

**DATE:** June 10, 2016 **FILE:** 5360-03

**TO:** Chair and Directors  
Comox Valley Regional District (Comox Strathcona Waste Management) Board

**FROM:** Debra Oakman, CPA, CMA  
Chief Administrative Officer

**RE:** Comox Valley Waste Management Centre – New engineered landfill cell 1  
construction contract award

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### **Purpose**

The purpose of this report is to request board approval for the award of a contract to New Lining Solutions Inc. (NLS) for the construction of the new engineered landfill cell 1 (cell 1) at the Comox Valley Waste Management Centre (CVWMC).

### **Policy analysis**

The Comox Strathcona solid waste management plan (SWMP) approved by the Ministry of Environment (MoE) on May 23, 2013 highlights landfill space limitations and recommends the construction of a new engineered landfill by 2018.

Included in the Comox Valley Regional District (CVRD) 2015 to 2018 strategic priorities for the Comox Strathcona waste management (CSWM) service is the construction of a new engineered landfill at CVWMC.

Bylaw No.120, being the “Comox Valley Regional Growth Strategy” states that:

*“In anticipation of the Comox Valley Waste Management Centre reaching capacity, the Regional Solid Waste Management Plan will consider a new landfill site, waste to energy and other long-term alternatives. Any new site is expected to have a modern facility with both leachate and landfill gas collection capabilities”*

Bylaw No.351 being the “Comox Strathcona Waste Management Service (Capital Projects) Loan Authorization Bylaw No. 351 2014” adopted November 20, 2014 authorizes the borrowing of \$45,295,000 for capital projects in the CSWM service and in particular \$21,550,000 for the Comox Valley new landfill expansion project and leachate treatment facility.

Bylaw No. 284, being the “Comox Valley Regional District Delegation of Purchasing Authority, Bylaw No. 284, 2013” delegates authority for regional district purchases and requires that the board approve all contracts in excess of \$100,000.

### **Executive summary**

Recent airspace surveys at the CVWMC indicate that with the current incoming waste tonnages the existing landfill will reach final capacity approximately in September 2017. A new landfill is required at the CVWMC for continued operations and construction is scheduled for the summer and fall of 2016.

On May 4, 2016 an invitation to tender (ITT) for the construction of cell 1 was issued with a closing date of May 26, 2016. Six tenders were received and thoroughly reviewed by Tetra Tech EBA (TT) to confirm that the tenders were compliant and that tenderers demonstrated a clear understanding of the objectives and requirements in accordance with the invitation to tender (ITT).

The construction of cell 1 is a large civil project, which includes clearing and grubbing, excavation of an average 10 metre deep cell, installation of an engineered base liner system, installation of a leachate collection system, and construction of the related service road.

A separate request for proposals (RFP) has been issued for the design and construction of a leachate treatment facility (LTF) and with a closing date for proposals in July 2016. In order to take advantage of the earthworks pricing, certain items under the ITT for the construction of cell 1 have been priced as provisional work and will only be completed at the discretion of the CVRD in the fall. Provisional items to be completed would be awarded to the successful contractor as a change order at that time.

NLS provided the lowest price for the base price plus provisional items and met all the qualifications of the ITT as per TT's tender evaluation results. Staff recommend to award the contract based on the total amount for the base price and contingency, excluding GST, at a value of \$5,756,081.30. The tender amount for the provisional items to be awarded at a later date amount to \$555,970.00, excluding GST.

**Recommendation from the chief administrative officer:**

THAT a contract be awarded to New Lining Solutions Inc. for the Comox Strathcona waste management service new engineered landfill – cell 1 project in an amount not to exceed \$5,756,081.30 plus applicable taxes;

AND FURTHER THAT the chair and corporate legislative officer be authorized to execute the contract.

Respectfully:

***D. Oakman***

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Debra Oakman, CPA, CMA  
Chief Administrative Officer

**Background/current situation**

The CVWMC (formerly Pidgeon Lake Landfill) was historically used for the disposal of coal mining wastes from approximately 1849 to 1964, after which the site was used as a municipal solid waste landfill by the Village of Cumberland until 1977.<sup>1</sup> The CVRD took over operations of the site in 1977.<sup>2</sup>

Recent airspace surveys at the CVWMC indicate that with the current incoming waste tonnages the existing landfill will reach final capacity approximately in September 2017. A new landfill is required at the CVWMC for continued operations and construction is scheduled for the summer and fall of 2016.

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<sup>1</sup> **CH2MHILL.** *Comox Valley Waste Management Centre - Landfill Operations Plan.* Burnaby: 2009

<sup>2</sup> **AECOM.** *Stage 1 Report: Existing Solid Waste Management System.* Burnaby: 2010

According to the 2012 solid waste management plan (SWMP), expansion of the landfills at the Comox Valley waste management centre (CVWMC) and the Campbell River waste management centre (CRWMC) is planned to provide future disposal capacity. The construction of the CVWMC new engineered landfill has been identified as a priority in the Comox Valley Regional District (CVRD) strategic priorities.

Tetra Tech EBA (TT) was awarded the contract for the design of the new engineered landfill cell 1 at the CVWMC on July 18<sup>th</sup>, 2013. TT completed the detailed design and an invitation to tender for the cell 1 construction was issued in May 2016.

Cell 1 construction is a large, complex and multi-disciplined capital project with an aggressive summer 2016 construction schedule. The project is essentially an earthworks project consisting of the excavation and construction of a 10 metre average deep cell, the installation of an engineered base liner system, leachate collection system and the construction of the related service road. The construction of cell 1 will meet the new British Columbia MoE landfill design criteria and will allow an estimated six years of operation.

TT was contracted January 2016 to develop the tender package for the construction of cell 1 and to evaluate the tenders as per the tender specifications. In May 2016, an invitation to tender (ITT) for the “Comox Valley Waste Management Centre – New Engineered Landfill Cell 1 Construction” was issued with a closing date of May 26, 2016. Six compliant tenders were received for the project. Based on the TT tender evaluation, New Lining Solutions Inc. provided the lowest price and met all the qualifications of the ITT. Summary of the tender prices are provided below in table #1. The tender evaluation summary conducted by TT can be found in appendix A.

**Table #1: CVWMC Engineered Landfill Cell 1 Tender Summary**

#	Name of Firm	Total Base + Provisional items + Contingency (Excluding GST)
1	New Lining Solutions Inc.	\$6,312,051.30
2	Wacor Holdings Ltd.	\$6,347,930.48
3	Cantex-Okanagan Construction Ltd	\$6,764,494.12
4	Hazelwood Construction Services Inc.	\$7,306,171.13
5	Jacob Bros. Construction Inc.	\$7,905,242.10
6	JJM Construction Ltd.	\$8,175,953.00

New Lining Solutions is based in Alberta and has special expertise in the supply and installation of engineered base liner systems (geosynthetic liners). New Lining Solutions will subcontract to Upland Contracting from Campbell River for all civil works associated with the project.

A separate request for proposals (RFP) has been issued for the design and construction of a leachate treatment facility (LTF) and is expected to close on July 16<sup>th</sup> 2016. In order to take advantage of the earthworks pricing, certain items under the ITT for the construction of cell 1 have been priced as ‘provisional work’ and will only be completed at the discretion of the CVRD in the fall. Provisional items to be completed would be awarded to the successful contractor as a change order at that time. Therefore the contract recommended to be awarded to New Linings Solutions Inc. at this time is in an amount of \$5,756,081.30 excluding GST. The tender amount for the provisional items to be determined at a later date amount to \$555,970.00, excluding GST.

**Options**

1. Award a contract for the CVWMC new engineered landfill – cell 1 construction to New Lining Solutions Inc. for the base contract work in the amount of \$5,756,081.30 (excluding taxes)

2. Do not award the contract and seek further board direction.

The invitation to tender was an open and transparent process, issued with the intention of entering into a contract with the successful tenderer. As such, staff recommend option 1 in order to ensure that there is no disruption to the service at the CVWMC and both the 2012 SWMP and strategic priorities objectives are met.

### **Financial factors**

An allowance of \$11,000,000 for the new engineered landfill project is included in 2016 of the 2016-2020 adopted financial plan for the CSWM service to be funded by a combination of long term debt and reserves. This allowance includes cell 1 construction, engineering and consulting services, the leachate treatment facility construction (yet to be awarded) and other costs associated with the overall project.

The project will be managed as per criteria provided by the Auditor General for Local Government (AGLG) in their capital procurement booklet. Construction management will focus on monitoring the scope, schedule and budget, managing risk and changes, managing costs, reporting and documentation.

### **Legal factors**

The following governing regulations apply to the construction of cell 1. Included within these regulations are the legal requirements for compliance and the penalties associated for non-compliance.

- Landfill Criteria for Municipal Solid Waste, Revised Draft Second Edition 2015, MoE
- Environmental Management Act 2003,
- Landfill Gas Management Regulation 2008, MoE

TT has reviewed each tender to ensure it met the objectives and requirements of the tender specifications.

In addition, a third party legal review has been conducted by Stewart McDannold Stuart Barristers & Solicitors.

### **Regional growth strategy implications**

Cell 1 project is part of the capital projects included in the SWMP. This project represents a major improvement in municipal solid waste disposal in the region, reducing environmental impacts and providing major sustainability improvements leading towards the goals and objectives of the regional growth strategy in the following policy areas:

- Infrastructure: Provide affordable, effective and efficient infrastructure that conserves land, water and energy resourced;
- Public health and safety: Support a high quality of life through the protection and enhancement of community health, safety and well-being; and
- Climate change: Minimize regional greenhouse gas emissions and plan for adaptation.

The construction of cell 1 is supported by Regional Growth Strategy Goal 5: Infrastructure.

*“In anticipation of the Comox Valley Waste Management Centre reaching capacity, the Regional Solid Waste Management Plan will consider a new landfill site, waste to energy and other long-term alternatives. Any new site is expected to have a modern facility with both leachate and landfill gas collection capabilities.”*

**Intergovernmental factors**

The construction of a new engineered landfill at the CVWMC is part of the 2012 SWMP which was developed through consultation with member municipalities, planning committees, First Nations and various public forums. From the 2012 SWMP:

*“The expansion at the Comox Valley waste management centre will be undertaken before expansion at the Campbell River waste management centre.*

The CVWMC is located within the Village of Cumberland (VoC). An application for the phase 1 closure project and related works development permit was submitted on March 11<sup>th</sup>, 2015 and according to the VoC, the development permit can be used for the cell 1 construction.

Cell 1 construction aide with the compliance of the following provincial regulations:

- Landfill Criteria for Municipal Solid Waste, Revised Draft Second Edition 2015, MoE
- Environmental Management Act (EMA) 2003,
- Landfill Gas Management Regulation 2008, MoE

**Interdepartmental involvement**

The CVWMC cell 1 project is being led by the engineering services branch with support from financial services for project tendering and contract review and also by corporate services for the communication plan of the project’s progress.

**Citizen/public relations**

In order to ensure public transparency, the public will be regularly informed on the status of the project. This will include information pamphlets and newsletter updates to the Comox Strathcona waste management website.

Concurrence:

***G. Bau Baiges***

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Gabriel Bau Baiges, P.Eng.  
Manager of CSWM Projects

Concurrence:

***J. Mathers***

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James Mathers  
Senior Manager of CSWM  
Services

Concurrence:

***M. Rutten***

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Marc Rutten, P.Eng  
General Manager of  
Engineering Services

Attachment: Appendix ‘A’ – Tetra Tech EBA Tender Evaluation Summary – Comox Valley Waste Management Centre New Engineered Landfill -Cell 1



June 9, 2016

ISSUED FOR USE  
FILE: 704-SWM.SWOP03105-01.001

Comox Valley Regional District  
600 Comox Road  
Courtenay, BC V9N 3P6

**Attention:** Mr. Gabriel Bau Baiges, PEng, PMP, MBA  
Manager of Projects CSWM Services, Comox Valley Regional District

**Subject:** Tender Evaluation Summary  
Comox Valley Waste Management Centre New Engineered Landfill – Cell 1

## 1.0 INTRODUCTION

This letter has been prepared by Tetra Tech EBA Inc. (Tetra Tech) to provide a recommendation to the Comox Valley Regional District (CVRD) regarding the tender for the Comox Valley Waste Management Centre (CVWMC) New Engineered Landfill Cell 1.

The CVWMC New Engineered Landfill – Cell 1 tender package was advertised on May 3, 2016 and closed on May 26, 2016 at 1:00 pm Pacific Time. A mandatory pre-tender meeting was held on May 11, 2016 at 10:00 am Pacific Time. Approximately ten (10) contractors, subcontractors, and vendors attended the pre-tender meeting. Of those that attended the pre-tender meeting, six (6) contractors submitted a tender package.

The works outlined in the tender documents included the following:

- Mobilization and set up of contractor and general works.
- Clearing and grubbing of treed area in preparation for Cell 1 and stockpiling.
- Soil stripping and stockpiling in various areas of the site.
- Earthworks including Cell 1 excavation, berm, ditch, and road construction.
- Road surfacing and culvert installation.
- Preparation and grading of landfill slopes.
- Installation of an engineered liner system including subgrade, geosynthetic liner system, and drainage stone.
- Installation of the leachate collection and removal system.
- Installation of a leachate pumping system and corresponding electrical supply.
- Site restoration including topsoil placement and hydroseeding.

The works outlined in the tender documents also included the following provisional items:

- Leachate equalization pond excavation, berm, and road construction.
- Monitoring well decommissioning.
- Installation of perimeter chain link fencing and gates for the leachate equalization pond.
- Road surfacing for leachate equalization pond.
- Installation of engineered liner system for the leachate equalization pond including subgrade, geosynthetic liner system, leak detection system, and gravel protection layer.
- Leachate handling infrastructure including leachate and effluent forcemains, riser pipes, and maintenance manholes.

The following six (6) contractors submitted tender packages (in alphabetical order):

- Cantex-Okanagan Construction Ltd. (Cantex)
- Hazelwood Construction Services Inc. (Hazelwood)
- Jacob Bros. Construction Inc. (Jacob Bros.)
- JJM Construction Ltd. (JJM)
- New Lining Solutions Inc. (New Lining)
- Wacor Holdings Ltd. (Wacor)

## 2.0 TENDER EVALUATION

Tenderers were advised through the tender process to provide Base Pricing, Total Pricing (Base and Provisional Items) and Alternative Pricing (for cost savings alternatives) and that the CVRD would consider any cost savings to the tender in their evaluation.

All tender submissions were reviewed to confirm that they were compliant and to assess project experience, sub-contractors and suppliers, supervisory personnel, statement of equipment, statement of manufacturers and suppliers, and statement of proposed alternate materials.

In order to confirm that pricing submitted by all tenderers was in accordance with the tender specifications, the Schedule of Prices for each of the submitted tender packages was checked and corrected for arithmetical errors (as allowed for in Section 1-2.25 of the tender documents).

An evaluation was completed to confirm that addenda, bonding, and sub-contractors submitted by all tenderers was in accordance with the tender specifications. All of the tender packages submitted acknowledged the receipt of three (3) addenda and submitted bonding and sub-contractor information that met the tender specification requirements.

In order to confirm that project experience, equipment and personnel submitted by all tenderers was in accordance with the tender specifications, related information for each of the submitted tender packages was evaluated. References were contacted as required and asked a number of questions related to performance on contracts within their jurisdiction and under their management.

Based on Tetra Tech's review of the tender pricing, contractual requirements, and reference checks Tetra Tech is recommending that the CVRD award the CVWMC New Engineered Landfill – Cell 1 tender to New Lining Solutions Inc. at the amount of \$6,627,653.87 including provisional items, all applicable taxes and contingency. The table below provides a cost breakdown.

**Breakdown of New Lining Solutions Inc. Tender Price**

	New Lining Solutions Inc.
Subtotal Base	\$5,256,081.30
Subtotal Provisional	\$555,970.00
Subtotal (Base + Provisional)	\$5,812,051.30
Contingency	\$500,000.00
Total Before Taxes	\$6,312,051.30
Taxes	\$315,602.57
Total (Base, Provisional, Contingency and Taxes)	\$6,627,653.87

**3.0 CLOSURE**

We trust this letter meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,  
Tetra Tech EBA Inc.



Prepared by:  
Chloe Stone, P.Eng. (AB, BC)  
Project Engineer  
Solid Waste Management Practice  
Direct Line: 403.723.6890  
Chloe.Stone@tetrattech.com

Reviewed by:  
Jeroen Pieterse, P.Eng. (AB, BC)  
Manager - Projects  
Solid Waste Management Practice  
Direct Line: 403.723.5962  
Jeroen.Pieterse@tetrattech.com