

Minutes of the meeting of the Liquid Waste Management Plan (LWMP) Joint Technical and Public Advisory Committees (TACPAC) Meeting #9 held on Wednesday, March 4, 2020 at the Comox Valley Curling Club, commencing at 9:00 am.

<b>PRESENT:</b>	A. Habkirk, Chair and Facilitator	
	P. Nash, LWMP Project Coordinator	
	K. La Rose, Senior Manager of Water/Wastewater	CVRD
	J. Boguski, Branch Assistant – Engineering Services	CVRD
	Z. Berkey, Engineering Analyst	CVRD
	C. Wile, Manager of External Relations	CVRD
	A. Gibb	WSP
	M. Swift, Town of Comox Councillor	PAC
	W. Cole-Hamilton, City of Courtenay Councillor	PAC
	D. Frisch, City of Courtenay Councillor Alternate (observer)	PAC
	A. Hamir, Lazo North – Electoral Area B Director	PAC
	A. Gower, Comox Valley Chamber of Commerce	PAC
	T. Ennis, CV Conservation Partnership Alternate	PAC
	S. Carey, Courtenay Resident Representative	PAC
	K. Niemi, Courtenay Resident Representative	PAC
	K. van Velzen, Comox Resident Representative	PAC
	D. Jacquest, Comox Resident Representative	PAC
	R. Craig, Comox Resident Representative	PAC
	L. Aitken, Area B Representative Alternate (observer)	PAC
	M. Lang, Area B Resident Representative	PAC
	S. Ashfield, Town of Comox Engineering	TAC
	A. Gaudet, Department of National Defence	TAC

ITEM	DESCRIPTION	OWNER
9.1	<b>Call to Order</b> Meeting called to order at 9:00am	Allison Habkirk
9.2	<b>Review of Minutes of Meeting #8</b> Include within item 8.5 – if consensus is not reached on a decision point both the majority and minority view points will be brought forward to the Sewage Commission for consideration as described in the process outlined within the terms of reference for TACPAC.  The addition of water filtration disk will change the operating and maintenance (O&M) cost greatly, that's not clarified in the minutes, and will this be discussed today? - Will be discussed as part of today's agenda.  Will the cumulative impact of the LWMP be detailed/publicized? - That will be presented and is a required component of the LWMP process.	Allison Habkirk

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9.2	<p>MOTION: To adopt minutes of meeting #8 – M. Lang            SECONDED – M. Swift            CARRIED</p>	Allison Habkirk
9.3	<p><b>Update on Conveyance</b>            Option 4A to be removed following K’ómoks First Nation (KFN) consultation and due to its low score (high O&amp;M costs).</p> <p>Will increased pressure in the conveyance lines affect the remaining lifespan?</p> <ul style="list-style-type: none"> <li>- A detailed description on the forcemain condition assessment completed by Pure Technologies in 2017 was provided. The assessment completed included a structural analysis that included an analysis on the impacts to the pipe in regards to changes in pressure and will be considered going forward with analysis.</li> </ul> <p>The shortlist conveyance option names are changing to better clarify the discussions going forward:            Option 2A, overland forcemain, is now Option 1            Option 3 Series, tunneling, is now Option 2            Option 3 Series, tunneling with phased construction, is now Option 3</p> <p>Have the KFN agreed to Option 3?</p> <ul style="list-style-type: none"> <li>- They have approved consideration of the shortlist.</li> </ul> <p>Will an Alternate Approval Process be required for the phased construction approach?</p> <ul style="list-style-type: none"> <li>- Yes. For any option borrowing will be required which will require a public approval process.</li> </ul> <p>Would Phase 2 of Option 3 be included in the LWMP document?</p> <ul style="list-style-type: none"> <li>- Hopefully yes, that is what we would like to happen.</li> </ul> <p>As part of stage 3 of the LWMP process a timeline for implementing the project will be required.</p> <p>Are other options that were previously eliminated more viable now that we know the existing transmission main is in better condition than expected and that a phased approach can be implemented?</p> <ul style="list-style-type: none"> <li>- No, it wouldn’t change the ratings significantly.</li> </ul>	Kris La Rose
9.4	<p><b>Wastewater Treatment Level Assessments</b>            Why don’t we test the effluent for nitrogen?</p> <ul style="list-style-type: none"> <li>- It is not a required testing parameter. Testing other parameters, including ammonia, is standard and required (toxicity test).</li> </ul> <p>At what point do the disk filters become a waste product?</p> <ul style="list-style-type: none"> <li>- The media will require periodic replacement which will require disposal at the landfill. The amount of cloth media is relatively small.</li> </ul>	Al Gibb, WSP

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9.4	<p>Do the disk filters have the potential to remove future contaminants?</p> <ul style="list-style-type: none"> <li>- Filters will improve the removal of solids from the effluent/liquid stream but solids that are removed from the liquid stream will be added to the solid stream.</li> </ul> <p>What volume of reclaimed water would be available?</p> <ul style="list-style-type: none"> <li>- Amount of reclaimed water generated is typically determined on the intended use. For the CVWPCC, the plant utilizes roughly 50,000m<sup>3</sup> of potable water a year. The majority of this water could be changed from potable to reclaimed water to limit consumption.</li> </ul> <p>Reclaimed water is a public amenity and maybe we should communicate it as such. The CVWPCC already processes reclaimed water. Another use for this water could be for ground compaction (construction sites).</p> <p>Are contingencies included in the cost estimates?</p> <ul style="list-style-type: none"> <li>- Yes, 40%.</li> </ul> <p>Option 3 (200% of average dry weather flows [ADWF]) is there a cost difference between, for example, 150% - 200%? How was 2xADWF selected?</p> <ul style="list-style-type: none"> <li>- 2x ADWF, is arbitrary, you could design the filtration system to any size, 2x ADWF was used as it reflects the provincial guideline requirements for secondary treatment being require to 2xADWF. The cost difference is minimal when evaluating between 100% - 200%.</li> </ul> <p><b>Grant Funding</b></p> <p>Is there a break point between Option 2 and 3 where more or less grant funding is available?</p> <ul style="list-style-type: none"> <li>- Innovative technology is another section of funding that is available. Consideration of whether the project brings the service to federal standards also helps grant approval.</li> </ul>	Al Gibb, WSP
9.5	<p><b>Evaluation of Treatment Options</b></p> <p>Review of the evaluation system and methodology was completed. Each option is compared to the status quo to provide a consistent ranking system between different options for level of treatment.</p> <p>If we're already treating the sewage better than industry standards, how do we justify and communicate paying for these upgrades?</p> <ul style="list-style-type: none"> <li>- Regulatory standard does not necessarily fully protect the receiving environment. Specially that we have a lot of aquaculture activity. By implementing further treatment, we are doing more to protect the receiving environment in the future. Regulatory standard is a bare minimum and aspiring to meet that standard isn't necessarily sufficient.</li> </ul> <p>Will UV disinfection help to remove micro plastics?</p> <ul style="list-style-type: none"> <li>- Not to a large degree, if at all.</li> </ul>	Paul Nash

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9.5	<p>Discussion on social benefits of the treatment options:</p> <ul style="list-style-type: none"> <li>• The CVWPCC can definitively say it's not contributing to recreation beach closures due to contaminants if implement filtration at the plant.</li> <li>• Public perception on our quality standards are high.</li> <li>• It's suggested to split the Social Benefit category 15% to reflect 5% on a reputation social benefit and 10% on a physical social benefit.</li> <li>• Also consider the social benefit to the local economy for supply of materials/labour for each option into the rankings.</li> <li>• Are the weightings set? 15% seems high for the social benefit category considering we are struggling to produce evaluation factors for it. <ul style="list-style-type: none"> <li>○ Yes, the ratings are set as per the decision of the TACPAC from our first meetings. If we think this is distorting ranking of each option, we can leave this for now and re-evaluate the weighing percentages per category.</li> </ul> </li> </ul> <p>Will adding filters increase potential use of the EQ Basin?</p> <ul style="list-style-type: none"> <li>- No, it is designed to not impact the frequency of when the EQ Basin will need to be used.</li> </ul>	Paul Nash
	<b>Lunch</b>	
9.6	<p><b>Evaluation of Treatment Options</b></p> <p>Each member discussed their opinions on a preferred option, summarized are the common themes below:</p> <ul style="list-style-type: none"> <li>• Considering that Options 3 and 4 can be implemented later. Option 2 seems most viable, cost effective and provides greater flexibility for the future.</li> <li>• Given that no good measure for 'other contaminants' is currently present, Option 2 is preferred at this time. It gives more adaptability for future changes to regulation, we can phase the upgrades as needed. Upgrades that are required may change over the years from change in regulation.</li> <li>• Costs aside, Option 3 is preferred, but Option 2 is a better value.</li> <li>• Disinfection is the stronger barrier for the shellfish industry, however, filtration is important and hopefully will be written into the LWMP that it be considered in a later phase of upgrades. We are essentially relying on the marine environment to handle the extra pollutants that are present without disk filters.</li> <li>• There is value in building for the future, Option 3 will be more expensive to build in the future. It's more cost effective to do it now. Regulations and restrictions will become more stringent and we should build to accommodate those future standards now.</li> </ul>	Paul Nash

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9.6	<ul style="list-style-type: none"> <li>It's not a lost opportunity to not include filtration now. It can be built later on. The LWMP will be reviewed and updated every 5 to 10 years and in this first version of the plan, language can be added to ensure filtration is added 'when necessary or desired' and that treatment levels be re-evaluated and necessary changes be implemented.</li> </ul> <p>Did Option 3's financial rating consider using reclaimed water? Would that be a considerable savings?</p> <ul style="list-style-type: none"> <li>Reclaimed water was considered separate to all in terms of financial score.</li> </ul> <p>Do we have to choose just these options or can we combine options to create a new one to bring forward for recommendation?</p> <ul style="list-style-type: none"> <li>We can put forward whatever the TACPAC chooses.</li> </ul> <p>What are the implications of changing the design of disinfection to add filtration?</p> <ul style="list-style-type: none"> <li>Almost no cost changes, just have to keep that considered in the design.</li> </ul> <p>MOTION: To recommend to the Comox Valley Sewage Commission Option 2 as the preferred level of treatment at the CVWPCC, with consideration given to implement Option 3 or 4 if and when required or desired – R. Craig          SECONDED: K. Neimi          OPPOSED – A. Gower; M. Lang          CARRIED</p> <p>In keeping with the TACPAC's decision making procedures, members Gower and Lang would provide a follow up (written) statement of the reasons for their dissenting opinion, and this will be provided to the Comox Valley Sewage Commission.</p>	Paul Nash
9.7	<p><b>Resource Recovery</b></p> <p>The results of the reclaimed water ideas session at TACPAC meeting #5 of February 2019 were presented and discussed. While there are many potential uses for reclaimed water, all of them except on-site use are located some distance away from the CVWPCC. The largest potential users, such as agriculture in the Portuguese Creek watershed, are located the farthest away.</p> <p>Discussion on reclaimed water:</p> <ul style="list-style-type: none"> <li>Reclaimed water use is better to be written into the LWMP as on-site use only right now, because at the moment, there's no desire from potential users. Any additional infrastructure for reclaimed water usage would need to be driven by the interested parties.</li> </ul> <p>Discussion occurred on costs and benefits of other resource recovery options including:</p> <ul style="list-style-type: none"> <li>BC Ferries is a potential natural gas customer that is close proximity to the CVWPCC.</li> </ul>	Paul Nash / Al Gibb, WSP

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9.7	<ul style="list-style-type: none"> <li>The Landfill in Cumberland is already working to put natural gas infrastructure to their facility to convey gas captured from the landfill flare and sell it to Fortis BC.</li> </ul> <p>The viability of reclaimed heat would be better included as part of future upgrades, retrofitting the CVWPCC to use reclaimed heat is extensive and costly.</p> <p>How much does the CVWPCC spend on potable water per year?</p> <ul style="list-style-type: none"> <li>Estimated at \$50,000 per year. The cost of the reclaimed water project is estimated at \$860,000, so it would take about 16 years for that expense to pay off.</li> </ul> <p>Two primary options for consideration by the TACPAC for resource recovery were discussed:</p> <ol style="list-style-type: none"> <li>Commit to installation of reclaimed water as part of the next upgrade at the CVWPCC.</li> <li>Build a business case as part of the master planning process for consideration.</li> </ol> <p>It was discussed that at the moment, on-site reclaimed water is the most practical and viable resource recovery option. Ahead of making a recommendation to the Sewage Commission on resource recovery for the CVWPCC the following motion was passed.</p> <p>MOTION: To undertake an analysis/business case for reclaimed water use at the CVWPCC in the short term (before LWMP is finalized) to better inform deciding on a resource recovery option – W. Cole-Hamilton</p> <p>SECONDED: K. Neimi / M. Lang</p> <p>CARRIED</p> <p>Further discussion occurred on committing to review resource recovery, as part of the master planning process in order to give time for further assessments, more detailed study, and opportunity for future grants. CVWPCC Site Master Plan changes/updated do not need to wait for the LWMP to be written, and could look at the potential for reclaimed heat and anaerobic digesters as part of site master planning process.</p>	Paul Nash / Al Gibb, WSP
9.8	<b>Meeting Adjourned</b>	