Indicative Design Phase Begins

- Opus awarded contract with CVRD:

  Additional Study of Site:
  - Groundwater Assessment
  - Geotechnical Assessment

  Condition Assessment:
  - Assessment of foreshore pipe connecting Jane Place to Comox No.2 location
  - Assess whether forecasted lifespan is accurate

  Prepare for Potential Next Steps:
  - Updated cost and estimate schedule
  - Design workshops

Results considered

In June/July, the CV Sewage Commission will decide whether to move forward with the proposed Comox No. 2 Pump Station at the Beech Street location:

- Are red flags removed about the proposed site?
- Can the facility be constructed without harming the neighbourhood?
- Does it still make the most financial sense?

Decision is YES

July - September 2017
Implementation Phase begins
- Develop draft agreement and Request For Proposals

October - December 2017
- Request for proposals for Design-Build
  - Notice of Award

January 2018
Construction Phase begins

Decision is NO

July 2017 - Onward
Alternate steps considered for rerouting of the Willemar Bluffs forcemain

JAN. 2017
FEB. 2017
MAR. 2017
APR. 2017
MAY 2017
JUN./JUL. 2017
JUL.-SEP. 2017
OCT.-DEC. 2017
JAN. 2018 - MAR. 2019

www.comoxvalleyrd.ca/comox2pumpstation
In January 2017, the CVRD awarded engineering firm Opus the contract as Owner’s Engineer (OE). Their work starts with the Pre-Implementation Phase, including the indicative design – a critical step in determining next steps for the Comox No. 2 Pump Station.

During this phase:

- **Groundwater and any potential impacts on wells will be assessed:**
  - Work being conducted by GW Solutions
  - Residents in area may see test holes drilled and other activity

- **Geotechnical suitability of property will be assessed:**
  - Work being conducted by Exp
  - Test drills will be done on the site in Spring 2017

- **Condition Assessment of existing forcemain will be completed:**
  - Focused on stretch between Jane Place (Courtenay) pump station and proposed connection point for new watermain

- **Cost estimates will be updated:**
  - Last updates completed in 2015
  - Revised cost will be “Class B” (Substantive), +/-15-25% accuracy

- **Decommissioning plans for the Willemar Bluff section of forcemain will be developed:**
  - Assess options for existing pipe and consider timing

- **Construction plan that focuses on reducing impact on the community will be outlined:**
  - Will consider methods, timing and routes
What is a Pump Station?

All pump stations have a similar purpose – to convey fluids from one place to another. The size and layout of each pump station is dependent on many factors. However, sanitary pump stations typically consist of the following main components:

**Mechanical Room**
This room would house potable water service, hot water tanks, and other mechanical equipment.

**Dry Well**
Connected to the wet well through suction pipes, pumps are housed in this room where noise and vibration mitigation measures are implemented.

**Wet Well**
A water-tight and fully-enclosed concrete basin used for balancing in and out flows from the pumps. (In this photo, the wet well is underground.)

**Electrical Room**
The electrical panel and control components are installed here.

**Odour Control**
Air drawn from the wet well will pass through odour control technology to eliminate odours prior to release to the environment.

**Genset Room**
The backup power generator, fuel storage, secondary containment and noise control would be housed in this room.
Summary of Feedback from Workshop #1

Overall Themes:

1. Dissatisfaction with process followed to date/low confidence in assurances
2. Emphasis on values as described in Community Plan – design/planning should reflect spirit of that document
3. Focus on maintaining quality of life, rather than design (no odour, vibration, noise and protection of groundwater/wells and views)

Specific Feedback:

• Rural/semi-rural, established neighbourhood
• Quiet, natural environment
• Organic feel to community, long-term residents
• Less about the look, more about protecting quality of life (no odour, vibration, noise and protection of groundwater/wells and views)
• No street or night lights
• No storm sewers, maintain ditches
• Maintain views
• Mitigate impact/damage during construction
Summary of Feedback from Workshop #2

Overall Themes:

1. General acceptance of design approach, but seeking more detailed sections, elevations to fully visualize and understand the concept
2. Continued focus on impacts of project to quality of life (water supply, noise, smell, vibration, lighting), both during construction and afterwards
3. Seeking firm guarantees that commitment to “0” odour, noise, vibration at the property line will be implemented and that construction and positioning of the facility will not impact water supplies
4. Lack of confidence in the political process and concern that if project exceeds budget, cost-cutting will occur and that wants and needs of neighbourhood will be lost (i.e. guarantees)

Specific Feedback:

- No public use of site
- Require more detailed drawings and sections (height, setback, relation to neighbouring homes)
- No lights, dark neighbourhood
- Concern about how depth of the structure will affect the water supply for the homes below the station
- No well on property – pipe in municipal water for station’s use
- Strong interest in technical requirements of project
- Wrong location for Comox and Courtenay only pump station
- Area B Director should be permanent, voting member of Sewage Commission
- Unfair, undemocratic process
- No faith that politicians will approve/pay for high quality project
General Design Concept

Site Plan

Floor Plan

Elevation
Concept Design Views

View from street

View from neighbour’s Living Room window
Design Features

Sight Preservation

- Sink building into ground with green roof
- Retain sightlines from adjacent properties over building
- Restore natural habitat over building
- Restore hedgerows
- Preserve and protect natural drainage systems
- Two side access only

Noise, vibration, and odour

- Air management toward roads and greenspace to south
- Mitigate noise through internal acoustic attenuation and utilizing underground construction
- Concrete exterior wall construction
- Oversized rooms for odour treatment and noise
Additional Features that could be included in Project Scope

• Fire hydrant on day one to reduce fire insurance costs in the neighbourhood
• Potential for future water supply
• Emergency power supply connection