



LIQUID WASTE MANAGEMENT PLAN

NEWSLETTER | NOVEMBER 2017

Cumberland has restarted the Liquid Waste Management Plan process. The goal is to come up with a sustainable, “made in Cumberland” solution for long term wastewater treatment.

Update – Fall 2017

What's happening?

Summer 2017 was a busy time for the LWMP - there have been environmental studies and feasibility study of various discharge and treatment Options.

All this was brought back to the Wastewater Advisory Committee on November 2, where the results were discussed and the Options were presented and reviewed.

Now it's your turn – we are looking for feedback from the public about the Preferred Option.

Please join us for another Open House to learn more about this, and give us your feedback.

Public Open House

6:00 pm - 9:00 pm, Thursday November 23
Council Chambers, 2675 Dunsmuir Avenue

Committee meetings are open to the public, and attendance is welcomed. Agendas, minutes and updates will be posted on the Cumberland website. It's your village, and your wastewater - have your say!



Project Stages

The BC Ministry of Environment regulates the LWMP process, and there are three stages, all of which must include comprehensive public involvement and consultation.

1 Identify

- ✓ Define the baseline – Where are we now?
- ✓ Set the goals, using the OCP for context – Where do we want to be?
- ✓ Develop the “long list” of options – How do we get there?
- ✓ Screen the options to the “short list”
- ✓ Identify any knowledge gaps and further studies needed to fill them

2 Evaluate

- ✓ Detailed evaluation of the short list
- ✓ Carry out required studies, how do they impact the options?
- ✓ Develop the short listed options
- ★ **Select preferred option(s)**

3 Adopt

- Detailed study of preferred option
- Identify steps for implementation
- Develop financing plan
- Decision to adopt and implement
- Approval by Minister of Environment



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Some viable Options have been developed!



What are the Discharge Options?

The summer monitoring program (see sidebar) showed that summer flows need to be maintained for the health of Maple Lake Creek and the Trent River – withdrawing the summer flow would have a severe impact on both watercourses. Thus, continued summer discharge – directly or indirectly through the upstream wetlands – is now the only Discharge Option.

What are the Treatment Options?

Four treatment options were developed, reviewed and evaluated. Each option was designed to handle the growth of Cumberland from 3800 people to 7000 over the next 20 years.

- *Option 1A* – Upgraded lagoon system for good quality effluent, full disinfection of all flows and indirect discharge to Maple Lake Creek via the upstream wetlands (north of the lagoons). Cost \$9.5M
- *Option 1B* – Upgraded lagoon system for high quality effluent, full disinfection and discharge to Maple Lake Creek. Cost \$12.7M
- *Option 2* – Baseflow mechanical treatment plant for high quality effluent, with excess wet weather flows being treated by the lagoons, full disinfection and discharge to Maple Lake Creek. Cost \$9.3M
- *Option 3* – Full flow mechanical treatment plant for high quality effluent, lagoons decommissioned, full disinfection and discharge to Maple Lake Creek. Cost \$14.8M

What's Next?

At the Open House on November 23, the Options will be presented in detail, to get your opinion. The Wastewater Advisory Committee will meet again on November 30 to consider public feedback, evaluate the Options and make a recommendation on the Preferred Option. This will go to Council on December 11 for adoption, and this effectively concludes Stage 2 of the LWMP.

For 2018 it is then the Stage 3 LWMP work to refine the details, develop the implementation plan, the financing plan, and pursue grant funding opportunities.

If you have any ideas, concerns or comments, you can email them to LWMP@Cumberland.ca, or send or deliver them to the Village office located at 2673 Dunsmuir Ave.

What was learned in summer 2017?

There were four major learnings:

1. Cumberland's current Discharge Permit has conditions that are easier to meet than the new regulations, but only up to a population equivalent of about 4500 people (approx. 2023). This allows for a "phase 1" project to be built smaller, and sooner, but eventually upgrades will be needed to meet all the current regulations.
2. Through a combination of targeted flow and water quality measurements, the functioning of the lagoons is better understood. This allowed the development of "upgraded lagoon" options in addition to the "mechanical" options. There has not previously been a lagoon based option available.
3. In late summer, the only water flowing into Maple Lake Creek is the treated effluent water – there is no effective contribution from groundwater or any side streams (which have all dried up). The Trent River is also very low flow during this period, and Maple Lake Creek contributes half of the total flow in the lower Trent. Withdrawing the summer flow would have a severe impact on both watercourses.
4. The natural downstream wetlands in Maple Lake Creek are doing a great job of "polishing" the effluent water and protecting the Trent River. Most importantly, they are removing 96% of the phosphorus from the water – a level of performance that exceeds many modern treatment plants.

Wastewater Advisory Committee Representatives



Public Members

Ken Barth
Matt Ishoy
Mike Tymchuk

Dennis Cassin
Vig Schulman
Anya Macleod

Village, First Nations and Technical members

Sean Sullivan, Council Representative
Jesse Ketter, Alternate Council Representative
Chief Nicole Rempel, K'omoks First Nation
Sundance Topham, Chief Administrative Officer
Rob Crisfield, Manager of Operations
Paul Nash, LWMP Project Coordinator
TetraTech Co, Technical Consultants
Dave Cherry, Vancouver Island Health Authority

Other government agencies that are involved, but will not be sitting on the Committee include;

- BC Ministry of Environment
- BC Ministry of Community, Sport and Cultural Development
- Federal Department of Fisheries and Oceans



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