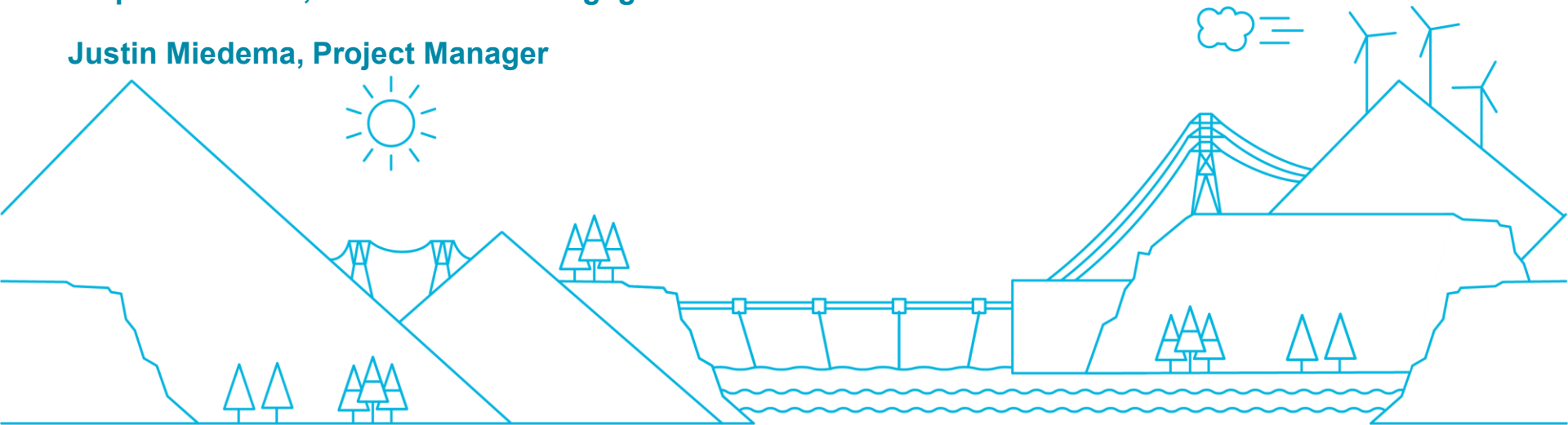


# Victoria to Esquimalt Cable Replacement Project

## Virtual Community Open House #1

Stephen Watson, Sr Stakeholder Engagement Advisor

Justin Miedema, Project Manager



**Date: February 29, 2024**

# Virtual Meeting Etiquette



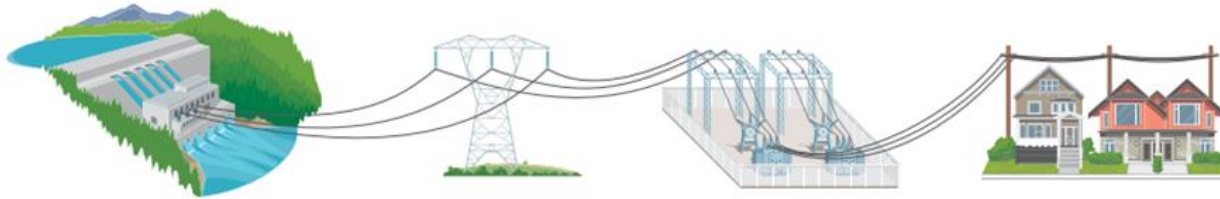
- We are not recording this session, and kindly ask that others do not record
- The group will be placed on mute during the presentation
- Please put your questions in the chat box
- After the presentation, the group will be unmuted. Please mute your microphone when not speaking
- Please don't use a virtual background with video to save bandwidth
- Share air space so that everyone can participate
- Challenge ideas, not people

# Agenda

- **Background on how we deliver electricity to Greater Victoria customers;**
- **Project overview;**
- **Next steps; and**
- **Questions and answers.**

# Delivering Electricity To Our Customers

## Our electricity system



### Generation

Electricity is generated by BC Hydro and independent power producers.

### Transmission

Electricity is moved from where it's produced to where it's used.

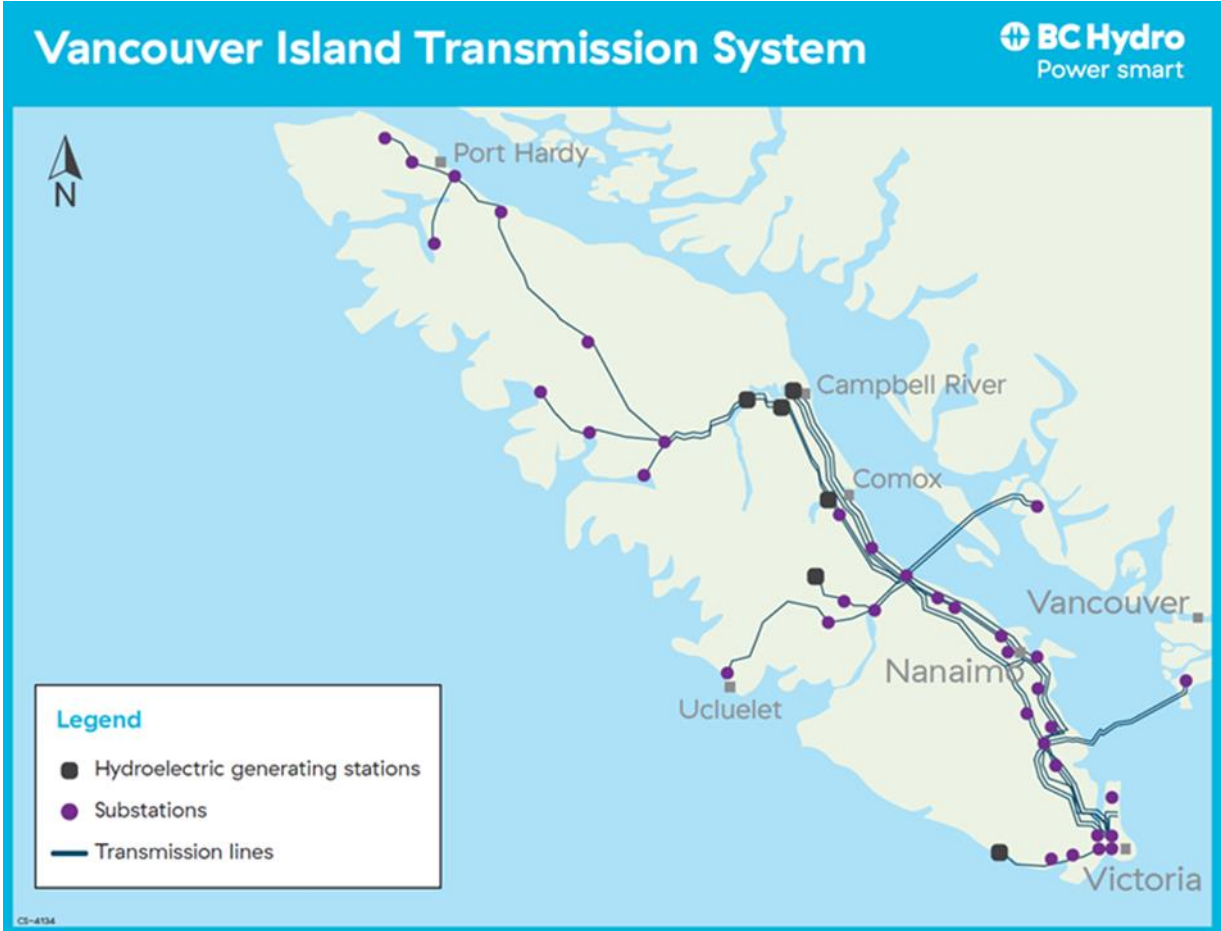
### Substations

Voltage is reduced at substations to provide power suitable for use in your home or business.

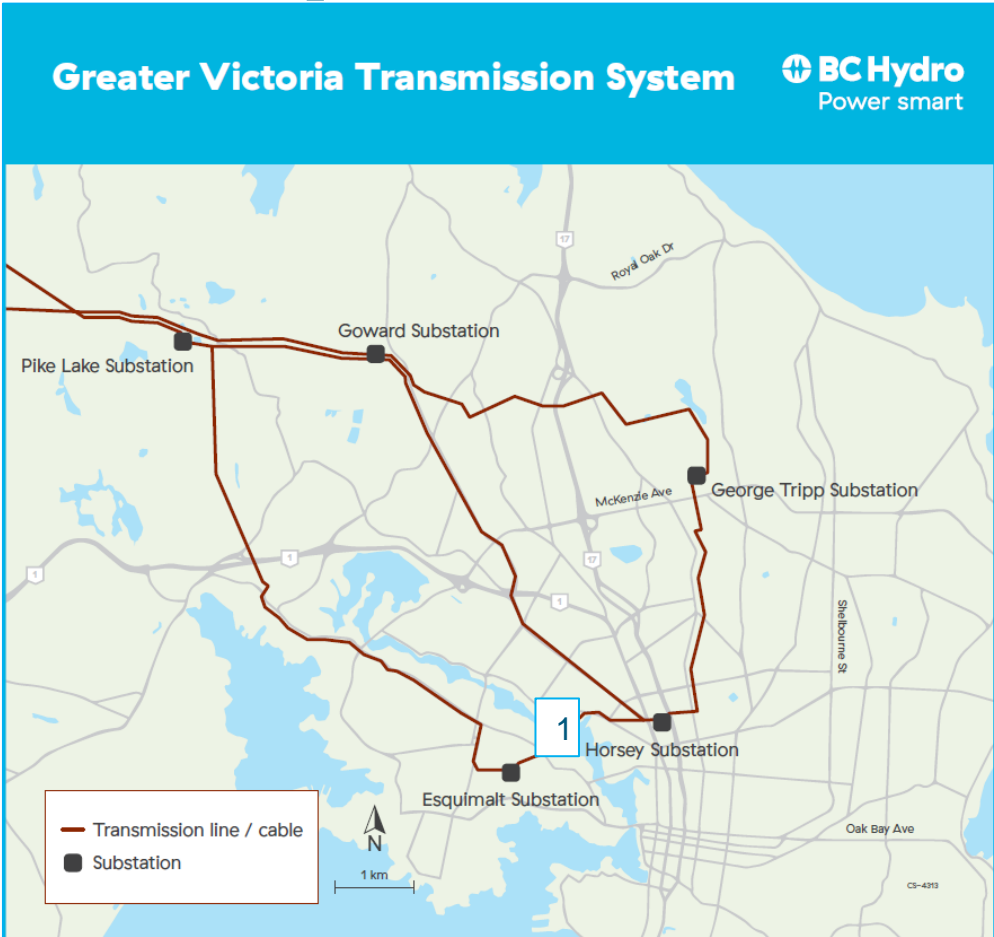
### Distribution

Low voltage electricity is provided to neighbourhoods and businesses.

# Background Map



# Background Map



1: Victoria to Esquimalt Cable Replacement Project

# Project Overview

- Committed to delivering safe and reliable electricity to our customers across the province.
- During an August 2023 cable repair beside the Gorge Waterway, we found widespread corrosion with the transmission cables that connect Victoria and Esquimalt.
- An emergency project was initiated to replace the 230 kilovolt, direct buried, mineral oil-filled transmission cables.
- Anticipate the new cables closely following the existing route.

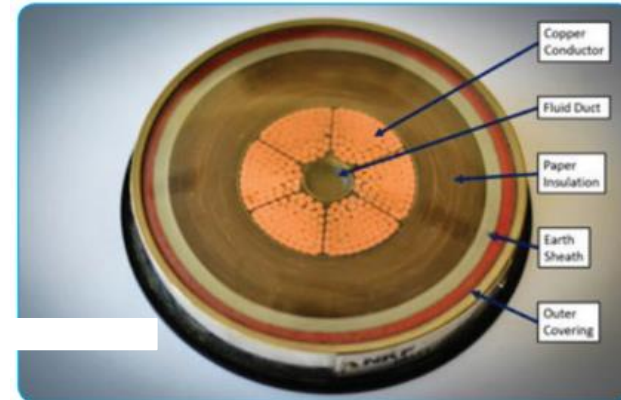
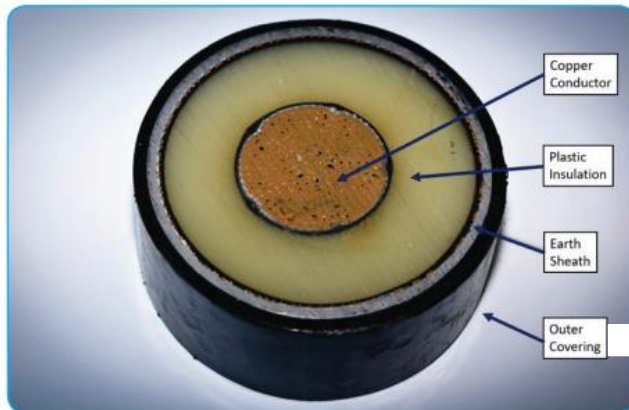


# Project Benefits

The project is an emergency project to maintain transmission system reliability. There are also other benefits:

- Capacity
- Seismic Resiliency
- Environment

Cross section of a polyethylene cable and an oil-filled cable (right).





# Project Routing – Horsey Substation and Summit Ave





# Project Routing – Manchester Road





# Project Routing – Manchester Road

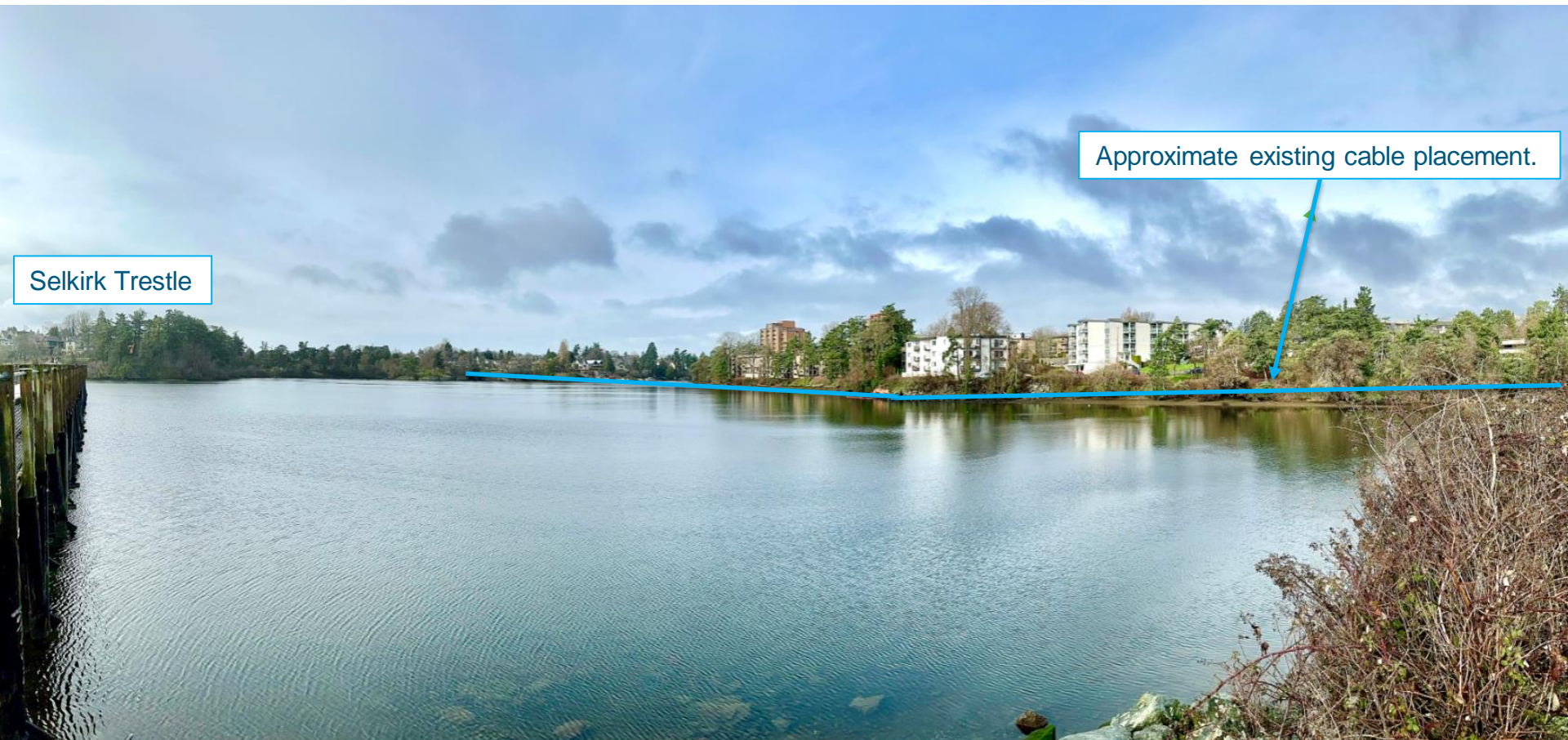




# Project Routing – Gorge Road



# Project Routing – Arbutus Park and Gorge Waterway

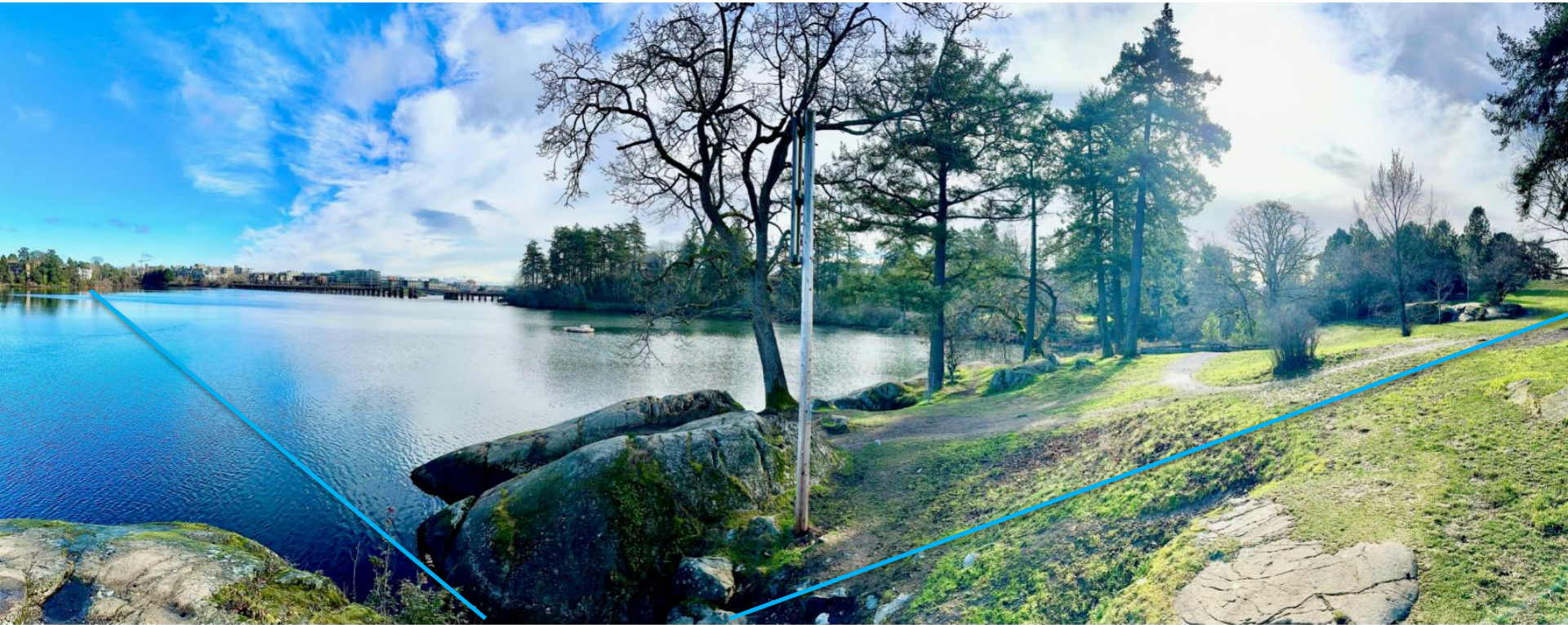


Selkirk Trestle

Approximate existing cable placement.



# Project Routing – Gorge Waterway and Banfield Park



14

Underwater cable crossing

Land buried cable



# Project Routing – Banfield Park



# Project Routing – Belton Avenue





# Project Routing – Dominion Road and Esquimalt Substation



# Work In City Streets

- Working on various studies to inform cable placement and design, and then constructability.
- Substation related work will be within the existing station footprint.



Examples of cable construction work and placing cable.



# Project Duct Bank Construction



Remove the road surface and dig a trench about 2.5 metres wide and 2.5 metres deep.



Create a form to hold the concrete in the right shape while it sets and add PVC ducts that will hold the cables.



Place in concrete, wait for it to set, then remove the form.

Images for illustration only – this work will look different in this specific utility corridor.



Refill the trench and repair the roadway.

Cables are placed once the duct bank is in place.

# Project – Construction Considerations

We'll develop traffic management and construction plans in advance of the planned work.

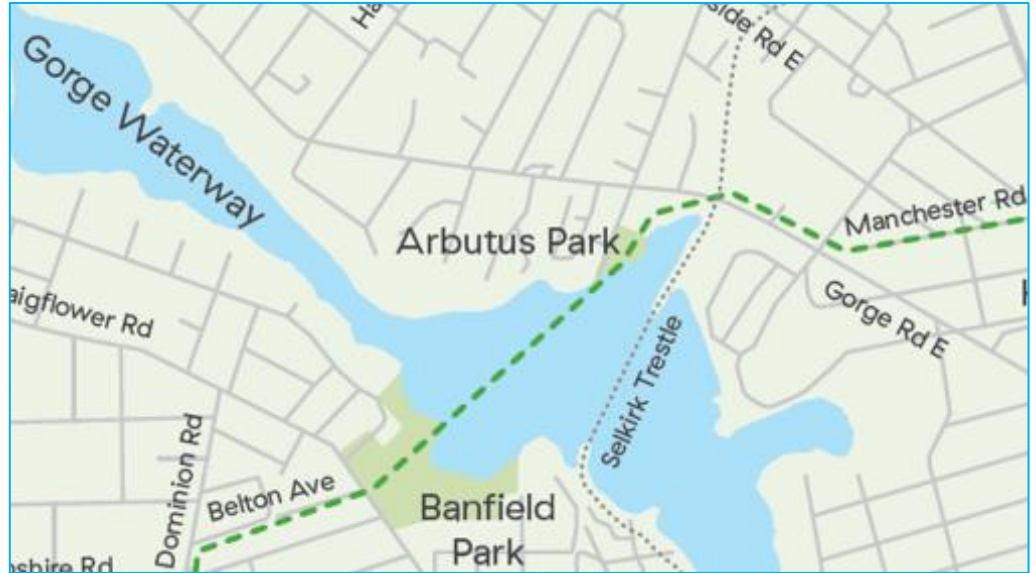
Considerations include:

- Safety
- Construction equipment
- Timing
- Location



# Crossing Under The Gorge Waterway

- We are looking at route options and construction methods to place the cable under the Gorge Waterway.
  - This informs the land cable routing
- Geotechnical drilling will be done to inform the route and design process.
- Environmental studies will be done within the route and design options, for considerations such as for Eelgrass.



# Two Leading Construction Methods: Gorge Waterway

## Horizontal Directional Drilling



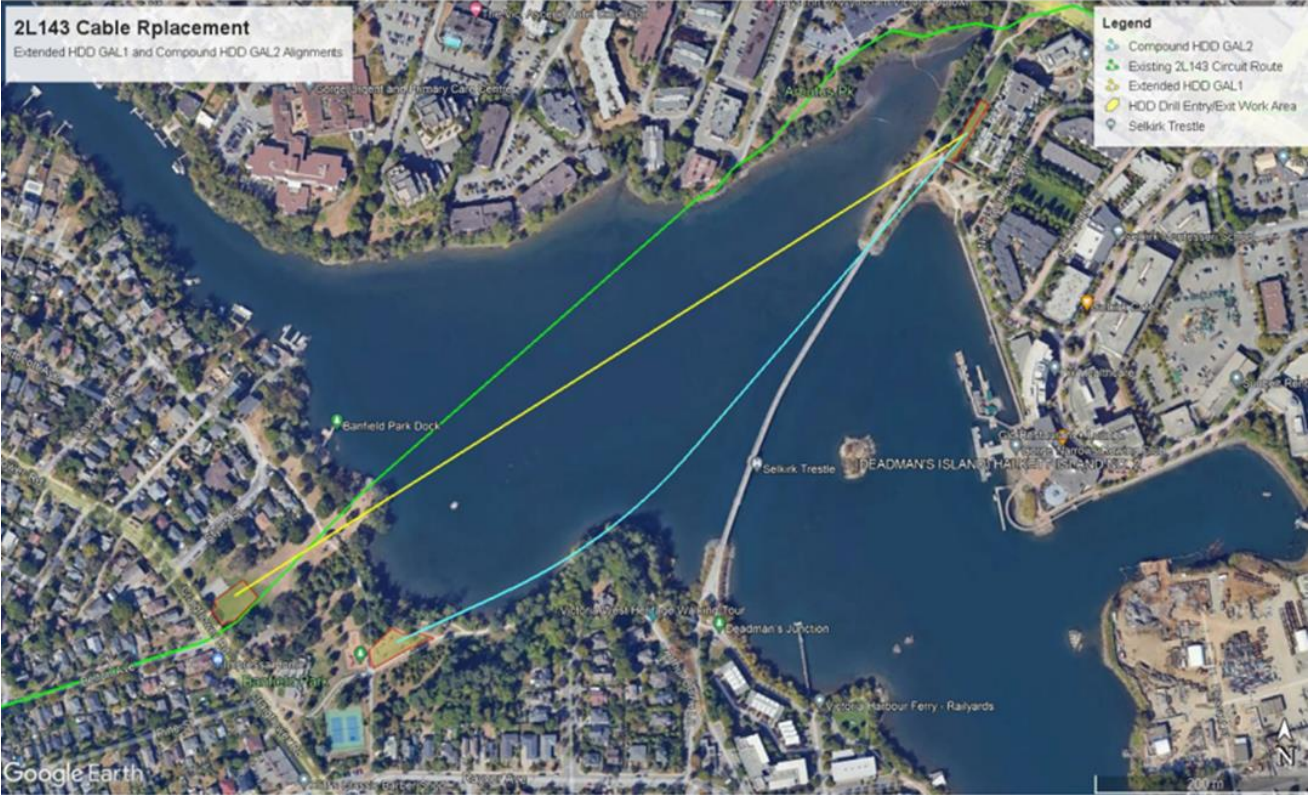
## Shallow Burial

Original cable construction within Gorge Waterway

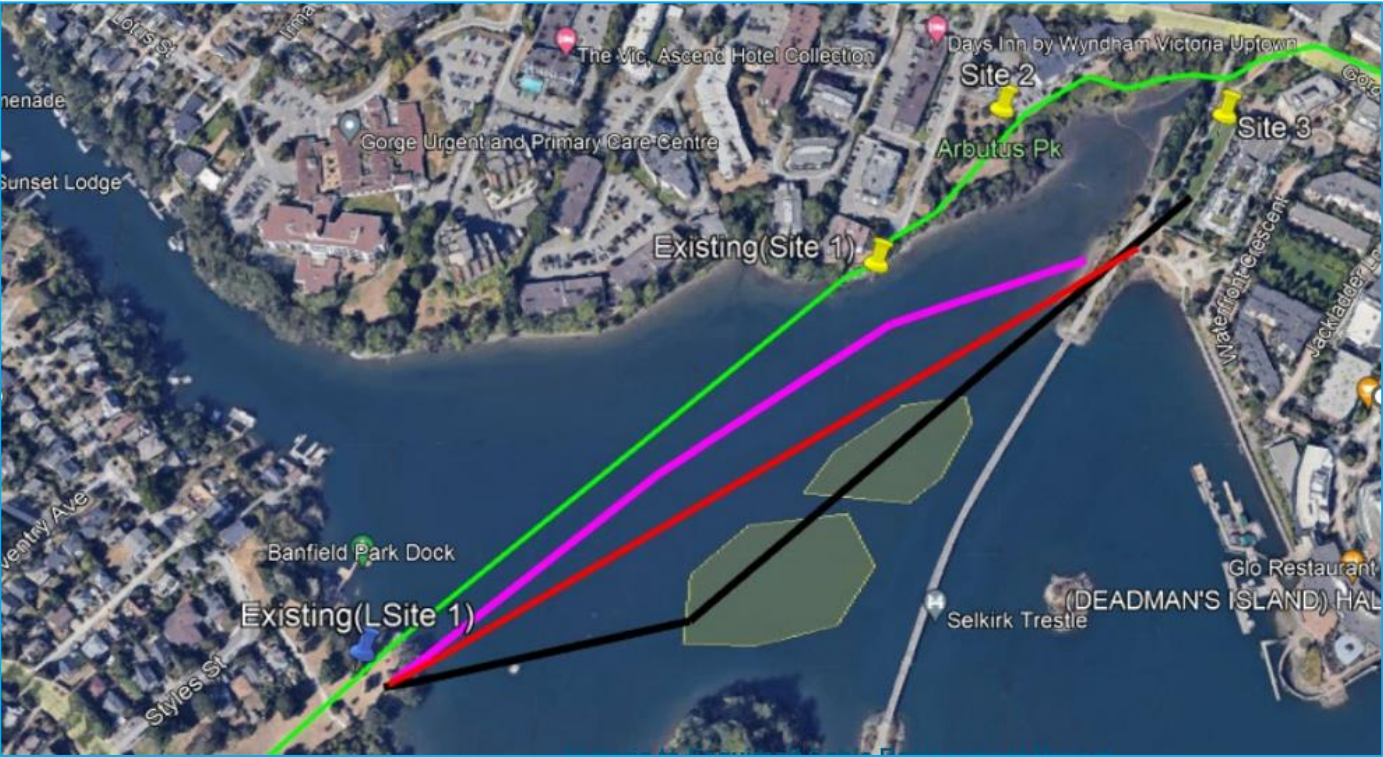




# Horizontal Directional Drilling Route Options



# Shallow Burial Route Options





# Galloping Goose Trail



Will work to minimize trail use impacts to pedestrians and cyclists.

Potential detours and/or flaggers during construction.



# Project Environment

- Environmental overview assessments have been completed for the project.
- We are working to provide a contaminated sites review to inform soil and groundwater management during construction.
- Further terrestrial and aquatic detailed studies will be required around the Gorge Waterway, and for possible removal of vegetation.



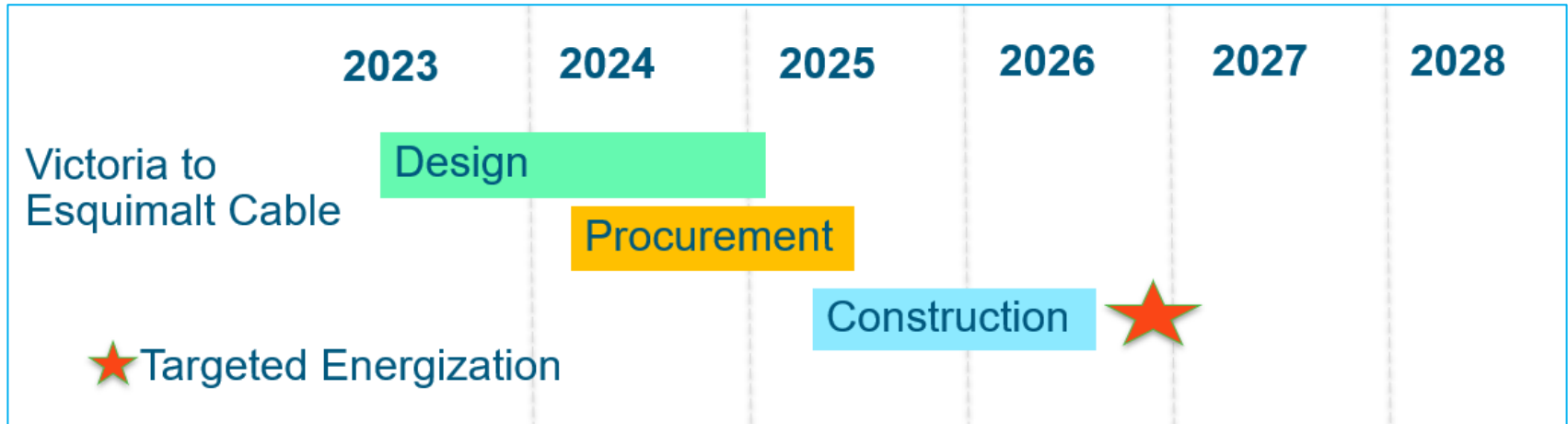
Containment booms for mineral oil are monitored regularly. This location, and other locations as needed, will be remediated with the contamination removed once the new cables are in-service.

# Project Environment

- An Environmental Management Plan will be prepared to address adverse environmental effects during construction.
- We will monitor environmental compliance during construction.



# Project Timeline



# Thank You and Next Steps



- Thanks for joining us today to hear more about this project and share your feedback.
- Please follow our website, [www.bchydro.com/victoriatoesquimalt](http://www.bchydro.com/victoriatoesquimalt) to keep up-to-date with project information, including future open houses.
- Email questions and comments at [projects@bchydro.com](mailto:projects@bchydro.com).
- Project interpretive signage will be placed around the Gorge Waterway.





**BC Hydro**

Power smart