



Database and Mobile Mapping for New Circuit Design and Construction

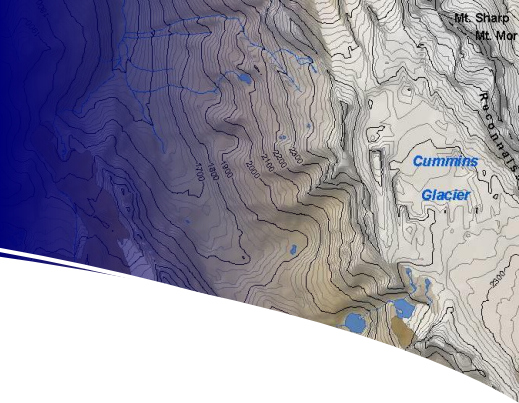
Chris Beasy, BA, GISP
Chartwell Consultants Ltd.
North Vancouver, BC

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Mukilteo, WA



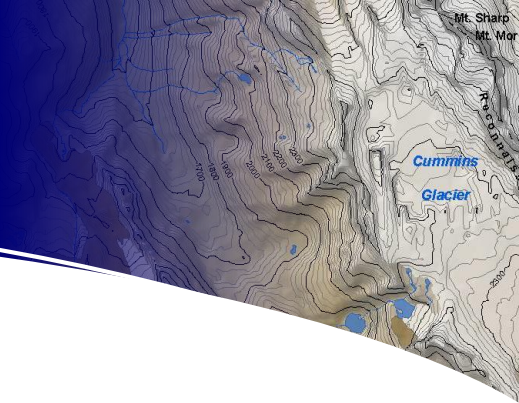
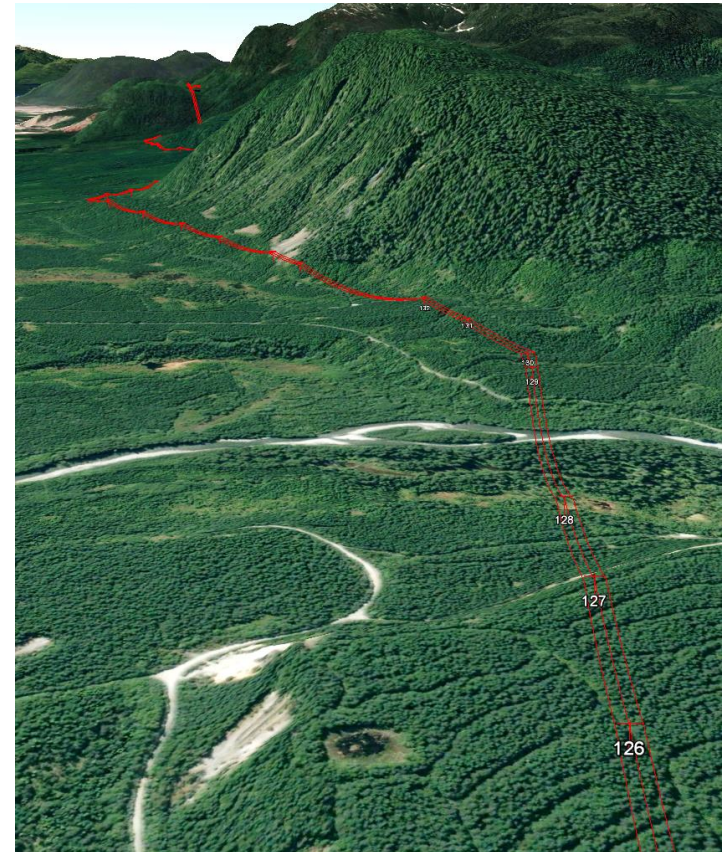
Overview

- The project
- The system
- Example tasks
- Lessons learned

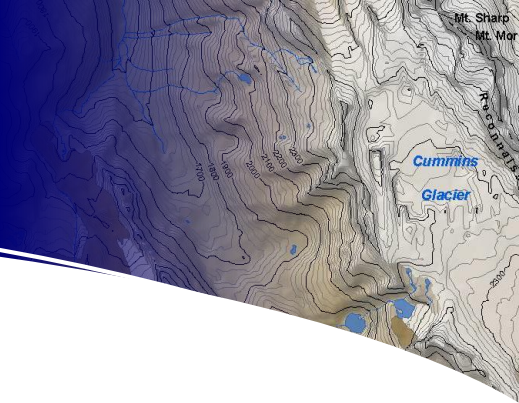


The Project

- Transmission line in northern BC
- 50km (31 miles) long
- Variable terrain & veg
- Difficult access
- Many considerations



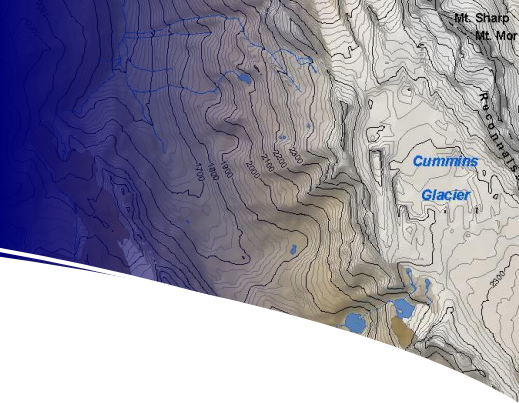
Chartwell's Role



Forestry Definition consultant/contractor:

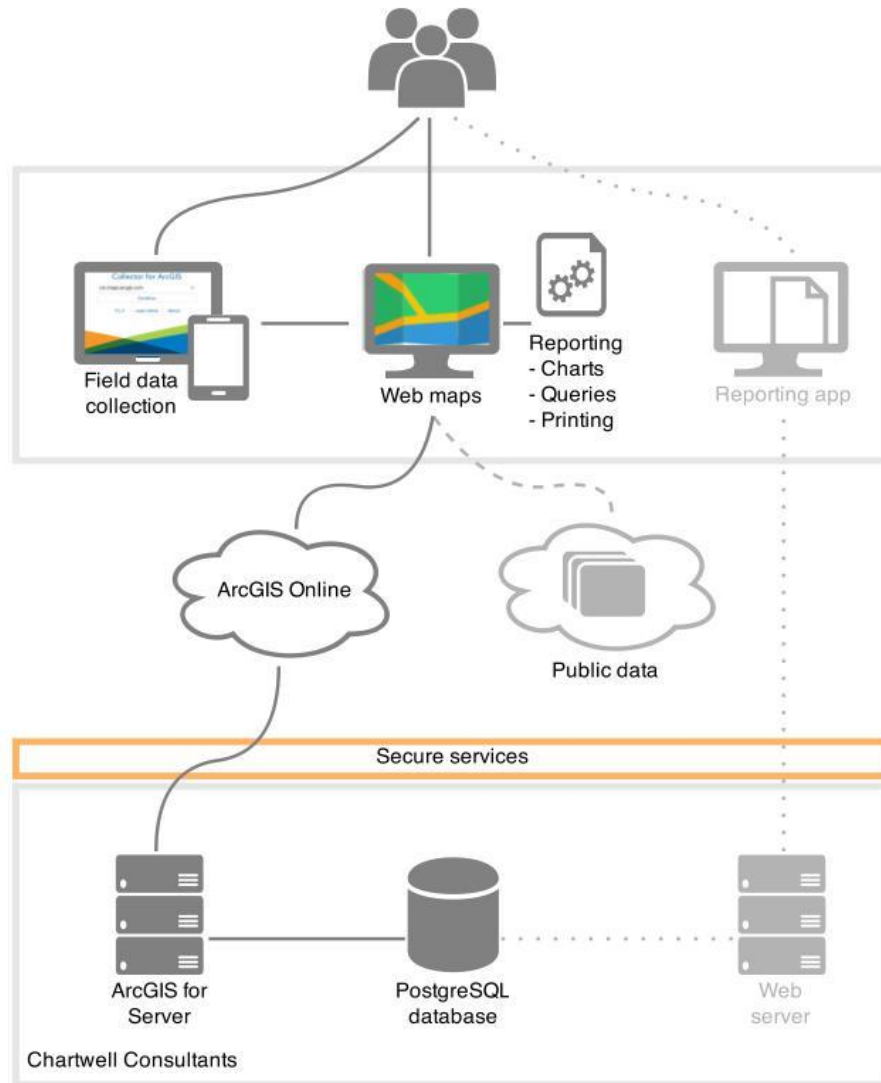
- Clearing boundary layout
- Danger tree identification
- Access layout
- Timber cruising and appraisal
- Data summary and mapping

The Goal

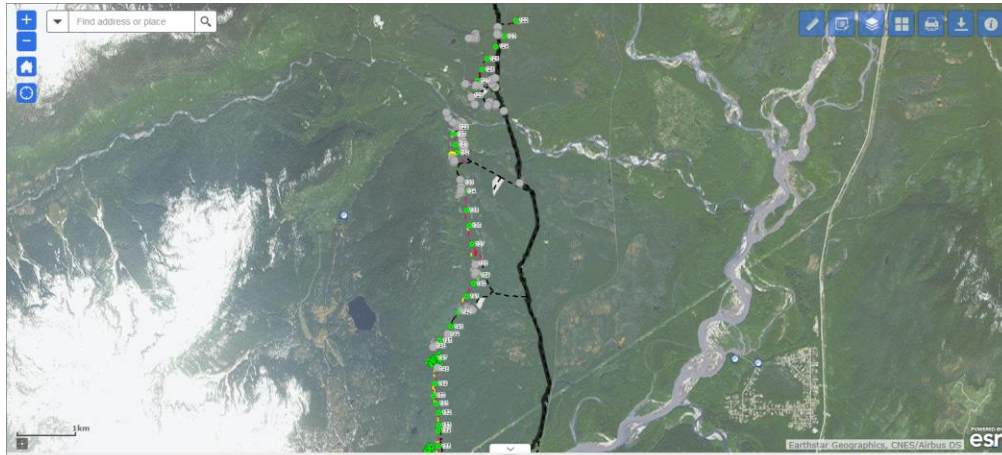


- Create a system to:
 - save time
 - reduce effort
 - ensure data integrity
 - reduce chance of error
- Enable data-sharing
- Facilitate communication

Architectural Summary



Webmap

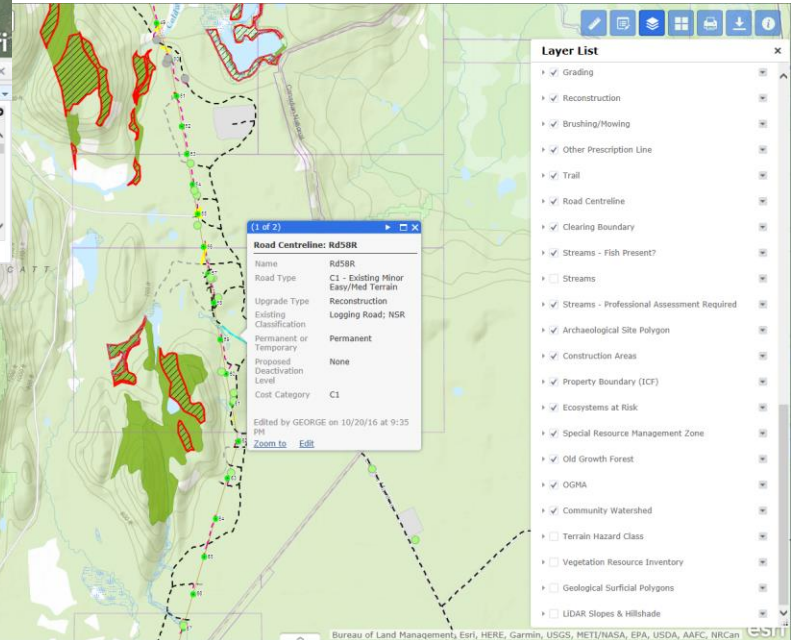


Options Filter by Map Extent Zoom to Clear Selection Refresh

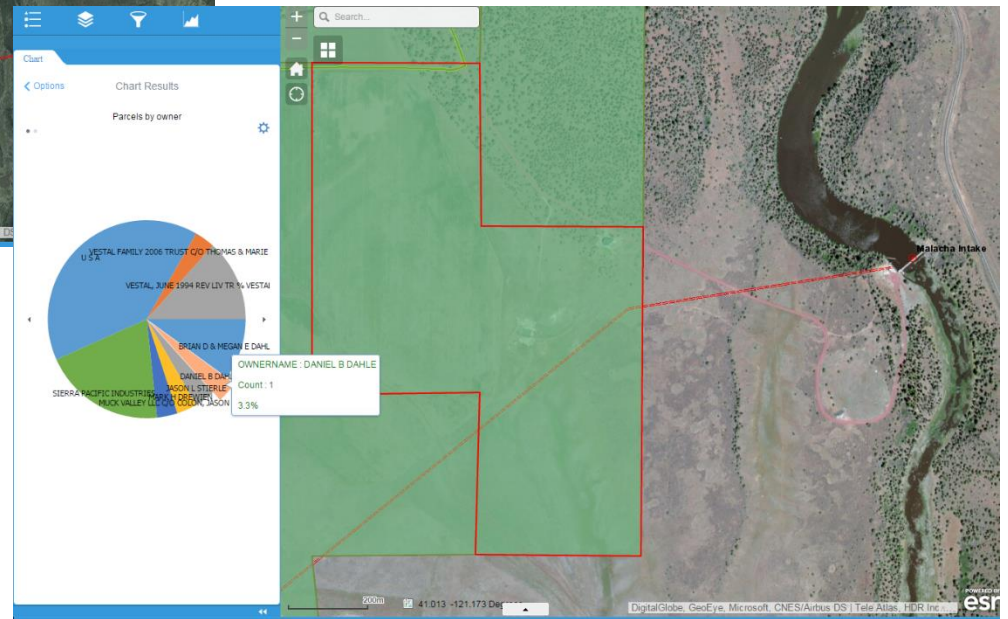
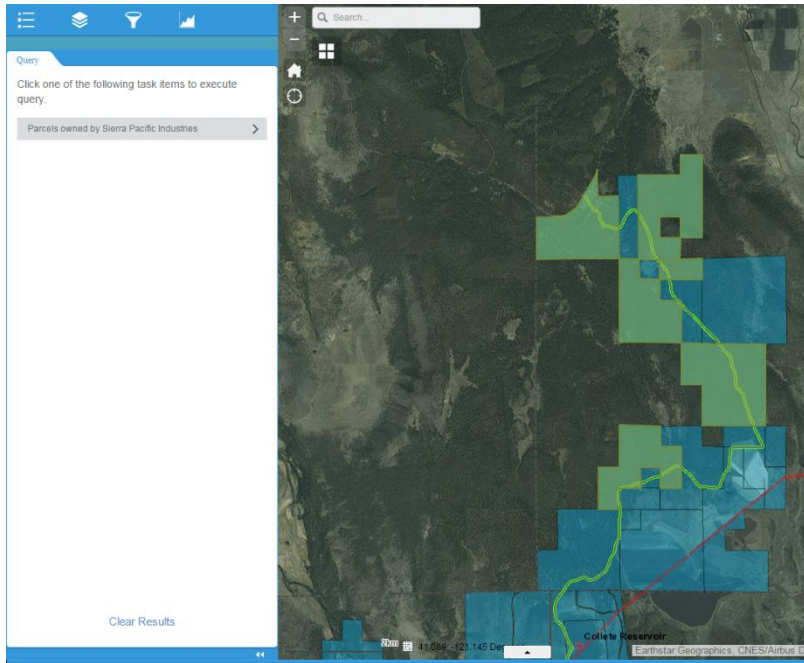
Pictures Assumed Guywires Proposed Circuit Stream Crossing Borrow Pit Possible Spoil Site Road Crossing Barrier Bridge Gate Culvert Helipad RVMA Special Management Zone Machine Free Zone Wetland OK

BCH Clearing Standard	RVMA Comments	Pacific Crab Apple Present?	Field Marked?	Recommended Prescription	Prescription By (Initials + Designation)
None Required	Wet seepage draw	No	No	Winter log or use low ground pressure equipment	
None Required	HH-1	No	No	Machines on designated non-bladed trail to fell and forward wood.	
None Required		No	No	wet ground, low ground pressure equipment only.	
HH-3 - Machine fall - Machine pile - Burn	not riparian	No	No	Portions of NCD complex is a water relieving slt. significant portions are upland. NCDs very marginal. Machine	RM RPF

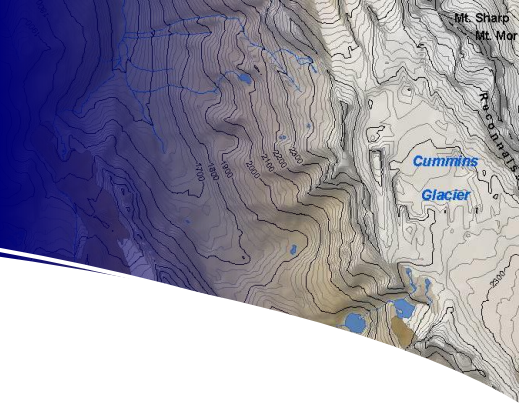
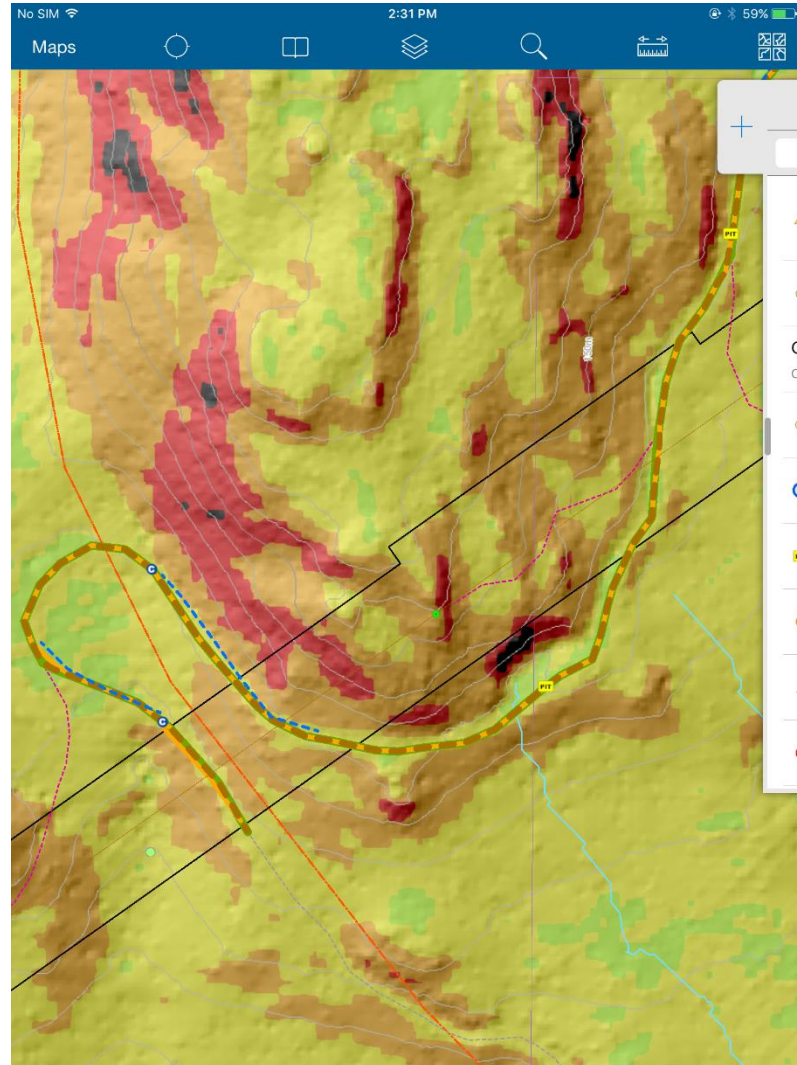
18 features 9 selected



Webmap



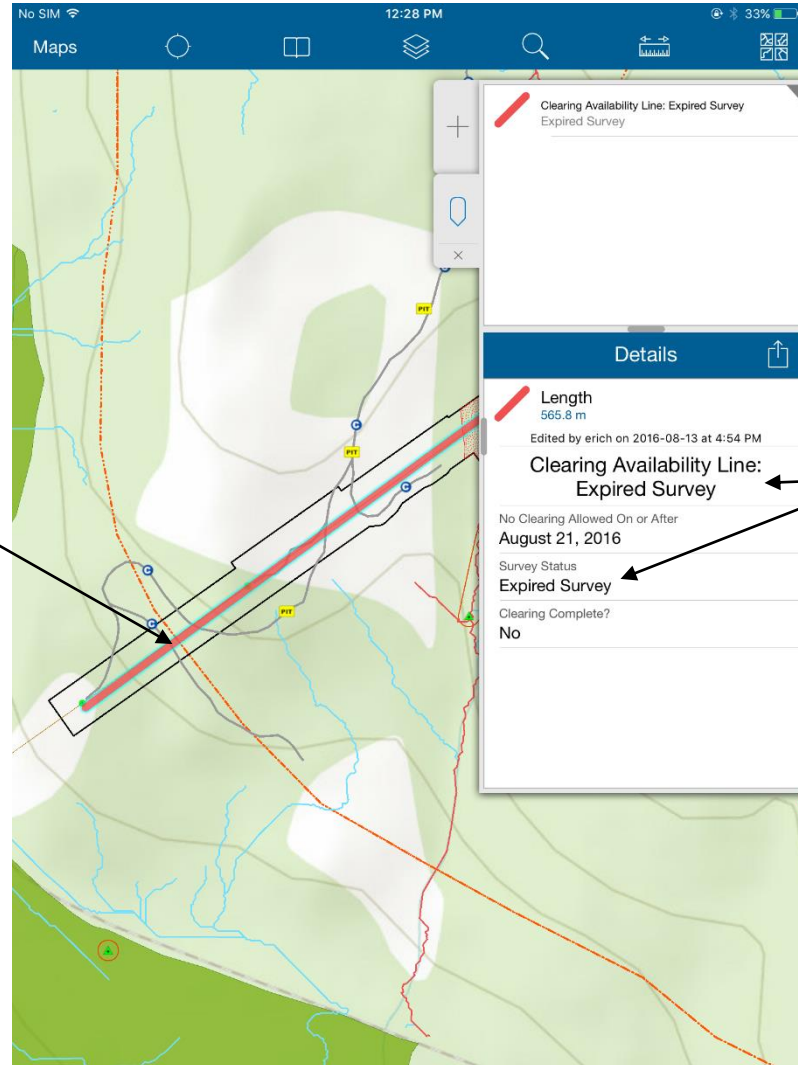
Field Data Collection



Field Data Collection



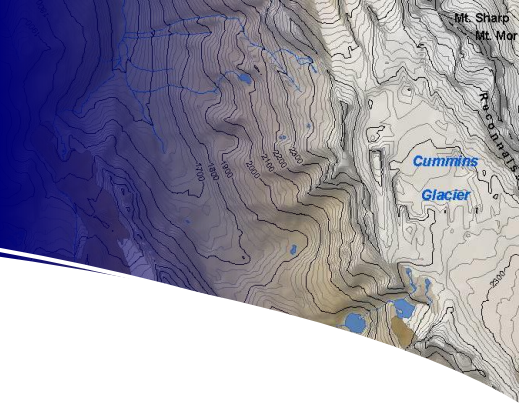
Field Data Collection



Dynamic symbolization

Dynamic attributes

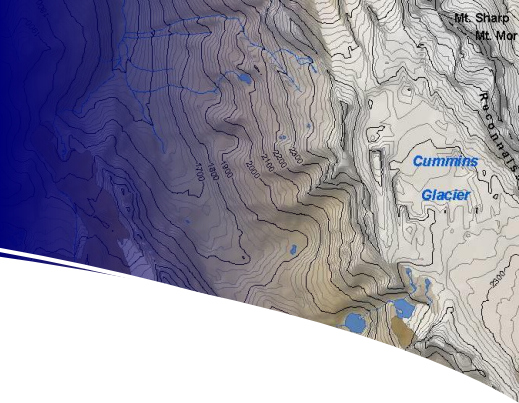
Line Security Trees



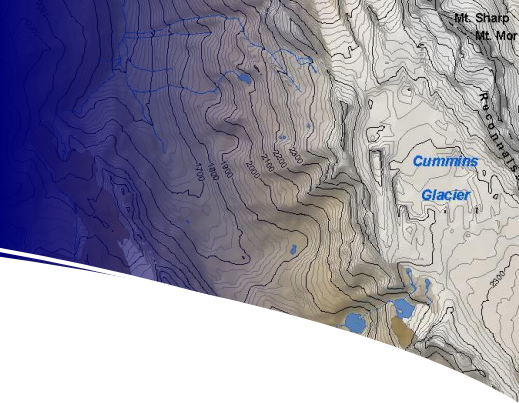
- Trees identified via LiDAR analysis
- ~6500 potential danger trees
- Direct database link saves time

Roading

- Location of access roads
- Portability of data
- Up-to-date data
- Shared data



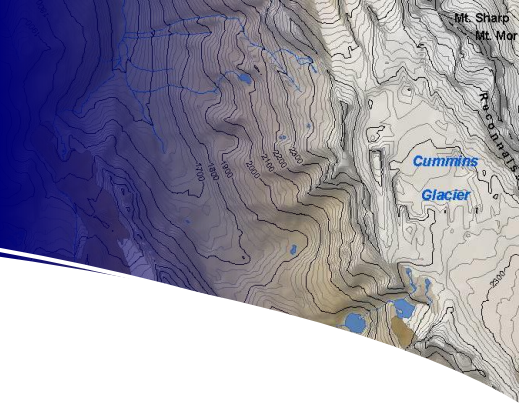
Expansion to Others



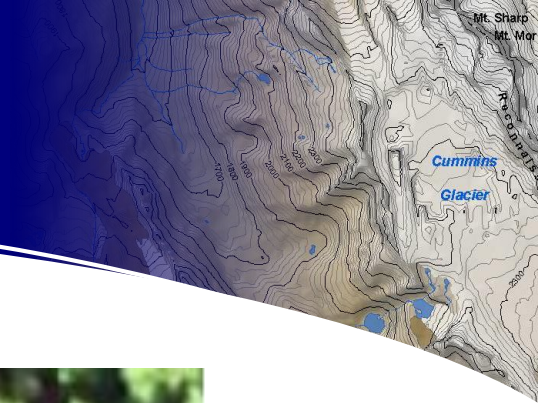
- Made available to our subs and client
- Then to other consultants:
 - Environmental
 - Clearing
 - Stream Survey

Lessons Learned

- Test before implementation
- Prepare the data
- Know the limitations of the tools
- Develop SOPs and train

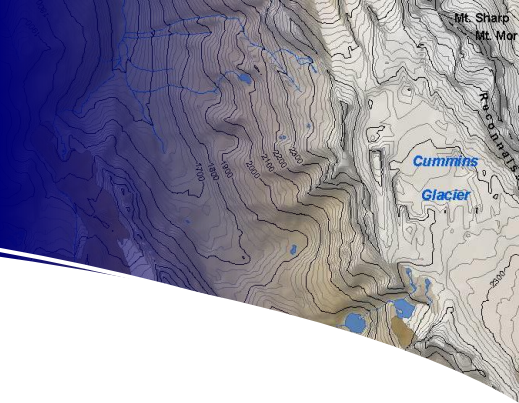


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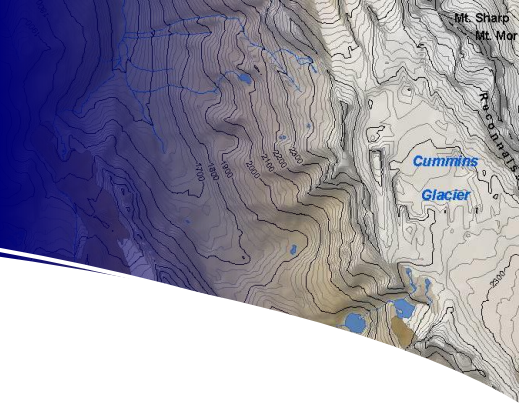


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Questions?



Chris Beasy

cbeasy@chartwell-consultants.com



CHARTWELL Consultants Ltd.

#210 - 275 Fell Avenue, North Vancouver, British Columbia, V7P 3R5

Phone: (604) 980-5061 Fax: (604) 986-0361