Comox No. 2 Pump Station – Open House June 21, 2016
Feedback on Comment Forms
July 22, 2016

OVERVIEW

A drop-in style public open house was held on Tuesday June 21, 2016 at the CVRD boardroom to update the community on planning work to date, the current status of the project and anticipated next steps. The event invited people to attend to learn more about the project, ask questions, and provide feedback.

Over 100 people attended, and provided over 75 feedback forms with comments and questions. In order to address the questions posed in those forms, this follow-up report has been drafted. Information has been grouped into general areas so the subject matter is easily identified. In addition, each question has been individually answered in the attached appendix.

It's important to note that there were questions posed that do not yet have answers because of the early stages of planning for this project. Those questions have been recorded and information will be shared as answers become available.

For more information and ongoing updates in the coming months, please refer to www.comoxvalleyrd.ca/comox2pumpstation

ENVIRONMENTAL CONCERNS

The Comox Valley Regional District (CVRD) is proposing to build the Comox No. 2 pump station to address environmental risk from a previously exposed sewer main running along the Willemar bluffs. This poses a risk both to the infrastructure and the natural environment in which it's located. In order to alleviate the risk to the infrastructure and the environment, the CVRD will have to consider key issues moving forward.

- **The estuary**: The current infrastructure in the estuary has not been exposed to wave action and beach erosion and is thought to be in good condition. While a range of route options were investigated in the sewer master plan for the Comox Valley, relocating the entire forcemain was not recommended because it would be extremely costly without a benefit proportional to the degree of risk. The CVRD is seeking the most cost effective option that still addresses all of the needs for the long-term success of the service and protection of the environment.
- **Groundwater at Croteau Beach**: Further investigation needs to be undertaken by the CVRD to ensure that construction of the pump station at this location will not harm groundwater sources for neighbours. Early assessment suggests limited impact during construction (mitigation plans would be confirmed at construction planning stages) and very localized changes, immediately adjacent to the facility, in the long-term. However, we understand this is a critical question, and will be pursuing further studies on this topic before proceeding. The community will continue to be informed on this work as we move forward.

STUDIES/PLANS

The CVRD is at any early stage of planning on the Comox No. 2 pump station. While Beech Street has been selected as the preferred site, there is still work to be done to confirm many of the complexities associated

with completing the project at that site. Questions about existing studies, and those to come, are addressed here:

Existing:

- **CV Sewer Master Plan**: This plan outlines the assessment that was undertaken to arrive at the suggested route and need for increased pump station capacity. This plan is available publicly online at www.comoxvalleyrd.ca/comox2pumpstation. This is an important document as it demonstrates the regional planning that has occurred and the reasons behind the proposed approach.
- **Siting Assessment (Heuristic Consulting):** The process for identifying potential sites and assessing them is outlined in the evaluation report posted **here**. The report goes on to recommend the Beech Street site as the highest ranked site for the future Comox No. 2 Pump Station.
- **Archeological Assessment**: A preliminary review of archeology in the area was completed as part of the investigation for the south sewer project. This covers the area in Comox where the new route would connect up to the pump station. It acknowledges that this would be within a midden and as such would need appropriate approvals for protection. This preliminary assessment is posted **here**.
- **Integrated Resource Recovery (IRR) Study:** A comprehensive IRR study for the Comox Valley was completed in August 2012 and can be found **here**. The study examined CVRD infrastructure and the benefits of recovering resources from solid waste (e.g. food waste, wood residues) and liquid waste (e.g. municipal wastewater) as well as waste heat and other waste materials.

To come:

- **Groundwater**: As outlined above, hydrology is and will continue to be a key topic for the CVRD to further review before proceeding with the project. Early assessments have suggested the location as worthy of further consideration, but the next steps, such as drilling test holes, are to come. Results of this work will be shared as we move forward.
- **Preliminary Design**: The next step in the Comox No.2 pump station project is for the CVRD to retain an engineering consultant to complete more detailed planning and engineering required to progress the work. The next phase of engineering will generally be focused on:
    - Environmental permitting
    - Detailed pump and motor sizing
    - Detailed pipe sizing and routing
    - Detailed tie-in design
    - Detailed pump station configuration and optimization
    - Detailed construction planning
    - Detailed architectural design
- **Geotechnical Investigation:** In order to inform the detailed design process and the sizing of foundations and footings, subsurface soil investigations at the Beech Street site and along the proposed route will be completed as part of the design phase.

FUTURE PLANNING

A large project like this is key to the long-term success of the critical infrastructure comprising the regional wastewater system. To ensure the best decisions are made for the long term, while balancing the capacity of the CVRD to finance necessary expansions, significant review has been undertaken.

- **Future capacity of existing facilities**: The CVRD's sewer master plan (completed 5 years ago) forecasted the need to expand the capacity of the Courtenay pump station. This need, along with the

required replacement of the Willemar forcemain, combined to create the recommendation for a new Comox No. 2 Pump Station. While upgrades are needed at the existing treatment plant over the coming years, the current facility – with improvements – will be able to serve the service area for many years to come.

- **Re-routing in future**: There is no plan at this time to move the rest of the foreshore forcemain. While it is understood that all infrastructure eventually needs to be replaced, the portion of forcemain between Courtenay pump station and Goose Spit is believed to be in good condition and is not forecast for upgrade or replacement in the near future and is therefore not included in the current scope of the project.
- **Valley-wide strategies:** A Sewer Master Plan was completed in 2011 which assessed multiple options for serving the Comox Valley into the future. This review suggested that the existing treatment plant continue to service the core areas of the Town of Comox and the City of Courtenay, with the potential for two new treatment plants to independently service the area south of Courtenay and the Saratoga beach settlement node. It's important to note that construction of the Comox No. 2 pump station is part of a valley-wide strategy that has been extensively investigated.

LOCATION SELECTION

Selecting a location for wastewater infrastructure is a complicated process that must balance a range of factors including technical requirements, community feedback and financial concerns. After assessment of many properties based on technical requirements as well as other factors (community, archeological, environmental, availability etc.), the Beech Street property scored highest by the consultant hired to evaluate the CVRD's options. Since then, the Beech Street location has been confirmed as the primary choice for a new pump station by the sewage commission, however, there are still questions and issues about this property that need to be addressed before construction can proceed.

Among the factors considered in selection were:

- **Technical capacity**: The Beech Street site scored highest for the technical needs of the facility among sites that were available to the CVRD.
- **Groundwate**r: A preliminary assessment indicates the facility can be built in the area without negative long-term effect to groundwater. Further assessment is needed and this will have to be confirmed before construction.
- **Macdonald Wood park**: There will be no long-term impact on the park. No tree removal is expected. Access may be disrupted at times during construction but it would be intermittent and short-term.
- **Archaeological factors**: It's understood that the pipe route may cross a designated midden area. Such areas are protected by regulation, and to proceed the CVRD will have to secure the appropriate permissions and adhere to protection requirements.
- **Recommendation of the advisory committee**: While the advisory committee reviewed and recommended a different site, the sewage commission determined that the new site did not reduce the complications of site selection but only introduced different ones, while not meeting the technical needs for the facility.

FINANCIAL/LEGAL

Ensuring that the CVRD's decisions are appropriate is critical to the project's success. Among the financial/legal considerations in this process are:

- **Zoning**: Utility use is allowed in all zones of the CVRD. No rezoning is required, however, the CVRD will abide by all development standards for the area such as setbacks, height restrictions, buffering and more.
- **Delays**: The implications of continued delay on construction of increased pump station capacity have been identified as a key risk for the CVRD both in capacity for the existing Courtenay pump station and for increased risk to the Willemar Bluff section of forcemain.
- **Area B representation**: As with all CVRD services, only those residents/homeowners who pay for the service are provided with voting representation. While Area B's director cannot vote, the sewage commission is committed to hearing his comments/concerns and CVRD staff have committed to engaging with the community to address questions that have been raised.
- **Compensation/actions if groundwater is negatively affected**: The CVRD will not move forward with construction of the project until risks to groundwater in the area are understood and fully mitigated.

MISCELLANEOUS

Along with the above-mentioned general categories, there are a few additional questions/comments on which the CVRD can provide further information:

- **Construction planning**: Residents raised concerns about the impact of construction in their neighbourhood. More information about timing, approach, laydown areas and access will be confirmed as part of detailed engineering and with a contractor prior to construction.
- **Conflict of interest**: Directors on the sewage commission are responsible for identifying and removing themselves from conflicts of interest. Adhering to these rules is a part of their commitment as directors.
- **HMCS Quadra**: HMCS Quadra has always participated in the Courtenay/Comox sewer service. Prior to construction of the current wastewater service wastewater from HMCS Quadra joined wastewater from the Town of Comox and was discharged off Goose Spit in a common outfall. Since the construction of the treatment plant HMCS Quadra's sewage flow has entered the regional district system at the Jane Place pump station.
- **Visual appearance:** The CVRD will work with residents within the Croteau Beach neighborhood to ensure the new pump station design suits the form and character of the neighborhood
- **Odour and noise control:** The Comox No.2 pump station will be designed to the highest standards for acoustic sound control, and odour control. Air will be extracted from the pumping station wet-well, upstream gravity sewer and forcemain discharge chamber and treated to remove all odour. The station will be constructed with acoustical panels and insulation to attenuate noise on site. An acoustical engineer will specify material and construction details.

APPENDIX – Specific Question Responses
Comox No. 2 Pump Station Open House June 21, 2016

INTRODUCTION
Over 75 feedback forms were submitted at the June 21 public open house hosted by the Comox Valley Regional District. While a summary overview has been provided to respond to the topics generally, responses to the individual questions have been provided below.

Please note:

- Questions were divided by category so submissions with more than one question, may be separated over different sections
- Names and contact information have been removed to protect personal privacy

1. ENVIRONMENTAL CONCERNS

Questions	Answers
a) Why can't the sewer line go by an overland route from Courtenay to the sewage treatment plant on Brent road to protect the estuary?	The current infrastructure in the estuary is believed to be in good condition. While a range of route options was investigated in the sewer master plan for the Comox Valley, moving the entire forcemain was not recommended because it would be extremely costly without a benefit proportional to the degree of risk. The CVRD is seeking the most cost effective option that addresses the requirements of the sewerage system and protects the environment.
b) Can you guarantee wells will not be affected during construction, and will the midden be destroyed?	Hydrology is and will continue to be a key topic for the CVRD to further review before proceeding with the project. Early assessments have suggested the location as worthy of further consideration, but the next steps, such as drilling test holes, are to come. It's understood that the pipe route may cross a designated midden area. Such areas are protected by regulations, and to proceed the CVRD would have to secure the appropriate permissions and adhere to protection requirements.
c) Why are we not being presented with a choice that includes using the Courtenay pump station, expanded, going to an overland route to Brent Road, to respect the ecological value of the estuary?	See response to 1a.

d) What contingency is in place to deal with wells and septic systems along the proposed route to and from pump station 2? What treatment will the sewage receive before being dumped into the ocean?	The CVRD will undergo further investigation of hydrology in the area before proceeding, and any planning will be based on the results of that review. The Comox Valley Wastewater Pollution Control Centre (CVWPCC) is a conventional wastewater treatment plant that includes both primary and secondary treatment of wastewater before discharging its final effluent via a marine outfall. Treated effluent from the CVWPCC is regulated by the Ministry of Environment and is required to meet effluent quality standards for open marine waters prior to discharge.
e) Why do we continue, in 2016, to endanger our estuary with a sewage pipe?	The main purpose of the Comox No. 2 pump station project is to eliminate the environmental risk posed by the forcemain along Willemar bluffs. The remaining foreshore force main is still believed to be in good condition. See also response to 1a.
f) When are the sewer lines in and along the foreshore of the estuary and strait going to be moved inland so there is less risk with damage due to spills?	See response to 1a and 1e.
g) When excavating the pit for the wet-well, how do you manage the incursion of groundwater and what impact will this have on the water volumes in the shallow and drilled wells near the construction site?	This issue has been identified as a construction risk by GW Solutions. A temporary solution will need to be determined and implemented prior to construction. This will be part of construction planning and is expected to occur after further investigation and design is completed.
h) Why do you insist on putting pipes along the foreshore and pump stations in residential neighbourhoods?	The Comox No. 2 pump station is proposed to remove the piping along Willemar Bluff and send the wastewater overland. The location of a pump station is based on a range of factors including technical requirements, site availability and community impacts. For coastal communities, wastewater pump stations are commonly located near the foreshore to accommodate waterfront and upland development. This allows for the installation of a gravity collection system which is much preferred over a pressurized system.
i) I haven't seen results posted for groundwater assessment, and am wondering what the risks are, and also what the plans are for mitigation?	See response to 1b.

2. STUDIES

Questions	Answers
a) How can the commission ignore a financial report which could save the taxpayers $10 million?	Analysis completed as part of the Sewer Master Plan determined that the construction of Comox No. 2 pump station and eventual replacement of the forcemain from Courtenay Pump Station to the new Comox No. 2 Pump Station along the existing route was the most cost effective solution. Additional analysis will be completed in the future when replacement of the forcemain between the Courtenay pump station and Comox No. 2 pump station is required.
b) Why has the RD not yet drilled holes on the Beech Street site as recommended in the hydrology study they commissioned?	This is a key part of the investigation work that will be undertaken as the CVRD continues next steps of design and planning. Results will be shared as they're available.
c) Why have you made a final decision on pump station #2 when you haven't done an environmental study?	A preliminary environmental assessment was completed as part of the land purchase agreement. Further environmental assessment will be completed to ensure the project meets all local and provincial requirements for environmental protection. Ensuring that protection is part of the additional planning processes that can now occur with Beech Street identified as the preferred location.
d) Where can I find (online) a matrix report which evaluates the different location options?	Heuristic Consulting's report on the site selection process can be found here: http://bit.ly/cmx2siting
e) Will detailed hydrological studies be done of wells potentially affected in the Croteau area?	Yes, additional hydrology assessments will be completed. See also response to 1b.
f) Why hasn't a hydrological study been done on the Beech Street property?	See response to 1b.
g) Is there a feasibility study to be done on the proposed Beech Street property? When will a hydrology report be made public?	The engineering analysis completed to date shows that construction of Comox No. 2 Pump Station at the Beech street site is feasible. Additional engineering will begin in 2016 to identify the specific requirements for construction at Beech. A hydrogeological assessment has already been completed for the project and can be found here. Results of further hydrology reports will be shared with the public as they're available.

h)	Given that the marine engineering study of the risks on the Willemar Bluffs section of the forcemain has not been completed, what is the evidence for Commissioners declaring the environmental risk "imminent"?	In 2002 sections the forcemain along Willmar Bluff were uncovered due to wave action from strom events which tends to lower the beach elevation in some areas. These sections were armoured with Gabion baskets and survey work has been completed over the past 13 years to better understand how the beach is changing. This work shows that sections of the line continues to lose cover material and that the Gabion baskets are also beginning to fail.
i)	Why are the findings of the Heuristics report given priority over the findings of the pump station advisory group?	The pump station advisory group provided valuable insight for the project team and sewage commission to consider. Following that engagement process, the CVRD chose to stay with the Beech Street location because the alternative selected by the advisory group had increased technical restrictions and did not alleviate suggested challenges around water, construction impact, perceived impact to MacDonald Wood park and neighbourhood support.
j)	One of the recommendations from the pump station advisory group was that CVRD staff prepare a detailed study (financial, environmental, social & technical) of the highest rated option (re-building the Courtenay pump station). Why was that study not done?	An upgrade to the Courtenay pump station (on its own) will not resolve the issue along Willmar Bluff. The project would involve the construction of new Courtenay and Jane Place pump stations, along with the replacement of the entire forcemain from Courtenay to the Brent Road treatment plant. This project was estimated to cost much more than the Comox No. 2 pump station project. The sewage commission did not support this magnitude of capital investment.
k)	What is the rationale for not following through on the 2011 Sewerage Master Plan advising the CVRD to commission a comprehensive Integrated Resource Recovery (IRR) study prior to initiating conceptual or preliminary designs of major sewerage conveyance components?	A comprehensive IRR study for the Comox Valley was completed in August 2012 and be found here. The study examined CVRD infrastructure and the benefits of recovering resources from solid waste (e.g. food waste, wood residues) and liquid waste (e.g. municipal wastewater) as well as waste heat and other waste materials.
l)	The 2005 Forcemain Realignment Study outlined the need for detailed geotechnical testing along the overland forcemain route – has that testing been done?	Subsurface soil investigations will be completed as part of the detailed design of the proposed forcemain alignment from the Comox No.2 pump station to the wastewater treatment facility.

m) Why does the CVRD continue to refuse to study whether the S.F.M. pipe along the <text unclear> can be replaced so that you can make suitable plans to position the pump station in the best location should the new S.F.M. pipe need to re-route overland?	See response to 1a.
n) The 2005 Forcemain Realignment Study states that further study is required to examine environmental impacts at the tie-in to the existing foreshore forcemain – has that study been completed, and where can the public access the results?	The next step in the Comox No.2 pump station project is for the CVRD to retain an engineering consultant to complete more detailed planning and engineering required to progress the work. As part of the next phase detailed tie-in design and environmental impacts will be studied.
o) I am concerned that there has been no detailed hydrological studies along the proposed forcemain route up Croteau & along Docliddle. Don't you need to take core samples to gather specific, not general data on the substrata layers so that you have an idea how water flow and/or well levels may be affected when large trenches are excavated and de-watered? Why have their been no further studies done on upgrading pump station #1?	See response to 1b.

3. FUTURE/PLANNING/ENGINEERING CONCERNS

Questions	Answers
a) Where is the long-term planning that respects the ecological value of the estuary?	See response to 1a.
b) Can additional capacity be added to the sewage treatment facility? Are we giving thought to 30 years into the future for growing demand?	The CVRD is currently undergoing a capacity assessment of the existing sewage treatment facility. The assessment will identify the required upgrades needed at the treatment plant for a 50 year design horizon. The CVWPCC is performing well and with upgrades is expected to continue doing so for many decades to come.
c) Can we please have an option that allows us to pay taxes now for an overland route that will not see us digging up the foreshore 20 years from now?	See response to 1a re: foreshore pipe. Suggestion of preparation for future upgrades has been noted.
d) Why is there no attempt to have a valley-wide plan before beginning this project?	There is a Comox Valley Sewer Master Plan that was completed in 2011. It can be found here: http://bit.ly/CVRDsewermasterplan

e) Why not re-visit the upgrade of the Courtenay pump station? If there is to be native development on Goose Spit, why not put a separate treatment system out there to service both that endeavour and HMCS Quadra?	See response to 2j. HMCS Quadra has always participated in the Courtenay/Comox sewer service. Prior to construction of the current wastewater service wastewater from HMCS Quadra joined wastewater from the Town of Comox and was discharged off Goose Spit in a common outfall. Since the construction of the treatment plant HMCS Quadra's sewage flow has entered the regional district system at the Jane Place pump station. A separate treatment system is not warranted and would not help to resolve any of the issues associated with the Comox No. 2 Pump Station project.
f) When and how will the current treatment plant be enlarged and improved? Is it possible to put together an optimal system for handling our sewage, and not just do this short-term fix?	See response to 3b. The sewage master plan is a region wide strategy that evaluated multiple options to create an optimal sewerage servicing strategy, within the master plan the Comox No.2 pump station project was identified.
g) Why allow elevation to drop the estuary and then pump back up to elevation for plant entry? If you kept the line inland it would avoid the need for pumping.	The placement of the Comox No. 2 Pump Station at Beech Street allows for several future routing options for the eventual replacement of force main between Courtenay Pump Station and the new Comox No. 2 Pump Station. These future routes will be selected to minimize costs (capital and operating, i.e. pumping) and protect the environment.
h) Why not charge us higher taxes and get rid of all the pipelines and run all the sewage downhill to the new Courtenay lagoon sewage treatment plant?	The sewer master plan completed in 2011 undertook a comprehensive review of sewage servicing for the entire Comox Valley. The plan did not recommend lagoon sewage treatment for any part of the Comox Valley. The CVRD is following recommendations as laid out in the Sewer Master Plan.
i) Will the Courtenay system really last 15 more years, and even if it does, what cost will repair be then? (suggesting that an overland route to Courtenay is a better move now)	The sewer master plan, completed in 2011, investigated six alternate routing options to direct wastewater to the Brent Road treatment plant. The highest ranked option requires the installation of the Comox No. 2 pump station along with the eventual replacement of forcemain between the Courtenay pump station and the new Comox No. 2 pump station. The sewer master plan suggested that the existing forcemain from the Courtenay pump station to the new Comox No.2 pump station could remain in service for up to 25 years. A detailed analysis has not been completed to

	determine the costs for replacement when the need arises.
j) In another 15 years, when all the forcemains in the estuary and along the bluffs need replacement, will DFO and First Nations be able to approve a renewed foreshore route? Environmental laws change!	The Comox No. 2 pump station project includes the removal of the forcemain from Willemar Bluff and the installation of an inland route to the treatment plant. Routing for replacement of the section along the estuary will be determined in the future however placement of the Comox No. 2 pump station at Beech street does not preclude foreshore or inland routing options. The future replacement of the forcemain between Courtenay pump station and the new Comox No. 2 pump station will adhere to the provincial and federal guidelines applicable at the time.
k) Is what is being done suitable to new legislation regarding pipe discharge to ocean? (New legislation says this must stop by 2020).	The CVRD's wastewater treatment plant is compliant with all Provincial and Federal wastewater regulation, and will remain current with any future changes in regulation. The CVRD is not aware of any pending legislation requiring the removal of marine outfalls.
l) CVRD engineering staff said that sewage from the Courtenay pump station could in future routed uphill overland, but still be directed back down to pump station in Croteau Beach neighbourhood. What are the energy (tax-$) implications of pushing it uphill twice?	See response to 3g.
m) When will the Commission follow through on a key recommendation in its 2011 Sewage Master Plan and hire a coastal engineering specialist to determine the condition of the Willemar Bluffs forcemain and determine when further remediation or redirection is required? What if the marine engineering specialist's study determines that current erosion control measures are stable – would then it make more sense to divert Jane Place's catchment east, overland to a pump station on the site ranked #4 in the Advisory Group's report, and what would be the implications for the size of forcemain, pumps and wet-well design for that pump station if we assumed Courtenay and KFN sewage could be directed overland in the later future?	See response 2h. Given that information, analysis has not been completed to address the second part of this question.

n) Is pump station #1 in Courtenay maxed out, and is the foreshore pipe from the #1 station also maxed out? If it breaks do you just fix it after the fact and create bedlam?	Yes, at peak winter flows the Courtenay pump station is currently operating at maximum capacity. The forcemain's capacity is currently 1100l/s from Courtenay pump station to the Jane place pump station. Based on a maximum allowable velocity of 2.5m/s, it was identified in the sewer master plan that the forcemain has an estimated remaining lifespan of 25 years.
o) Has consideration been made to reinforce section with modern engineering strategies such as blast meteor (?), a man-made reef to create a natural protection? Why has consideration not been given to improve Courtenay #1 station and its capacity, which would allow the option to re-route pipes across Farquarson farm and . . . take pipes out of the estuary?	Study work completed in 2005 by CH2MHill recommended the construction of a new pump station and the removal of force main from Willemar Bluff. This recommendation was supported by the Sewer Master Plan completed in 2011. No additional investigation involving "blast meteor" or a "man-made reef" has been completed as it was determined rerouting was necessary. Increasing capacity of the Courtenay pump station has been assessed and will be supported by the construction of the Comox No. 2 pump station. The sewer master plan, completed in 2011, investigated six alternate routing options to direct wastewater to the Brent Road treatment plant. The highest ranked option requires the installation of the Comox No. 2 pump station along with the eventual replacement of forcemain between the Courtenay pump station and the new Comox No. 2 pump station. The sewer master plan suggested that the existing forcemain from the Courtenay pump station to the new Comox No.2 pump station could remain in service for up to 25 years.
p) The overland route to be evaluated for the long term when the 20 year pipes in the estuary need replacing. Has a long-term goal been rejected already?	See response 1a re: conditions of existing pipe and 3d re: long-term plan for the Comox Valley.
q) Does this site meet the long-term needs of the Comox Valley, and does it go above and beyond all minimum requirements in terms of setbacks, noise, odour and public safety?	This site is in line with the long-term Comox Valley sewer master plan. Design and engineering planning can address all concerns related to setbacks, noise, odour and safety. The CVRD will abide by all zoning requirements for the construction of this facility (ie: setbacks, structure height etc.).

4. LOCATION/DECISION

Questions	Answers
a) How can the sewage commission choose the 5th rated location and ignore the top 4?	The Beech Street property was identified as the top-rated location by the siting consultant hired to assess properties for construction of the Comox No. 2 pump station.
b) Why does Area B not have representation on the sewage commission when our homes and wells and waterfront are affected?	Like all regional district services, those areas that contribute financially to the service are represented with a voting seat at the sewage commission. While Area B is not a part of the service, the area director has been invited to sit at meetings to share feedback and raise questions.
c) Why was the Beech Street site chosen over better sites on the list? Why not pick a site not situated among people's wells? When will the final decision be made?	The summary report for Heuristic Consulting's site selection process can be found here http://bit.ly/cmx2siting the Beech Street site is the highest ranked. The sewage commission is committed to moving forward with the next steps of investigation and planning on the Beech Street property.
d) Why is the Macdonald Wood beach access being proposed for destruction, and are you planning to dig up the last of the Comox midden?	Macdonald Wood park will not be impacted by the construction. See response 1b re: archeological assessment and resulting requirements.
e) How are we able to put a pipe through the midden at the foot of MacWood park (Croteau Road(?	See response to 1b.
f) Will the "forcemain discharge chamber" plan require the removal of trees on the park beach access trail and along the Sunrise trail? How will the marsh be affected and what is the finished effect on Mac Wood Park overall?	Macdonald Wood park will not be impacted by the construction.
g) How did #5 site get selected?	Choosing a location required identification of potential locations and assessment based on a range of factors including availability, technical requirements and community impact. The site selection summary report can be found here: http://bit.ly/cmx2siting

h) When there was massive public opposition to the beach access site at the foot of Croteau Road (ranked #2), why did the commission not consider the sites ranked #1, 3, or 4, and revert to the Beech Street site, ranked #5?	Beech Street ranked highest by the siting consultant who assessed properties based on a wide range of factors. Other sites presented additional challenges while failing to meet the technical requirements.
i) Was option #4 (overland route) even considered? Is pump station #1 in Courtenay maxed out, and is the foreshore pipe from the #1 station also maxed out? If it breaks do you just fix it after the fact?	See response at 1a and 3n.
j) Why are all the higher recommendations made by advisory group ignored? How did the decision fall back to Beech Street? Does elevation trump the right for residents to enjoy their property and have access to water? How do you get utility facility for industrial use under the zoning bylaw?	See response to 2i. Sewage infrastructure is considered a utility facility – allowable in all CVRD zoning.
k) Why is the sewage commission determined to stay in the Beech/Croteau area?	The Beech Street location has offered the best location for addressing the combined issues of the Willemar Bluff risk and need for increased pump station capacity without prohibitive costs of full forcemain replacement. Other proposed locations have presented reduced technical feasibility without reducing challenges of construction or opposition from the local community.

5. FINANCIAL/LEGAL

Questions	Answers
a) What are the financial implications of deferring Comox #2 pump station to 2024? What are the projected costs of compensating Croteau Beach residents, and of providing potable water in the event of a breach of sewage into their drinking water supply, damage to the aquifer, or reduction of well-water volumes? CVRD's legal counsel's opinion was that no re-zoning would be required for any location in the RD. Was counsel informed that Croteau Beach, zoned CR-1, is an "expansion area" and as such is subject to the same zoning restrictions as apply in Comox? What is the long term (10-15 year) financial case for ignoring the advisory group's #1 recommended option – to replace the Courtenay pump station and forcemain now?	There is no plan to defer the Comox No. 2 pump station project until 2024 so as such, financial analysis has not been completed. Compensation for Croteau Beach residents is not expected to be warranted, and the provision of potable water has not been anticipated. Although the Croteau Beach area is identified as a settlement expansion area in the RGS all CVRD zoning and land use bylaws continue to apply to this area until such time as/if it's taken in by the Town of Comox. See above response 2i.

b) Could you provide the public with a per household annual cost for each of the proposed routes so that we can understand and compare?	While this specific comparison is not available, the sewer master plan includes a comparison of cost and other factors.
c) Is there remedial measure in place or considered in the event that water is contaminated or significantly reduced?	Hydrology assessment and planning will be a critical part of this project. To move forward, the CVRD will have to be confident risk to area water supplies can be fully mitigated.

6. MISCELLANEOUS

Questions	Answers
a) Why does HMCS Quadra not treat its own sewage on the Spit?	See response to 3e.
b) Commissioners are expected to recuse themselves from discussion and decisions if they have a conflict of interest? Did Commissioner Maureen Swift (who has property above the Jane Place pump station) recuse herself from any discussion comparing building adjacent to the Jane Place station vs the Croteau Beach siting, and if she did where would we find that noted in the public record?	Directors on the sewage commission are responsible for identifying any conflicts and removing themselves from decisions that may be influences. Adhering to these rules is a part of their commitment as directors.
c) How exactly will the treated air going to be kept away from the residents on Stafford Street, directly uphill from the proposed station? What is the current decibel level of the Jane Place pump station and what is the expected decibel level of the planned station – both if the pumps are submerged and if the pumps are shaft-driven?	See response to 3q.
d) Where is the cost analysis for option #2 that goes overland and removes sewage line from the estuary? Where is the cost to upgrade pump station #1 publicly presented?	The sewer master plan, completed in 2011, investigated six alternate routing options to direct wastewater to the Brent Road treatment plant. The highest ranked option requires the installation of the Comox No. 2 pump station along with the eventual replacement of forcemain between the Courtenay pump station and the new Comox No. 2 pump station. The sewer master plan suggested that the existing forcemain from the Courtenay pump station to the new Comox No.2 pump station could remain in service for up to 25 years. The sewer master plan can be found here http://bit.ly/CVRDsewermasterplan

e) I am concerned about large-scale construction in a small rural neighbourhood? How will you guarantee access to residents and emergency vehicles? What will your lay down areas look like? Will the construction of a discharge chamber on Docliddle increase construction time?	These details will all be sorted as part of construction planning. Before that is addressed, the CVRD must complete detailed engineering design, additional hydrological study along with many other planning steps. Information about construction and the management of activity to reduce impact on the community will be shared as it's available.
f) At a meeting of the sewage commission, the suggestion was made that HMCS Quadra develop its own waste treatment. Was that followed up, and if not why not?	See response to 3e.