

REGIONAL DISTRICT OF NANAIMO  
LIQUID WASTE MANAGEMENT PLAN MONITORING COMMITTEE  
AGENDA

Thursday, May 17, 2018

12:30 P.M.

Committee Room

Pages

1. CALL TO ORDER
2. APPROVAL OF THE AGENDA
3. ADOPTION OF MINUTES
  - 3.1 Liquid Waste Management Plan Monitoring Committee Meeting - November 2, 2017 3

That the minutes of the Liquid Waste Management Plan Monitoring Committee meeting held November 2, 2017, be adopted.
4. DELEGATIONS
5. CORRESPONDENCE
  - 5.1 W3C Minutes - March 2, 2018 5
6. UNFINISHED BUSINESS
7. REPORTS
  - 7.1 Project / Program Updates:
    - 7.1.1 GNPCC Secondary Treatment (J. Haddou – verbal)
    - 7.1.2 Sewer Servicing Studies (S. De Pol – verbal)
    - 7.1.3 Qualicum Beach Manhole Repairs (S. De Pol – verbal)
    - 7.1.4 FCPC Expansion – Preliminary Design (M. Squire – verbal)
    - 7.1.5 Bay Avenue Pump Station (M. Squire – verbal)
    - 7.1.6 Chase River Forcemain (M. Squire – verbal)
    - 7.1.7 Drinking Water Watershed Protection Program (J. Pisani - verbal)

7.1.8 SepticSmart / Septic Maintenance Rebate Program (S. Norum – verbal)

7.1.9 Biosolids Program (S. Norum – verbal)

7.1.10 Liquid Waste Management Plan Annual Report (S. Norum – verbal)

8. BUSINESS ARISING FROM DELEGATIONS

9. NEW BUSINESS

10. ADJOURNMENT

**REGIONAL DISTRICT OF NANAIMO**

**MINUTES OF THE LIQUID WASTE MANAGEMENT PLAN MONITORING COMMITTEE MEETING**

**Thursday, November 2, 2017**

**12:30 P.M.**

**Committee Room**

In Attendance:	I. Thorpe	Chair
	A. McPherson	Electoral Area A
	B. Rogers	Electoral Area E
	B. Weir	Town of Qualicum Beach
	F. Spears	District of Lantzville
	D. Hooper	Public (District 68)
	K. Oates	City of Parksville
	R. Telegus	City of Parksville
	Regrets:	M. Lefebvre
V. Figueira		City of Parksville
J. Elliot		City of Nanaimo
G. Gibson		Island Health
D. Muir		Snuneymuxw First Nation
J. Rogers		Fisheries and Oceans Canada
P. Law		Business Community (District 68)
B. Medlar		Business Community (District 68)
Also in Attendance:	R. Alexander	General Manager RCU
	S. De Pol	Manager Wastewater Services
	S. Norum	Wastewater Program Coordinator
	J. Haddou	Project Coordinator
	R. Powell	Laboratory Technician
	R. Graves	Recording Secretary

**CALL TO ORDER**

The Chair called the meeting to order and respectfully acknowledged the Coast Salish Nations on whose traditional territory the meeting took place.

**APPROVAL OF THE AGENDA**

It was moved and seconded that the agenda be approved as presented.

**CARRIED UNANIMOUSLY**

**ADOPTION OF MINUTES**

**Liquid Waste Management Plan Monitoring Committee Meeting - June 12, 2017**

It was moved and seconded that the minutes of the Liquid Waste Management Plan Monitoring Committee meeting held June 12, 2017, be adopted.

CARRIED UNANIMOUSLY

**INVITED PRESENTATIONS**

**G3 Consulting, Dr. Greg Thomas re, Regional District of Nanaimo Receiving Environment Monitoring**

Dr. G. Thomas gave an overview on the Receiving Environment Monitoring which included background information, program components, study design and methodology, year 1 results and observations.

**REPORTS**

Staff gave verbal presentations on the following project/program reports:

- GNPCC Secondary Treatment
- FCPCC Expansion – Preliminary Design
- Sewer Servicing Studies
- Bay Avenue Pump Station
- Departure Bay Forcemain
- Chase River Forcemain
- Qualicum Beach Manhole Repairs
- Liquid Waste Management Plan Annual Report
- Biosolids Update
- Update on SepticSmart and the Septic Maintenance Rebate Program

**ADJOURNMENT**

It was moved and seconded that the meeting be adjourned.

CARRIED UNANIMOUSLY

TIME: 2:30 PM

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CHAIR

# W3C: WASTEWATER & WATER COLLABORATIVE MEETING

Friday, March 2, 2018; 9:00 am – 1:00 pm  
6300 Hammond Bay Road – RDN Committee Room

## MINUTES

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### ATTENDEES:

Adrian Limpus – RDN	Ian Lundman – RDN	Rob Lawrance – Nanaimo
Bob Weir – Qualicum Beach	James Haddou – RDN	Sean De Pol – RDN
Dean Mousseau – Nanaimo	Julie Pisani – RDN	Shelley Norum – RDN
Deanna McGillivray – RDN	Lorena Mueller – RDN	Vaughn Figueira – Parksville
Doris Fournier – Nanaimo	Mike Squire – RDN	
Gerald St. Pierre – RDN	Randy Alexander – RDN	

### ADOPT MINUTES

Minutes from the September 22, 2017 meeting were adopted.

### ROUNDTABLE UPDATE

#### (1) RDN Wastewater Services:

J. Haddou provided an update on the GNPCC Secondary Treatment Project:

- RDN is working with NAC and AECOM, as well as a number of subcontractors on this project.
- Blasting is nearly complete. The first phase was finished in Oct 2017, and the second phase started in January 2018, following the installation of the primary effluent bypass line.
- The primary effluent bypass line, one of the project's milestones, was commissioned in January 2018. Its installation allows for project activities in the area previously occupied by the old line to proceed.
- Site excavation is nearing completion. Currently, the contractor is about to finish the excavations for the No. 3 clarifier and bioreactor.
- The new screening Building is under construction, and the slab has been poured for the aeration and thickening building.
- All critical path items for the project are on schedule.

D. McGillivray provided an update on the Bowser Village Centre Wastewater Project:

- In March 2017, the project received \$7.6 million in provincial/federal grant funding through the Clean Water & Wastewater Fund to build a collection system, secondary treatment and disposal system. The total project budget is \$10.6 million. A petition process in August 2017 determined that service area property owners were willing to contribute their portion of the project costs (approximately

\$500,000). The remaining \$2.6 million will be collected as DCCs through a Development Cost Charges Front-End Agreement.

- RDN staff provided a project update at two public open houses in October 2017. Approximately 150 people total attended the two events.
- In December 2017, the RDN adopted bylaws establishing the Bowser Village Sanitary Sewer Service Area.
- Staff are working with consultant Stantec on updates to the previously completed collection system and treatment plant design. The Provincial and Federal permitting and approvals process is also underway.
- Staff are working with consultant Great Pacific to review the proposed outfall location. Detailed design will start when the location has been confirmed.

M. Squire provided an update on the following capital projects:

- Bay Ave Pump Station Upgrade: The project has a budget of \$2.5 million and includes an expansion to increase well and pump capacity, and other upgrades to address access and operational challenges. A peer review of the engineering for the project is underway, with a consultant taking a detailed look at the design.
- Chase River Force Main & Pump Station Upgrades: The project has a budget of \$2.1 million. The RFP for the work closes on March 8, with construction anticipated for summer 2019. The forcemain was twinned in 1998; the original forcemain was installed in 1998. We're currently running both forcemains at the same time, but the older one is at the end of its life and needs to be replaced. Some upgrades to the septage receiving site facility at the pump station are planned as part of the project. A request for proposals is open now.
- FCPCC Upgrade & Expansion: The project has a budget of \$32.9 Million. Odour control a part of expansion/upgrade. Activated sludge secondary treatment. New outfall and headworks may be delayed as not currently needed. RFQ for detailed design closes March 15. Construction is anticipated to take place in 2020 - 2021.

S. De Pol provided an update on RDN Wastewater Services' activities:

- Manhole Repairs and CCTV: Manhole repairs and CCTV inspections are planned for 2018 on Qualicum Beach and North Slope interceptor lines.
  - B. Weir suggested that RDN Wastewater Services and Town of Qualicum Beach could look at partnering on CCTV work.
- Departure Bay Forcemain: An assessment of the Departure Bay Forcemain has been completed, using smart ball sensor technology to read pipe wall thickness. RDN and City of Nanaimo staff will meet in the next few months to discuss plans for infrastructure replacement on Hammond Bay Rd, as timing on the water main replacement for Hammond Bay Rd near the Departure Bay bin wall is starting to move up the queue for the City.

S. Norum provided an update on the following programs:

- Liquid Waste Management Plan: The LWMP Annual Report is being prepared and will be presented to the LWMP Monitoring Committee in May; before the submission deadline in June.
- SepticSmart Workshops: There are four upcoming SepticSmart workshops scheduled for Spring 2018:
  - April 5, 2018 – Gabriola Agi Hall
  - April 12, 2018 – Lantzville Legion
  - April 26, 2018 – Nanoose Place

- May 2, 2018 – Qualicum Beach Civic Centre.

A newsletter recently went out via Canada Post with the workshop dates and summary of rebates.

- Septic Maintenance Rebate Program: This year we are offering the following rebates as well as a bonus of up to \$100 for workshop participants:
  - Up to \$200 for installing or replacing a distribution box (new in 2018)
  - Up to \$300 for installing risers
  - Up to \$100 for installing an effluent filter
  - \$600 towards replacing a malfunctioning system.
- Changes to Septage Receiving Rates: Trucked Liquid Waste Bylaw No. 1732 was amended in February to update septage rates to address increasing costs of treating septage. On March 1, the rate increased from \$0.23 per gallon to \$0.24 per gallon, with an increase of \$0.01 per gallon each year going forward. Prior to this amendment, septage revenue had not increased in over 10 years. These changes make our Septage Receiving Program a completely user paid service.

## (2) City of Parksville:

Vaughn Figueira provided an update on the City of Parksville's activities:

- Parksville Water Modelling: A new model will be run when the treatment plant comes online to inform operations going forward.
- Water Treatment Plant and Intake: Construction of the new water treatment plant and Englishman River water intake is well underway. Concrete work is nearly complete, and will be followed by construction of the steel superstructure. Commissioning is scheduled for summer 2019, with water being delivered to customers in the fall. The forcemain to top bridge is also completed. On the whole, the project is going well.
- Craig Bay and Martindale Rd Pump stations: The pump stations do not need major changes, but some alterations to pump configuration and horsepower will be done to improve operation.
- Standards and Specifications Update: The City's Standards and Specifications update was supported by Council. The update included consideration of the effects of climate change and shorter, higher intensity storms. Storm system capacity will be oversized to take into consideration climate change effects. For new development, 80% pipe capacity will be considered a full pipe in order to provide a "safety factor". The 80% recommendation was sourced from best practices from other communities, as well as predictions regarding future effects. A similar approach was taken for the sanitary system, to accommodate inflow and infiltration. Changes to the development requirements regarding trees were proposed, but were not accepted by council.

## (4) Town of Qualicum Beach:

B. Weir provided an update from the Town of Qualicum Beach:

- FOG: An investigation to determine the origins of FOG in the sanitary system is underway.
- Sewer Main Replacement: The Town is replacing a sewer main along the old Island Highway; the possibility of incorporating potential for future heat recovery project is being investigated.
- Stormwater Modelling: The town is currently modelling recent severe storms, and requirements for new sanitary and storm pipes will be upsized according to the model results.
- New Rain Garden: The intersection of Crescent Rd. and Memorial Ave. was recently reconfigured to redirect all runoff from downtown into a new rain garden before it flows into the storm system.

**(5) City of Nanaimo:**

R. Lawrence provided an update on City of Nanaimo’s activities:

- Natural Asset Management: The City is investigating an asset management strategy for its natural assets, as part of a pilot project with five other municipalities organized by David Suzuki Foundation. The current focus is on Buttertubs Marsh. One part of the project is an investigation the marsh’s function as a stormwater asset, how it fits within the larger stormwater system from an engineering perspective, and what that means for its valuation as an asset. Concerns regarding liability and ownership are also being reviewed. Hydraulic modelling has been completed for the marsh, taking into account climate change. A case study about the project is being drafted and City of Nanaimo staff will share with the W3C group when complete.

Dean Mousseau provided an update on City of Nanaimo’s activities:

- Stormwater Standards: The City’s stormwater standards have been updated to account for climate change and more intense storm events.
- Tree Protection Bylaw: The City requires developers to plant one tree per lot, using a covenant on each property to enforce. The City of Nanaimo [Tree Protection Bylaw](#) and [Urban Forestry Strategy](#) can be found on the City’s [website](#).
- Infrastructure Requirements for Higher Density: There has been an increase in interest in high rise developments. In response, the City is investigating the infrastructure upgrades required to service such developments and what the impacts of higher density developments on the city’s water, sanitary and storm water systems might be. “As and When” evaluations are conducted for water on each development application that comes in, and the City is looking to set up a similar system for sanitary sewer.
- Soils Bylaw: The City is planning to develop a comprehensive soils bylaw for new development later this year, to cover erosion and sediment controls, blasting, and watershed management.

D. Fournier provided an update on City of Nanaimo’s activities:

- 7<sup>th</sup> Street Pump Station: Design for the 7<sup>th</sup> Street pump station (formerly known as the City of Nanaimo’s Chase River pump station) is complete. Tendering is anticipated for this summer.
- “As and When” Sanitary Sewer Modelling: The City will be engaging consultants for a 5 year “as and when” sanitary sewer modelling program. The plan is to start by looking at 5 year storm events first. A representative from the RDN may be invited to the kickoff meeting for that project.
- DCC Updates: Adoption of updated DCC Bylaw is anticipated for late March 2018.
- Cross Connection Control Bylaw: A new Cross Connection Control Bylaw is set to go forward to council next week.

**(6) RDN Water Services:**

J. Pisani provided an update on the Drinking Water and Watershed Protection Program (DWWP):

- DWWP:
  - An RFP will be going out in the next couple of weeks for a surface water quality trend analysis project. It will be based on Community Watershed Monitoring Network data collected by volunteers over the past seven years. It is hoped that the report will be complete by the end of July.
  - The DWWP Action Plan will be updated in 2018 – 2019, as the original plan is nearing its 10 year horizon.



- The RDN is involved in a pilot program to become a provincial third party data source for groundwater data, by sharing the data from the Volunteer Observation Well Program.
- DWWP staff are investigating the possibility of using WaterTrax software to manage a large groundwater quality datasets shared through an opt-in reporting function in the Well Water Quality Testing Rebate Program, with the goal of moving to a data management solution with spatial and query functionality.
- A 10 year review of the Team WaterSmart Irrigation Check-Up Program is being conducted. Preliminary results from consultant indicate that about 64% of participants reduced their water use after a visit from Team WaterSmart.
- Water Conservation Plan: The Water Conservation Plan for the RDN’s Water Service Areas will be updated in 2018.

G. St. Pierre provided an update on RDN Water Services activities:

- San Pareil Water Service UV Disinfection Project: The treatment plant building for the UV disinfection project is constructed, and work on piping and controls has begun.
- Nanoose Water Main Replacement: A tender is out now for a water main replacement in the Nanoose system.
- Nanoose Bulk Water Pump Station: A new pump station is planned to supply the Nanoose system with bulk water from the Englishman River Water Service. 30% engineering drawings will be sent to Parksville engineering staff shortly for review and comment.
- SCADA Master Plan: An RFP for a SCADA Master Plan for all RDN water systems is closing next Thursday.
- Condition Assessments and Capital Plan: An RFP for condition assessments and capital planning for all RDN water systems is planned for later this year.
- Cross Connection Control Bylaw: Water Services staff are planning to bring a draft Cross Connection Control Bylaw to the Board later this year.

## FLOW MONITORING

A. Limpus provided a flow monitoring billing update from August 2017 to end of January 2018:

- The flow metering packages will be sent in the coming weeks and will include flow monitoring data for February 2018.
- In January 2018, the new partial flume for GNPCC was commissioned. It replaced the old laser meter. One month of data from the flume is included in this update.
- A leak in was discovered in the Lantzville meter’s weir. The leak has been fixed and the flow data has been adjusted accordingly.
- The Ocean Place meter has not been sending data since December. As such, a flow estimate has been used based on French Creek flows. There is good data to base this estimate on from both the French Creek and Johnstone Rd. meters between November and January.

## WET WEATHER EVENT JANUARY 28-29, 2018

L. Mueller provided an update on the wet weather event on January 28-29, 2018:

- There was a major rain event at end of January, which caused overflows along the interceptor line at the Brechin Overflow and the Millstone Siphon.
- Operations staff noticed increasing levels in Departure Bay Pup Station (DBPS) wet well at about 4:40 pm on the 28<sup>th</sup> and started the 4<sup>th</sup> pump. Then, at 8:20 pm there was a high level alarm at DBPS and

overflows occurred at the Brechin Overflow and the Millstone Siphon. The peak flow of the event corresponded with low tide. On the 29<sup>th</sup> at 4:40 pm the overflow appeared to have stopped.

- RDN staff have notified Ministry of Environment, the Shellfish Sanitation Program, the First Nations Health Authority, and Island Health about the event.
- Investigations are ongoing, and are looking at siphons, level sensors, low pressure alarms, condition of flapper valves, and wet weather operating procedures. RDN staff did a site investigation on February 6<sup>th</sup> and met with City of Nanaimo staff on the 7<sup>th</sup>.
- RDN Water Services is ISO14001 certified. There is a detailed investigation procedure to be followed when incidents such as this one happen.

## SOURCE CONTROL

S. Norum provided an update on Source Control initiatives:

- Pollution Prevention Website: At the last W3C, the RDN previewed the “Unflushables” videos shared by Metro Vancouver. The videos were added to an updated source control webpage at [www.rdn.bc.ca/pollution-prevention](http://www.rdn.bc.ca/pollution-prevention).
- Emerging Substances of Concern (ESOCs): Urban Systems has produced an advisory support memo on ESOCs and Microplastics. The purpose of the memo was to provide a current overview of the topic as it relates to our systems. There are not yet any regulations around ESOCs. The memo identifies some main responses to ESOCs including, source control and education, wastewater treatment, sampling and monitoring, and regulatory change.
  - R. Lawrence suggested that we look at available effluent quality data and target some messaging according to the findings of the data review.

## INFLOW AND INFILTRATION

D. Fournier provided an update on Inflow and Infiltration (I & I) initiatives:

- Townsite Stormwater Master Plan: Urban Systems has completed an I & I study for the Townsite Stormwater Master Plan, and hosted a workshop for city staff to inform an I & I strategy for the City. A draft report has been reviewed by staff, and the report is anticipated to be completed in the coming months. When complete, the City will share the I & I strategy with the W3C, so that other municipalities can use it as a starting point to prepare something that works for their systems.

## CLOSE AND PROPOSE NEXT MEETING

The next W3C meeting is tentatively scheduled for September 14, 2018.