

The background of the slide is a photograph of a forest floor. It features a mix of green plants, including broad-leafed species and ferns, growing among fallen branches, twigs, and a layer of brown pine needles or dry leaves. The lighting is natural, suggesting a sun-dappled forest environment.

An Operational Foresters Approach to Managing Multiple Forest Values

By Wes Bieber, R.P.F.

For 2017 SISCO Winter Workshop

What am I going to cover in 15 minutes?

- Forest Professional's Prayer
- Forest Professional's Tool Box
- Sources of Information

Forest Professional's Prayer

I am a Forest Professional
and I can put my boots on....

If I have to.....

I guess!!

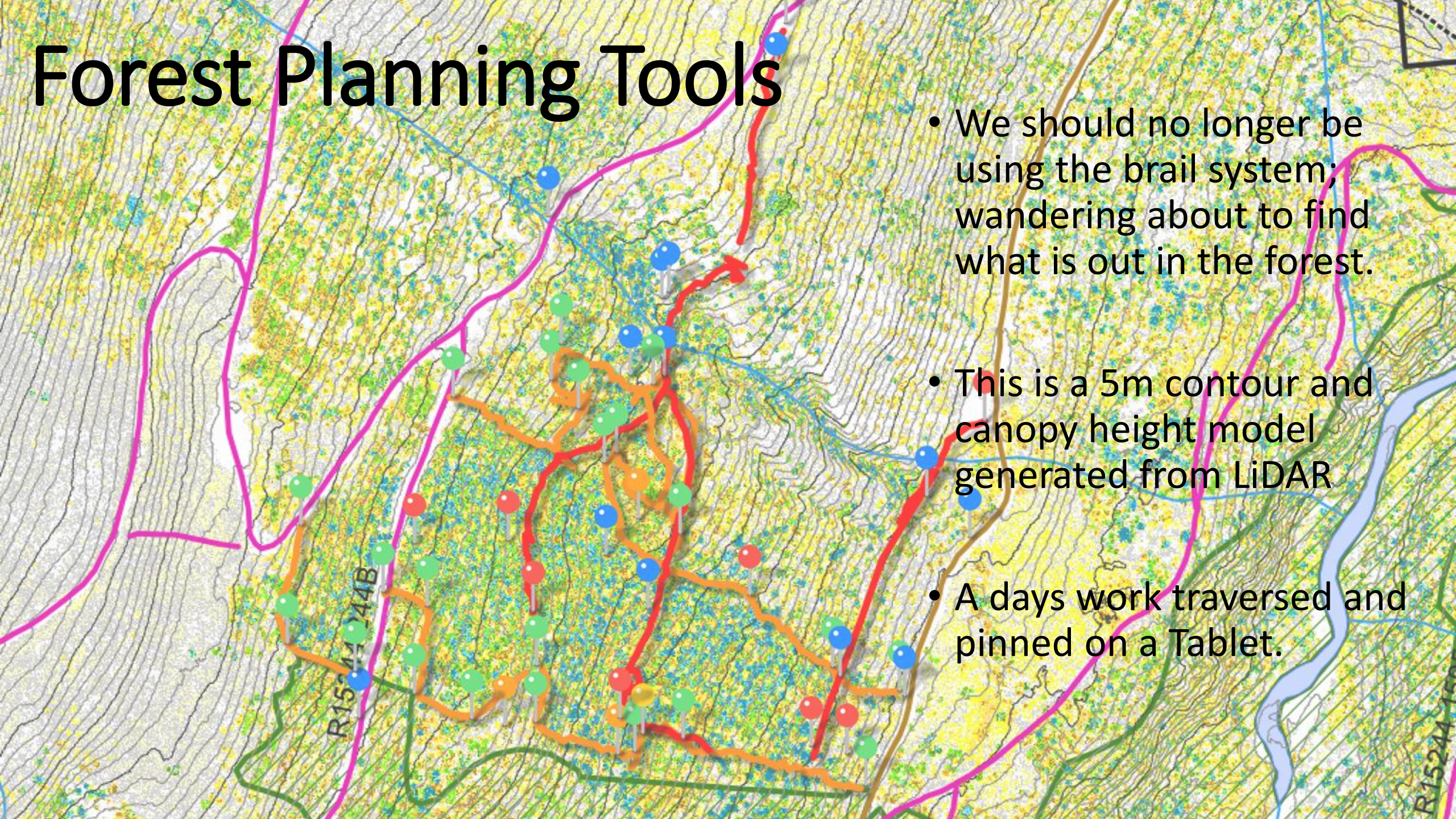
Forest Professional's Tool Box

- Planning Tools
- Silviculture Systems
- Harvest Systems



Forest Planning Tools

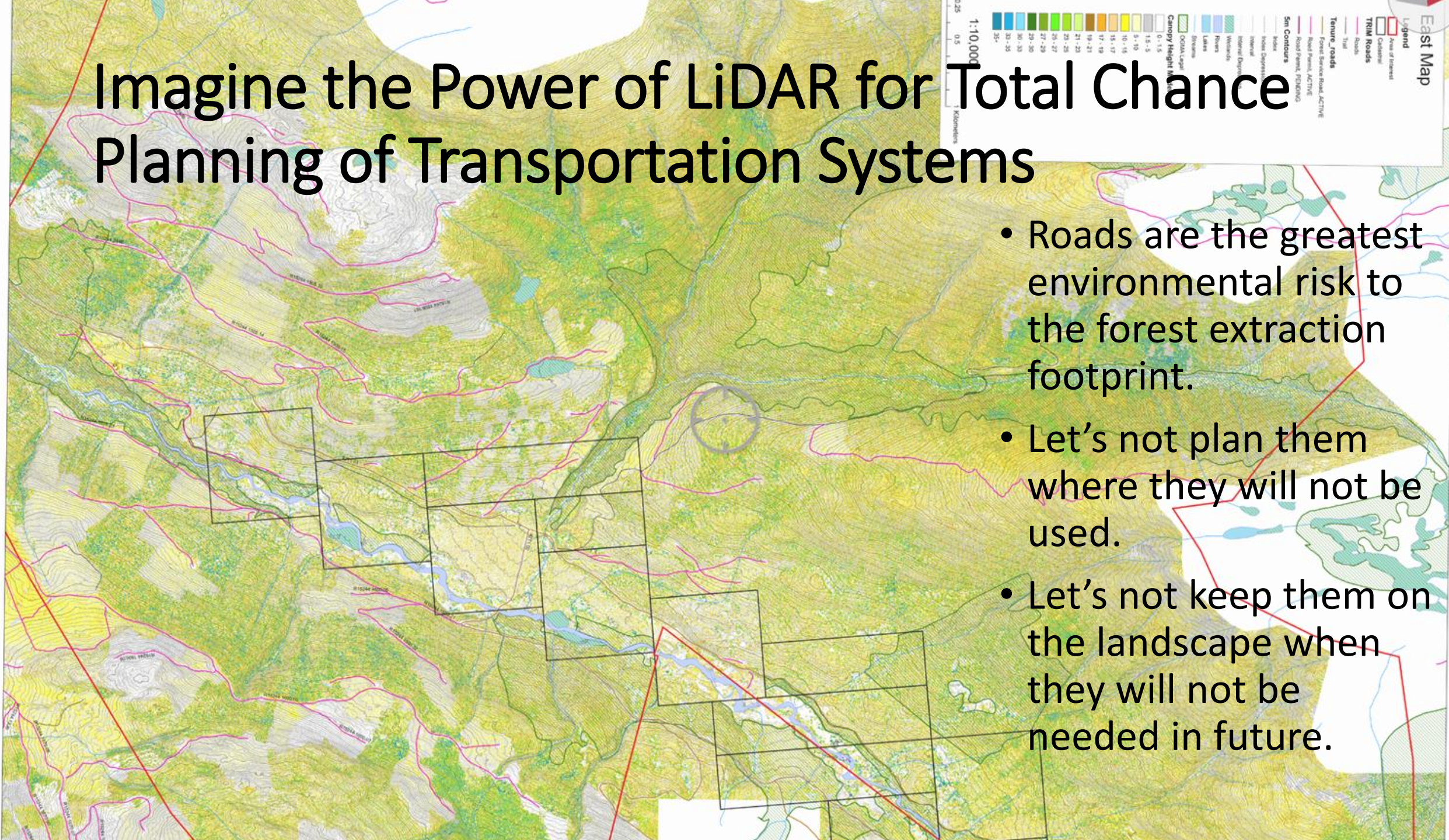
- We should no longer be using the brail system; wandering about to find what is out in the forest.
- This is a 5m contour and canopy height model generated from LiDAR
- A days work traversed and pinned on a Tablet.



Engineering Plan from 1995

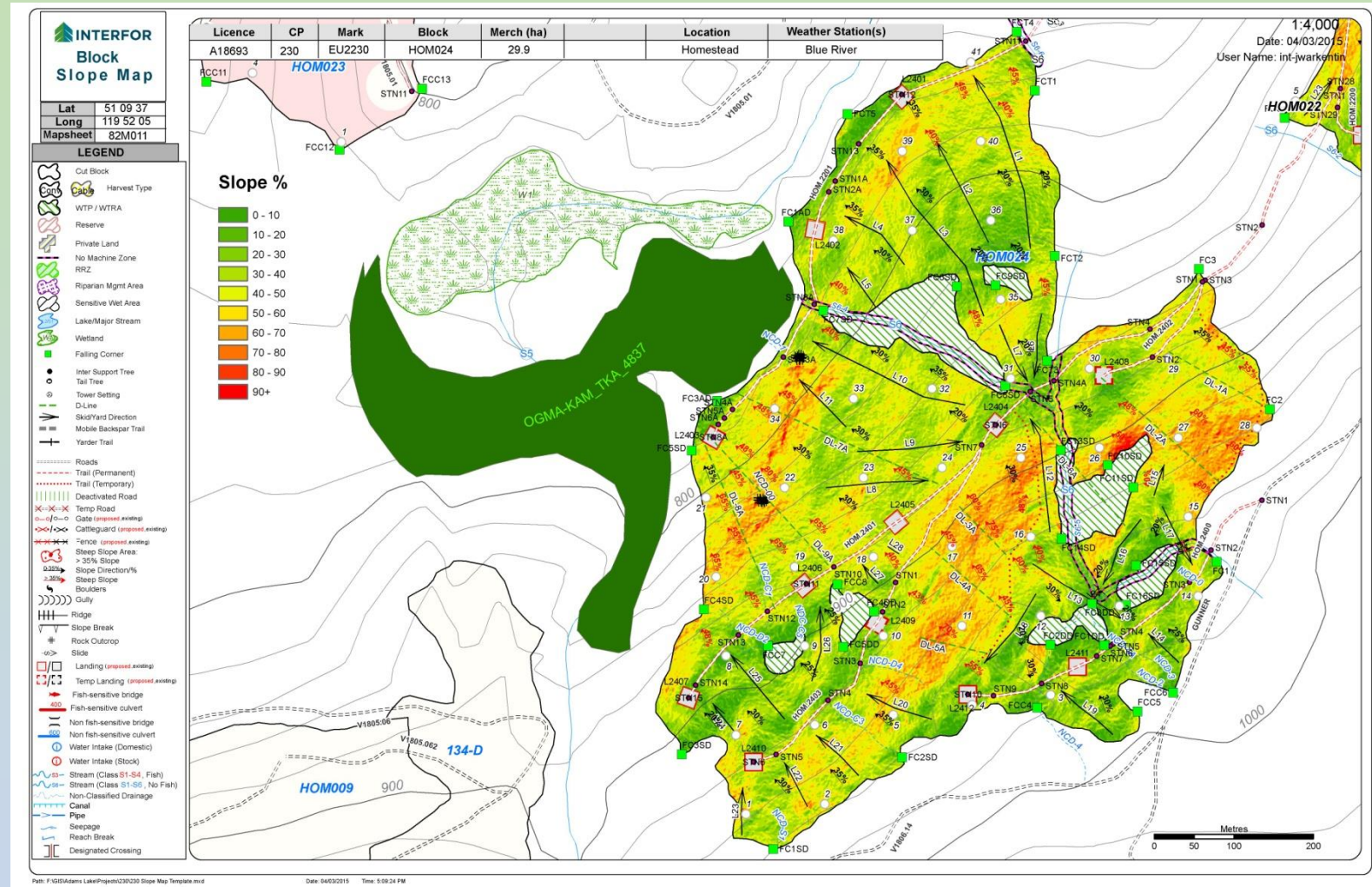
Imagine the Power of LiDAR for Total Chance Planning of Transportation Systems

- Roads are the greatest environmental risk to the forest extraction footprint.
- Let's not plan them where they will not be used.
- Let's not keep them on the landscape when they will not be needed in future.



Slope Themed Maps from LiDAR

- Georeferenced for use on a Tablet.
- Rare for a feller buncher operator to not have this type of map on a tablet in the cab of his machine.



You might even predict these types of locations with a LiDAR Product!

Time for a prayer!



Silviculture Systems



Silviculture Systems

- A **silvicultural system** is a planned program of treatments throughout the life of the stand to achieve stand structural objectives based on integrated resource management goals. A silvicultural system includes harvesting, regeneration and stand-tending methods or phases. It covers all activities for the entire length of a rotation or cutting cycle (from the Silviculture Systems Guidebook).
- I like to divide this tool box into even aged and uneven aged systems:
 - Even aged include clearcut, clearcut with reserves, patch cuts, seed tree, shelterwood.
 - Uneven aged systems include single tree and group selection.

Topography can determine the appropriate silviculture system!

Driven by:

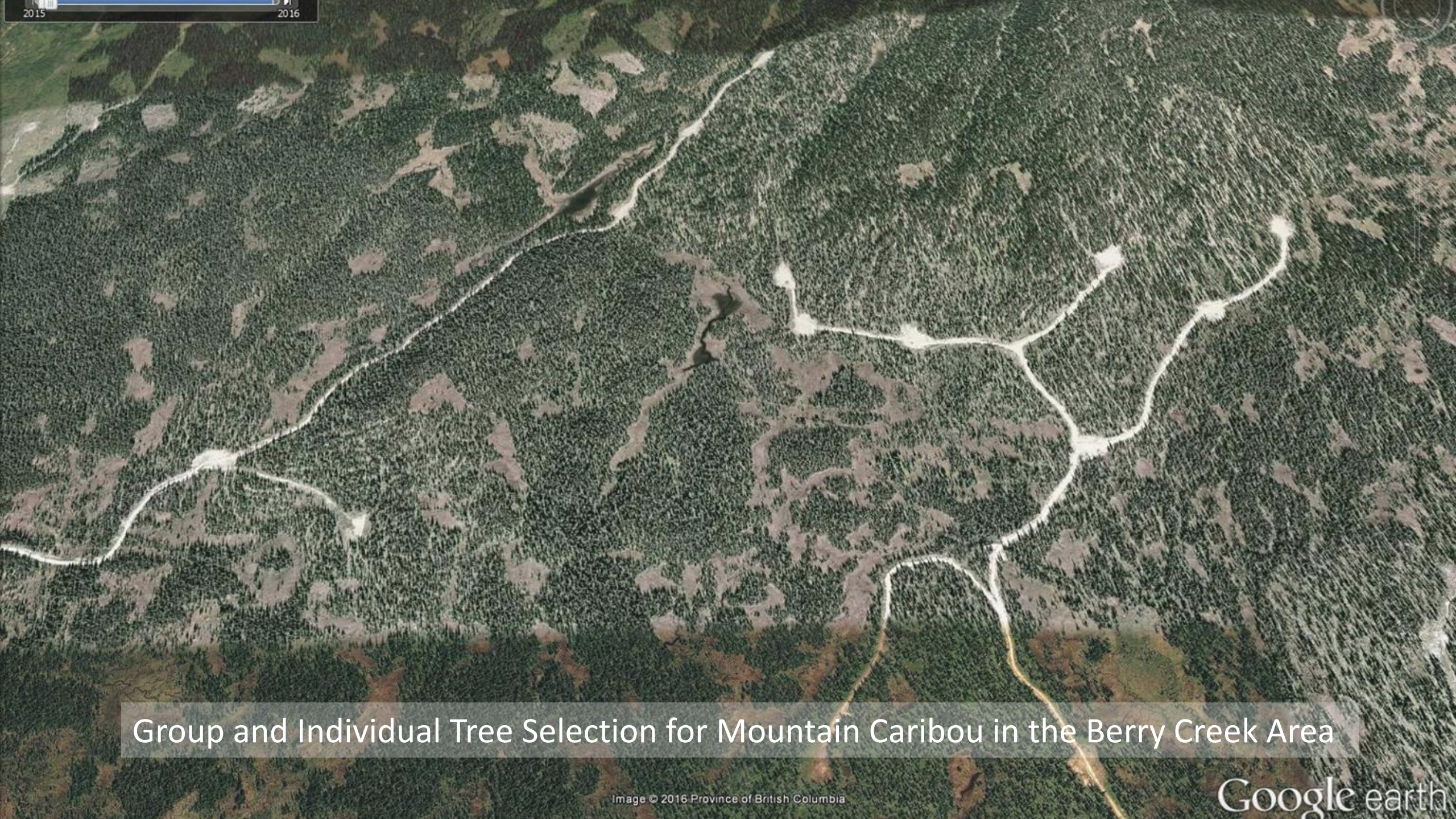
- ✓ Cost
- ✓ Safety



Non-Timber Values may determine the Silviculture System

- Wildlife Habitat
- Alluvial Features (Water)
- Visually Sensitive Landscapes
- Hot and dry climatic conditions; a regeneration strategy
- Community Wildfire Protection





Group and Individual Tree Selection for Mountain Caribou in the Berry Creek Area

Harvest Systems



Cable Multispan on OTT007, Interfor Adams Lake

District of Clearwater Fuel Management



District of Clearwater Fuel Management



Otter Creek, Interfor Adams Lake

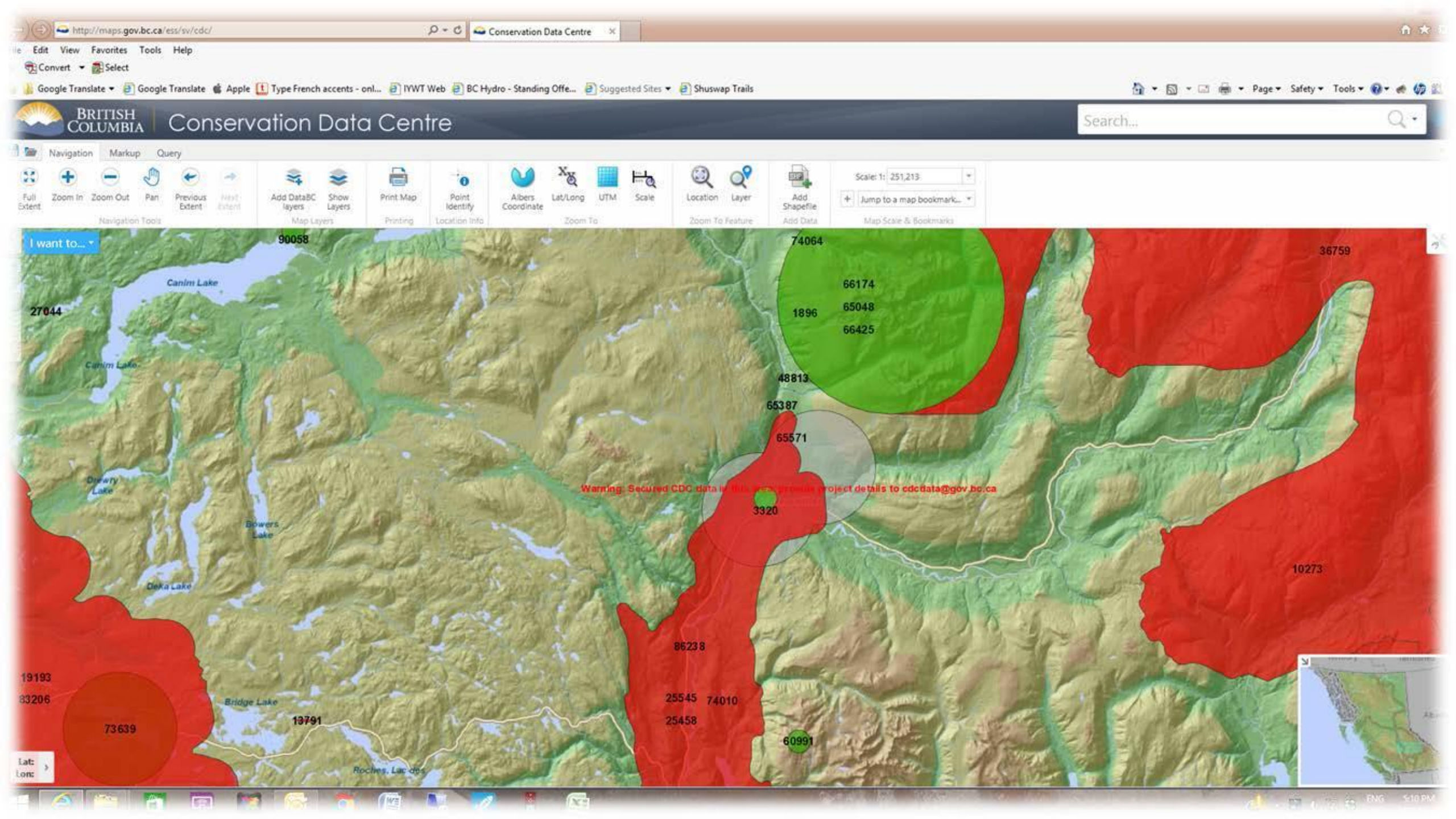


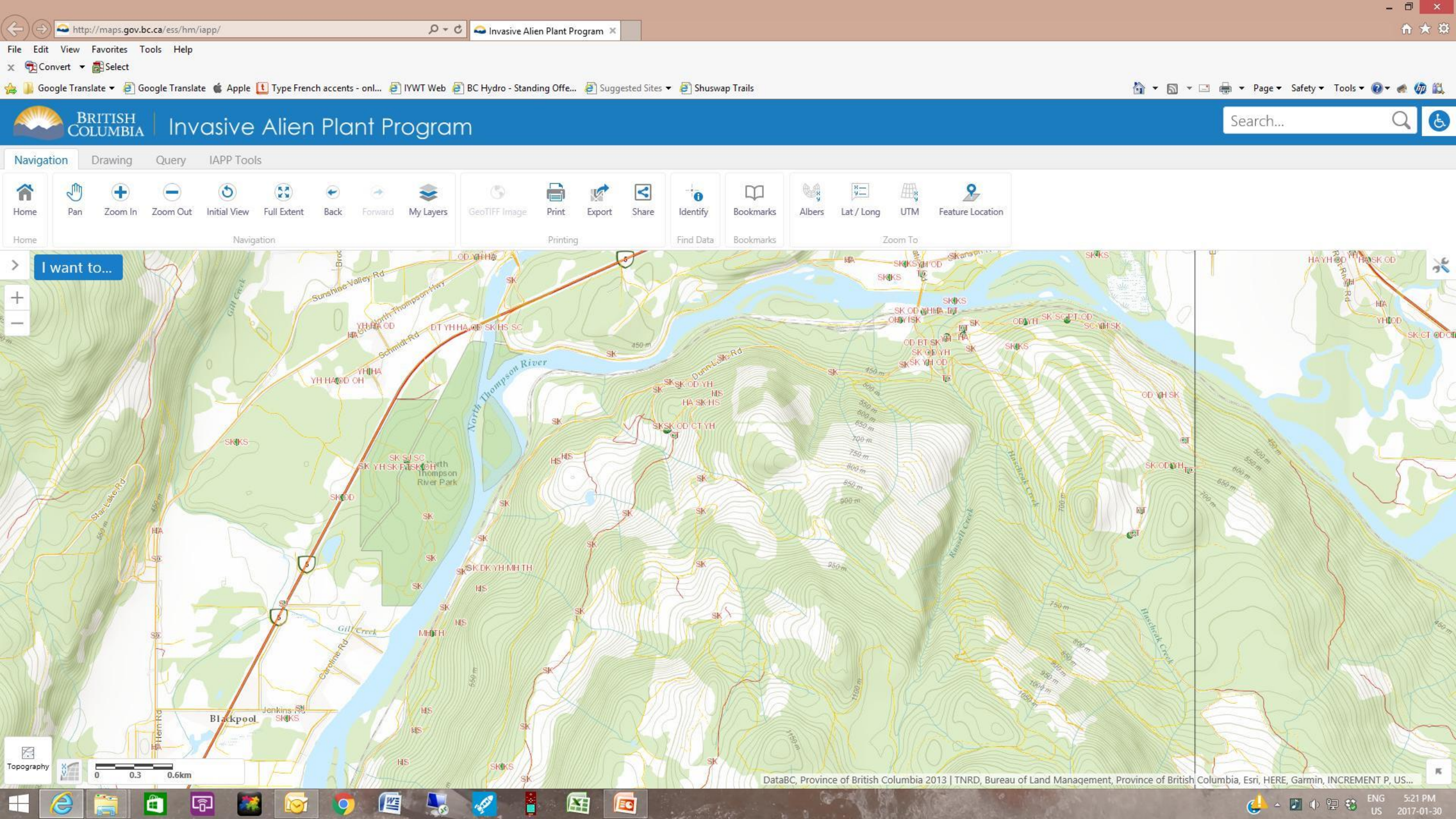
Summary of Forest Professional Toolbox

- Planning Tools – LiDAR, Georeferenced Maps, Tablets, Boots On
- Silviculture Systems – Even-aged and Unevenaged
- Harvest Systems – Ground-based, Cable, Helicopter

Sources of Non-Timber Resource Information

- LRDW – Government Data Source; map layers available in Government Mapping Services (Mapview, Imap, GeoBC) or for Download for local mapping (ArcInfo).
- Conservation Data Centre – maps known locations of species and ecological communities at risk. <http://maps.gov.bc.ca/ess/sv/cdc/>
- Invasive Alien Plant Program (IAPP) – web-based mapping and reporting tool; displays invasive plant inventory and treatment information. <http://maps.gov.bc.ca/ess/hm/iapp/>
- EcoCat Ecological Reports Catalogue – provides access to reports on ecological activities in B.C.; subject areas include aquatic species and habitats, terrestrial species and habitats, floodplain mapping, reservoirs, groundwater and vegetation. <http://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/libraries-publication-catalogues/ecocat>
- **SISCO Programming, bringing you Panel Discussions Like This.**





Kamloops TSA Planning Base

http://services.forsite.ca/kamloops_tsa/ iMapBC Kamloops TSA Planning Base

Kamloops TSA Planning Base

FORSITE
Forest Management Specialists

Planning

- ☒ Management
- ☒ Old Growth Management Area - Legal
- ☐ Wildlife Habitat Areas
- ☐ Recreation Sites
- ☐ Recreation Trails
- ☐ Recreation Areas
- ☒ Mule Deer Winter Range LRMP
- ☐ Caribou Suit Mod Harv Zone - THLB
- ☐ Caribou Suit Mod Harv Zone - NHLB
- ☐ Approved Ungulate Winter Range
- ☐ Visual Quality Objectives - LRMP
- ☐ Visual Quality Objectives
- ☐ Visually Sensitive
- ☒ Modified Ungulate Winter Range
- ☒ No-Harvest Caribou
- ☐ Range
- ☐ Inventory

Click to Expand for Map Use Instructions:

- Pan: shift across the map by clicking and dragging on the map

Map features include: Wells Provincial Park, Kalgata Lake Park, Clearwater, Thompson River Park, Blackpool, Birch Island, Vavenby, Upper Adam, Upper Adam Park, Upper River, and Joseph Creek. The map shows various management areas and ranges, including the Mule Deer Winter Range LRMP and the Modified Ungulate Winter Range.

Scale: 0 24 48 km. Coordinates: 51° 44' 0" N, 120° 1' 21" W.

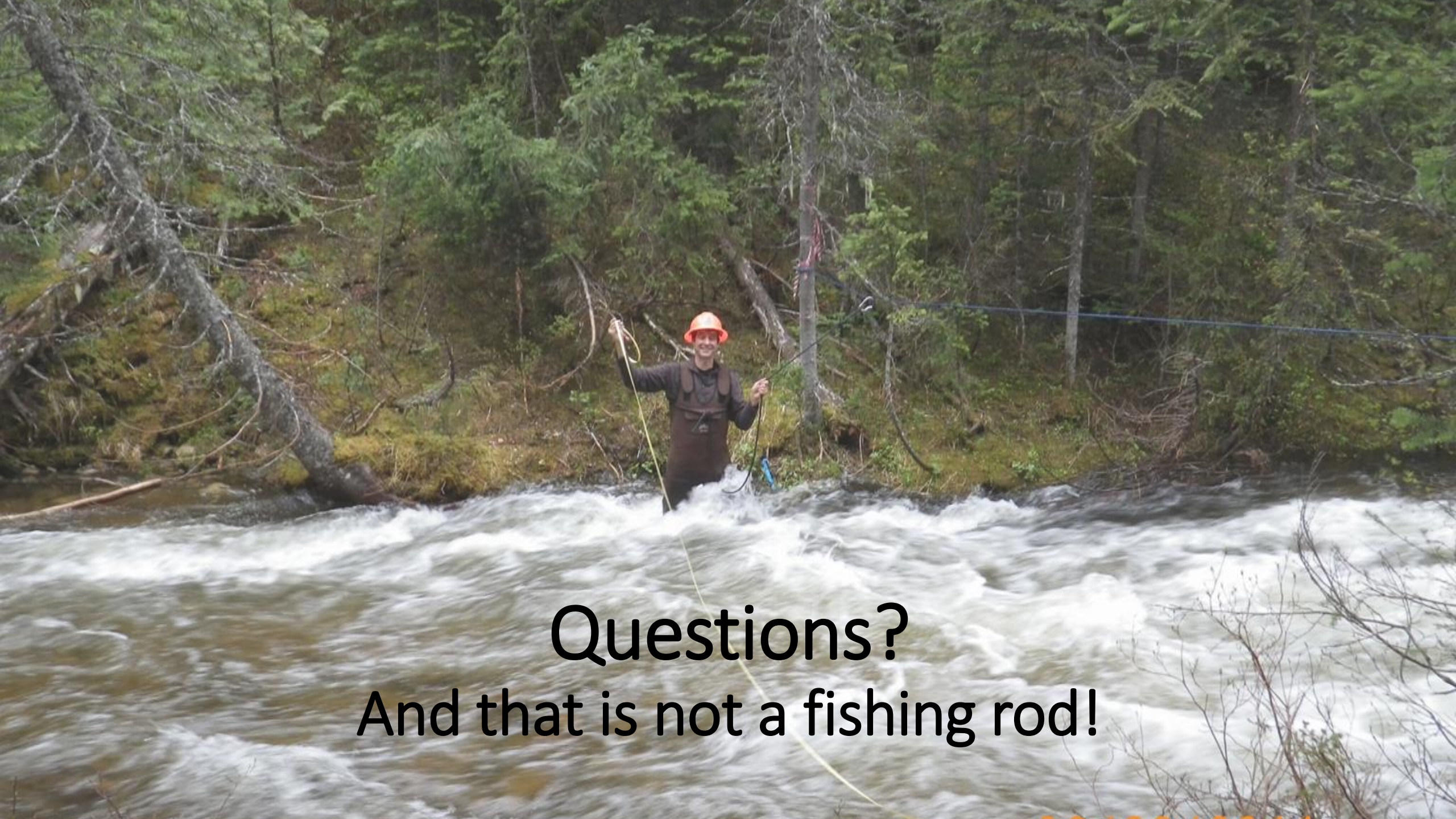
CSRD, TNRD, Bureau of Land Management, Province of British Columbia, Esri, © OpenStreetMap contributors, HERE, Garmin, USGS, NOAA, EPA, USDA, NPS, AAFC, NRCAN, esri

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27/01/2017

http://services.forsite.ca/kamloops_tsa/

So let us get the information together, put plans in place, and put our boots on!





Questions?
And that is not a fishing rod!