



Decommissioning BC Hydro's Heber River Dam: Challenges and Practical Solutions

By: Jeff Schmidt, P.Eng., PMP

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Project Video

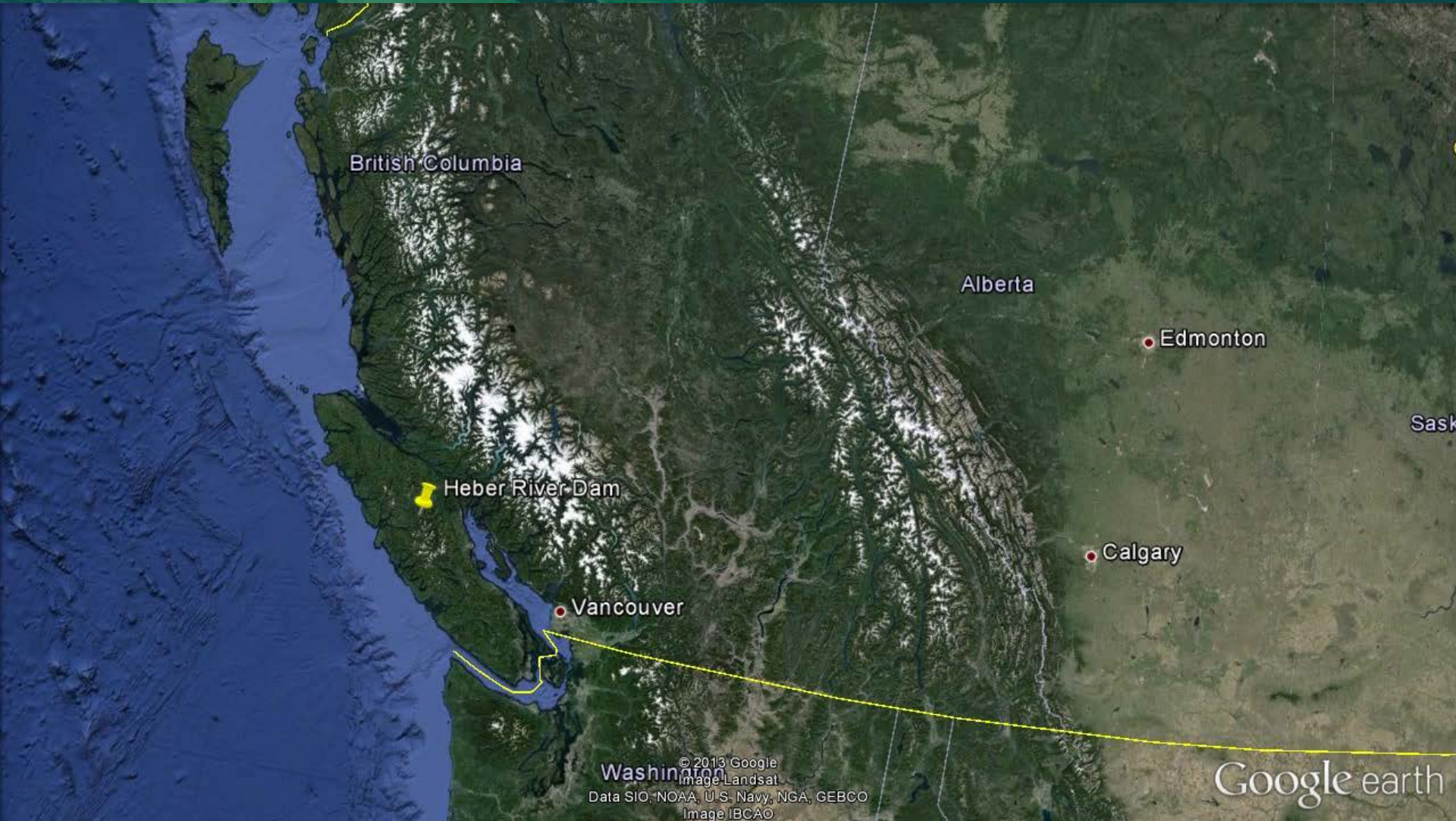




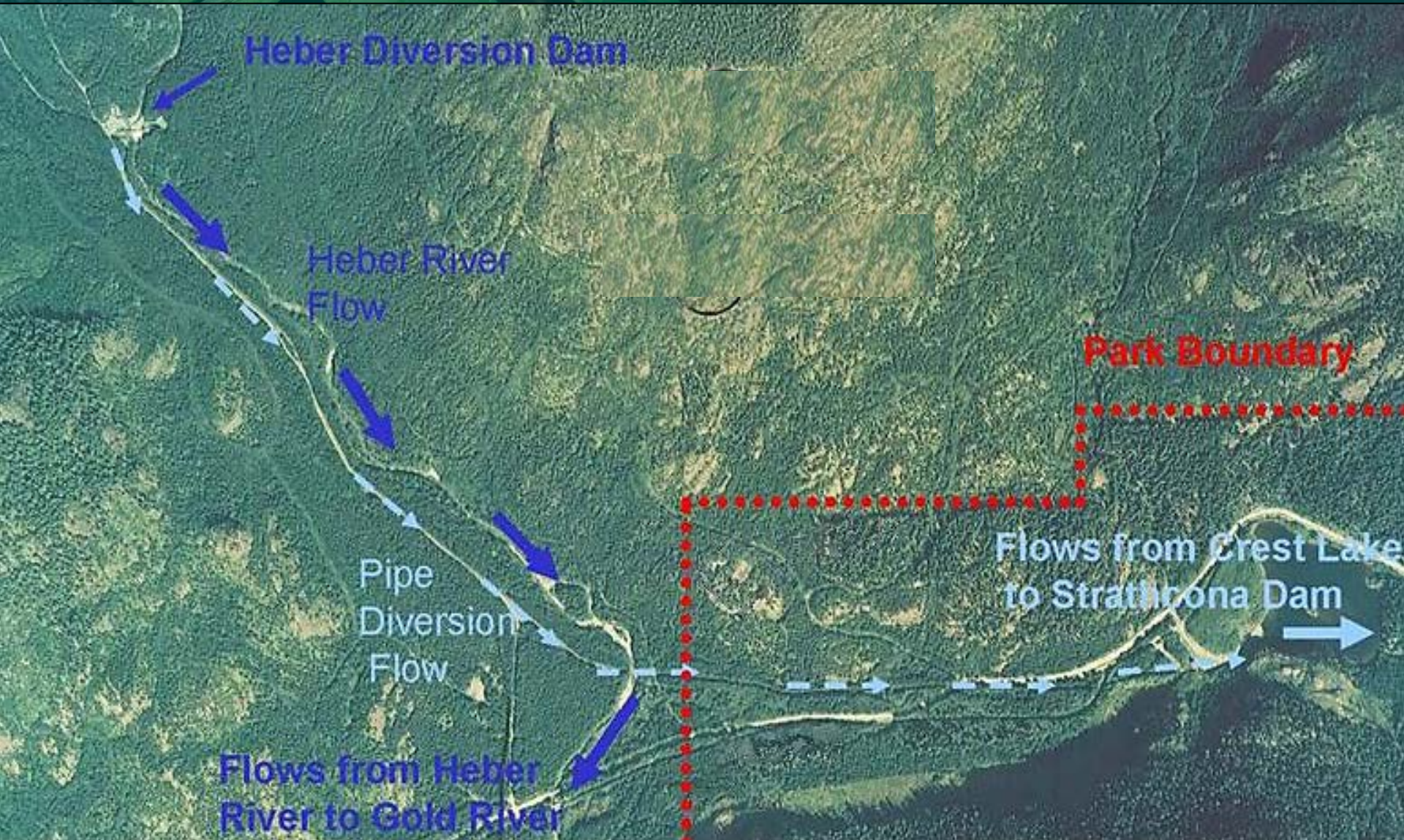
Outline

- Project Background
- Project Challenges and Solutions
 1. Technical
 2. Regulatory
 3. Stakeholder
- Current Conditions
- Ongoing Work

Background



Background



Background – Dam



Background – Dam



Background – Penstock



Background – Penstock



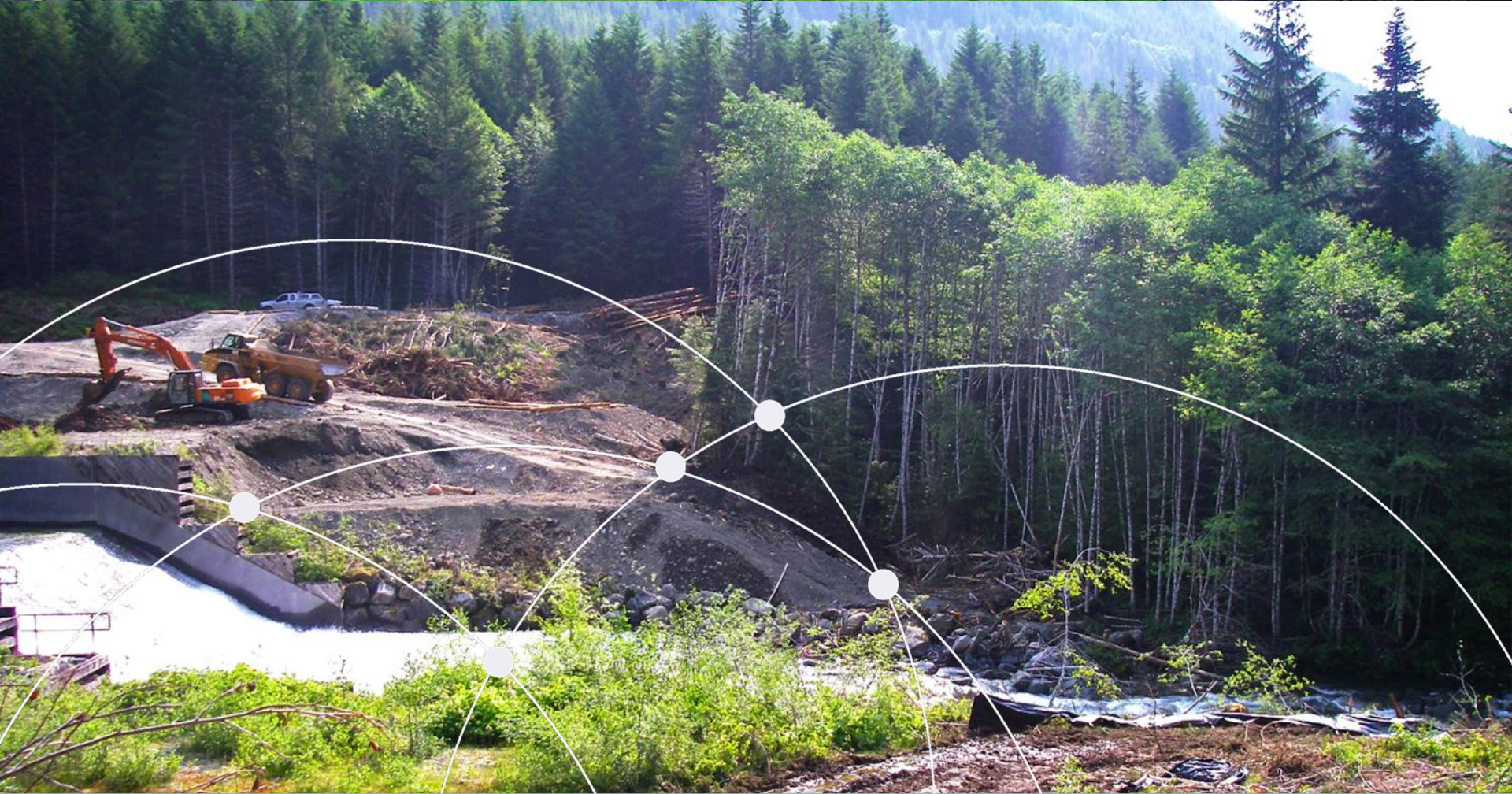
Background – Penstock





Project Objectives

- **Remove 3 Instream Structures**
 - Heber Diversion Dam
 - Heber River Penstock Crossing
 - Penstock Outlet Structure
- **Remove Wood Stave Diversion Penstock**
- **Safely Dispose Contaminated Materials** (soils, creosote treated wood from the dam and penstock)
 - Remediate contamination for intended land use – Wildlands
 - Obtain a standards-based Certificate of Compliance, using the CSAP process
- **Site and Channel Restoration**
- **Return land to Stakeholders**



Technical Challenges






Technical

Challenge	Solution
1. Location and Size of Site	<ul style="list-style-type: none">• Multiple staging locations on and offsite• Barging of Waste and Haz Waste
2. Confluence of Two Rivers	<ul style="list-style-type: none">• Engineered lined diversion channels
3. Wastewater	<ul style="list-style-type: none">• BC MoE discharge approval• On site water treatment
4. Environmentally Sensitive Area	<ul style="list-style-type: none">• Daily environmental monitoring• Multiple fish salvages

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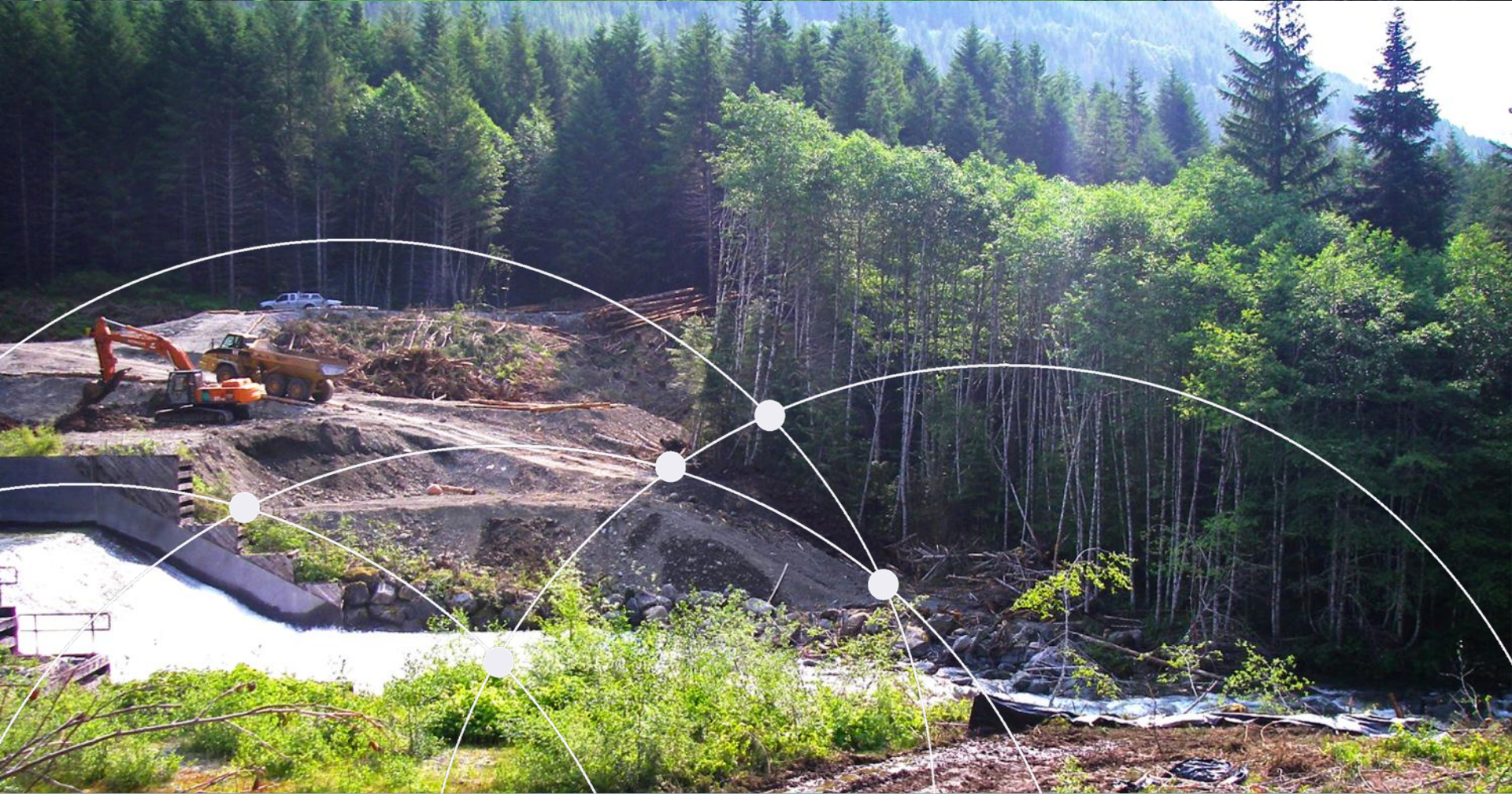


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Regulatory Challenges

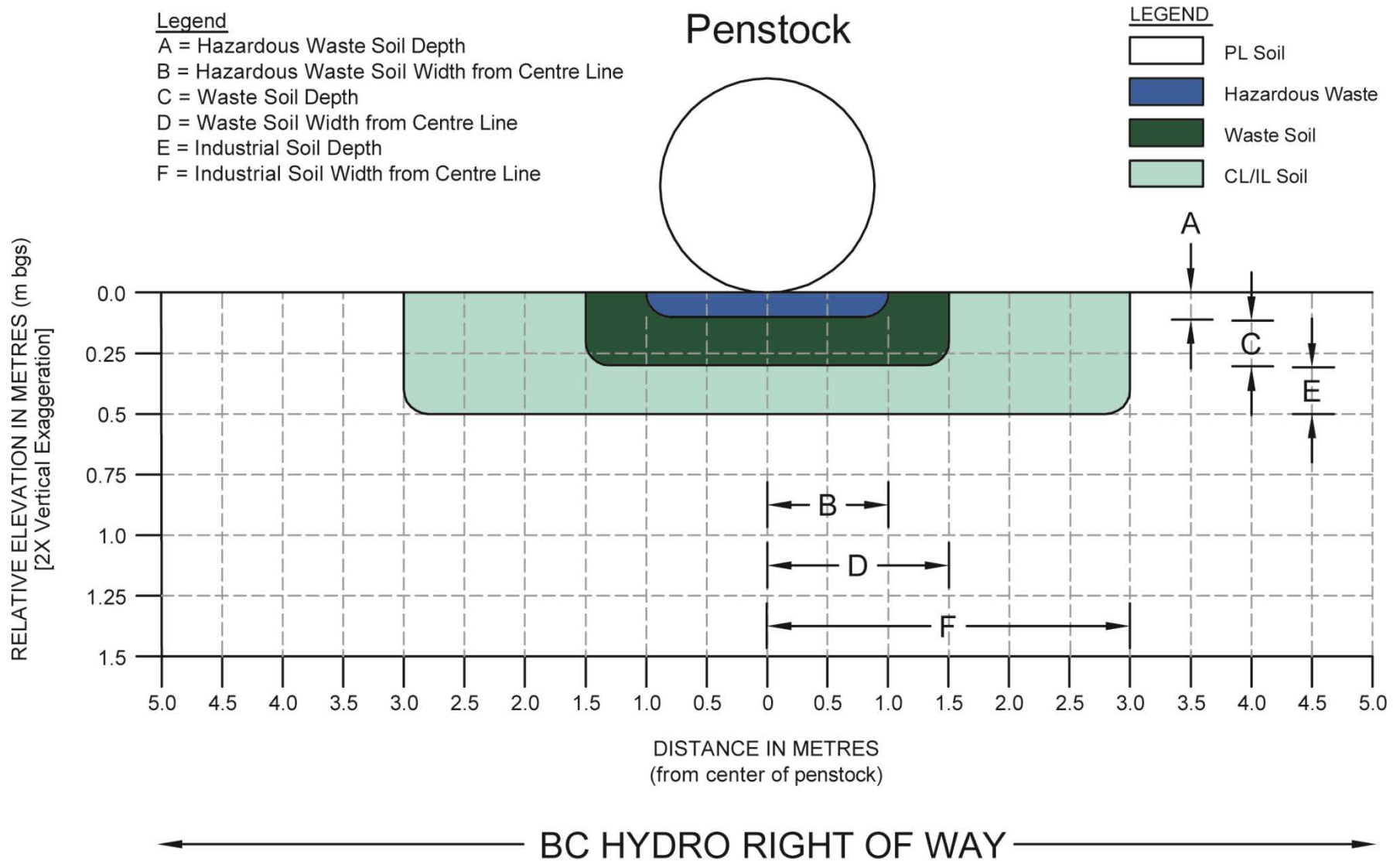




Regulatory

Challenge	Solution
1. Confirmatory sampling according to BC Technical Guidance #1	<ul style="list-style-type: none">• Proposed alternative sampling protocol that combined lab and field screening samples
2. Elevated Copper Concentrations in Site Soils	<ul style="list-style-type: none">• Using statistics and desktop study, background release for Copper
3. High Risk Site	<ul style="list-style-type: none">• Extension by MoE from 90 days to 150 days to complete remediation
4. Short Fisheries Window (July 15 th to August 30 th)	<ul style="list-style-type: none">• Demonstrated to DFO that mitigation measure were to be taken to reduce impact during remediation• New window June 15th to Sept 21st

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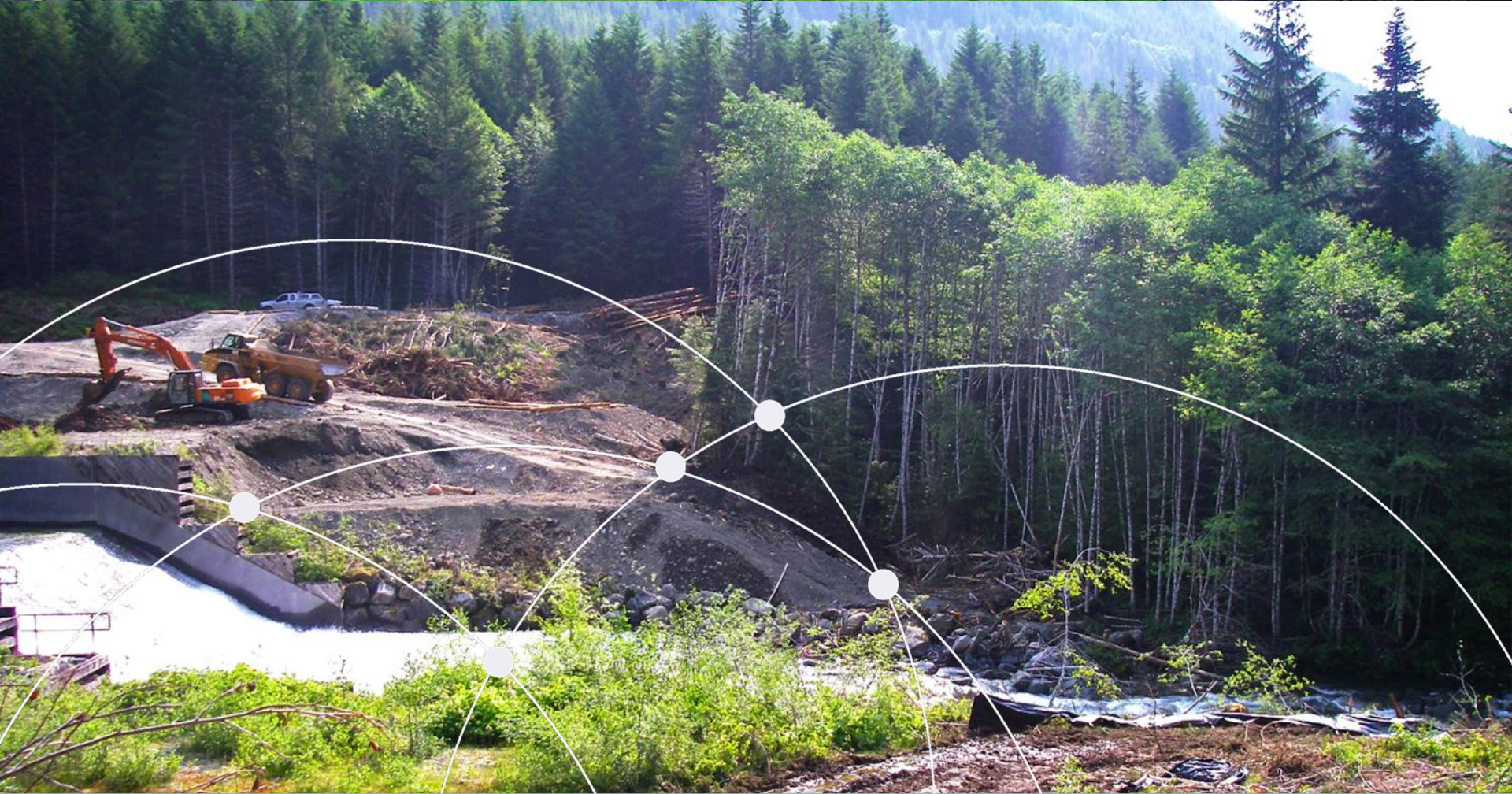


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Stakeholder Challenges

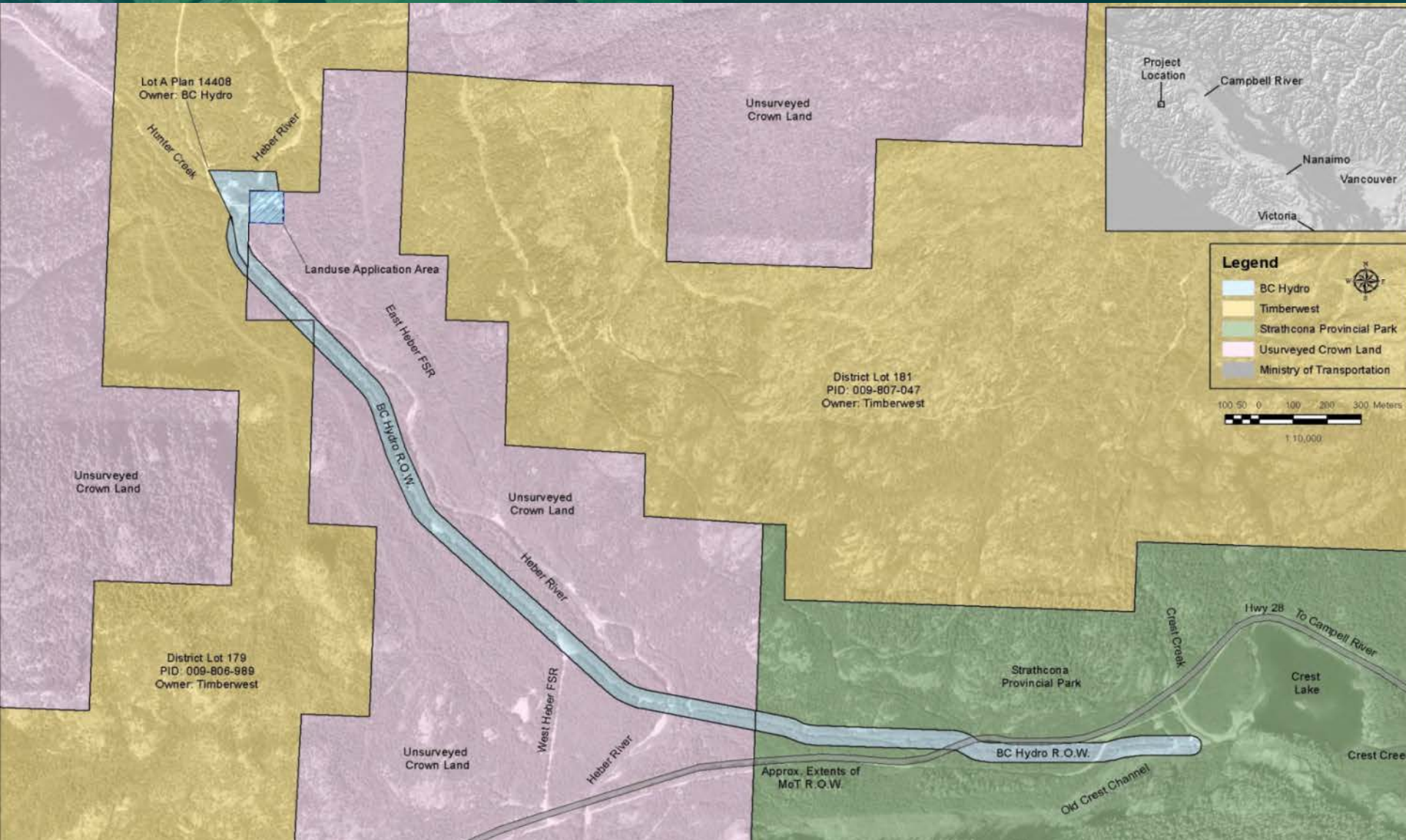





Stakeholder

Challenge	Solution
1. Site crosses 5 different properties each with separate owners	<ul style="list-style-type: none">• 5 separate standards based certificates (some non-contiguous)
2. Multiple stakeholders – landowners, regulators, first nations, community	<ul style="list-style-type: none">• Meetings – pre and post remediation
3. Stakeholder turnover and transitions	<ul style="list-style-type: none">• Documentation and communication




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Current Conditions



Current Conditions





Ongoing Work

- **Completion of the Certificates of Compliance Applications**
- **Returning the land to Stakeholders**



Thank you. Questions?

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