



175 Ingram Street  
Duncan, BC V9L 1N8  
www.cvrd.bc.ca

Office: 250.746.2500  
Fax: 250.746.2513  
Toll Free: 1.800.665.3955

November 16, 2015

File No. 5345-20-CSLWMP/AMEND3

VIA EMAIL: [kirsten.white@gov.bc.ca](mailto:kirsten.white@gov.bc.ca)

Honourable Mary Polak  
Minister of Environment  
PO Box 9047, Stn Prov Govt  
VICTORIA BC V8W 2S6

Dear Minister Polak:

**RE: COWICHAN VALLEY REGIONAL DISTRICT  
CENTRAL SECTOR LIQUID WASTE MANAGEMENT PLAN AMENDMENT NO. 3**

Enclosed please find Amendment No. 3 to the Cowichan Valley Regional District's (CVRD)'s Central Sector Liquid Waste Management Plan (CSLWMP), along with a certified Board resolution approving the changes made. In addition to these items, attached for your consideration are the Stage 1 Environmental Impact Study conducted during the amendment process, reports detailing consultation activities undertaken pursuant to the *Interim Guidelines for Preparing Liquid Waste Management Plans*, as well as a letter of support from Cowichan Tribes.

Should you have any questions, please contact Brian Dennison, Manager, Water Management Division, at [bdennison@cvrd.bc.ca](mailto:bdennison@cvrd.bc.ca) or via phone at 250-746-2530. We look forward to receiving your response following a review of the documents provided.

Sincerely,

Jon Lefebure  
Chair, Cowichan Valley Regional District

BWDD:dm

pc: Honourable Coralee Oakes, Minister of Community, Sport and Cultural Development, [coralee.oakes.MLA@leg.bc.ca](mailto:coralee.oakes.MLA@leg.bc.ca)  
Liam Edwards, Acting Executive Director, Local Government Division, Ministry of Community, Sport and Cultural Development, [Liam.Edwards@gov.bc.ca](mailto:Liam.Edwards@gov.bc.ca)  
AJ Downie, Director, Authorizations South, Environmental Protection Division, Ministry of Environment, [AJ.Downie@gov.bc.ca](mailto:AJ.Downie@gov.bc.ca)  
Brian Dennison, P.Eng., Manager, Water Management Division, CVRD, [bdennison@cvrd.bc.ca](mailto:bdennison@cvrd.bc.ca)

\\cvrdstore1\IE\_EI\Water Management\LWM\CS\2013Amendment\LetterToMoE-Amend3-Nov1615.docx



## COWICHAN VALLEY REGIONAL DISTRICT

Resolution dated: November 12, 2015

**That the changes made to the Central Sector Liquid Waste Management Plan as detailed in Attachment A of the Water Management Division report dated November 2, 2015 be endorsed and submitted to the Minister of Environment for approval.**

**MOTION CARRIED**

I, Joe Barry, Corporate Secretary of the Cowichan Valley Regional District do hereby certify the above to be a true and correct copy of an excerpt of the minutes of the Regular meeting of the Board of Directors of the Cowichan Valley Regional District held on Wednesday, November 12, 2015, applicable to Resolution No. 15-580.

NOVEMBER 18, 2015

Date

Joe Barry  
Corporate Secretary

## Appendix A: CSLWMP Amendment No. 3 Summary

The following changes have been made to the Central Sector Liquid Waste Management Plan (CSLWMP), as part of Amendment No. 3, November 2015.

### Major Additions

#### 2.6 Amendment No. 3

The Cowichan Valley Regional District (CVRD), in partnership with the District of North Cowichan, City of Duncan and Cowichan Tribes, has undertaken pre-design work consistent with the commitment in Section 3.8 of the CSLWMP. The purpose of Amendment No. 3 is to identify the new location for the point of discharge for Joint Utilities Board (JUB) treated effluent within the marine environment of Satellite Channel. Relocating the effluent outfall was identified as a priority and the issue of focus for this amendment by the CSLWMP Steering Committee, with support from the CSLWMP Public and Technical Committee. The new outfall will be planned to accommodate future growth for a 50 year time horizon. **Based on 1999 projections, the treatment plant capacity was to be upgraded to suit a population of at least 70,000 people. While the actual population growth rate has been lower than previously projected, this population was used for preliminary engineering design calculations as a maximum.**

The CVRD commissioned Great Pacific Consulting Ltd. in 2014 to complete a Stage 1 Environmental Impact Study (EIS), engineering feasibility studies and stakeholder and community consultation regarding **discharge and routing options for a marine outfall to Satellite Channel. Parallel to this study, information on alternative discharge options was gathered and summarized. Among these options, a marine outfall to Satellite Channel was identified as the option of greatest confidence.** Additional study was also conducted on emerging contaminants and strategies for impact mitigation, which is included as an appendix to the EIS.

Consultation with First Nations and local stakeholders were undertaken to identify sensitive areas and to discuss any public concerns regarding the plan to move the discharge from the Cowichan River to Satellite Channel. **Consultation with First Nations was undertaken as a parallel process, separate from broader public consultation.** First Nations consultation activities were undertaken according to the specifications outlined by the First Nations themselves and in line with provincial guidance documents.

While the broader community was invited to participate in the consultation process, the first groups that were focused on for engagement were stakeholder and community groups that were local, and that had a stated or obvious interest in the river and marine environments under consideration. The consultation with stakeholder and community groups was designed to:

- Present information about the project, including highly technical information
- Provide access for groups to discuss the technical approach with staff and engineering consultants who had completed it
- Provide opportunities for input and information exchange
- Expand as needed to address public issues and questions raised during the first half of the consultation program

A full report on the consultation process is included as Appendix 7: Central Sector LWMP Amendment Public Consultation Summary Report.

Feedback was collected and incorporated during the planning process. This information enriched data obtained from government sources on key limitations for a new outfall in the Satellite Channel area, such as valued fishing areas in Satellite Channel, intertidal and subtidal bivalve shellfish, and commercial anchor berths.

A suitable discharge location was recommended near Cherry Point marina, approximately 500 metres east of the existing Lambourn outfall (operated by the CVRD). A Stage 1 EIS was completed for a marine discharge in this general location. **The EIS concluded that the proposed discharge will meet criteria outlined in the Municipal Wastewater Regulation for effluent quality from the JUB lagoons and for outfall design, and that the discharge would be a lower risk to human health and the environment in Satellite Channel as compared to the Cowichan River.**

Recommendations from the Stage 1 EIS included the collection of site specific oceanographic data including currents and water column stratification. The information will be used to refine the results of preliminary dilution modelling completed in the Stage 1 EIS. Recommendations were also made for comprehensive effluent characterization, and establishing a receiving environment monitoring program, including the collection of baseline water and sediment quality data prior to commissioning the marine outfall.

**The routing study concluded that a transmission main and marine outfall route was feasible to convey effluent from the JUB treatment plant to Satellite Channel. The scope of this study was to identify possible routing options for which more detailed investigative work will be required.**

## Revisions

### *Revision 1*

#### Delete:

#### **1.0 Objectives and Guiding Principles**

The objective of the Cowichan Valley Regional District (CVRD) Central Sector Liquid Waste Management Plan (LWMP) is the establishment of a intermediate term (10 to 20 years) strategy that will provide a comprehensive approach to managing liquid waste reduction, treatment, utilization and disposal within the Central Sector. The Central Sector comprises the City of Duncan, the southern part of the District of North Cowichan, parts of Electoral Areas (EA) D, E and F and part of the Cowichan Tribes land. The CVRD acknowledges that the Cowichan Tribes have jurisdiction/responsibility over all aspects of planning for Indian Reserves. Even though the Plan does not apply to Indian Reserves, as members of the community, the Cowichan Tribes were invited and participated in the development of this Plan.

#### Add:

#### **1.0 Objectives and Guiding Principles**

The objective of the Cowichan Valley Regional District (CVRD) Central Sector Liquid Waste Management Plan (LWMP) is the establishment of an intermediate term (10 to 20 years) strategy that will provide a comprehensive approach to managing liquid waste reduction, treatment, utilization and disposal within the Central Sector. The Central Sector comprises the City of Duncan, the southern part of the District of North Cowichan, parts of Electoral Areas (EA) D, E and F and part of the Cowichan Tribes land. The CVRD acknowledges that the Cowichan Tribes have jurisdiction/responsibility over all aspects of planning for Cowichan Tribes reserve land. While the Plan has no regulatory bearing on activities conducted on reserve land, as users of the Joint Utilities Board (JUB) sewer system and as the proprietor of the land where the JUB wastewater treatment plant is situated, the Cowichan Tribes were invited and participated in the development of this Plan.

## Revision 2

Delete:

### **2.2 Background**

Approximately 35,000 people reside in the Central Sector. The projected year 2035 population is 79,000. The Joint Utilities Board (JUB) lagoon system and the Cowichan Bay treatment plant presently serve about 20,000 people within the urbanized areas. The remaining approximately 15,000 people rely primarily on individual septic tank and ground disposal systems. In the future it is projected the urbanized area requiring centralized treatment and disposal/reuse facilities will total about 67,000 people and about 12,000 people in rural areas will rely primarily on on-site systems.

Add:

### **2.2 Background**

Approximately 35,000 people reside in the Central Sector. An updated population projection for the year 2055 is 42,300. The Joint Utilities Board (JUB) lagoon system and the Cowichan Bay treatment plant presently serve about 20,000 people within the urbanized areas. The remaining approximately 15,000 people rely primarily on individual septic tank and ground disposal systems. The Stage 1 Environmental Impact Study completed for Amendment No.3 was conservatively based on the premise of a future service population of 70,000. The projection as of 2015 is that the urbanized area requiring centralized treatment and disposal/reuse facilities will total about 36,000 people and about 6,000 people in rural areas will rely primarily on on-site systems.

## Revision 3

Delete:

### **3.8 Future New Treatment Plant and Outfall**

The CVRD, in co-operation with the District of North Cowichan, the City of Duncan and the Cowichan Tribes, will in the intermediate future, continue efforts to locate a new site for a central treatment plant that can service a minimum 70,000 people.

In conjunction with treatment plant site selection the CVRD, in co-operation with the District of North Cowichan, the City of Duncan and the Cowichan Tribes, will in the intermediate future, undertake pre-design, environmental and cost benefit study work to evaluate outfall routing options for discharge of effluent to Satellite Channel.

Pre-discharge outfall environmental monitoring work will be undertaken in conjunction with the outfall pre-design work.

A public education and consultation process will be undertaken to support the treatment plant site selection and the outfall study work.

Add:

### **3.8 Marine Outfall**

The Joint Utilities Board (JUB), in partnership with the CVRD and the Cowichan Tribes, will move the point of discharge of effluent from the Cowichan River to the marine environment of Satellite Channel, as recommended in the Stage 1 Environmental Impact Study.

The JUB will undertake a Stage 2 Environmental Impact Study, including pre-discharge receiving environment monitoring work, and developing an ongoing receiving environment monitoring program, as outlined in the Stage 1 Environmental Impact Study.

An effluent conveyance pipeline will be established between the JUB lagoons and a point of discharge within the marine discharge zone recommended in the Stage 1 Environmental Impact Study.

### 3.9 Future New Treatment Plant

The CVRD, in co-operation with the District of North Cowichan, the City of Duncan and the Cowichan Tribes, will in the intermediate future continue efforts to locate a new site for a central treatment plant that can service a minimum 70,000 people, or a maximum flow of 77,000 m<sup>3</sup>/day.

#### Revision 4

Delete:

#### 4.1 Implementation Schedule and Costs

Preliminary cost estimates for LWMP program elements along with the preliminary implementation schedule are summarized in Table 4.1.

Program or Project	Estimated Cost (1999 \$)	Schedule
8. Central Plant and Outfall Siting Studies	\$100,000	2005 to 2010
- Plant Site Investigations	\$105,000	2005 to 2010
- Outfall Pre-design Studies	\$85,000	2005 to 2010
- Outfall Baseline Monitoring		
<b>TOTAL</b>	<b>\$3,560,000</b>	

The LWMP program and project costs total \$3,560,000 (1999 dollars) and the implementation schedule spans years 1998 through year 2015.

Add:

#### 4.1 Implementation Schedule and Costs

Preliminary cost estimates for LWMP program elements along with the preliminary implementation schedule are summarized in Table 4.1.

Program or Project	Estimated Cost (1999 \$)	Schedule
8. Central Plant and Outfall Siting Studies	\$100,000	2005 to 2010
- Plant Site Investigations	\$105,000	
- Outfall Pre-Design Studies	\$85,000	
- Outfall Baseline Monitoring		
<b>Subtotal</b>	<b>\$3,560,000</b>	
Program or Project	Estimated Cost (2015 \$)	Schedule
9. Outfall Relocation and New Routing	\$26,500,000	2016-2018
- Capital infrastructure costs		
<b>TOTAL</b>	<b>\$30,060,000</b>	

## *Revision 5*

Add:

### **4.2 Proposed Financing**

Program item 9 (outfall relocation and new routing) capital costs are expected to be financed over a 20-year period at 6%, and assuming on average 21,000 people (12,200 connections). This equates to an anticipated increase in user fees of approximately \$100 to \$120 per year for users of the Eagle Heights and Cowichan Bay sewer systems, an approximate annual increase of \$30 for North Cowichan sewer system users and an approximate annual increase of \$125 for City of Duncan sewer system users, based on Class D cost estimates for the project in 2015 dollars. The amounts cited are based on no grant funding assistance.