Decommissioning BC Hydro's Heber River Dam

Challenges and Practical Solutions

Presented to: EMA of BC

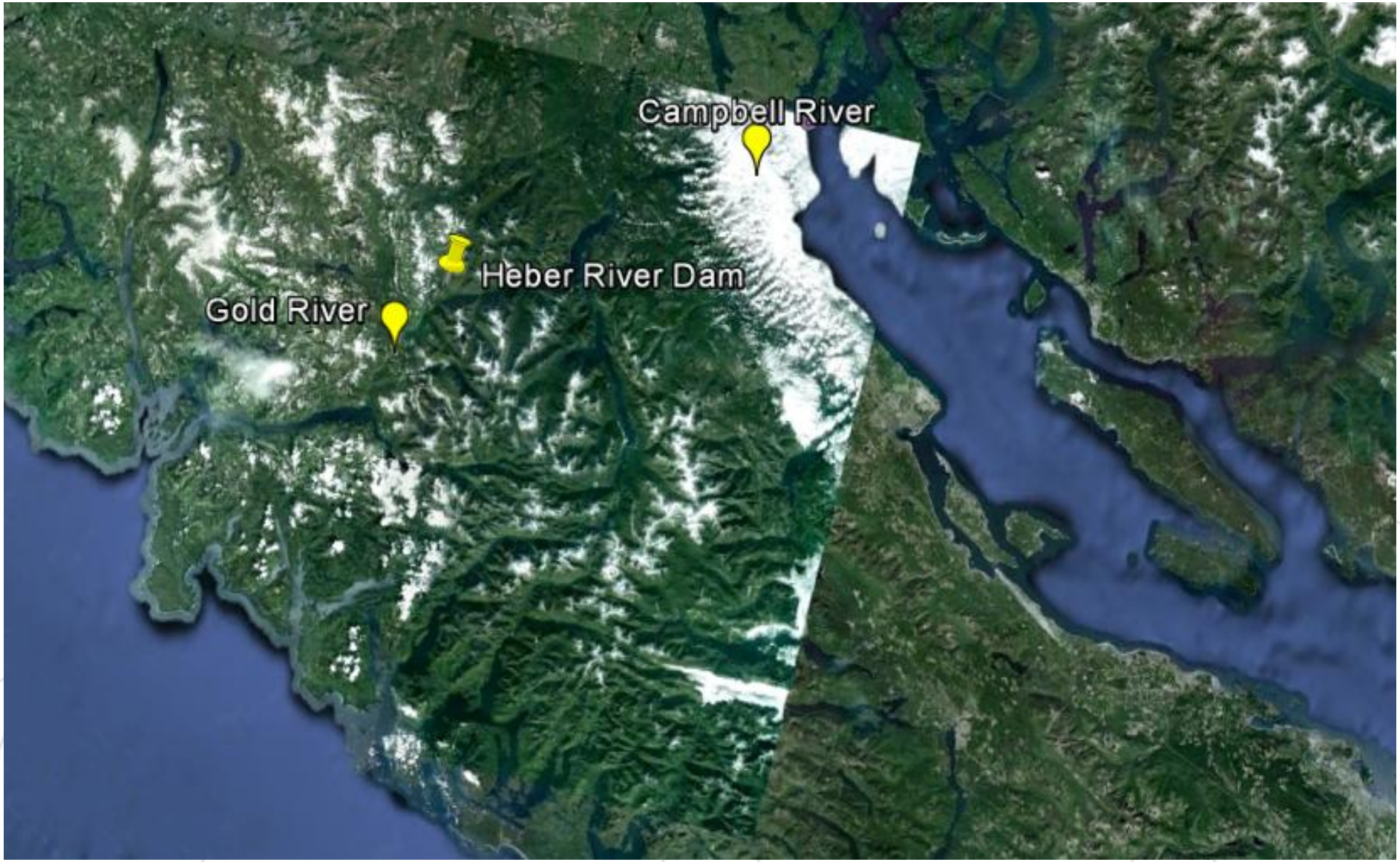
Presented by: Jeff Schmidt

February 21, 2013

Outline

- Project Background
- Project Challenges and Solutions
  1. Technical
  2. Regulatory
  3. Stakeholder
- Future Work
- Time Lapse Video

Background



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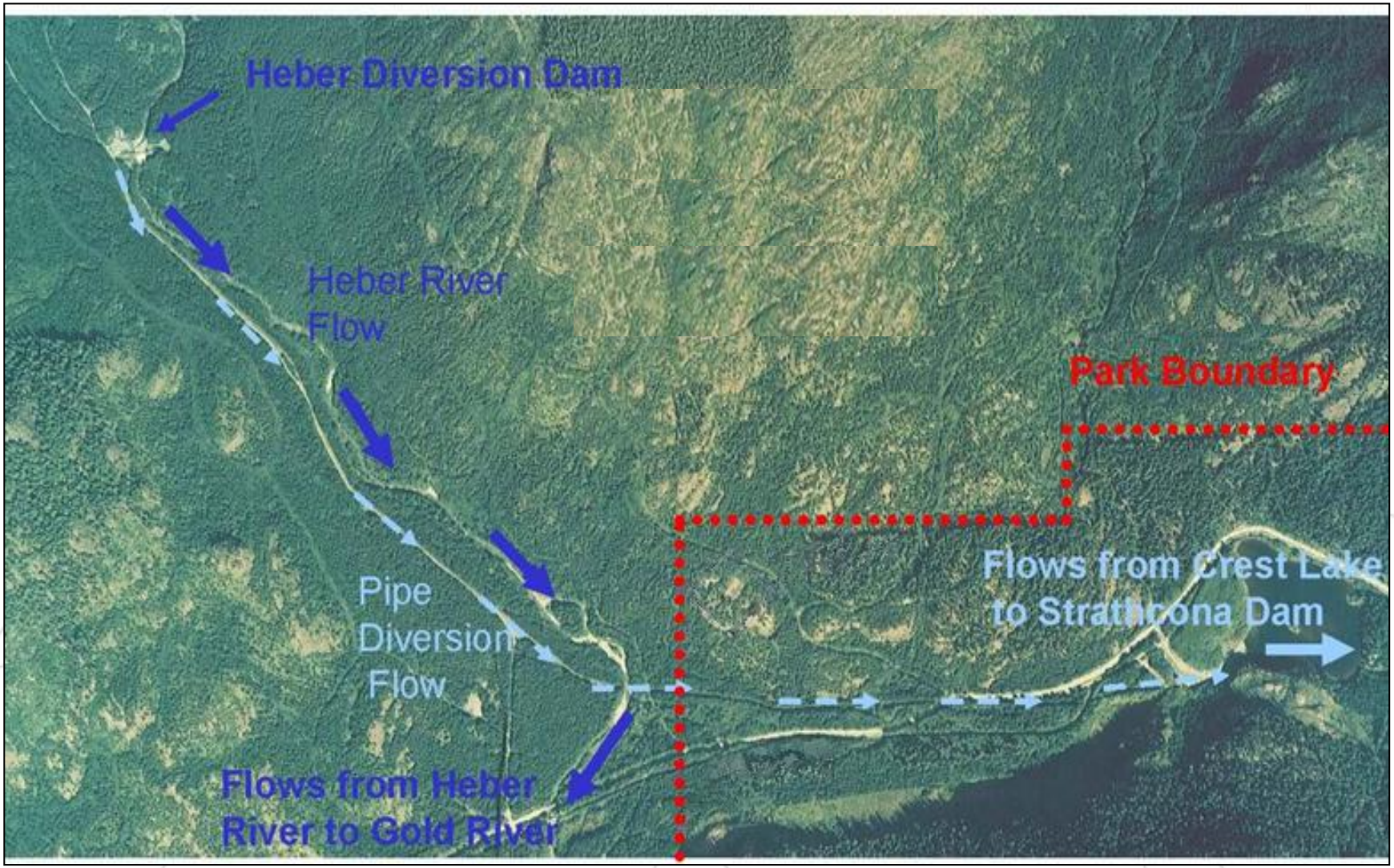
Heber Diversion Dam
Heber River Flow
Park Boundary
Pipe Diversion Flow
Flows from Crest Lake to Strathcona Dam
Flows from Heber River to Gold River

Background - Dam

Background - Dam

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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

1) Technical Challenges

Technical

Challenge	Solution
1. Location and Size of Site	• Multiple staging locations on and offsite • Barging of Waste and Haz Waste
2. Confluence of Two Rivers	• Engineered lined diversion channels
3. Wastewater	• BC MoE discharge approval • On site water treatment
4. Environmentally Sensitive Area	• Daily environmental monitoring • Multiple fish salvages

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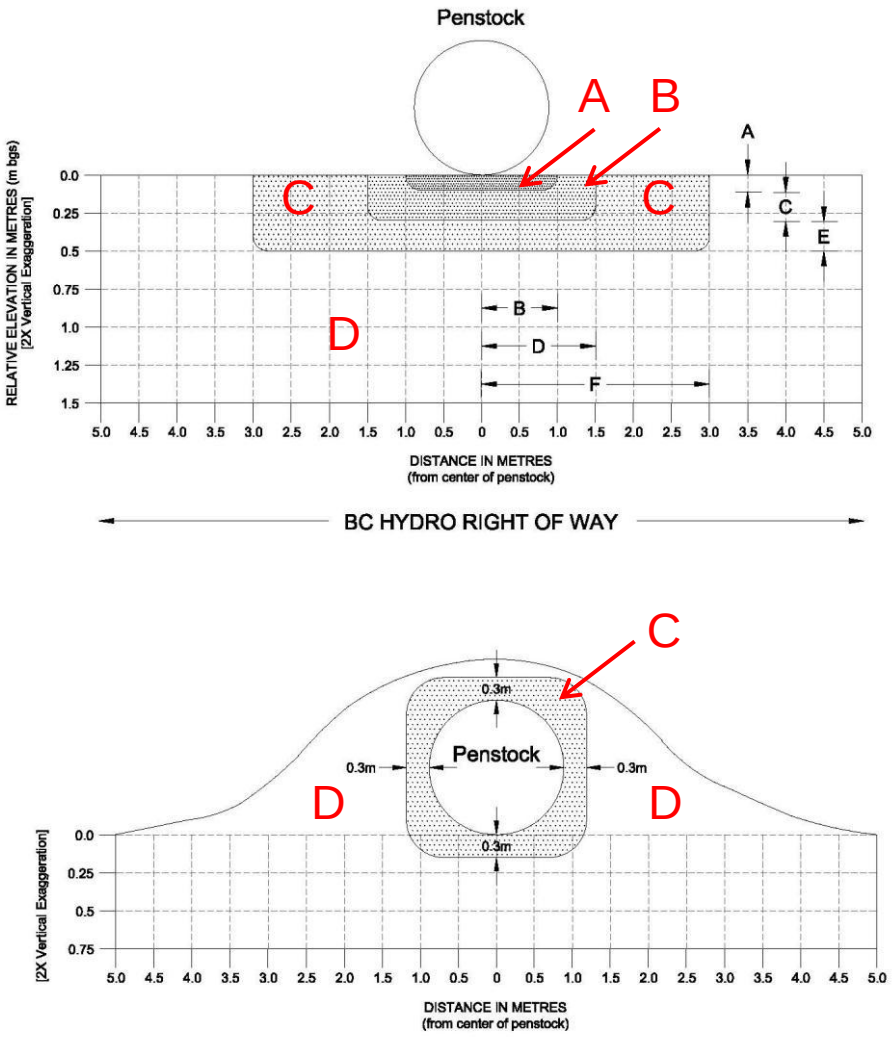
2) Regulatory Challenges

Regulatory

Challenge	Solution
1. Confirmatory sampling according to TG #1	• Proposed alternative sampling protocol that combined lab and field screening samples
2. Elevated Copper Concentrations in Site Soils	• Using statistics and desktop study, background release for Copper
3. High Risk Site	• Extension by MoE from 90 days to 150 days to complete remediation
4. Short Fisheries Window (July 15th to August 30th)	• Demonstrated to DFO that mitigation measure were to be taken to reduce impact during remediation • New window June 15th to Sept 21st

Regulatory



- Typical Contamination for Removal
  - A = Hazardous Waste
  - B = Waste Soils
  - C = Industrial Waste
  - D = Wildland Standards

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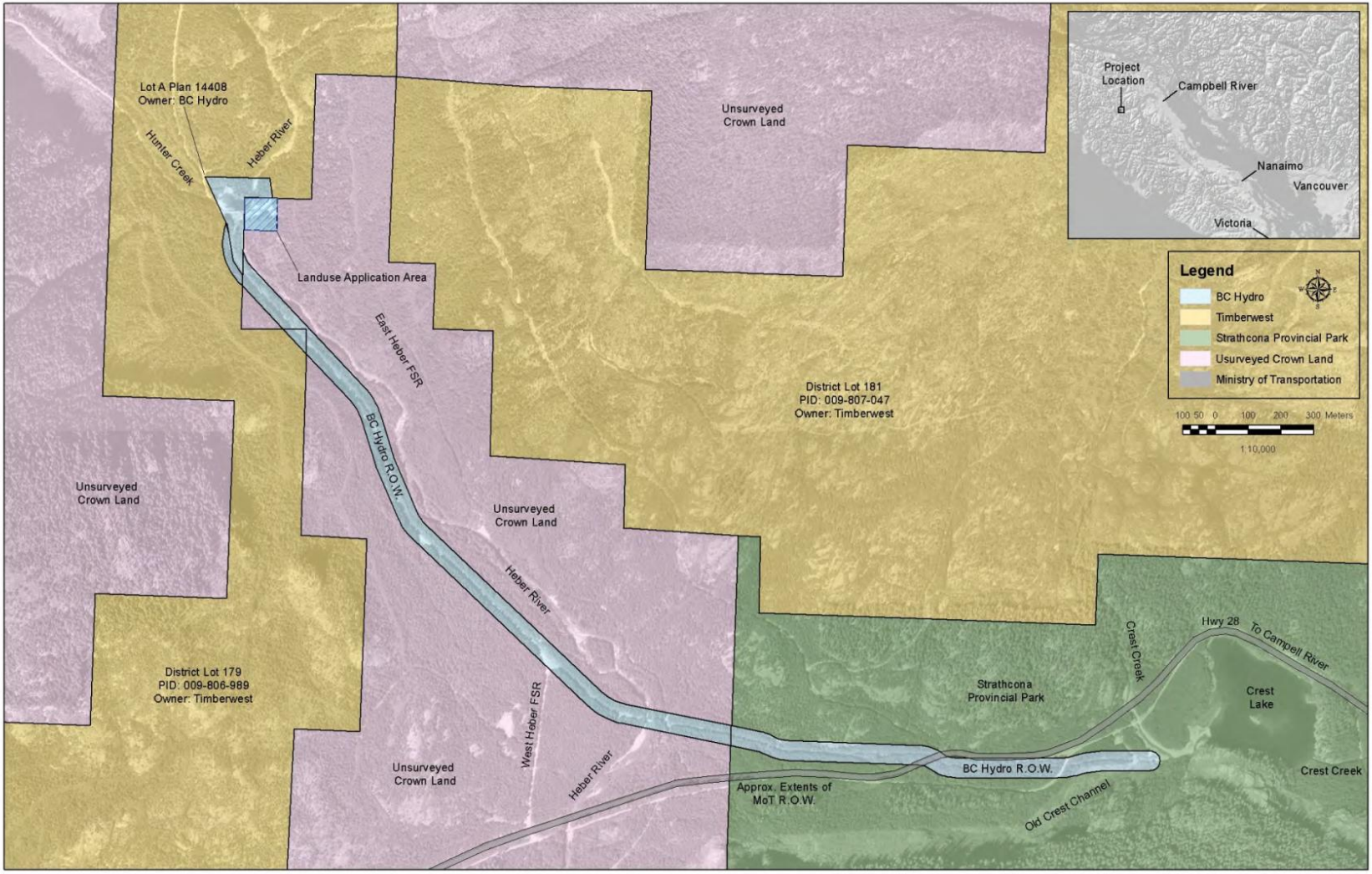
3) Stakeholder Challenges

Stakeholder

Challenge	Solution
1. Site crosses 5 different properties each with separate owners	• 5 separate standards based certificates (some non-contiguous)
2. Multiple stakeholders – landowners, regulators, first nations, community	• Meetings – pre and post remediation
3. Stakeholder turnover and transitions	• Documentation and communication

Stakeholder



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Future Work

- Certificate of Compliance Applications
- Planting of native vegetation and ongoing monitoring
- Returning the land to Stakeholders

BC hydro

FOR GENERATIONS

Thanks

Jeff Schmidt, P.Eng.
jschmidt@hemmera.com
604-669-0424