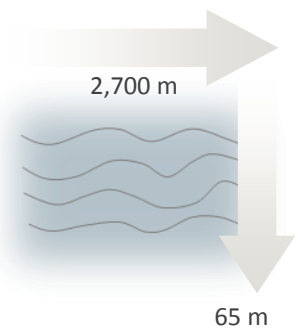


## Project Update—May 2018

The Regional District of Nanaimo (RDN) Bowser Village Centre Wastewater Project includes the construction of a sewer collection system, wastewater treatment plant, and marine outfall for treated effluent. It will serve a future population of 600 people and support the community's long standing vision of becoming a complete, compact community.

The project is now in the detailed design and permitting phase. This phase includes updating the collection system and treatment plant design, completing the detailed design of the marine outfall, and applying for permits and approvals. This phase will continue through 2018. The construction tender may also begin in 2018.

**We Heard You** — A series of six public meetings in 2016 and 2017 were held to engage with the community on the project. Feedback suggested that the RDN explore alternate outfall routes and consider extending the length of the outfall. As a result, the length will be approximately 400 m (1,300 ft) longer than the original design (see Map 1). It will sit on the ocean floor at a depth of about 65 m (213 ft). The outfall will be roughly 2,700 m (8,860 ft) long and 2,350 m (7,700 ft) from shore. The terminus will be roughly twice the required distance from the shellfish lease which will provide additional dilution.



### PROJECT FACTS

- The RDN does not and will not discharge raw sewage to the Strait of Georgia.
- The treatment plant effluent will be cleaner than the regulated standard.
- The project will address odours and noise.
- Detailed project information is provided on the website [getinvolved.rdn.ca/bowser-village-sewer](http://getinvolved.rdn.ca/bowser-village-sewer). Register online for email updates.

### PUBLIC INFORMATION MEETING

May 16, 2018

Lighthouse Community Hall

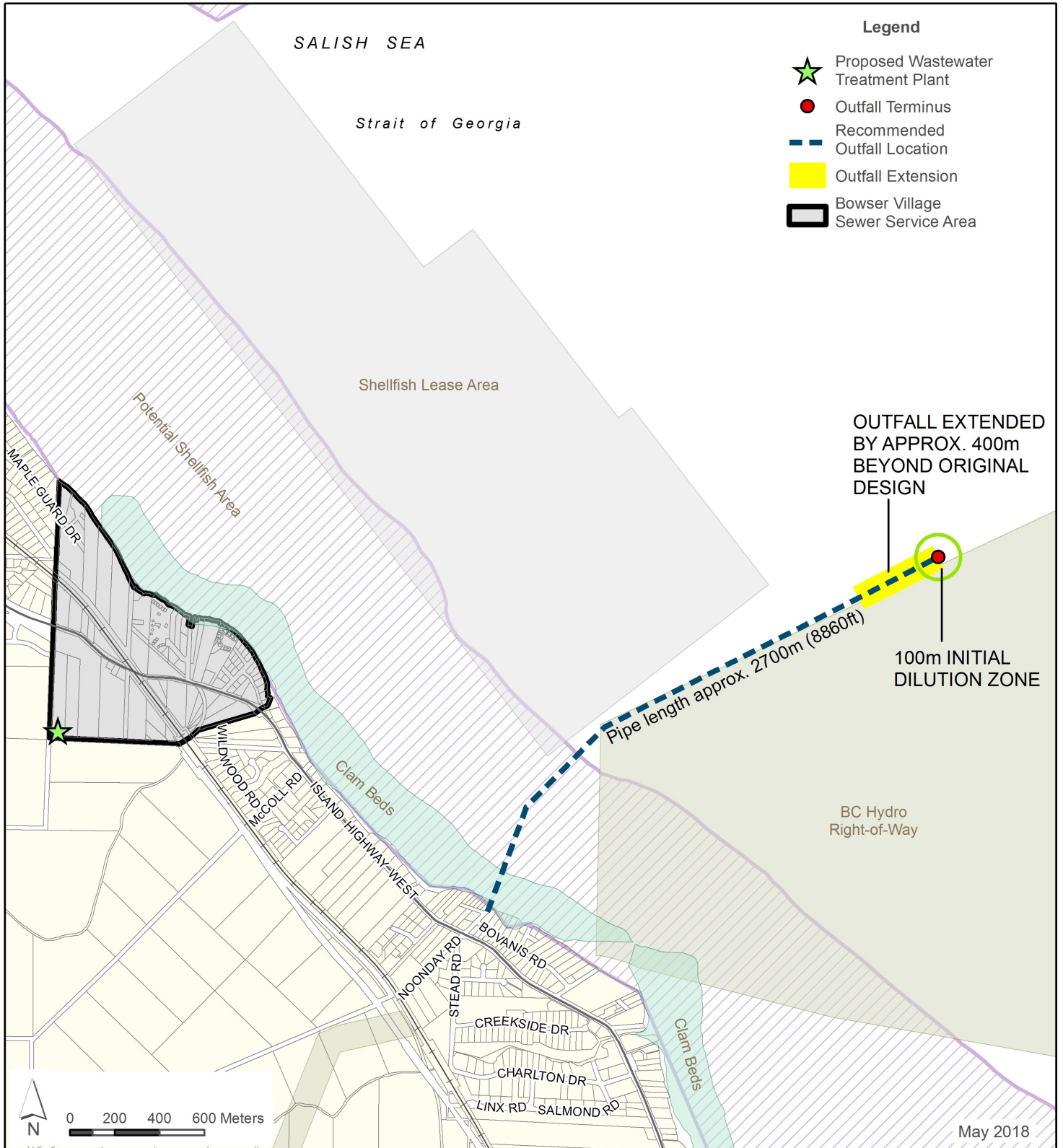
240 Lions Way, Qualicum Beach

6:00 pm (presentation at 6:30 pm)

All are welcome to attend. The RDN will provide information and seek input on the proposal to rezone the wastewater treatment plant site from Residential 2 (RS2) to Public 4 (PU4) to allow a wastewater treatment plant.



# Bowser Village Centre Wastewater Project Project Update—May 2018



# Bowser Village Centre Wastewater Project

## Project Update—May 2018

### Wastewater Treatment

- Wastewater treatment is designed to eliminate hazards to human health and the environment as the community grows. The wastewater treatment plant will be a secondary treatment facility with ultraviolet (UV) disinfection.
- UV disinfection is used in both drinking water and wastewater treatment to safeguard against viruses, bacteria and parasites. UV disinfection works because it disrupts the DNA so the organisms can not grow or reproduce. UV disinfection will go beyond the regulatory requirements for the Bowser project.
- The Environment Canada 2010 Municipal Water Use Report states that 97% of Canadian communities discharge to marine or fresh waters.
- Federal and Provincial environmental and health agencies recognize that treatment with marine disposal reduces the likelihood of impacts to human health and the environment compared to communities without treatment.



The treatment plant effluent will be cleaner than Provincial and Federal expectations. For example, the RDN's wastewater treatment facility at Duke Point uses similar treatment technology and last year produced effluent that was about ten times cleaner than its permitted standard. Its effluent had an average 2.9 mg/L biological oxygen demand and 3.2 mg/L total suspended solids concentration while its permitted standard was 30 mg/L for each.

### Odour and Noise

- A vegetative buffer around the site will help mitigate odours and noise. As with all RDN wastewater facilities, operations staff will monitor the site daily and will follow established protocols to address noise or odour reports.
- Equipment will be located to reduce noise transfer to the surrounding area.
- The plant is designed so that odours will not travel or be detected beyond the property boundary. A carbon scrubber and other control measures will reduce or eliminate odour.

### Resource Recovery

Solids recovered during treatment plant operation will be further treated at the RDN's wastewater treatment facility in French Creek. There, solids will become a nutrient-rich resource known as biosolids.

RDN biosolids are beneficially used in a Forest Fertilization Program. Trees fertilized by RDN biosolids show an 80% increase in growth, appear healthier, and have needles and buds that are longer, greener and more numerous.

Other resource recovery opportunities, such as reclaiming water, may be considered as opportunities arise.



Photo: Comparison of Douglas-fir tree branches. The bottom branch was fertilized with RDN biosolids. Needles and buds are longer and greener.

# Bowser Village Centre Wastewater Project Project Update—May 2018

## Protecting the Environment and Archaeological Resources

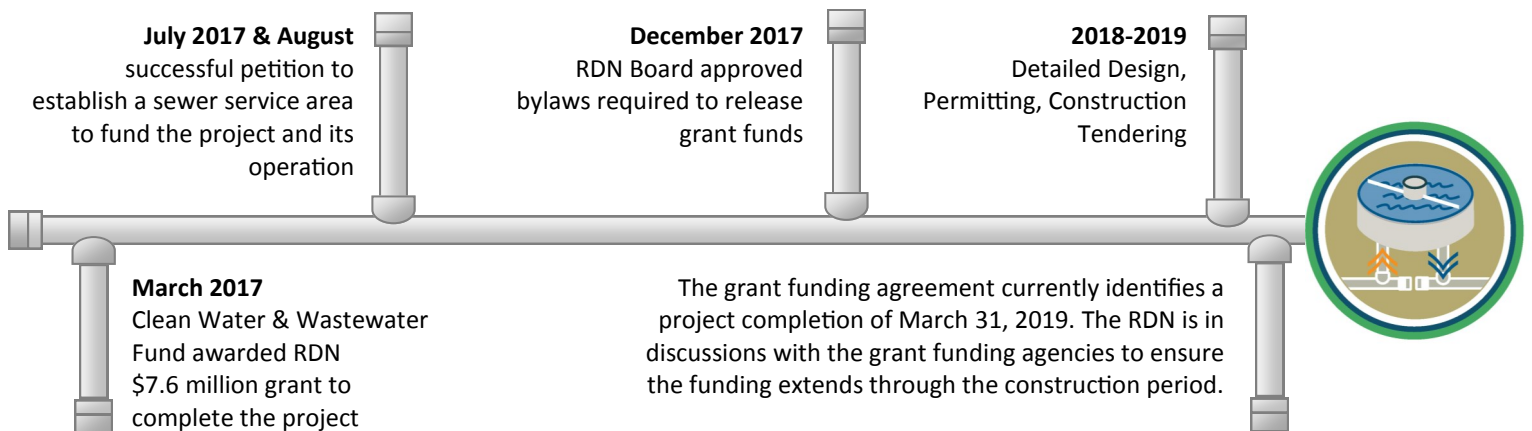
The RDN will protect natural and historic and cultural resources, public health and the environment at each stage, from design to operation.

- An Archaeological Impact Assessment will be completed where the construction of public infrastructure overlaps with areas of high archaeological potential (property owners are responsible for assessments on private property).
- Environmental Impact Studies must demonstrate that public health and environmental resources are protected.
- Receiving Environment Monitoring is required by provincial regulations and must demonstrate that public the effluent meets the regulatory requirements for water quality.
- A Construction Environmental Management Plan will protect biological, social and cultural resources, and habitat.
- Monitoring during operations will be performed to demonstrate compliance with the regulations.

The RDN has started the permitting and approvals process by submitting several application packages to local, Provincial and Federal agencies. Approving agencies will direct the RDN on the required referrals procedures for each application.

Communications with First Nations will continue through the permitting and approvals process.

## Milestones



## For More Information

[getinvolved.rdn.ca/bowser-village-sewer](http://getinvolved.rdn.ca/bowser-village-sewer)

## Contact Us

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