



Environmental Review Process – Case Studies

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Links to Learning
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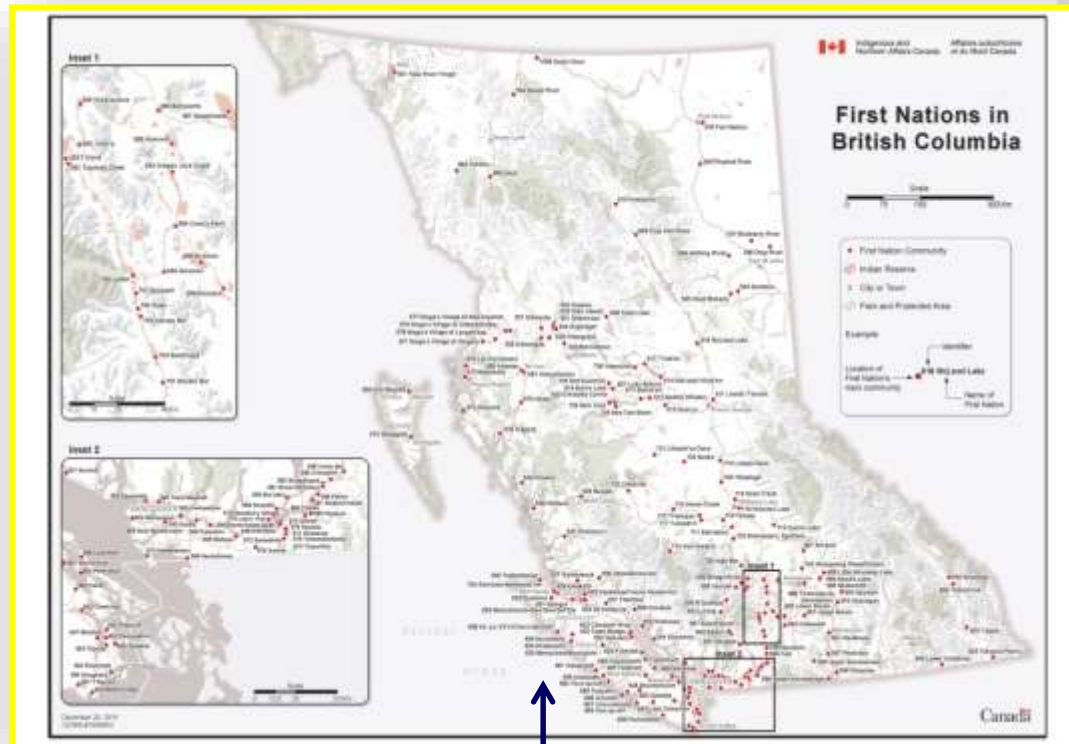
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Case Study #1 - Ahousaht First Nation

- Located on a peninsula on Flores Island in the Clayoquot Sound Region on the West Coast of Vancouver Island
- Ahousaht First Nation governance is by 'Treaty'
- The Marktosis Reserve IR #15 has a population of 883, with 160 residences on 20 hectares of land
- Access is only by Air and Water

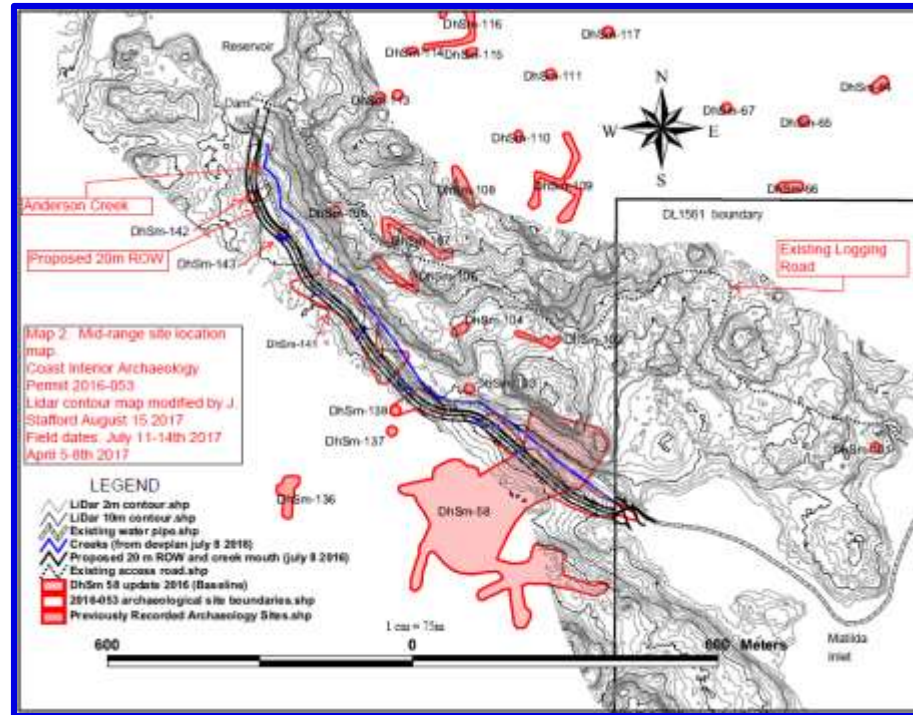


Flores
Island



Case Study # 1 – Anderson Watermain Replacement

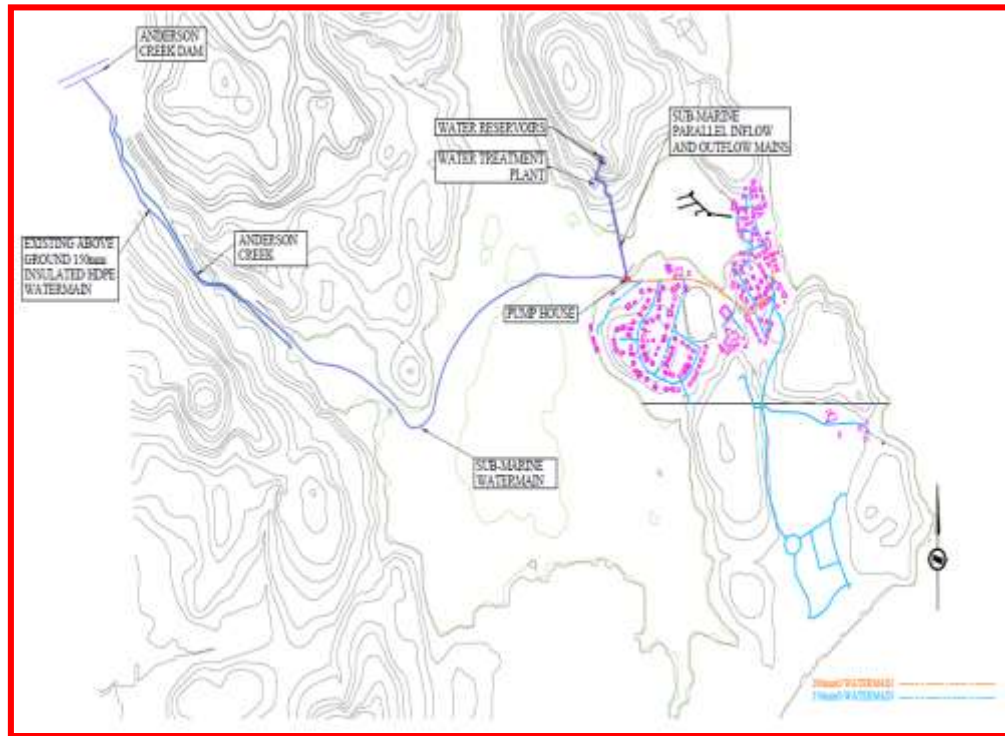
- Currently served by a reliable source of water, with treatment facilities
- Raw water from the dam on Anderson Creek is piped above ground to Matilda Inlet in a high-density polyethylene (HDPE) supply main, which then crosses beneath the inlet
- Damaged by windfall, bears (punctures), high river flows



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Case Study #1 – The Project Details

- Replacement of the above ground water main from the Anderson Creek Dam to the shoreline of Matilda Inlet.
- Construction of an access road for maintenance above the watermain
- Construction of a bridge to cross Anderson Creek below the existing dam spillway that will connect the new access road to the existing dam access road



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Case Study # 1 – Anderson Watermain Replacement

Capital Infrastructure – DISC BC Region

Feasibility Study Completed

- First Nations Support Letter
- Funding Application Submitted
- Design Brief
- Land Tenure
- Contract
- Environmental Reports
- Operations and Maintenance
- Required Permits
- Engineering Drawings
- **Total Amount Funded \$2.58 Million**





Case Study #1 –Environmental Reports

1. Phase 1 Environmental Site Assessment

- Entire subject site and adjacent sites
- In accordance with criteria established in CSA Standard Z768-01 (R2006), and the BC Contaminated Sites Regulations

2. Environmental Impact Assessment

- Identify aquatic and terrestrial wildlife habitat values, significant environmental features, Environmentally Sensitive Areas (ESAs) and plant communities within the study area
- Provide recommendations for the protection of sensitive habitat features and describe measures needed to avoid and mitigate potential project related environmental impacts

3. Archaeological Impact Assessment

- Locate and record sites of potential archaeological significance
- Evaluate findings to assess the nature and extent of expected impacts





Case Study #1 – Environmental Report Findings

1. Phase 1 Environmental Site Assessment

- No Areas of Potential Environmental Concern (APECs)
- No Underground Storage Tanks (USTs) or Above Ground Storage Tanks (ASTs)
- Possible asbestos and lead paint present but no recommendation for a Phase 2 ESA

2. Environmental Impact Assessment

- High Fisheries Values that may be Impacted – High Value Salmon Habitat
- Species at Risk high potential to be present – Marbled Murrelet Nesting Locations
- Permanent Impacts to the Matilda Inlet Estuary – High Biodiversity

3. Archaeological Impact Assessment

- 22 Culturally Modified Trees found within the Project Footprint





Case Study #1 – Environmental Report Findings

Now What??

- DISC has to decide whether this Project is Detailed, Simple or Excluded under the Canadian Environmental Assessment Act (CEAA 2012) and also assess which Permits/Licences are required for the Project to move ahead.





Case Study #1 – Detailed Environmental Review

DETAILED – Which Criteria? Which Legislation?

Relevant Federal Legislation:

- Environmental Assessment Act 2012 – DISC is Regulatory Authority
- Fisheries Act – Permanent Impacts to Fish Habitat
- **Species at Risk Act – Marbled Murrelets are 'Threatened' on Schedule 1**
- Migratory Birds Convention Act – Clearing of Vegetation
- Transportation of Dangerous Goods Act – Access is by Boat
- Heritage Act – Removal of known Heritage Features

Relevant Provincial Legislation:

- Forest Act – Licence to Cut
- Environmental Management Act – Permits relating to Waste/Pollution
- Water Sustainability Act – Section 9 Water Licence & Amendment





Case #1 – Detailed Environmental Review

- Species at Risk was determined to be the largest ‘*environmental risk*’ as information was lacking in the Environmental Impact Assessment
- This included delineation of ‘Critical Habitat’ and actual usage of the Project Site by Marbled Murrelets
- Environment Canada was engaged, along with a Qualified Environmental Professional (QEP) and Ahousaht First Nation (who had particular interest in the species)
- Additional surveys were undertaken in July, 2017 with the assistance and support of Ahousaht First Nation – the report has just been finalized
- The additional surveys will be utilized to retain trees determined to be of high habitat value





Case #1 – Mitigation Strategies

- Alignment will be adjusted based on the survey results, including avoidance of Culturally Modified Trees (CMTs) where possible
- A Construction Environmental Management Plan (CEMP) is being developed and will include specific plans relating to the following:
 - *Vegetation Removal Plan*
 - *Emergency Response Plan*
 - *Species at Risk Management Plan*
 - *Water Quality Sampling Plan*
 - *Fisheries Management Plan*
 - *Wildlife Management Plan*
 - *Erosion & Sediment Control Plan*
 - *Environmental Monitoring Plan*
 - *Compensation Management Plan*





Case Study #1 – Lessons Learned

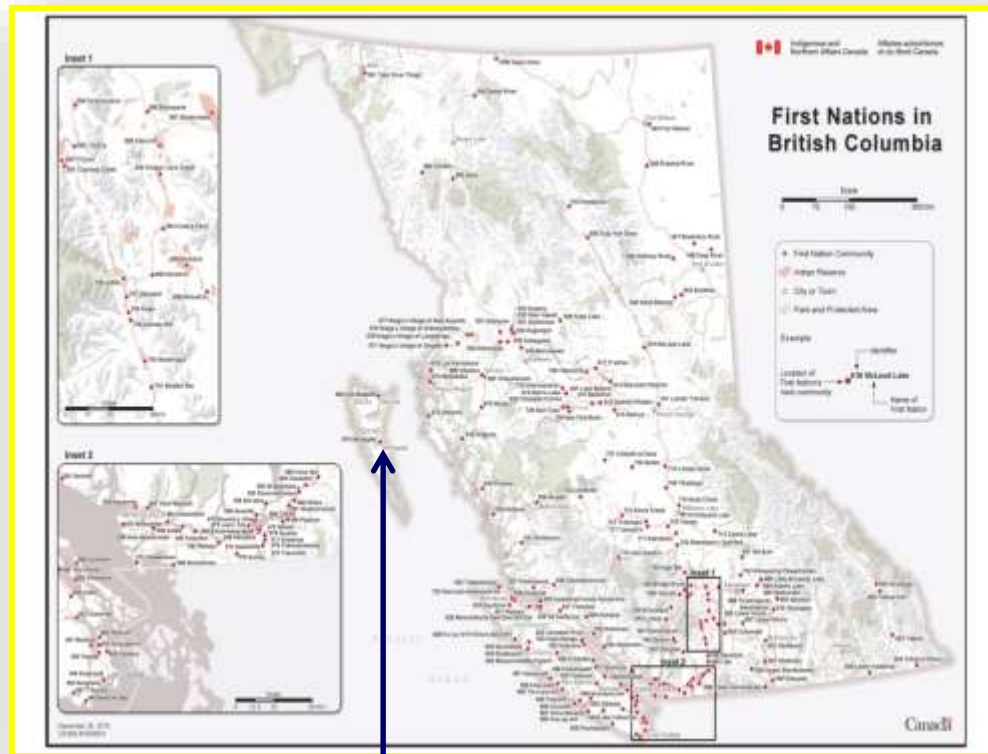
- Full surveys for vegetation and wildlife should have been completed as part of the original package scope, rather than leaving them as ‘unknowns’
- Appreciation of the length of time for permit issuance, even though it’s one government to another
- Better communication inter-departmentally at DISC
- Understanding least risk timing windows and incorporating them into the construction schedule – ie: Migratory Birds
- Better Project Management and Communication results in a design that has less negative impact to the environment, at a lesser cost and can be constructed in a timelier manner





Case Study #2 – Skidegate First Nation

- Located on Graham Island, which is part of the Haida Gwaii Archipelago, North BC
- Skidegate Nation governance is by the 'Indian Act'
- The Skidegate Reserve IR #1 has a population of 675, with 316 residences on 48 hectares of land.
- Access is only by Air and Water.



Graham Island





Case Study # 2 – Commercial Business Park Proposal

- Currently and Historically used for light industrial purposes:
 - Rock Quarry
 - Lumber Mill
- There is no existing servicing to the site but there are tie-ins nearby
- The previous site use was never reviewed or permitted by DISC





Case Study #2 – The Project Details

- Construction of a Commercial Business Park, including a Community Co-operative
- Water, sewer, fire protection and utilities will all be installed on site
- The entire development will be controlled by Skidegate First Nation and leased for 99 years





Case Study # 2 – Commercial Business Park

Economic Development– DISC BC Region

- Feasibility Study Completed
 - First Nations Support Letter
 - Funding Application Submitted
 - Environmental Reports
 - Required Permits
 - Engineering Drawings
 - Designation Process Completed
- **Total Amount Funded \$1.8 Million**





Case Study #2 –Environmental Reports

1. Phase 1 Environmental Site Assessment (ESA)
2. Environmental Impact Assessment (EIA)
3. Archaeological Impact Assessment (AIA)

Findings:

- As the site had been previously disturbed, there were very few significant or sensitive findings from the EIA and AIA
- The ESA did have some questionable results but did not recommend any further investigation





Case Study #2– Simple Environmental Review

SIMPLE – Which Criteria? Which Legislation?

Relevant Federal Legislation:

- Environmental Assessment Act 2012 – DISC is Regulatory Authority
- Fisheries Act – Possible Impacts to adjacent Fish Habitat
- Migratory Birds Convention Act – Clearing of Vegetation
- Heritage Act – Possible Discoveries in Construction Phase
- Canadian Council of the Ministers of Environment – Possible Contaminants

Provincial Legislation Not Relevant – All Federal Land

To Support the Simple Review, DISC required a Phase 2 ESA be completed

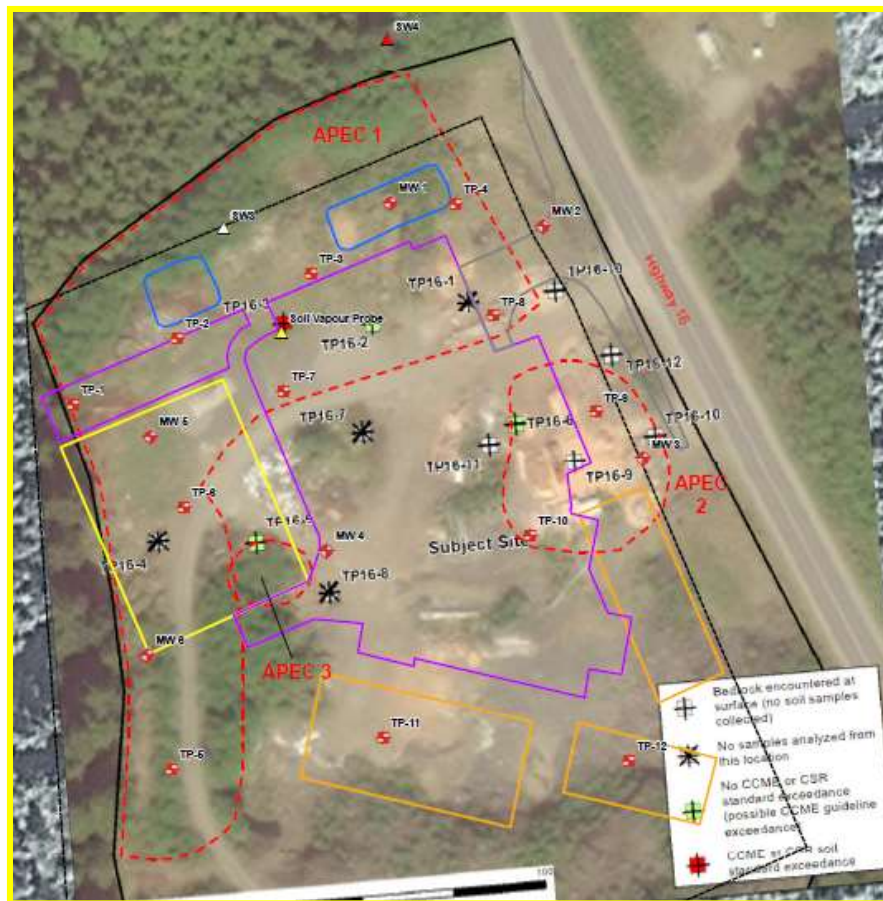




Case Study #2– Simple Environmental Review

To Support the 'Simple' Review, a Phase 2 ESA was Required

- The Findings of the Phase 2 Report indicated several APECs, not disclosed in the Phase 1
- DISC funded the next stages to ensure the site is compliant with CCME guidelines and APECs are delineated and removed during the construction phase
- The review still stands as 'Simple' but has become much more complex



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Case Study #2 – Lessons Learned

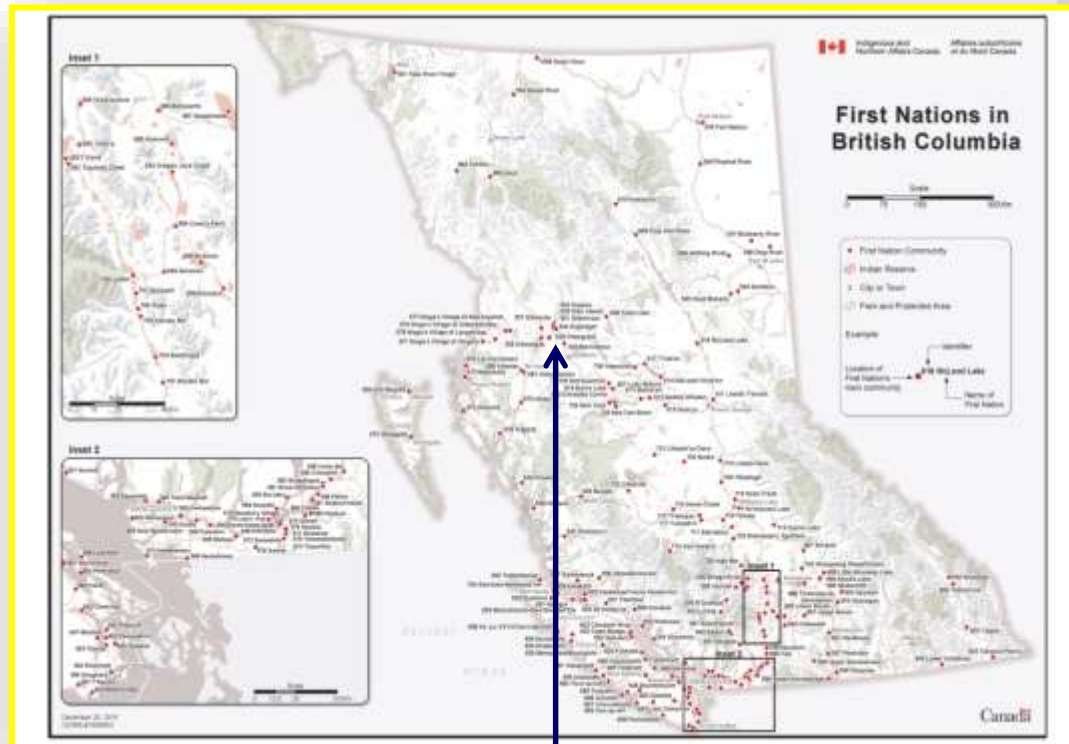
- The proponent who was in support of the development downplayed the ‘Environmental Risk’, stating that nothing had previously occurred onsite
- The consultant did not contact DISC to determine if previous reports had been completed
- A Phase 1 ESA had been previously commissioned by DISC (which identified APECs) but had not been filed appropriately
- The project was delayed a year due to the clean-up of the site





Case Study #3 - Gitsegukla First Nation

- Located in North Central BC
- Gitsegukla First Nation governance is by 'Treaty'
- The Andimaul Reserve IR #1 has a population of 670, with 175 residences on 400 hectares of land.
- Community is remote, but accessible by vehicle



Gitsegukla
Territory





Case Study #3 – Gitsegukla School & Adult Centre

- An Extended Asset Condition Report was completed indicated that repairs were required for 3 buildings
 - Elementary School
 - School Gym
 - Adult Learning Centre

EXTENDED ASSET CONDITION REPORTING SYSTEM

(E-ACRS) 2017-2018

SCHOOL REPORT

005000 01 Gitsegukla Elementary S

014000-01 Gitsegukla Elementary School - Gym Portion

016000-01 Adult Learning Centre

GITSEGUCLA FIRST NATION

535

OCTOBER 2017



Case Study #3 – The Project Details

- General Internal Upgrades
- General External Cosmetic Upgrades
- Re-finishing of Surfaces around the Buildings
- Roof Replacement





Case Study #3 – Excluded Environmental Review

- Project Description was completed and the 'Minor' determination was made
- No ground disturbance or physical works or change in footprint
- Not a 'Project' as defined by CEAA 2012



Therefore, no Simple or Detailed review is required



Take Home Message

- Understand the full scope and all the potential impacts of the Project
- Utilize colleagues and band members for information and advice
- Plan early!
- Ensure reports collect useful and meaningful data
- Use professionals who understand what information is required
- Develop specific Terms of Reference

Thank you for your time!

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BC Region