property parcels.



Q33 What other opportunities does this property purchase provide to the community?

A.

Opportunity	Pro	Con
Type of Sewer Treatment Facility	• The property provides enough space for the community to consider a wide range of innovative technologies and approaches to sewer treatment • We may be able to recover some of the energy used pumping up to the sewer treatment plant by having gravity fed energy generation through the outfall	• Site features of the property causing challenges with engineering and layout
Extending Water Service Area	• If the Village expands the water service area at the same time we could save on construction and installation costs • The value of the subdivided properties would be significantly increased with both water and sewer services • The value of existing properties not currently connected to water and sewer would also increase • The municipality would receive Frontage fees to help pay for ongoing operations and maintenance	• Additional costs to finance the expansion of the water treatment system to cover the full municipality and how that will impact taxes
Housing	• Could help alleviate housing issues (shortages) if some of the new properties are zoned for things like conservation style subdivisions, tiny home neighborhoods or cooperative housing • New residents purchasing homes could bring more business and/or employable individuals to the community and support existing businesses • With new residential homeowners paying property taxes and water and sewer frontage the burden will overall be reduced for the balance of the community • People building on the new subdivision lots will stimulate economic growth in the construction industry locally • Once sewer and water servicing is available the subdivided properties will increase in value substantially and the lots can be smaller as they will not need septic tanks • The largest of the oceanfront lots could be used as a campsite to generate revenue in the short term or subdivided and sold to help offset debt financing • The process for a municipality to close a Ministry of Transportation and Infrastructure (MoTI) road right-of-way is fairly straightforward	• Increase in serviced high value lots available for development could drive up the cost of real estate for locals, which will affect BC Assessments and property tax values • Speculators purchasing new subdivisions and houses/building sites resulting in fewer locals having access to new affordable housing • Property values could crash and/or interest rates skyrocket • We currently have a depressed economy and have been losing residents • The largest oceanfront lot is bisected by MoTI road right-of-way which would have to be closed and transferred to the Village
Jobs	• Development of a sewer treatment facility will provide jobs during construction and eventually provide full-time local jobs running the plant • People building on the new subdivision lots will stimulate economic growth in the construction industry locally as they will need to be logged, cleared and developed	• Some jobs will only be short term
Logging	• Opportunity to log some of the property to help offset costs	• Balancing logging opportunities with community viewscapes
Road Infrastructure	• May be opportunity to use on-site rock to develop roads, thereby offsetting some costs • Opportunity for late comer fees to help offset initial outlay to develop access • Developers would be responsible for building infrastructure (i.e. roads, hydro, internet, parkland dedication) so that new lots can be accessed and serviced	• On site rock may not be suitable for road building

Q34 How much will it cost to build the new road to the sewer treatment plant?

A. The costs of building a new road to access a Sewer Treatment Plant will be highly dependent upon the terrain and whether we can utilize any of the rock on-site. We won't be able to get even a planning level estimate until we own the property and can find funding to complete surveys and engineering studies.

Q35 How much will it cost to upgrade Eagle Hill Road?

A. Overall, the road is in fairly good condition, although narrow, and the steepest grade is approximately 13-14%. At a minimum, once the Village is ready to start development, the road would need to be upgraded and widened to support further development on the property. This could take a few years for planning and engineering studies to take place. As part of our 2016 Roads Asset Management Project, McElhanney Consulting Services Ltd. provided a *Planning Level Cost Estimate* for upgrades to privately managed road ROW in the Village. It was noted that the values are susceptible to high variation due to the remoteness of Haida Gwaii, mobilization and limited construction resources available locally. In addition, no allowances for significant works, such as rock removal, soft soil remediation, utility upgrades, or complete road re-alignment were included in the estimate. For Eagle Hill Road, McElhanney was contacted regarding the proposed use of the property and the Village received the following high-level estimate assuming a 2-lane road would be required which would result in some cut and fill, adding extra costs:

From	To	Length (km)	Width (m)	Design Width (m)	Cut/ Fill (m2)	Gravel	Paved	Total Cost
Hwy 16	Midpoint	0.11	3.4	3.25	6	$244,119.16	$53,437.80	$297,557.43
Midpoint	Dead End	0.11	2.4	3.25	6	$157,103.38	$53,437.80	$210,541.18
(includes items such as mobilization/demobilization, traffic control, etc.) General Fees							10%	$50,809.86
Engineering and Survey							15%	$76,214.79
Contingency							30%	$152,429.58
							TOTAL	**$787,552.84**

Q36 How long will it take before we have an operational sewer treatment system?

A. This will be a long process as there is considerable work to be done before we can have a fully operational system. The closest comparison we have is the development of our Water Treatment Plant (WTP). From initial concept to final completion in 2010 took approximately 10 years for the WTP at a cost of $4,807,725 million, paid through a combination of grants, borrowing from the Municipal Finance Authority (MFA) following a referendum, and transfers from Village reserves. We anticipate that this process will take at least a similar amount of time, if not longer, as we have the added complexities of subdividing the property and selling off the parcels for development. If the community chooses to extend the water system at the same time, that will add to the complexity of the design and the overall costs of the installation.

Q37 Will everyone who is not currently connected to sewer be required to hook up?

A. Once we complete the engineering required for the sewer treatment plant and extension of the water service we will have a better understanding of the costs involved. According to our Sewer Bylaw 94-2016, A Bylaw to Amend Sewer Bylaw No. 74-2014, "The owner of every parcel of land to which a sewer connection can be or has been made, and on which a building or other structure with a plumbing system is situated shall connect such plumbing system to the sewer within six (6) months after the date that the sewer is completed and rendered operational." This means that once the system is operational, if you can connect, you have to connect. However, it is likely that we will need to take a phased approach to installing the required collection systems as each of the areas not currently covered by our sewer system have their own unique challenges (i.e. Coho Apartments to District Lot 18, Skidegate Landing, Robertson Island, the West end of town past the log sort, etc). Funding will be a key consideration as well as the number and type of sewer connections that are required. By including designs for each section of the community, the municipality will be able to prioritize implementation.