

SITE C PROJECT CONSTRUCTION

HUDSON'S HOPE SHORELINE PROTECTION

The Hudson's Hope shoreline will be protected prior to the filling of the Site C reservoir. Shoreline protection includes a combination of a granular berm and slope flattening to prevent shoreline erosion and to offset effects of the reservoir on slope stability.

Preliminary geotechnical investigations have been completed to provide information which will advance the design of the berm and components. Additional site visits and possible further geotechnical investigation will take place during 2018.

Shoreline protection will extend approximately 2,650 metres from the upstream end of Hudson's Hope, downstream to beyond the current location of the municipal sewage treatment facility. It will be made up of three zones:

| Zone | Description | Type of shoreline protection |
|------|---|--|
| A | Adjacent to the residential area and extends just downstream of the hotel on Clarke Ave | 1,650 metre berm |
| B | Adjacent to land that is currently used for light industrial purposes | 550 metre slope flattening |
| C | Adjacent to municipal sewage treatment lagoons | 450 metre berm, potentially slope flattening |

Other activities in the area include:

- Upgrades to D.A. Thomas Road
- Re-paving Clarke Avenue after use, if required
- Recreation improvements, including a trail along the berm downstream of the museum area and a small craft launch
- Transport of material for the berm from Portage Mountain via Canyon Drive
- A paved brake check on Canyon Drive

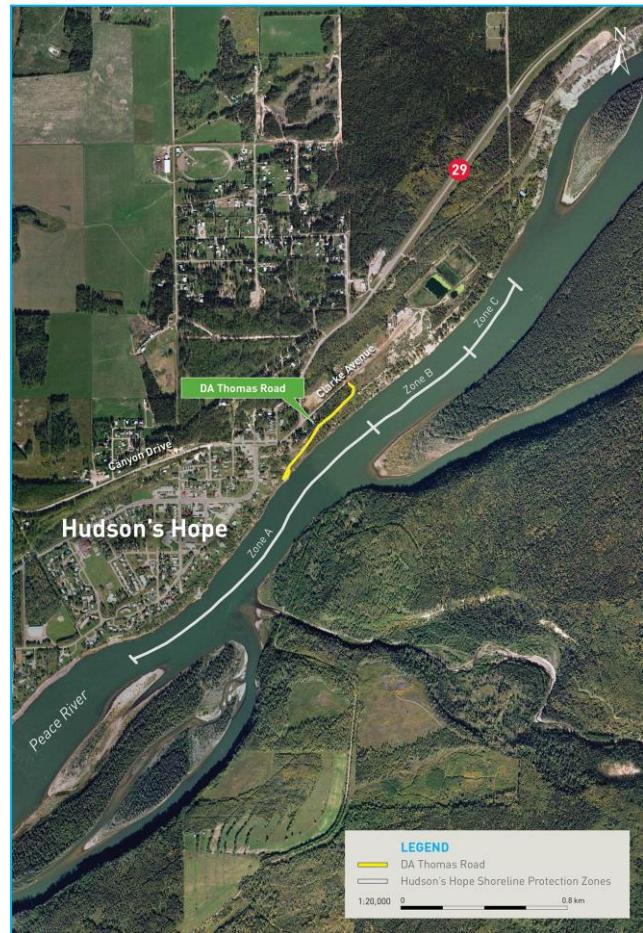
Anticipated timeline

2020 to 2022

Protecting the shoreline

The Site C project will create a reservoir, which will result in a change in groundwater conditions. When coupled with the effects of shoreline erosion, these conditions are predicted to cause some bank recession in the slopes below the community of Hudson's Hope.

The slopes already experience natural processes that consist of river erosion at the bottom (toe) of the slope, and ongoing shallow landslides from the mid to upper slopes. Without a berm, the Site C reservoir would affect the stability of the slopes below Hudson's Hope due to an



HUDSON'S HOPE SHORELINE PROTECTION

2

increase in rates of toe erosion by wind-generated waves and an increase in the likelihood of landslides.

To protect the shoreline from the reservoir's effects on erosion and slope stability, a berm will be constructed to maintain or improve the stability of the slopes. The potential for future landslides on the mid to upper slopes caused by natural processes will not be eliminated, so development setbacks from the crest of the slope will need to continue to be enforced.

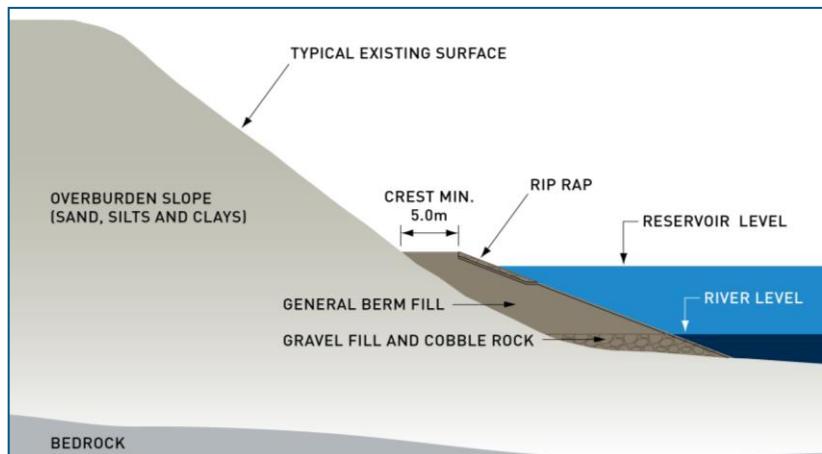
The shoreline protection will be provided through a combination of a berm to the west and east and slope flattening in the middle section.

Access and recreation

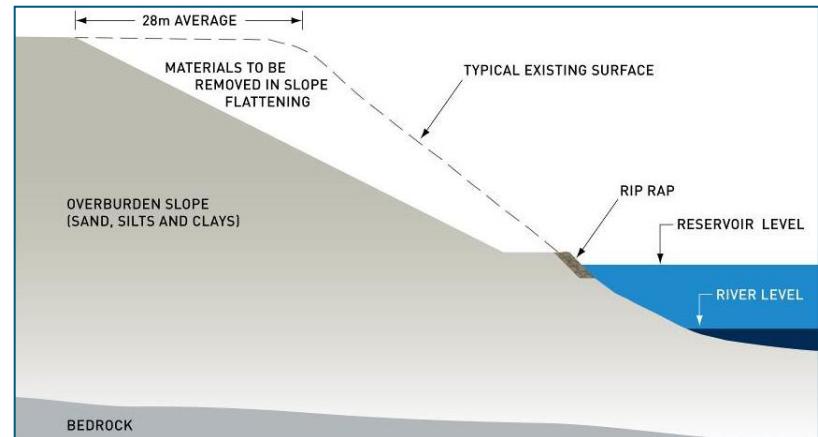
D.A. Thomas Road, which provides access to the shoreline, will be upgraded to facilitate construction and future access.

In addition, BC Hydro will establish and operate a permanent small craft launch at the shoreline protection area at the foot of D.A. Thomas Road. The existing trail travelling west from D.A. Thomas Road, connecting to the existing trail leading up into Hudson's Hope, will also be reconnected along the berm after construction.

Cross section of berm



Cross section of slope flattening



What to expect

- There will be truck traffic in the Hudson's Hope area as equipment and materials are brought to site.
- Some noise, vibration and dust may occur in the vicinity of shoreline protection construction activities.
- Where possible, BC Hydro and its contractors will take steps to reduce the effects of construction activities on Hudson's Hope residents.
- BC Hydro provided \$150,000 in funding to the District of Hudson's Hope for enhancements to Alwin Holland Park or other community shoreline recreation areas.
- Prior to the beginning of shoreline protection construction activities, BC Hydro will provide opportunities for residents, businesses and property owners to learn more about construction plans, potential effects on the community, and plans to minimize construction-related impacts.