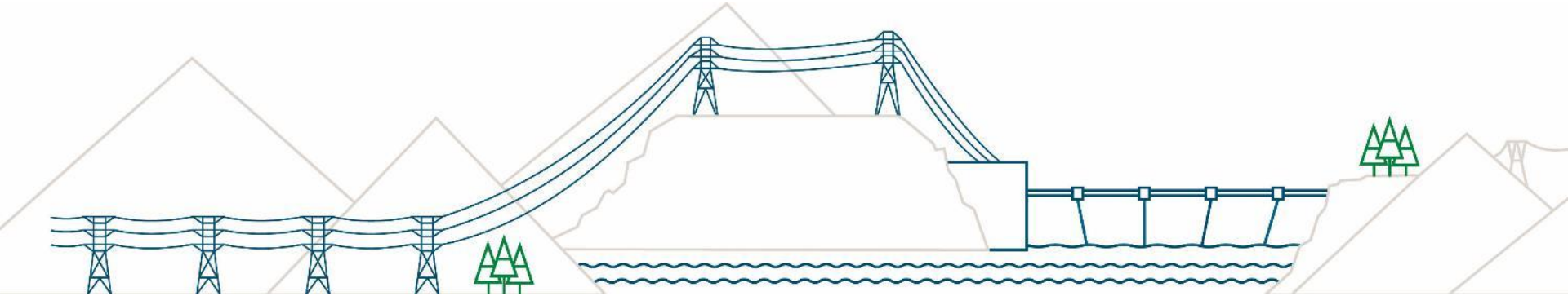
Diverting the Peace River

Chris Hatton – Project Manager, Diversion



September 18, 2019

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Presentation overview

- What is river diversion?
- Stages of the river diversion process
- Flow rates during river diversion
- Questions/discussion

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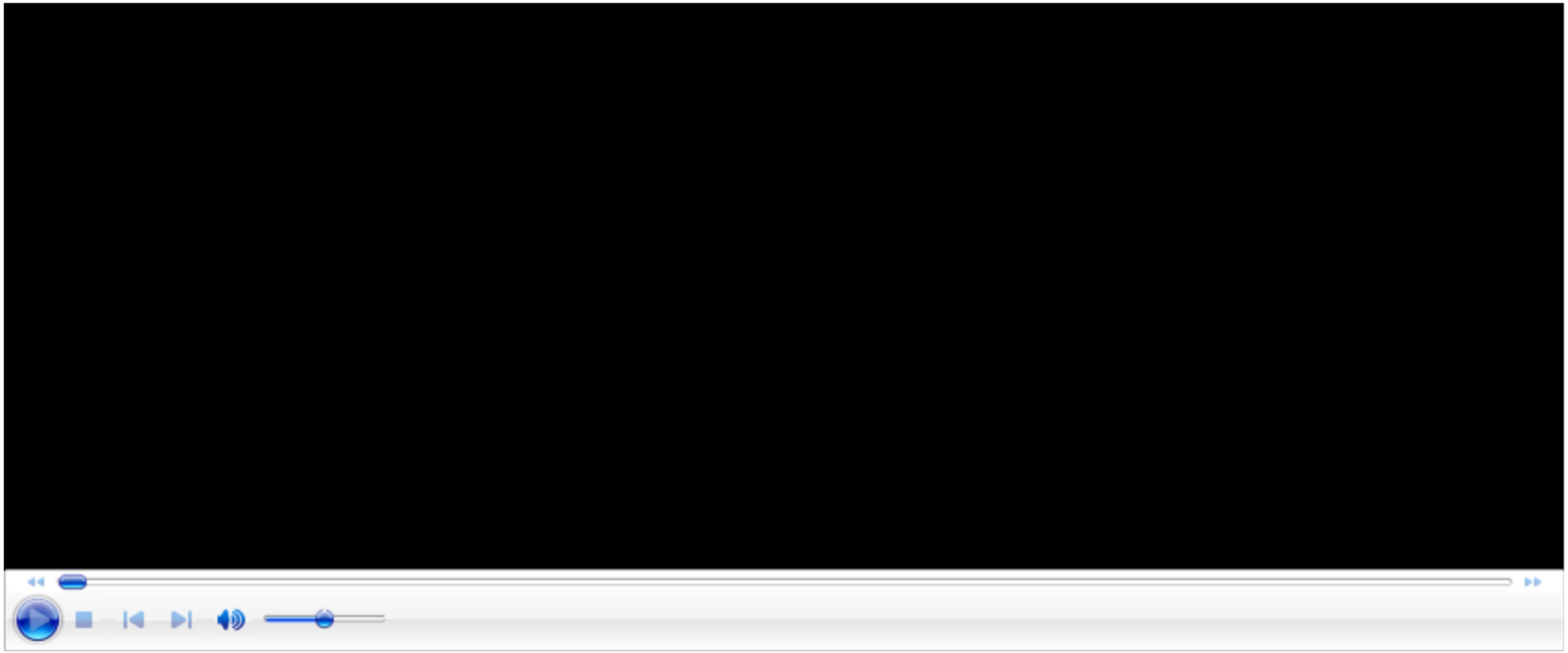
What is river diversion?

And how do we do it?

- River diversion is a construction phase of the Site C project
    - Lasts approximately three years
- Involves temporarily redirecting the flow of the Peace River to support the construction of the Site C dam
- Two major processes make up the act of diversion:
    - 1. Divert river flow (rockfill berm)
    - 2. Seal off river channel (upstream and downstream cofferdams)

Diverting the Peace River



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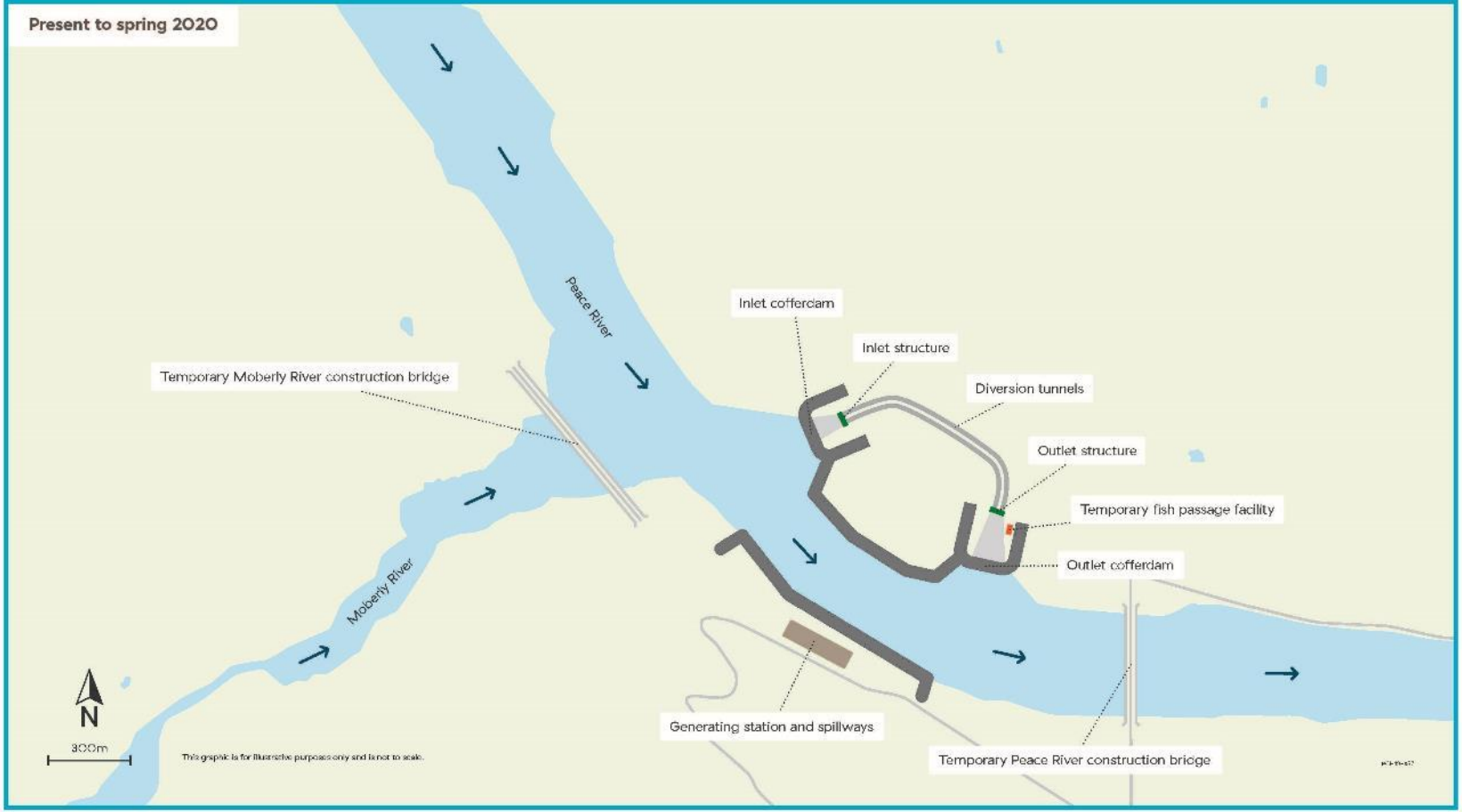
Site C river diversion—Tunnel construction



River diversion tunnels

- The two large tunnels approximately 750 metres long and 11 metres in diameter
- Located on the north bank of the Peace River
- Excavations underway since summer 2018
- Tunnels will have the capacity to pass 3,000 cubic metres of water per second (combined)

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Tunnels: current status and next steps

- Permanent tunnel lining underway in both tunnels
- Inlet/outlet structures under construction
- Completion anticipated: Mid 2020

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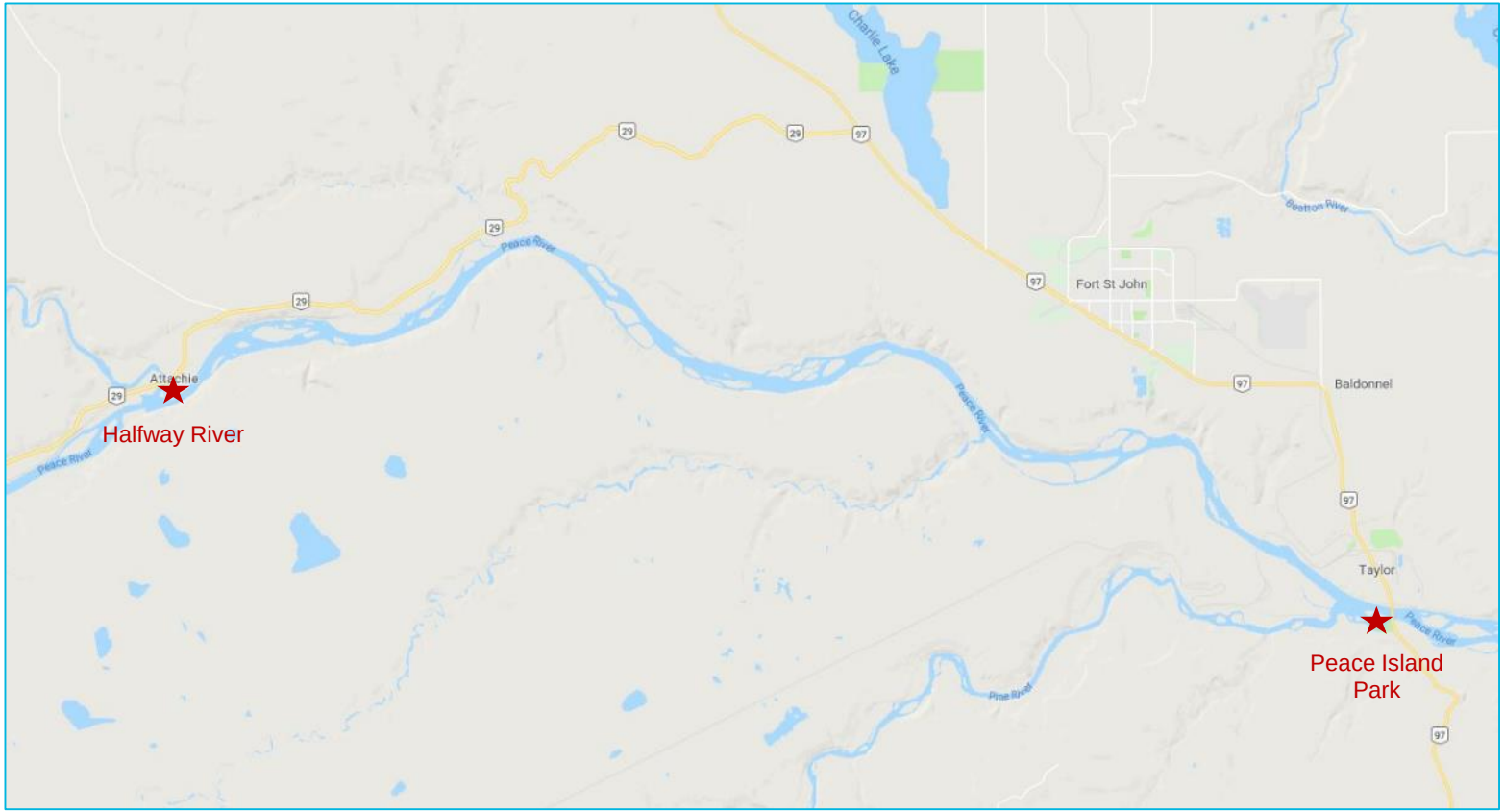
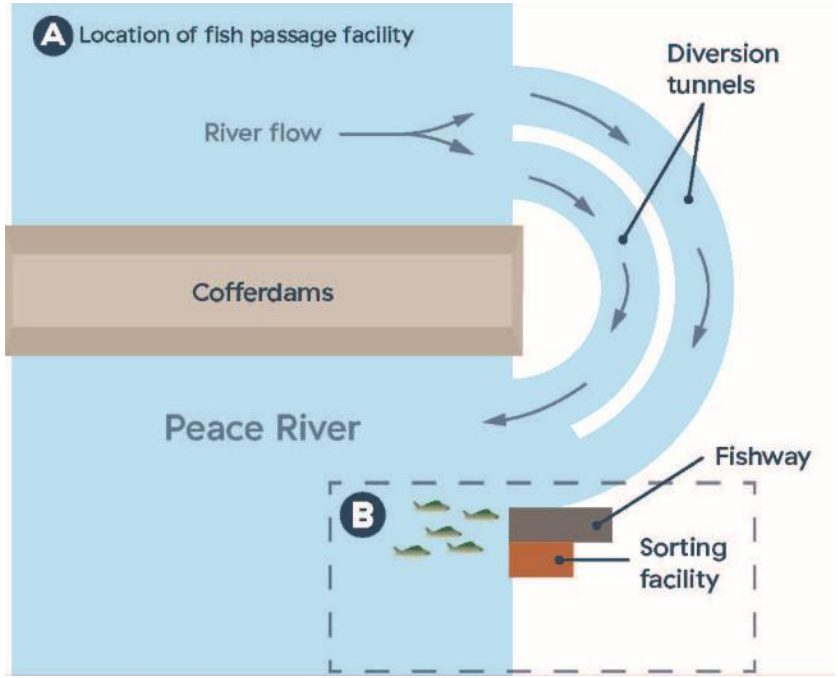
Site C river diversion—Debris management structures

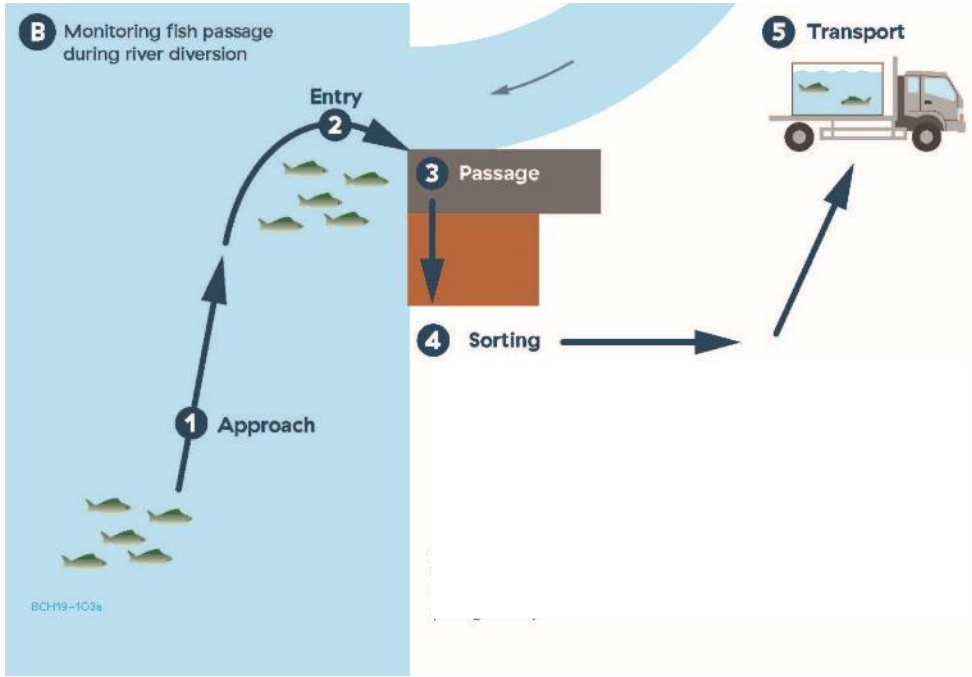
Portage program



Site C river diversion—Tunnel and fishway commissioning

Upstream fish passage during diversion





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Site C river diversion—Rockfill berm construction

Site C river diversion—Upstream and downstream cofferdam construction

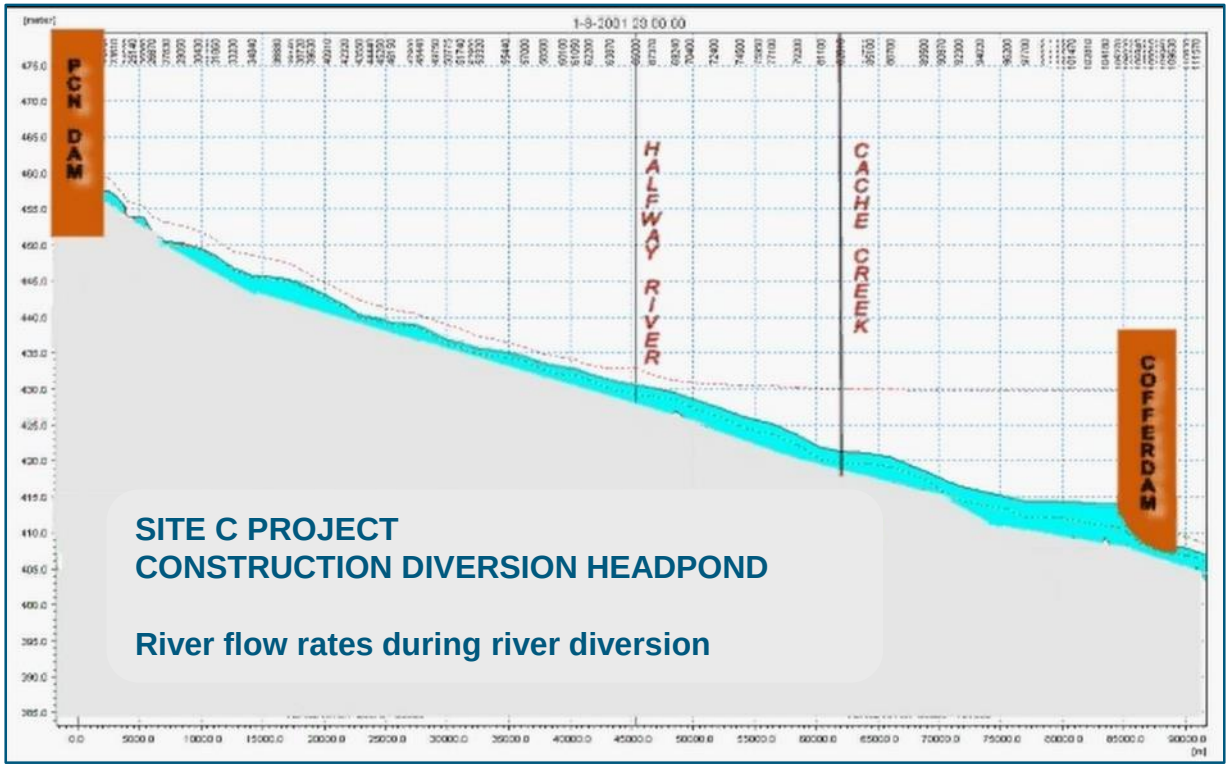
How is the river diverted?

Diversion can begin when:

- ✓ More than 55 environmental and regulatory requirements are met
- ✓ Debris management infrastructure and system are in place
- ✓ Fishway is complete and commissioned
- ✓ Both tunnels and operating gates are commissioned and readied for service
- ✓ Operating gates are opened and the inlet and outlet cofferdams are excavated, allowing water to flow through the tunnels
- ✓ A rockfill berm is constructed immediately downstream of the intake for the purpose of directing the water to the tunnels
- ✓ Upstream and downstream cofferdams are constructed, and the area between the cofferdams is emptied of water

Flow rates during diversion

Examples of normal–low, normal–high and spring runoff events



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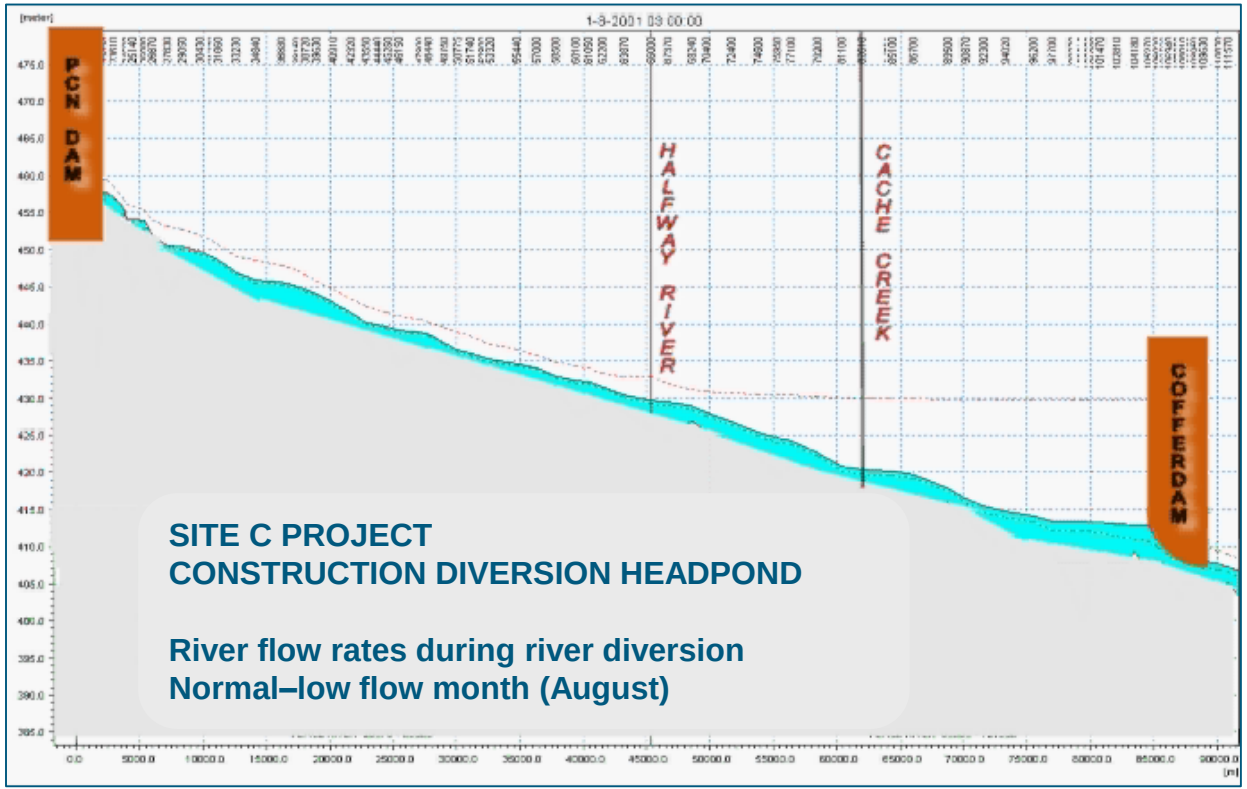
Flow rates during diversion

Normal–low flow month (August)



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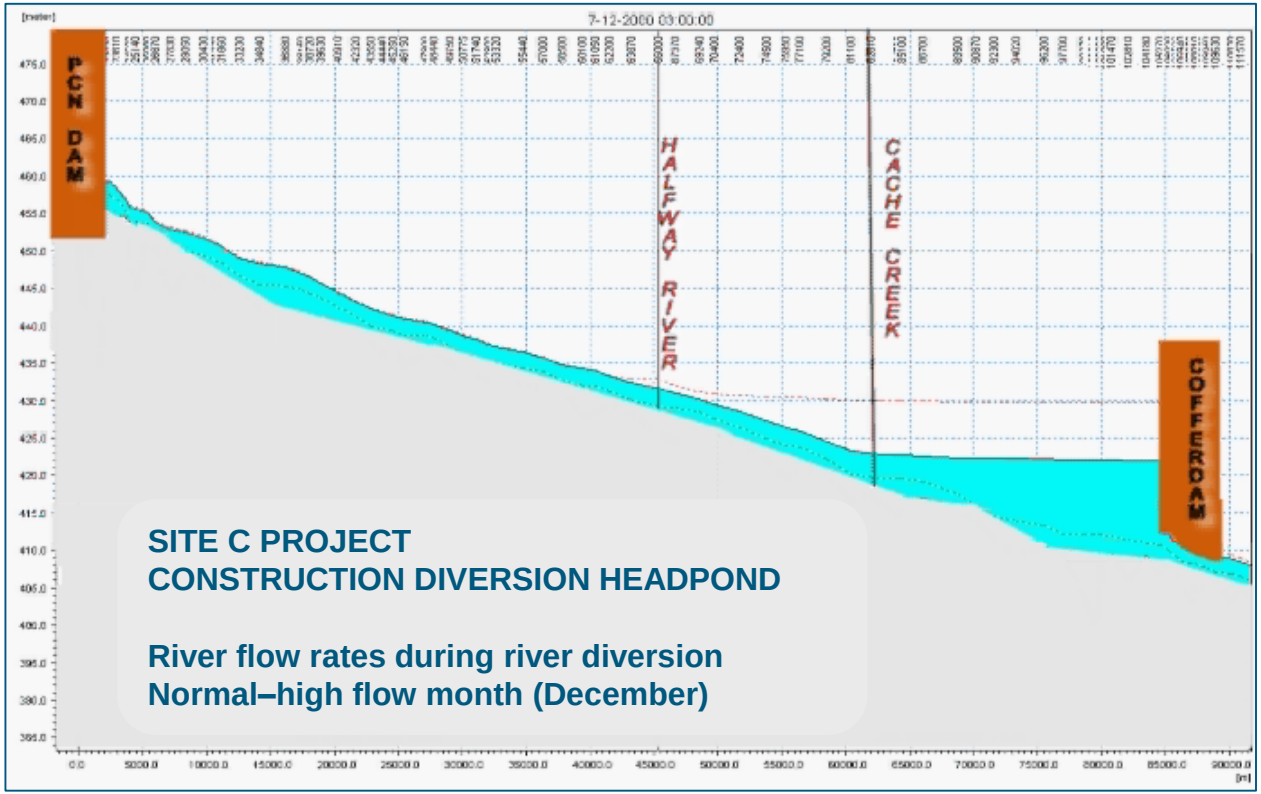
Flow rates during diversion

Normal–high flow month (December)



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Engagement next steps

How we will help communities prepare

- Ensure local and regional stakeholders are informed about the river diversion process, navigation restrictions and portage program
- Development of FAQs
    - Seeking feedback on what may be of interest to your constituents
- Local media technical briefing
- December RCLC meeting

Questions

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