Comox Valley Sewer Conveyance Project Update – Lazo Hill Revision

June 2023
Webinar for Lazo Road Area Residents
Questions & Answers



Will the Lazo Hill Groundwater Protection Policy (P87) be reworked to offer assurances and protections to those with wells on the longer Lazo/Brent route?

Yes, Policy P87 is being reviewed and will be updated to reflect the revised construction and methodology and revised alignment. The CVRD will report out on the policy revision through the Sewage Commission and communicate results to the public in the fall.



What is the plan for such removal and decommissioning of the forcemain from the foreshore?

There is no plan to remove the pipe in any location except for a portion of the pipe that is not within the foreshore through IR1. Outside of IR1, the plan is to flush the exciting forcemain with drinking water and leave in pipes in the ground full of water, which is the most environmentally safe procedure.



How solid is this most recent preferred route?

The CVRD is final with the move from HDD to cut and cover methodology and staff are working to confirm the alignment. It is our intent to pursue the route along Lazo Rd. to Brent Rd. and co-locate the sewer main with the existing infrastructure crossing of Lazo Marsh, but geotechnical assessments are required to confirm that this is feasible.

What's the path that the new cut and cover over Lazo will take?

The pipe installation will be within the southbound lane (west side) of the route along Lazo Rd. to Brent Rd.



What is the time frame for the final routing?

We are moving ahead with the Lazo-Brent route for procurement. However, addition geotechnical work is required to ensure the area below the culverts on the portion of Lazo Rd. that crosses the marsh is a safe distance from the proximity of the aquifer to install the pipe. If it is not, the alternative route will be considered. This work will take a few more months to complete so that by the fall we will present the final route to the community.

Will Brent Rd. potentially be opened up through these processes?

As this project does not impact the east end of Brent Rd. past the water treatment plant, there is no requirement to open the road between Brent and Curtis roads.



How much additional project costs will this add? Will you now have to re-do the AAP?

The approved project budget is \$101M and the estimated cost for the entire project including the trenched installation along Lazo - Brent Route is \$103M. However, we need to finalize the procurement process before we can have a more accurate read on final budget and that will define whether there will be a requirement for an addition Alternate Approval Process (AAP). We anticipate we will have this information in the late summer - early fall.



What about trenchless that's not gravity – a forcemain HDD?

We looked at several other trenchless options including a deeper horizontal directional drilling installation (that would be pressurized), micro-tunnelling and a direct-pipe technology. Each of the options had its own set of risks and come with increased costs and higher cost uncertainty, all of which were evaluated as too high. The Sewage Commission reviewed these options in comparison to cut and cover and chose to pursue a cut and cover option because of the inherent risks with all trenchless options.



What will the size of the pipe be and how deep will it be placed?

The original pipe design was 32" diameter and that will increase to 36" diameter for the majority of the project alignment. The pipe will follow the topography along Lazo Rd. providing a steady grade up the hill, which helps with the management of entrained gases and flow rates. The trench will be standard 2.5m depth for the majority of the routing from the Town of Comox to the Comox Valley Water Pollution Control Centre (treatment plant), deepening in localized areas (e.g. near Torrence Rd.) to maintain consistent slopes.



What was the back and forth between the CVRD and the Ministry about the Lazo Marsh. Was the previous plan rejected by the Ministry?

We worked closely with the province on a permitting process to cross the marsh. Through the process it was made clear, the Province prefers the sewer conveyance to be co-located with the other existing crossing of the marsh (i.e., Lazo Rd.). When the methodology was focused on trenchless, because of the hydraulics and the HDD alignment, we had demonstrated to the Province that there was requirement for a new crossing. Cut and cover over Lazo Hill changes these hydraulics and provides an opportunity to meet the Province's preferences by moving away from a second marsh crossing.



With the change to cut and cover has adding the option of sewer to homes that don't currently have it been considered?

Private properties are connected through municipal collection systems which flow to pumps stations and, in turn, flow to the transmission main. The routing of the regional transmission main does not allow for homes to connect to the sewer service.

I understand that the traffic plan is yet to be developed, but will there be a requirement to close sections of Lazo Rd completely during construction?

During construction, access to private homes will never be blocked except, where necessary, for very short periods (hours). The advantage to the Lazo-Brent Route is there are many egress routes in and out of the neighbourhood. Fall engagement is to review strategy and provide feedback. We will give ample notice to homeowners of construction schedules and the impact to homes.



Will work along Lazo Rd. for sewer conveyance be coordinated with the work for the Lazo Greenway Trail project to reduce the impact of construction to residents on Lazo Rd.?

We have been waiting about ten years for a trail along Lazo from Forester to Guthrie. How will the construction affect this?

Trail Project along Lazo Rd. between Butchers Rd. and Sandcliff Dr. as their footprints overlap. The CVRD is also looking into synergies with the timing and location of the multi-use path (MUP) project along the northern portion of Lazo Rd. near the intersection Guthrie Rd. eastbound to Brent Rd. However, to prevent any delay for construction of the MUP that runs parallel to Forester Ave., the project footprints do not overlap. As the CVRD does not want to delay the MUP, we do not plan to coordinate timings. Instead, the two projects will likely be constructed separately for the majority of the MUP route.



How far away from our wells can this forcemain safely be built. Will there be an emergency shut off and alarm if there is ever a leak?

How does digging a trench nearby increase the possibility of my shallow well running dry?

Safety remains paramount for all our projects and we will be constructing the sewer forcemain using fully-fused HDPE pipe that is several inches thick. We have shut-off and isolation valves to shut of the pump at any time, if required. Leak detection will change with respect to the hydraulics and methodologies of the project. We will look at the existing Groundwater Protection Policy and see how it applies to the project design.

The sewer transmission main will be built in Lazo Rd. on public property. Provincial regulations mandate a 30m offset from septic fields, which discharge effluent, to groundwater wells. There is no mandated offset from a fully sealed transmission system travelling in the proximity of a groundwater well. The route will not transverse private property.

Trench dams will be utilized along the length of the sewer main to ensure that the project does not become a conduit for groundwater, affecting water supply to shallow wells. This is standard on all CVRD projects and these are tried and tested methods.



When will the new protection policy be available, and how will the public be consulted re. its contents?

Revisions will be shared with the community only after the review and update to the Groundwater Protection Policy is complete on the final scope of the route. Staff will first report out to the Sewage Commission before communicating out to the public. More details will be available on the project website www.engagecomoxvally.ca/conveyanceproject. We anticipate this opportunity to be scheduled for fall 2023.



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When will the recent stability investigation for Curtis Rd. be made publicly available?

The report is available on the project website www.engagecomoxvally.ca/conveyanceproject. Click on the *Key Documents* tab to access the Geotechnical Considerations for the Sewer Alignment Options report.



When will we know if the alternate Morland route would be needed if the Lazo - Brent route can't be used?

Due diligence on Lazo-Brent route needs to be completed to confirm viability. We will not know until fall 2023.

There are hundreds of mature trees along the Lazo - Brent route, how will they be impacted?

The majority of mature trees are within the MUP pathway. Little impact is anticipated from the conveyance project as the pipe will be installed within the roadway. However, we will seek consultation from an arborist regarding the mature trees with the aim of reducing impacts to a minimum.



How much money has been spent on the HDD method to date including the surveys, negotiations, and appraisals, etc.?

It is not in the CVRD practice to look back and capture expenses for specific areas of a project. All expenses incurred are within the approved budget. We plan and expense our work accordingly to move the project forward.

When will the consulting experts' reports be made available to the impacted public?

Reports on the work done by our engineering experts and geotechnical advisors to confirm cut and cover viability and the route alignment are available to the public on the <u>project website</u>. Click on the <u>Key Documents</u> tab and select the <u>Lazo Hill Conveyance Options Assessment</u> and the Geotechnical Considerations For Sewer Alignment Options reports.



Are there plans to actively monitor the forcemain — the entire Comox Peninsula is classified as one of high intrinsic aquifer vulnerability?

The CVRD continuously monitors all of its infrastructure in the Comox Valley. We will have the means to run acoustic detection systems through the entire sewer transmission main. It's just a matter of methodology, reviewing the applicability of all the measures in the Groundwater Protection Policy and revising this document to reflect the change in design.



Will the pipe be under the existing very narrow Lazo Rd., or which side will it be on?

The sewer main will be installed within one of the lanes along Lazo Rd. for the entire length of the installation.

Can a bike lane be installed along Lazo as part of this plan, it's desperately needed?

The MUP is designated for a parcel of park land running parallel to Forester Ave. to Beckton Dr. Along this portion the conveyance project will have no impact to its construction. We are looking at routing beyond Beckton Dr. to Brent Rd. for synergies with MUP project. While the CVRD has no intention of changing the MUP, we may need to change the staging of installation. Our goal is to avoid duplication, or replication od work from the two projects.



Why were the TACPAC not involved in this – it is still part of the LWMP is it not?

Throughout the Liquid Waste Management Plan (LWMP) process, the Technical and Public Advisory Committee (TACPAC) members were instrumental in selecting a shortlist of options for the sewer conveyance route. Once the LWMP process to select an option from the shortlist concluded in 2021, the project was handed over for execution by the project team. The shift away from the HDD methodology was still consistent with the outcomes of the LWMP process. TACPAC members were not consulted but were informed on the shift in installation decision. The TACPAC role within LWMP is currently focused on treatment of wastewater now that conveyance has broken away from the process.



How many feet under the pipe is the aquifer?

Lazo Hill elevation inclines to approximately 50 meters above sea level and, as the route heads east, the bottom of the pipe declines to approximately 3 meters above sea level. The aquifer depth is approximately 30m below the pipe at the peak of Lazo Hill. Distance from the aquifer changes throughout the route. Where the topography crosses the marsh on Lazo Rd. the distance is quite close to aquifer. Geotechnical work must be conducted to determine if there is a safe distance from the aquifer underneath the culverts to install the pipe at the marsh crossing.



Will Lazo Rd be substantially widened and repaved both lanes?

No. This project will only repave the lanes that are affected by the construction and will return the road to the same width that it is currently.

The stretch of Lazo Rd. was recently widened and re-paved. If the new surface must be ripped up and re-paved, who pays for that?

The cost of paving is part of the project costs and the CVRD will restore the road to the same condition as before construction.



This longer pipe will mean longer transit times for the sewage – how will this affect the odour control system at the plant?

The additional length of pipe does not result in significantly longer transit times, if any. The section of pipe between Forester Avenue and Guthrie Road will sit empty, as it will run by gravity through this section. Any change in transit time is negligible to overall sewage age on entry into the CVWPCC, so it will not impact the odour system at the plant.

Will a host community benefit agreement be put in place with Area B - we're hosting most of the sewage infrastructure and reaping no benefits whatsoever?

To date, there has been no consideration for a host community agreement with Area B.



Is there a possibility of another plant somewhere?

Can the plant handle the thousands of new contributions?

At what point does the increased volume from the SS Project make the current Treatment Plan a disaster?

As part of the Liquid Waste Management Planning (LWMP) process review of the level of treatment at the CVWPCC was completed. Following extensive technical assessment and public engagement (guided by the TACPAC), a preferred level of wastewater treatment was selected which included secondary treatment with disinfection of all wastewater flows.

Further expansions to the facility can be accommodated at the existing site to accommodate a doubling of the flows and loads that the facility treats, including tying in of new tanks to the odour control system.



Will the commission still consider a new option to replace the cut & cover system?

The sewer conveyance project is the result of the extensive LWMP process, which started in 2018, and was developed over three years with the input of the TACPAC members. The LWMP identified solutions for conveyance, treatment and resource recovery and included extensive public engagement throughout the process. Input was collected from the community and technical experts and was reported on throughout each stage of the process. A shortlist options was presented following the process from which a route was selected in 2021. This portion of work is now complete and the conveyance project is now in the execution stage. To learn more about the LWMP, visit www.comoxvalleyrd.ca/LWMP.



QUESTIONS (June 26 webinar)

Does the existing forcemain on Brent Rd. need to be removed and replaced/expanded?

Along Brent Rd. is a 14" forcemain from the <u>Greenwood Trunk</u> and <u>Hudson Trunk</u> mains that serves CFB Comox and the northern regions of Courtenay. The new pipe will parallel the current pipe along Brent Rd. to the treatment plant, not replace it. Both will remain in operation, servicing different areas of the Comox Valley.

Why is there to be more long-term financing consultation with the public in 2024?

In August 2022, the Sewage Commission (SC) approved an increased total budget for the project of \$101 million, which includes \$16.7 million of short-term debt. Due to the construction and manufacturing industry experiencing high inflation. The Sewage Commission committed to an Alternative Approval Process (AAP) to shift the short-term borrowing amount to long term, aiming for a more equitable distribution of capital costs between current and future users of the sewer system. The AAP to convert short term debt to long term is scheduled for early 2024 and can only be completed after procurement process is completed and total costs are fully realized.



QUESTIONS (June 26 webinar)

Can we assume Brent Rd. owners will have no obstruction to travel?

During construction, access to private homes will never be blocked except, where necessary, for very short periods (hours). The advantage to Brent Road is the fire gate on the east end that allows access onto Curtis Rd. as an egress route. When necessary the gate will be opened to allow residents access. We will give ample notice to residents of construction schedules and the traffic impacts.

The existing condition of Brent Rd. is continuously damaged by traffic to the plant. Is there any plan to improve the paving?

Due to the narrow nature of Brent Rd. it is likely the road will be completely repaved after construction. Wider roads such as Lazo Rd. will not be completely repaved as the installation of the pipe will be contained within one lane of the roadway. Along all section of the sewer transmission route, all roadways will be returned to pre-construction condition or better.



QUESTIONS?

Visit:

www.engagecomoxvalley.ca/conveyanceproject



Post questions to the project team



Review project information

Contact



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