

A scenic view of a coastline. The foreground shows a rocky shore with dark, wet stones and some driftwood. The water is dark blue with gentle waves lapping at the shore. In the background, there are rolling hills or mountains under a blue sky with scattered white clouds. The overall atmosphere is calm and natural.

CRD SSI Administration | Maliview Wastewater System

**Infrastructure Upgrade Project  
Virtual Open House  
March 2021**

# Maliview Wastewater System Upgrade

## Brief history



- System built in the 1970's and transferred to CRD in 1979
- Original treatment plant provided primary treatment through a Spiragester.
- In 2005 the plant was retrofitted with Rotating Biological Contactor (RBC) to provide secondary treatment
- RBC capacity is 60 m<sup>3</sup>/d
- 2006 primary screening added to address higher flows through RBC

# Maliview Wastewater System Upgrade

## Why Upgrade is Required



- Most WWTF equipment at or near end of life
- No backup power
- No automated alarm communication system
- No nitrification capability
- Difficult meeting MWR effluent limits and Federal Fisheries Act requirements

# Maliview Wastewater System Upgrade



**+CAPIT/  
INTEGRATED WATER SERVICE  
ENVIRONMENTAL**  
479 Island Highway, Victoria BC V9B



**CAPITAL REGIONAL DISTRICT  
INTEGRATED WATER SERVICES, INFRASTRUCTURE OPERATIONS DIVISION  
ENVIRONMENTAL INCIDENT REPORT**  
479 Island Highway, Victoria BC V9B 1H7 Phone: 250-474-9600 Fax: 250-474-4012

**REGIONAL DISTRICT  
INFRASTRUCTURE OPERATIONS DIVISION  
ENVIRONMENTAL INCIDENT REPORT**  
479 Phone: 250-474-9600 Fax: 250-474-4012

Initial Report  Update Report  Final Report

Initial Report  Update Report  Final Report

CRD Reference No.: MW210113LS

Report CRD Reference No.: MW201221LS

|  |  |       |
|--|--|-------|
| Location/Facility: Maliview WWTP             |  | Opera |
| Incident Date / Time:                        | Date (yyyy-mm-dd): 2020-   |       |
| Substance Released:                          | <input checked="" type="checkbox"/> Sewage <input checked="" type="checkbox"/> Treated   |       |
|  | <input type="checkbox"/> Potable Water   |       |
| <input type="checkbox"/> Other (specify): Ur |  |       |
| Approximate Volume Released: 20 m3           |  |       |
| Receiving Environment:                       | <input type="checkbox"/> Marine Environment  |       |
|  | <input type="checkbox"/> Watercourse   |       |
|  | <input type="checkbox"/> Other (specify):  |       |
| Cause of Incident:                           | <input type="checkbox"/> WWTP Flow Exceedance  |       |
|  | <input checked="" type="checkbox"/> Equipment Failure  |       |
|  | <input type="checkbox"/> Power outage  |       |
| Additional Description of Incident:          | Failure of a piece of machinery of the treatment process.  |       |
| If Flow Exceedance:                          | Estimated Quantity: _____  |       |
| Monitoring Conducted:                        | A sample of the treated effluent for compliance.   |       |
| <b>Corrective Actions Taken:</b>             |  |       |
| Immediate:                                   | Operations responded to an alarm at 7:05 am at Maliview WWTP on part of the treatment process. CRD monitoring was made on the unit and the treatment process was restored. |       |
| Long Term:                                   | A comprehensive review for Capital upgrades to the Treatment Plant is being completed.   |       |

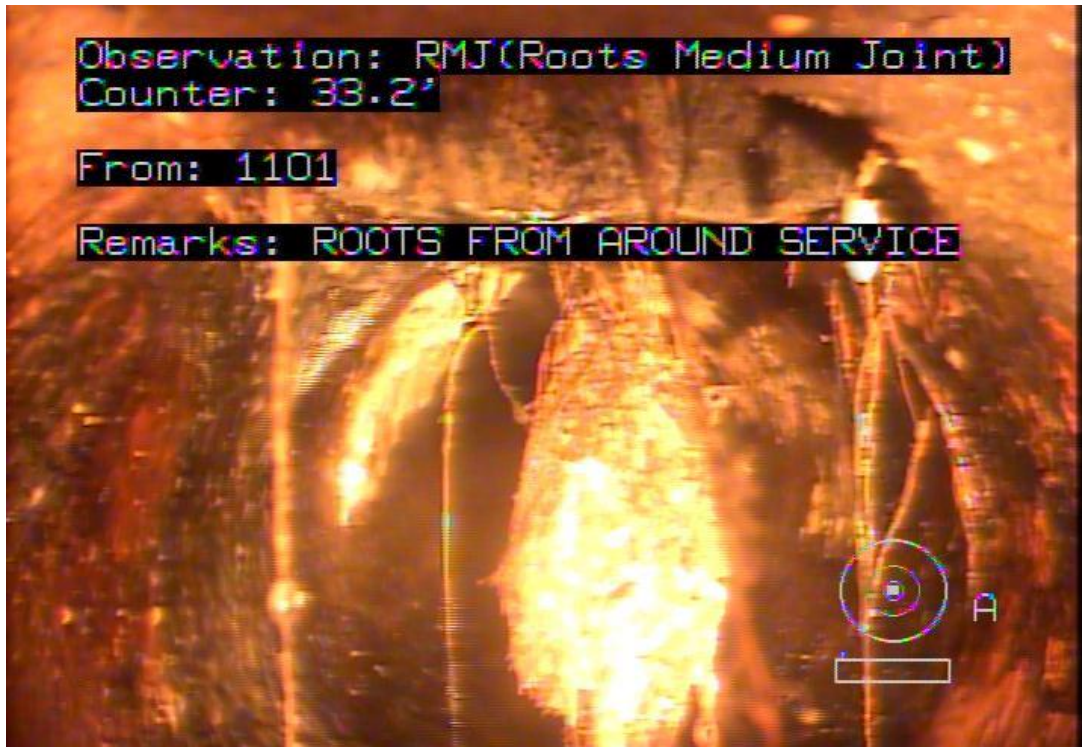
|  |  |                                      |                |
|--|--|--------------------------------------|----------------|
| Location/Facility: Maliview WWTP   |  | Operating Permit No.: RE-00242       | DGIR #: 203766 |
| Incident Date / Time:  | Date (yyyy-mm-dd): 2021 - 01 - 13  | Start Time (24 hour): 0114, 0520     |                |
|  |  | End Time (24 hour): 0145, 0600       |                |
| Substance Released:  | <input checked="" type="checkbox"/> Sewage <input type="checkbox"/> Treated <input checked="" type="checkbox"/> Untreated <input type="checkbox"/> Screened <input checked="" type="checkbox"/> Unscreened                                 |                                      |                |
|  | <input type="checkbox"/> Potable Water <input type="checkbox"/> Chlorinated <input type="checkbox"/> Dechlorinated   |                                      |                |
|  | <input type="checkbox"/> Other (specify):  |                                      |                |
| Approximate Volume Released: 21.3 m3 (0114-0145 - 9.3m3, 0520-0600 - 12m3) |  |                                      |                |
| Receiving Environment:   | <input checked="" type="checkbox"/> Marine Environment <input checked="" type="checkbox"/> Sewage Outfall <input type="checkbox"/> Bypass Outfall  |                                      |                |
|  | <input type="checkbox"/> Watercourse <input type="checkbox"/> Land   |                                      |                |
|  | <input type="checkbox"/> Other (specify):  |                                      |                |
| Cause of Incident:   | <input type="checkbox"/> WWTP Flow Exceedance <input type="checkbox"/> Unplanned Bypass <input type="checkbox"/> Storm Event   |                                      |                |
|  | <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Effluent quality exceedance <input type="checkbox"/> Watermain Break   |                                      |                |
|  | <input checked="" type="checkbox"/> Power outage <input type="checkbox"/> Other (specify):   |                                      |                |
| Additional Description of Incident:  | Two power outages occurred due to wind storm event. The first power outage occurred between 0114 and 0145 and the second occurred between 0520 and 0600. The influent wet well overflowed to the outfall while the site was without power. |                                      |                |
| If Flow Exceedance:  | Estimated Quantity: _____ m <sup>3</sup> above Permit Level  | Permitted Level (m <sup>3</sup> /d): |                |
| Monitoring Conducted:  | No environmental monitoring planned at this time.  |                                      |                |
| <b>Corrective Actions Taken:</b>   |  |                                      |                |
| Immediate:   | On both outages, after power was restored, staff attended site to ensure proper operation of all treatment equipment.  |                                      |                |
| Long Term:   | The services five year capital plan includes a comprehensive capital upgrade of the wastewater treatment facility currently scheduled in 2021/2022. A standby power generator is included in the facility upgrade.                         |                                      |                |

|   |  |                |
|---|--|----------------|
| g Permit No.: RE-00242  |  | DGIR #: 203462 |
| Start Time (24 hour): 13:00   | End Time (24 hour): <del>0600</del> 15:45  |                |
|   | <input checked="" type="checkbox"/> Untreated <input type="checkbox"/> Screened <input checked="" type="checkbox"/> Unscreened |                |
| <input type="checkbox"/> Chlorinated <input type="checkbox"/> Dechlorinated                   |  |                |
| <input checked="" type="checkbox"/> Sewage Outfall <input type="checkbox"/> Bypass Outfall    |  |                |
| <input type="checkbox"/> Land   |  |                |
| <input type="checkbox"/> Unplanned Bypass <input type="checkbox"/> Storm Event                |  |                |
| <input type="checkbox"/> Effluent quality exceedance <input type="checkbox"/> Watermain Break |  |                |
| <input type="checkbox"/> Other (specify):   |  |                |
| t. Influent Wet Well overflowing to outfall while site is without power.                      |  |                |
| _____ m <sup>3</sup> above Permit Level   | Permitted Level (m <sup>3</sup> /d):   |                |
| an is being assessed at this time.  |  |                |
| sure proper operation of all treatment equipment.   |  |                |
| grade includes installation of standby power.   |  |                |

# Maliview Wastewater System Upgrade

## Why Upgrade is Required

### Conditions of Collection Systems:





# Maliview Wastewater System Upgrade

## Why Upgrade is Required

Why upgrades to existing wastewater system infrastructure are required:

- Provincial regulatory non compliances (both flows and effluent quality) from time to time.  
Low flows occur during drier months which leads to a concentrated influent and excessive loads to the WWTP and poor performance.

As well, high flow during winter months ( mostly due to infiltration and inflows) cause excessive flows.

Environmental Incident Report have to be filed with the regulators and corrective actions must be taken.

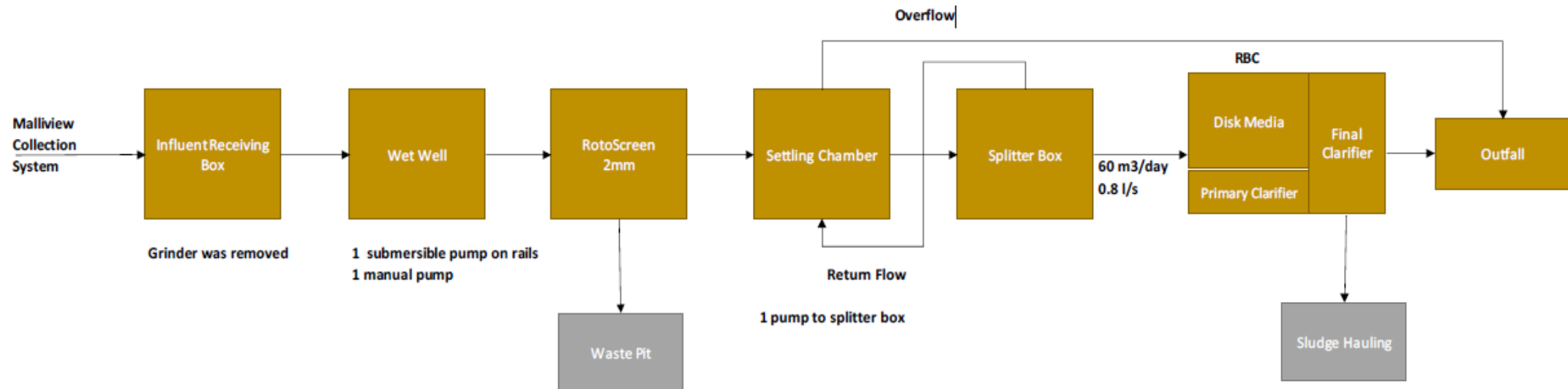
- Federal *Fisheries Act* requirements not met

*Fisheries Act* prohibits deposition of deleterious substance in water frequented by fish. Recent federal inspection, sampling and testing has shown that effluent from the Maliview WWTP failed toxicity testing and ammonia concentration is 150% higher than the acutely lethal concentration to rainbow trout.

# Maliview Wastewater System Upgrade

## Current Facility Components

1. Raw influent receiving box
2. Wet well
3. Rotoscreen with 2-mm openings,
4. Modified settling chamber that serves as an equalization tank
5. Splitter box,
6. Rotating biological contactor (RBC) unit with screened effluent settling chamber
7. Two RBCs and a final clarifier
8. Small building housing instrumentation and control units



# Maliview Wastewater System Upgrade



Instrumentation and control/storage building



RBC Units, Screen, and splitter box



Inside the RBC Unit (disk)



Clarifier



# Maliview Wastewater System Upgrade

## Regulatory Framework



<https://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/municipal-wastewater-regulation>



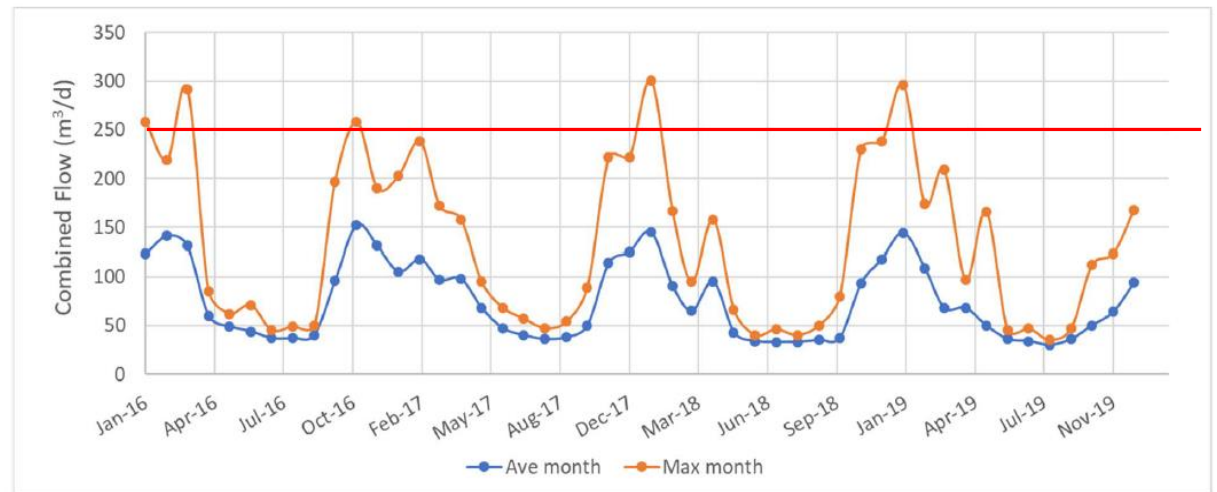
<https://www.canada.ca/en/environment-climate-change/services/wastewater/regulations.html>

- The Maliview WWTP is registered with the province under Municipal Wastewater Regulation (MWR) Registration No. RE00242.
- MWR and requirements that govern Maliview include:
  - Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD)
  - pH
  - Discharge must not be acutely toxic and cause water quality in the receiving environment to exceed applicable guidelines (e.g., ammonia, fecal coliforms).
- Federal wastewater regulations: *Wastewater Systems Effluent Regulations (WSER)*
  - WWTP is exempted from requirements WSER due to small plant discharge < 100 m<sup>3</sup>
- Federal *Fisheries Act*: discharge to fish-bearing waters under Section 36(3) prohibits deposition of deleterious substance in water frequented by fish

# Maliview Wastewater System Upgrade

## Effluent Data

- WWTP effluent data suggests that provincial regulatory limits (both flows and effluent quality) are occasionally exceeded.
- Flow exceedance occurred mostly during winter time where infiltration and inflows into the collection system pipes were high.

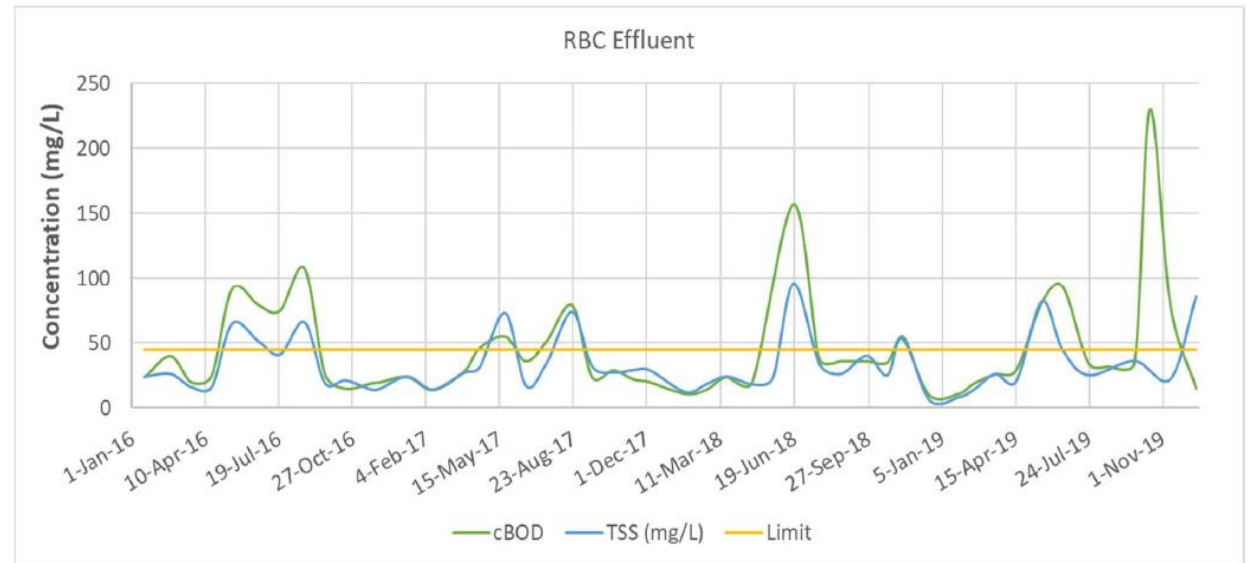


**Average and Maximum Combined Flows (2016-2019)**

# Maliview Wastewater System Upgrade

## Effluent Data

- WWTP effluent data suggests that provincial regulatory limits (both flows and effluent quality) are occasionally exceeded.
- Effluent quality is mostly exceeded during summer months when flow is relatively smaller and influent organic load is higher.



**RBC Unit Effluent cBOD and TSS Concentration  
(2016-2019)**



# Maliview Wastewater System Upgrade

## Toxicity

- Unionized ammonia levels in the final effluent sometimes reach a high level (e.g., 1,890  $\mu\text{g/L}$  in October 2017 that is significantly higher than the level (640  $\mu\text{g/L}$ ) set in the Wastewater Systems Effluent Regulation (WSER).
- Although the WSER's unionized ammonia levels do not apply to the Maliview WWTF since its treatment capacity is less than 100 m<sup>3</sup>/d, the results indicate the potential for a highly toxic effluent being discharged to the marine environment.
- To minimize the potential for acute toxicity from the Maliview WWTF, the wastewater treatment plant upgrading is needed so that it is able to provide full nitrification for the wastewater.

# Maliview Wastewater System Upgrade

## Background

 Environment Canada / Environnement Canada

**CRD EXECUTIVE OFFICE**  
Received  
SEP 23 2019



ENFORCEMENT BRANCH / Environmental Enforcement  
DIRECTION GÉNÉRALE DE L'APPLICATION DE LA LOI / Application de la Loi sur l'environnement

**WRITTEN WARNING**  
**FISHERIES ACT**

File: 8530-2019-07-23-11969  
PROTECTED BY ENFORCEMENT

September 19, 2019

**Registered with acknowledgement of receipt**

The purpose of this warning is to inform:

Capital Regional District  
625 Fisgard Street  
Victoria, BC, V8W 1R7

c/o Matt McClark  
Senior Manager, Infrastructure Operations  
Capital Regional District  
475 Island Hwy  
Victoria, BC, V8B 1T7

Robert Lapham  
Chief Administrative Officer  
Capital Regional District  
625 Fisgard Street  
Victoria, BC, V8W 1R7

That information gathered during inspections of your facility on Salt Spring Island between July 22, 2019 and September 16, 2019 by the undersigned inspector and fishery officer designated by the Minister of the Environment, under the Fisheries Act, gives me reasonable grounds to believe that the Capital Regional District and its responsible officials were in contravention of subsection 36(3) of the Fisheries Act.

**ALLEGED FACTS**

As a result of an on-site inspection on August 22, 2019, the undersigned inspector and fishery officer determined the following alleged facts:

**August 22, 2019:** Environment Canada (EC) inspected Maliview WWTP

- collected effluent samples for toxicity testing.
- The samples failed both Rainbow Trout lethality analyses and contained approximately 1.5 times greater ammonia concentration than the acutely lethal concentration to rainbow trout.

**September 19, 2019:** EC issues CRD a written warning

- Maliview WWTP contravenes subsection 36(3) of the *Fisheries Act*.
- Required CRD to take all necessary corrective actions to ensure compliance and exercise due diligence in the future.
- Warned CRD it will consider taking further actions if corrective actions are not taken.
- Range of further actions include financial penalties, orders, injunctions or prosecutions.

# Maliview Wastewater System Upgrade

## Background



Executive Services  
625 Fisgard Street  
Victoria, BC V8W 2S6

T: 250.360.3125  
F: 250.360.3130  
www.crd.bc.ca

October 11, 2019

File: 4500-30  
Waste Management Permit – Maliview Sewer  
5240-20  
Maliview Sewer System

Gregory Lee  
Inspector and Fishery Officer  
Environmental Enforcement Directorate  
Enforcement Branch  
Environment and Climate Change Canada  
201 – 401 Burrard Street  
Vancouver, BC V6C 3S5  
via email: [gregory.lee3@canada.ca](mailto:gregory.lee3@canada.ca)

Dear Mr. Lee:

**RE: RESPONSE TO WRITTEN WARNING LETTER (FILE: 8530-2019-07-23-11959) ISSUED FOR MALIVIEW WASTEWATER TREATMENT FACILITY**

The purpose of this letter is to provide you and your department information as to how the Capital Regional District (CRD) plans to address the issues highlighted in the Written Warning – Fisheries Act (File No. 8530-2019-07-23-11959; September 19, 2019; Appendix A) regarding the CRD's Maliview Wastewater Treatment Plant (WWTP) on Salt Spring Island, BC.

#### BACKGROUND AND REGULATIONS

The Maliview wastewater system consists of 101 sewer service connections discharging to a collection system that conveys flows to the WWTP. The Maliview WWTP is a 60 m<sup>3</sup>/day Rotating Biological Contactor (RBC) secondary treatment plant that discharges treated effluent into the marine receiving environment of Trincomali Channel. Authorization to discharge falls under the provincial British Columbia Municipal Wastewater Regulation. The CRD notes that the small plant discharge (i.e., < 100m<sup>3</sup>/day) exempts the facility from the requirements of the federal Wastewater Systems Effluent Regulation.

The CRD meets provincial regulatory requirements by monitoring physical and chemical parameters on a monthly basis. Toxicity testing is not required under the provincial regulation. Monitoring results confirm that provincial regulatory limits for effluent quality and flow volumes are occasionally exceeded as a result of the influence of inflow and infiltration during wet weather events. All exceedances are reported to the provincial regulator. To follow up on effluent and flow volume exceedances, our monitoring in the receiving environment (using bacteria as a surrogate) indicate that the plume is generally non-detectable because of the small volumes released to the marine environment.

Federal monitoring requirements under the Fisheries Act focus on end-of-pipe toxicity and not receiving water conditions. Results presented in your September 19, 2019 correspondence represent the first toxicity results for this facility. The CRD is taking this matter seriously and is committed to the corrective action plan below that will be undertaken to address the contravention of subsection 36(3) of the Fisheries Act.

**October 11, 2019:** CRD provides written response EC

- Outlines three Phase corrective action plan to enhance the facility and bring the facility into regulatory compliance
- CRD has implemented its first two phases
  - ▶ operational optimizations
  - ▶ engineering study
  - ▶ conceptual design for the WWTP.
- The CRD is required by the Regulators to complete the final phase - complete Maliview WWTP upgrade by the **end of 2022**.



# Maliview Wastewater System Upgrade

## Background



Report Date: January 30, 2020

File: 242

Report Number: 140941

REGISTERED MAIL

Capital Regional District

Attn: Matt McCrank, Senior Manager, Infrastructure Operations  
Integrated Water Services  
479 Island Highway  
Victoria, BC V9B 1H7

Dear Capital Regional District

**Re: Warning Letter, Municipal Wastewater Regulation, registration number 242**

On October 24, 2019, Ministry of Environment, Environmental Protection Division staff conducted an inspection under *Environmental Management Act (EMA)*, 242. The inspection determined that Capital Regional District is out of compliance with sections identified below for the Municipal Wastewater Regulation. This Warning Letter lists the compliance verification information contained below.

Contravention of the requirements set out in the Municipal Wastewater Regulation is an offence under the *Environmental Management Act (EMA)*. Section 120(13) of EMA states as follows:

*120 (13) A person who contravenes a requirement of a regulation that specifies the quantity or characteristics of waste that may be introduced into the environment commits an offence and is liable on conviction to a fine not exceeding \$1 000 000 or imprisonment for not more than 6 months, or both.*

It should also be noted that, as an alternative to prosecution of the offence referenced above, the Ministry may initiate action to impose an administrative penalty against Capital Regional District. The Administrative Penalties Regulation (EMA) (B.C. Reg. 133/2014) (APR) was brought into force in 2014. The APR describes the prescribed provisions of the EMA as well as that of specified regulations under which administrative penalties can be assigned. Section 29 (1) of the APR states as follows:

*29 (1) A person who contravenes section 45, 50, 94 (1), 97 (1), 108 (1), 109 (2), (3), (4), (5) or (6), 111 (2) or (3), 112, 113, 115 (1) or 117 (2) or (3) of the Municipal Wastewater Regulation is liable to an administrative penalty not exceeding \$75 000.*

I request that Capital Regional District immediately implement the necessary changes or modifications to correct the non-compliance(s) listed above with the *Environmental Management Act*. Further, I request that Capital Regional District notify this office in writing, by email or letter within 30 days of this letter, advising what corrective measures have been taken, and what else is being done, to prevent similar non-compliances in the future. Please submit your response to the Ministry's Compliance Mailbox at [EnvironmentalCompliance@gov.bc.ca](mailto:EnvironmentalCompliance@gov.bc.ca).

As a result of this Warning, this authorization will be prioritized for follow-up inspection. The corrective measures will be reviewed by an Officer as part of the next inspection. Finally, if you fail to take the necessary actions to restore compliance, you may be subject to escalating enforcement action. This Warning Letter and the alleged violations and circumstances to which it refers, will form part of the compliance history of Capital Regional District and will be taken into account in the event of future violations.

**Inspection Details:**

|                          |   |
|--------------------------|---|
| Requirement Description: | <b>Environmental Management Act, Environmental Management Act</b><br>8 (3): Subject to subsection (5), a person must not introduce or cause or allow to be introduced into the environment, waste produced by a prescribed activity or operation. |
|--------------------------|---|

Ministry of Environment  
and Climate Change  
Strategy

Compliance  
Environmental  
Protection Division

Mailing Address:  
2080-A  
Labieux Rd  
Nanaimo BC V9E 6J9

Telephone: 250 751 3100  
Facsimile: 250 751 3103  
Website: [www.gov.bc.ca/env](http://www.gov.bc.ca/env)

**October 24, 2019:** BC Ministry of Environment (MOE) inspected WWTP

Determined WWTP is non-compliant with Municipal Wastewater Regulation requirements.

**January 30, 2020:** MOE issues CRD a written warning

MOE requested CRD implement necessary changes or modifications to correct the non-compliance.

MOE warns that if CRD fails to take necessary actions to restore compliance, they may escalate enforcement actions.

# Maliview Wastewater System Upgrade

## Technology Evaluation

### Potential technologies evaluated and screened for the Maliview WWTP upgrade

#### Advanced Primary Treatment

- Aqua Prime cloth disk filtration
- Salsnes rotating belt filter
- ClearCove organic harvester

#### Biological or Secondary Treatment

- Rotating biological contactor – RBC
- Moving bed biofilm reactor – MBBR
- Membrane aerated biofilm reactor – MABR
- Sequencing batch reactor - SBR



# Maliview Wastewater System Upgrade

## Evaluation Criteria

| Criteria                               | Short Listed                         | Evaluation        |
|--|--------------------------------------|-------------------|
| Technology maturity                    | Moving bed biofilm reactor (MBBR)    | Technical         |
| Size of equipment (fit site footprint) | Conventional Activated Sludge (CAS). | Environmental     |
| Ease of operation and maintenance      |                                      | Capital costs     |
| Improve effluent quality               |                                      | Maintenance costs |

## Recommended Technology

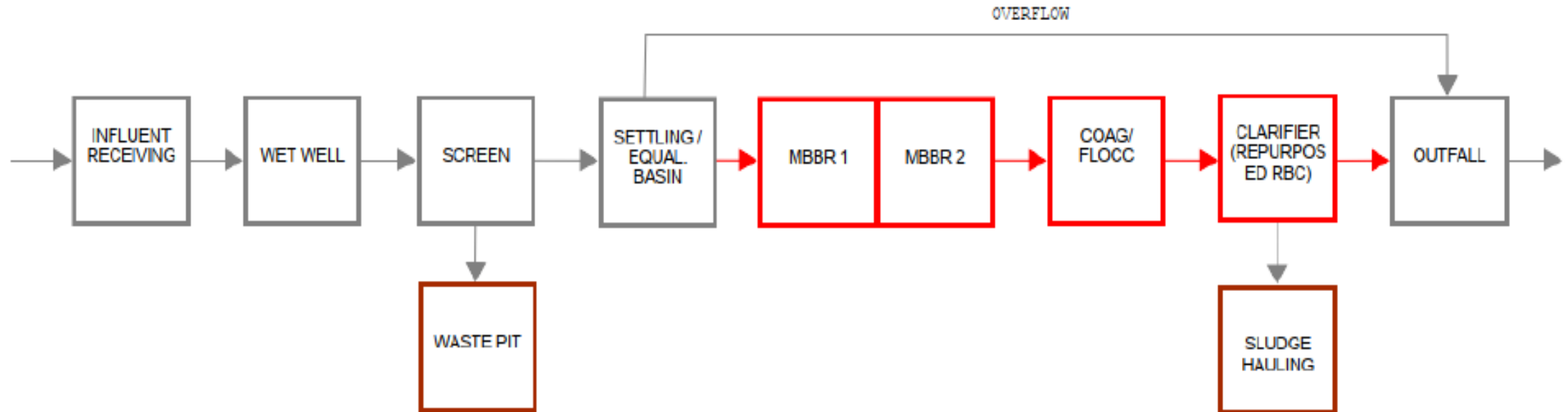
**MBBR** scored higher due to

- technical advantage more resilient to variation in flow and influent loading.
- Having smaller footprint
- Less maintenance and operational care required
- Less capital costs.

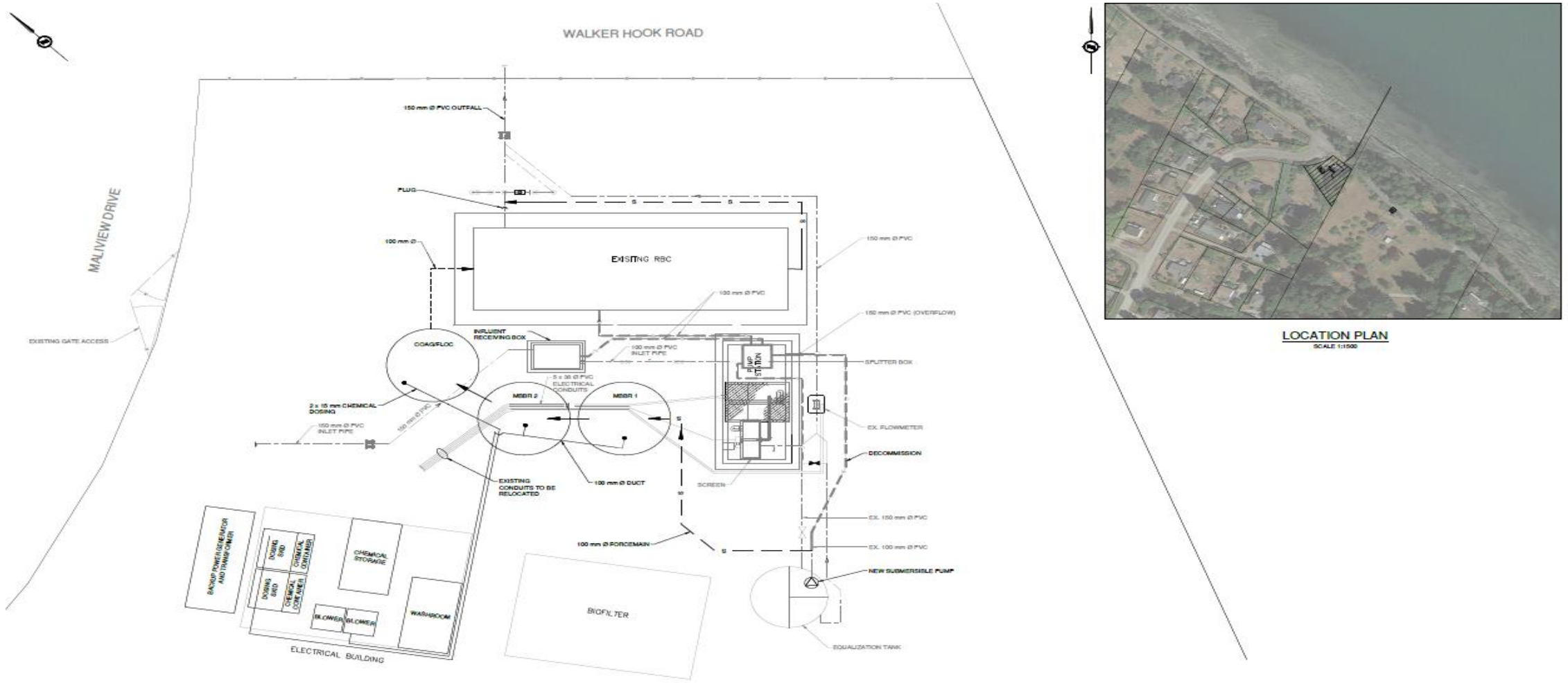
# Maliview Wastewater System Upgrade

## Conceptual Design

New process train (coloured items) to be intergraded into the existing treatment system.



# Maliview Wastewater System Upgrade Site Plan and Arrangement



**LOCATION PLAN**  
SCALE 1:1000

# Maliview Wastewater System Upgrade

## Infrastructure Cost Estimates

### Maliview WWTP Upgrading Project Cost Estimate

|   |                                |
|---|--------------------------------|
| WWTP Upgrading Construction (Labour and Materials) <sup>1</sup> | \$1,650,000                    |
| Engineering, Quality Assurance and Project Management (12%)     | \$49,500                       |
| Contingency (40%) <sup>2,3</sup>                                | \$509,850                      |
| <b>Total Estimated Cost</b>                                     | <b>\$2,210,000<sup>4</sup></b> |

1. Cost Estimation is based on conceptual/preliminary design as of September 2020 (Class C,  $\pm 25$  -40%)
2. 40% contingency is allowed due to uncertainties and risks associated with underground conditions and regulatory approval/requirements as well as limited information available at conceptual/preliminary design stage.
3. If the contingency funds are not needed for the upgrading of WWTP, remaining funds will be used towards the repair/replacement of the collection system pipes (up to \$200,000, for prioritized areas/sections).
4. Rounded to the nearest thousandth

# Maliview Wastewater System Upgrade

## Grant Opportunity

- October 22, 2020 CRD submitted an Investing in Canada Infrastructure Program (ICIP) grant application
- Plant upgrade eligible under green infrastructure category: environmental quality for increased capacity to treat and or manage wastewater for public use and benefit.
- Project must result in wastewater effluent that meets the *Wastewater Systems Effluent Regulations*, or provincial regulations where there is a federal equivalency agreement in place.
- Projects must be completed in five years following approval **(March 31, 2026)**

| <b>Ultimate Recipient</b>                                 | <b>Federal</b> | <b>Provincial</b> | <b>Total Senior Gov't Contribution (up to)</b> | <b>Local Gov't Contribution (Maliview ratepayers)</b> |
|---|----------------|-------------------|--|---|
| Local government with a population between 5,000 - 25,000 | <b>50%</b>     | <b>40%</b>        | <b>90%</b>                                     | <b>10%</b>  |
| Grant Distribution  | \$1,105,000    | \$884,000         | \$1,989,000                                    | \$210,000   |

# Maliview Wastewater System Upgrade

## Funding Implications

1. Estimated new debt will be funded from 94 lots within the service area
2. Grant submission requirements:
  - A bylaw identifying the source of the CRD's share of the project costs including sufficient funds for cost overruns.
  - Loan Authorization Bylaw No. 4370 was given third reading on November 18 to borrow \$2,210,000
3. Grant is not guaranteed and the process is very competitive.
4. If the grant is not awarded the capital upgrade is still required.
5. Grant requires a secured funding plan to cover all eligible cost of the project.
  - Cost overruns beyond budget contingencies
  - ongoing operational costs associated with the project.
6. ICIP will not consider applications if the project represents:
  - risk to the program funder if there is a potential for the project not to proceed should there be applicant funding difficulties
  - project does not have public support; and
  - the applicant does not demonstrate they are able to manage, maintain, and finance the project over the long term.
7. ICIP will not weight scoring of the grant should the ratepayers demonstrate their willingness to fund the entire project costs.
8. The loan authorization bylaw can be **held at third reading and amended to a lesser amount upon grant award.**

# Maliview Wastewater System Upgrade

## Borrowing Options

### Option 1

**Loan Authorization \$2,210,000**

Estimated Interest Rate

Cost of Borrowing

Annual Debt Payment

Annual Parcel Tax per taxable folio

15 year

1.93%

\$381,580

\$172,772

\$1,838

### Amortizations

**20 year**

2.24%

\$644,932

\$142,747

\$1,519

25 year

2.24%

\$808,281

\$120,731

\$1,284

30 year

2.24%

\$974,373

\$106,146

\$1,129

Bylaw No. 4370

### Option 2

**Loan Authorization \$221,000**

Estimated Interest Rate

Cost of Borrowing

Annual Debt Payment

Annual Parcel Tax per taxable folio

15 year

1.93%

\$38,158

\$17,277

\$184

20 year

2.24%

\$64,493

\$14,275

\$152

25 year

2.24%

\$80,828

\$12,073

\$128

30 year

2.24%

\$97,437

\$10,615

\$113

### Amortizations

# Maliview Wastewater System Upgrade

## Voting Options

### Option 1 Alternative Approval Process

- Commonly used in relation to long-term borrowing bylaws
- Borrowing initiative can be quashed if more than 10% of electors sign a counter-petition opposing the bylaw.
- A referendum must be held within 80 days if the need to proceed with the borrowing is still required.
- Less expensive than a referendum.

**Cost: \$20,000 est.**

### Option 2 Referendum

- Majority of the valid votes are counted in favour of the bylaw to fund a project.
- A referendum question is developed and then reviewed by the Inspector of Municipalities at the province, requesting the electors to approve the borrowing of a specified amount of funds for the project.
- Must wait at least six (6) months before seeking elector assent on another bylaw for the same purpose in a referendum.
- More expensive than a Alternative Approval Process

**Cost: \$60,000 est.**



# Maliview Wastewater System Upgrade

## Comments and Feedback

Thank you for attending this virtual Open House on the Maliview Wastewater System Upgrade Project.

We look forward to receiving your questions and feedback. Please fill out a survey which are available online at

[www.crd.bc.ca/project/capital-projects/maliview-sewer-plant](http://www.crd.bc.ca/project/capital-projects/maliview-sewer-plant)

Please have the survey forms returned by \_\_\_\_\_, 2021. By submitting them in person at the SSI CRD Admin office at 121 McPhillips Avenue or by email at [saltspring@crd.bc.ca](mailto:saltspring@crd.bc.ca).

Staff will be including the feedback in a compilation report and presented to the Maliview Sewer Commission.

## YOUR COMMENTS AND FEEDBACK