



# Corporation of the Village of Cumberland

2673 Dunsmuir Avenue  
P.O. Box 340  
Cumberland, BC V0R 1S0  
Telephone: 250-336-2291  
Fax: 250-336-2321  
cumberland.ca

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## Wastewater Treatment Upgrade Project

Information on the Process to Receive Elector Approval through an Alternative Approval Process (AAP) for “Wastewater Upgrade Project Loan Authorization Bylaw No. 1084, 2018”

The Village of Cumberland is conducting an alternative approval process (AAP) to obtain elector approval to borrow up to \$4.4 million to construct an upgraded lagoon wastewater (sewer) treatment plant. The maximum estimated cost of the project is \$9.7 million. If no senior government funding is received, the Village plans to proceed with a lesser project at a cost of \$5.6 million.

Improved wastewater treatment is required to bring the Village into compliance with both the existing BC Ministry of Environment Discharge Permit and Federal effluent regulations. Additional proposed upgrades will provide improved environmental performance, capacity for future Village growth, and meet the requirements of the BC Municipal Wastewater Regulation.

Electors may submit a response form indicating that they are opposed to the adoption of the loan authorization bylaw to the Village office until August 24, 2018.

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### Information Package Contents

1. Wastewater Treatment Upgrade Project ..... 1
2. Financial Implications..... 5
3. Elector Approval Process ..... 7
4. “Wastewater Upgrade Project Loan Authorization Bylaw No. 1084, 2018” ..... 8

## 1. Wastewater Treatment Upgrade Project

Council is seeking elector approval for borrowing to construct extensive upgrades to the Village's existing lagoon based wastewater treatment system.

### **Why is this project necessary?**

The Village has been out of compliance with numerous aspects of its BC Wastewater Discharge Permit since 1999. The community's partially treated effluent is discharged to Maple Lake Creek and then flows to the Trent River and into Baynes Sound. This effluent does not meet current regulatory standards for discharge to a freshwater receiving environment. During the summer period, when the only flow in Maple Lake Creek is the effluent water, the risk to human health and the downstream environment is at its greatest.

Historically, the Village has been able to avoid any financial penalties being imposed by the Ministry of Environment while working towards upgrading the treatment system and completing the Liquid Waste Management Plan (LWMP); however, in early 2018 the Village was referred for an administrative penalty by the Ministry of Environment due to being out of compliance with its Wastewater Discharge Permit. The outcome of this process is still pending, but further action will eventually be taken if the Village does not make the necessary upgrades to come into compliance.

In summary, immediate wastewater treatment upgrades are needed to meet the current permit and federal effluent requirements. Additional upgrades are required to meet the future requirements of the BC Municipal Wastewater Regulation and to add capacity for future Village growth. Finally, the project contains innovative components to meet the Village's aspirational goals (as outlined in the 2014 Official Community Plan) of improved environmental performance and restoring degraded ecosystems.

### **What is the proposed project?**

The proposed project is to add extensive upgrades to the treatment at the existing lagoon system. This approach was found to be more affordable to build and operate than the various mechanical treatment options studied, and was also judged by the Wastewater Advisory Committee to deliver the most community and environmental benefits.

The proposed upgrades are separated into two phases, that can be constructed separately, or as a single project, if sufficient funding is available.

Phase one is the minimum project scope needed to meet the current requirements of both the Wastewater Discharge Permit and the federal effluent regulations. Phase one provides treatment capacity for a population capacity of 4500-5000 and has an estimated cost of \$5.6 million. It includes the following works:

- Increasing the lagoon aeration capacity and improving the flow pattern
- Adding phosphorus removal by means of a chemically assisted "dissolved air flotation" (DAF) unit

- Adding a passive geofabric dewatering system for the DAF sludge
- Adding disinfection by “peracetic acid” dosing (a fish friendly alternative to chlorine)
- Functional and security improvements to the headworks area

Phase two consists of additional works required to meet the more stringent requirements of the current BC Municipal Wastewater Regulation (MWR), to meet the goals for innovation and environmental performance, and to provide capacity for Village growth to 7000 people. It includes the following works:

- Adding a second influent screen to add capacity and meet MWR redundancy requirements
- Adding a second “dissolved air flotation” (DAF) unit to add capacity and meet MWR redundancy requirements
- Adding a “biochar media reed bed” (engineered wetland) for “polishing” the treated water to remove organic contaminants such as pharmaceuticals
- Distributing the final treated water to the wetland area to the north of the lagoons, restoring natural summer “wet” conditions to this drained area as the water flows towards Maple Lake Creek
- Building an operator amenities building (laboratory, office, washrooms, equipment storage etc)

The estimated costs for the phase two works are an additional \$4.1 million if constructed as a complete project with phase one, or \$5.1 million if constructed as a separate, second project in the future. The approach of doing a complete project was also found to be more likely to attract senior government grant funding than just doing phase one, because of the innovation and environmental performance of the reed bed and wetlands distribution components.

The recommendation of Cumberland’s Wastewater Advisory Committee, and the decision of Council, is to pursue grant funding for a complete project, and only do a “phase one” project if grant funding is denied. In either case, to minimise the risk of Ministry of Environment enforcement action, a project must begin in 2019 and be completed in 2020.

### **Cumberland’s Liquid Waste Management Plan**

A liquid waste management plan (LWMP) process is intended to create a wastewater treatment solution that meets federal and provincial regulations, meets community goals for treatment and has the approval of the public. Because of the extensive public participation, a completed LWMP confers borrowing authority without need of elector approval.

In May 2016, Cumberland established a Wastewater Advisory Committee and restarted Cumberland’s LWMP process. The Committee is made up of community members, technical advisors, Village staff and a Council representative.

The Wastewater Advisory Committee, Council, staff and consultants worked and engaged with the public throughout 2016 and 2017 to first establish the regulatory requirements and Cumberland’s aspirational goals, and then develop and evaluate various treatment options to

best meet these goals. This process culminated in the Committee's selection of the upgraded lagoon based treatment approach in January 2018, and effectively concludes Stage 2 of the three-stage LWMP process.

Because it can take several years to complete an LWMP with the approval of the Ministry of Environment and then secure senior government grants, if the Village is able to secure outside funding and undertake the Wastewater Treatment Upgrade Project, it is essentially fast-tracking the finished product of the LWMP. Thus, an additional working objective was that when senior government funding opportunities became available, Cumberland would be ready to apply.

If the Village does not receive the approval of the electors for borrowing, and/or does not receive senior government funding, then it must return to the LWMP process and continue to seek funding opportunities. The Village may face significant financial penalties for continuing to be out of compliance with its Wastewater Discharge Permit.

Future funding opportunities may not be as favourable as the current one, it is not known when the next opportunity will be available.

## 2. Financial Implications

In order to reduce the financial burden of upgrading the wastewater treatment system, the Village has been charging development cost charges (DCCs) for many years and started saving through taxes in 2016. In 2018, the amount available from these funds are \$748,000 from DCCs and \$485,000 from reserves. This total of \$1.233 million is not enough to complete phase one (\$5.6 million) without additional funds from borrowing and/or senior government grants. Most of the grant programs require a certain cash commitment from the municipality, so this money will be applied to the wastewater project regardless of the grant outcomes.

Two grant opportunities have become available in 2018.

In May 2018, the federal-provincial “Investing in Canada Infrastructure Program – Environmental Quality Stream” was announced, which will provide 73% funding for eligible municipal infrastructure projects, which includes wastewater treatment. In August 2018, the Village will apply to this fund for the maximum amount of \$7.081 million (73% of \$9.7 million). If the application is successful, the full project scope of phase one and two can proceed in 2019-2020. If the application is unsuccessful, then a phase one project will proceed in 2019-2020

The Village has also already made application to the Federation of Canadian Municipalities “Green Municipal Fund” (GMF) in May 2018. This fund provides low interest loans up to \$5 million and a grant of 15% of the loan amount, but this alone will not be enough to execute a complete project (phase one and two) without the federal grant funding. Because of the innovation and environmental leadership requirements of this fund, only a complete project is eligible and phase one alone does not meet the GMF requirements.

Thus, if the federal funding is successful, then the GMF funding is an additional source. But if the federal funding is denied, then the Village can only afford to do a phase one project, and this will not be eligible for GMF funding. There are no other federal wastewater grant funding opportunities expected to be available in 2018 or 2019.

Table 1 shows the funding scenarios for the various grant funding outcomes, and Table 2 shows the financial impact on a typical residential parcel for these scenarios.

Table 1: Funding Scenarios (all costs in \$ million)

	Both Federal and GMF applications are successful	Federal application successful, GMF denied	Both applications denied
Project Scope	Phase 1 & 2	Phase 1 & 2	Phase 1 only
Project Cost	\$9.7 million	\$9.7 million	\$5.6 million
<b>Funding Sources</b>			
“Investing in Canada Infrastructure Program” grant	\$7.081 million	\$7.081 million	\$0
“Green Municipal Fund” grant	\$181,000	\$0	\$0
Cumberland reserves for wastewater treatment	\$485,000	\$485,000	\$485,000
Cumberland development cost charges	\$748,000	\$748,000	\$748,000
Cumberland borrowing through Loan Authorization Bylaw No 1084, 2018	\$1.205 million	\$1.386 million	\$4.367 million
Total Funding Sources	\$9.7 million	\$9.7 million	\$5.6 million

Table 2: Estimated Financial Impact on a Typical Residential Parcel

	Both Federal and GMF applications are successful	Federal application successful, GMF denied	Both applications denied
Borrowing Amount	\$1.205 million	\$1.386 million	\$4.367 million
Additional annual operating cost of new treatment system	\$250 per parcel	\$250 per parcel	\$233 per parcel
Annual repayment of loan, at 4% interest for a 20 year term	\$60 per parcel	\$69 per parcel	\$216 per parcel
Estimated total increase per year	\$310 per parcel	\$319 per parcel	\$449 per parcel

### 3. Electoral Approval Process

In order for the Village to adopt a bylaw to borrow the funds required to make improvements to the wastewater system, the Council must receive approval of the electors.

The Village is applying for \$7.081 million in senior government funding for the project in late August 2018. There is a greater chance of receiving this grant if the Village can show that it has already received elector approval, and this is why elector approval is being sought before applying for funding rather than waiting until the funding decision is announced.

The Council is seeking elector approval through an alternative approval process (previously known as a counter petition), whereby Council may adopt “Wastewater Upgrade Project Loan Authorization Bylaw No. 1084, 2018” unless at least 10% of Cumberland electors indicate that the Council must obtain the assent of the electors (by way of a vote) before proceeding. Council has estimated that the Village has 2892 electors, which means that at least 289 electors would have to submit an elector response form opposing the adoption of the loan authorization bylaw by August 24, 2018.

You may obtain an elector response form at the Village office and by searching “AAP” at [cumberland.ca](http://cumberland.ca).

#### **Who may submit an elector response form to oppose borrow**

1. Resident Electors: To be eligible to submit an elector response form opposing the borrowing as a resident elector, you must:
  - Be 18 years of age or older,
  - Be a Canadian citizen,
  - Have lived in the Village of Cumberland for at least 30 days,
  - Have lived in British Columbia for at least six months, and
  - Not be disqualified under the Local Government Act, or any other enactment from voting in a local election, or be otherwise disqualified by law.
2. Non-Resident Property Electors: If you do not live in the Village and have owned property in the Village for at least 30 days, you may submit an elector response form as a “non-resident property elector” if you meet all other the criteria above.

Only one non-resident property elector may sign an elector response form per property, regardless of how many people own the property. That owner must have the written consent of a majority of the other property owners. Property owned in whole or in part by a corporation does not qualify. You may obtain a form to gain written consent from the Village office.

#### 4. Loan Authorization Bylaw

### THE CORPORATION OF THE VILLAGE OF CUMBERLAND

#### BYLAW NO. 1084

#### **A bylaw to authorize the borrowing of money for the estimated capital cost of upgrades to the wastewater treatment system.**

The Council of the Corporation of the Village of Cumberland in open meeting assembled enacts as follows:

1. This bylaw may be cited as “Wastewater Upgrade Project Loan Authorization Bylaw No. 1084, 2018.”
2. The Corporation of the Village of Cumberland may incur a liability by borrowing for the construction of an upgraded wastewater treatment project in accordance with general plans on file in the Village office and called the *Wastewater Upgrade Project*, and to do all things necessary in connection with the project and without limiting the generality of the foregoing:
  - (a) to borrow upon the credit of the Village a sum not to exceed \$4,400,000.
  - (b) to acquire all such real property, easements, rights-of-way, licenses, rights or authorities as may be requisite or desirable for or in connection with the Wastewater Upgrade Improvement Project.
3. The maximum term for which the debentures may be issued for the debt created by this bylaw is 20 years.

<b>READ A FIRST TIME THIS</b>	<b>28TH</b>	<b>DAY OF</b>	<b>MAY</b>	<b>2018.</b>
<b>READ A SECOND TIME THIS</b>	<b>28TH</b>	<b>DAY OF</b>	<b>MAY</b>	<b>2018.</b>
<b>READ A THIRD TIME THIS</b>	<b>28TH</b>	<b>DAY OF</b>	<b>MAY</b>	<b>2018.</b>
<b>RECEIVED THE APPROVAL OF THE INSPECTOR OF MUNICIPALITIES THIS</b>	<b>20TH</b>	<b>DAY OF</b>	<b>JUNE</b>	<b>2018.</b>
<b>RECEIVED THE APPROVAL OF THE ELECTORS THIS</b>		<b>DAY OF</b>		<b>2018.</b>
<b>ADOPTED THIS</b>		<b>DAY OF</b>		<b>2018.</b>

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Mayor

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Corporate Officer