

# Taku River Tlingit First Nation

A scenic landscape photograph of a calm lake reflecting snow-capped mountains under a clear blue sky. The mountains are rugged and partially covered in snow, with some peaks appearing more prominent than others. The water is very still, creating a clear mirror image of the mountains and sky. The sky is a deep, clear blue with a few wispy clouds near the horizon. The overall mood is peaceful and majestic.

## Traditional Knowledge Informing Land Use Planning and Management

John Ward, Taku River Tlingit First Nation  
Kim Heinemeyer Round River Conservation Studies

# Taku River Tlingit FN Traditional Territory

4.1 m ha  
95% roadless



# Taku River Tlingit Territory



Over 5,000 km of  
wild salmon rivers



Doug Mitek



Coastally-  
influenced to  
boreal landscapes

With forest and  
alpine habitats;  
natural disturbance  
regimes



# Healthy Wildlife Populations



# Strong land use economy/culture



# Tlingit Land Management Goals include:

- Maintain natural conditions to sustain biodiversity and TRT traditional uses
- Provide opportunities for compatible, low-intensity developments
- Use Tlingit knowledge to achieve goals and manage



# Combining TK with Western Science Tools

Tlingit have used their TK with 'western science' tools to support their land planning and management

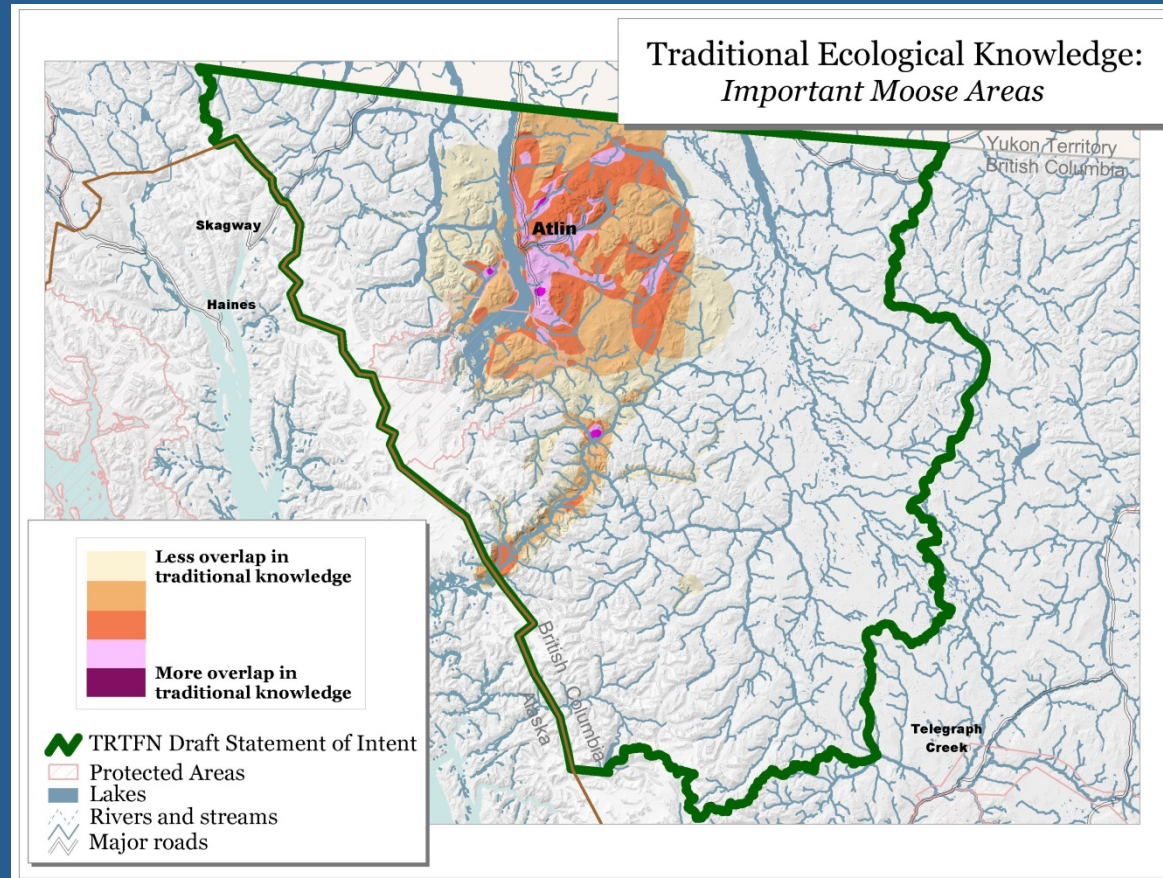


A couple examples...



# TK-based Wildlife Habitat Maps

- Contemporary use and first hand knowledge strong but spatially focused
- Knowledge of the animals provided rich and detailed verbal descriptions



# TK-based Wildlife Habitat Models

Based on detailed verbal habitat descriptions from harvesters and elders

Developed seasonal habitat models and maps



Bryan: "... when they come out of their dens the first thing they go to is the crocuses ... the east and south side of the mountain is where the crocuses come out, so that's where you're going to find a bear first..."

# TRT TEK Grizzly Bear Spring Habitats

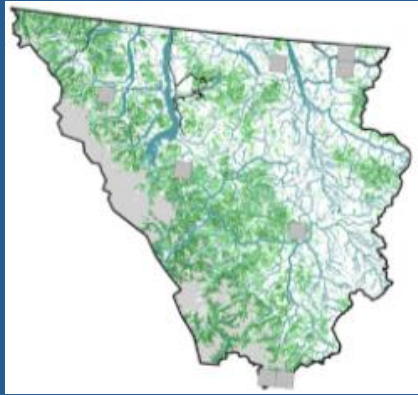
## Summary of Verbal Descriptions

- Floodplains for salmon carcasses: AW, BJ, DJ, TJ, JW
- Open hills with new growth (grass, bear root): AW, GT, HC
  - East and south-facing slopes high for crocus, grass: BJ, DJ
- Calves of moose, goats, sheep and caribou: DJ, GT, RC, TJ, JW,
- Floodplains for devils club: BJ AW

## Spatial Model Translation:

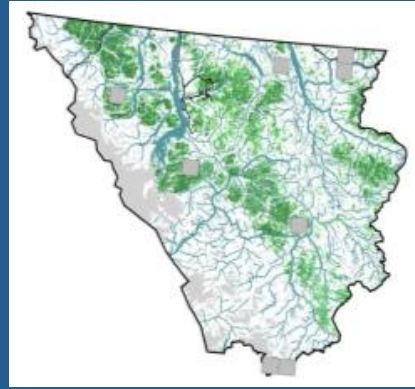
- Salmon spawning and 2 km downstream - High
- S and E-facing alpine and subalpine open areas - High
- N and W-facing alpine and subalpine open areas - Low
- Predicted ungulate calving areas - Mod
- Riparian floodplains (non-salmon areas) - Low

# TEK-Based Wildlife Habitat Models



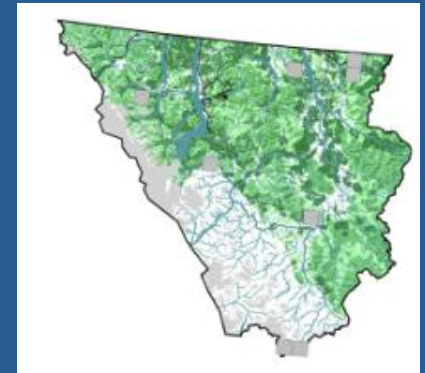
winter

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spring

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summer/fall

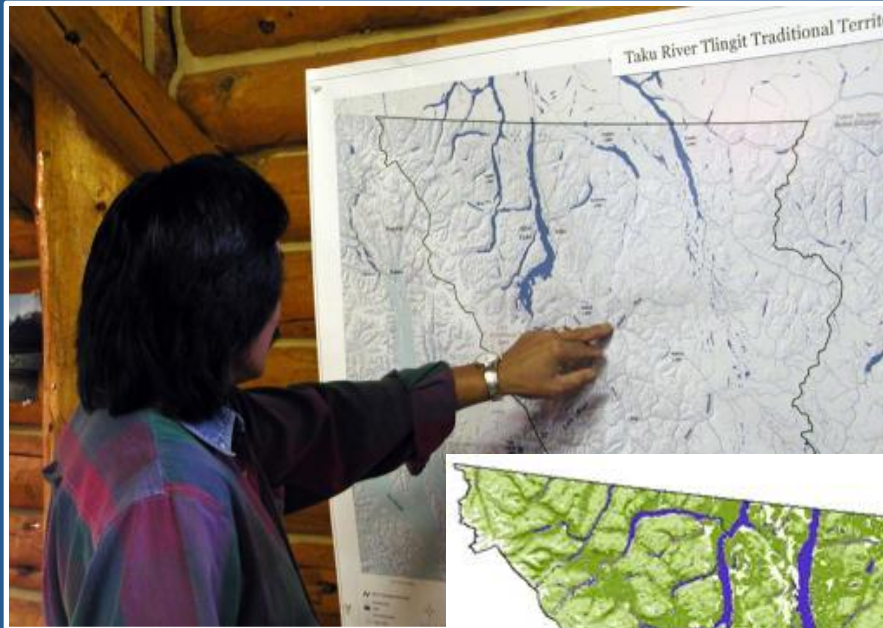
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annual

Completed for:

- Moose
- Woodland caribou
- Stone's sheep
- Mountain Goat
- Grizzly Bear



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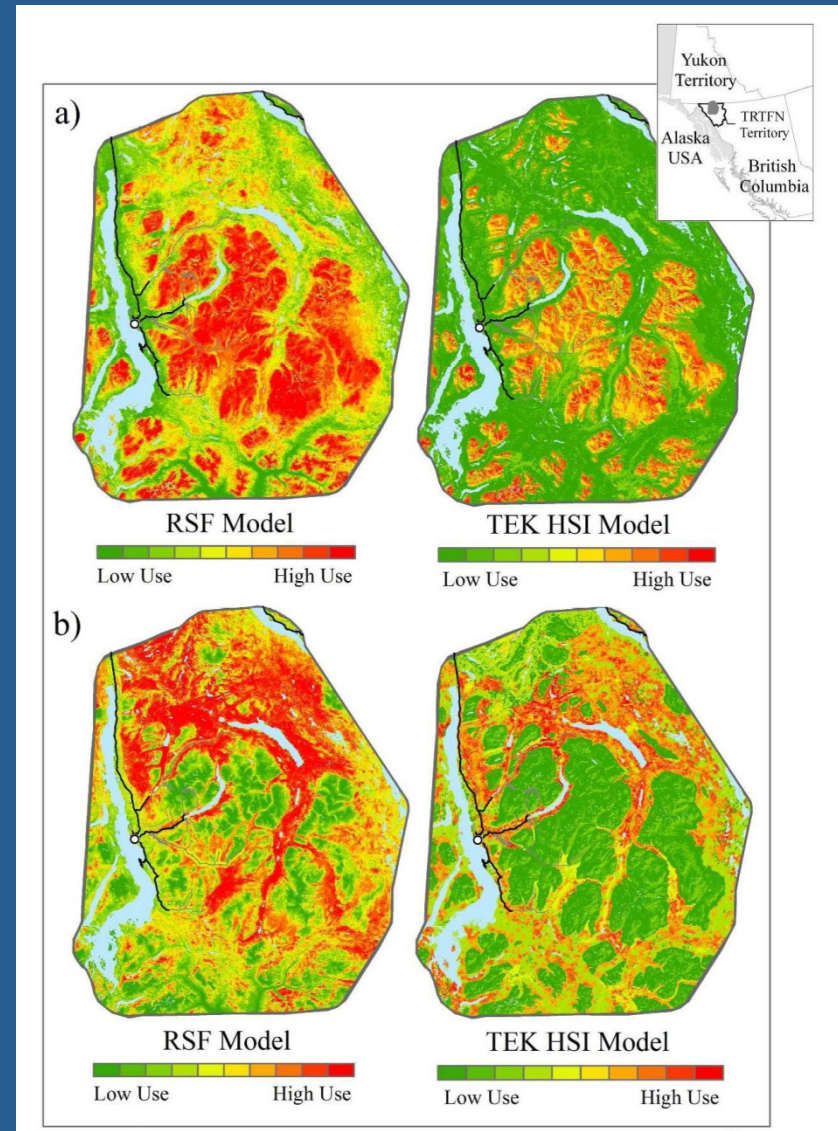
# Habitat models have withstood rigorous testing

- multiple reviews by biologists
- Compared to collar data
- Compared to a quantitative model using collar data for caribou

*(J. Wildlife Management, Polfus et al. 2013)*

In all cases, TK-based models have proven highly predictive

Used in G2G land use planning

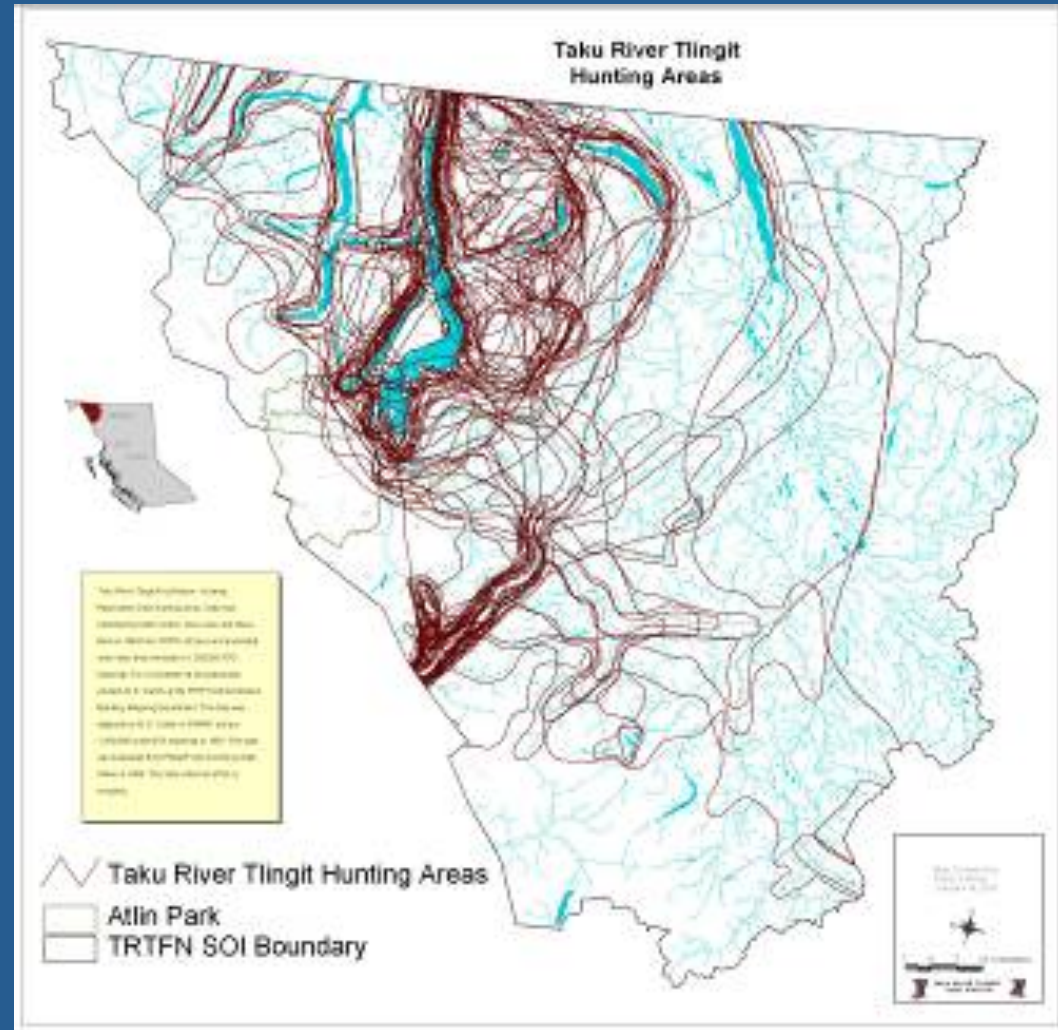


# Spatial Cultural Data

- Hunting and Fishing areas
- Berry-picking areas
- Trails
- Archeological sites
- Villages, gravesites, etc
- Other high value areas

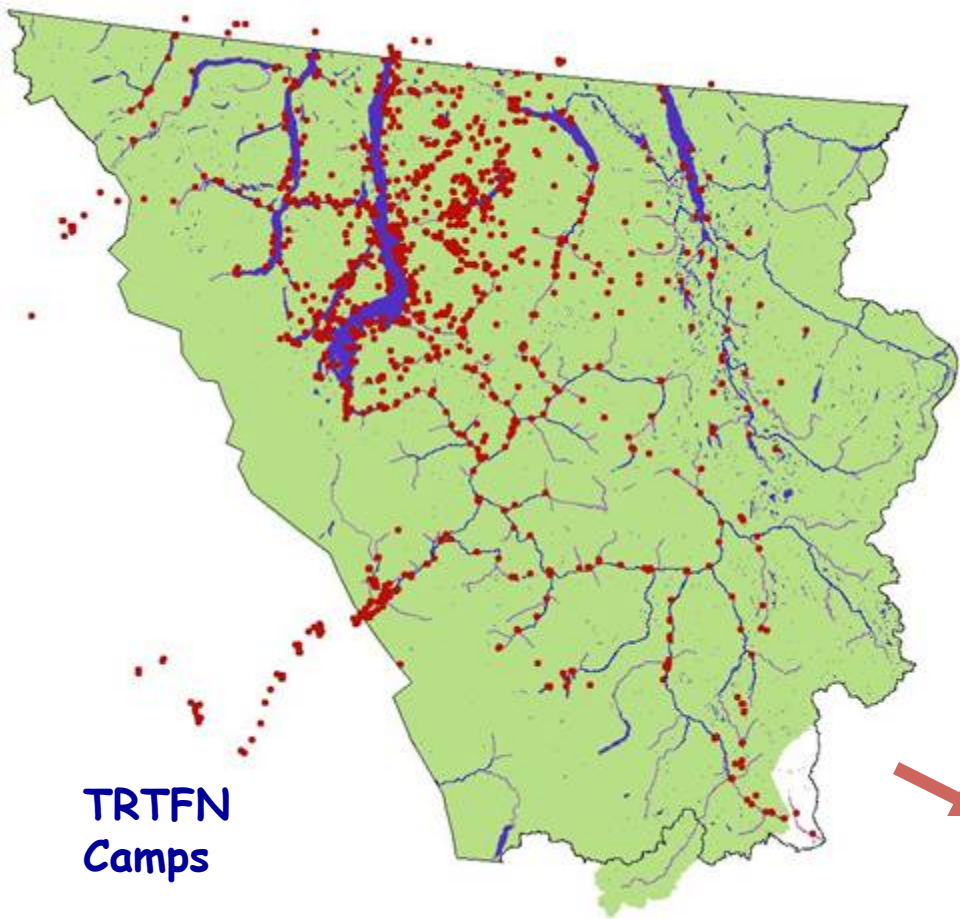
All mapped through interviews and site visits through several years

Challenge: how to use in planning



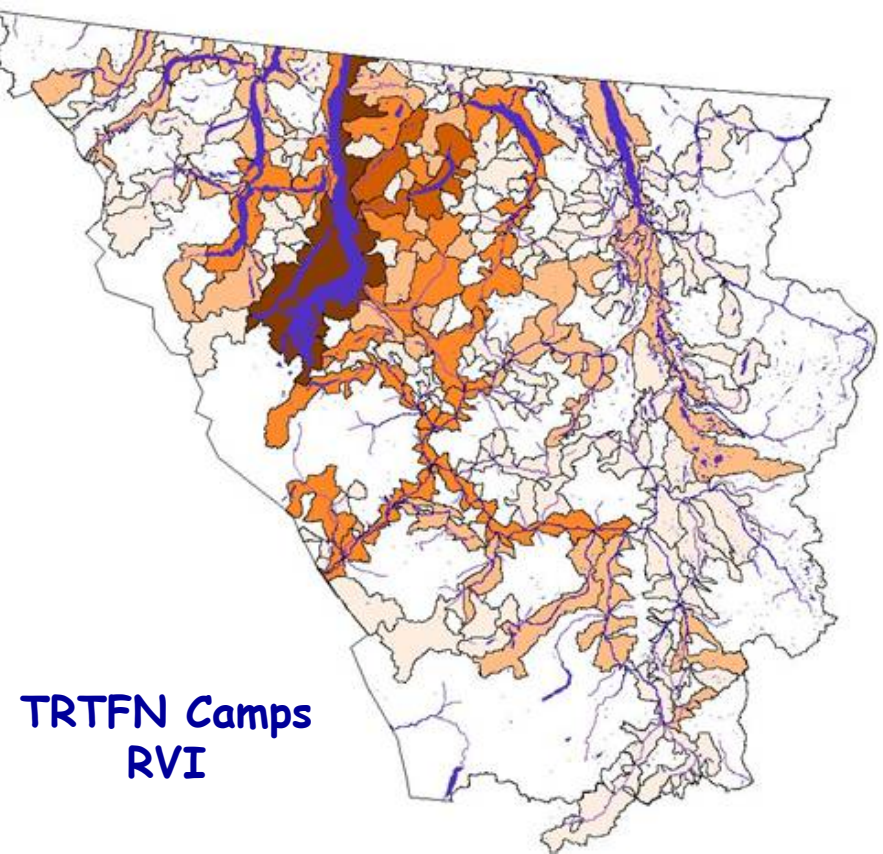
# Summarizing Cultural Values Across Landscapes

TRTFN  
Camps



Option: Identify Density  
by Watershed

Risk: Areas with little  
data underrepresented



TRTFN Camps  
RVI



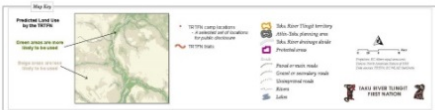
# Tlingit Land Use Model

Developed model based on mapped cultural sites

Identifies landscapes of likely high historical Tlingit use across Territory



Atlin-Taku Planning Area: TRTFN Predictive Land Use Model and Camp Locations



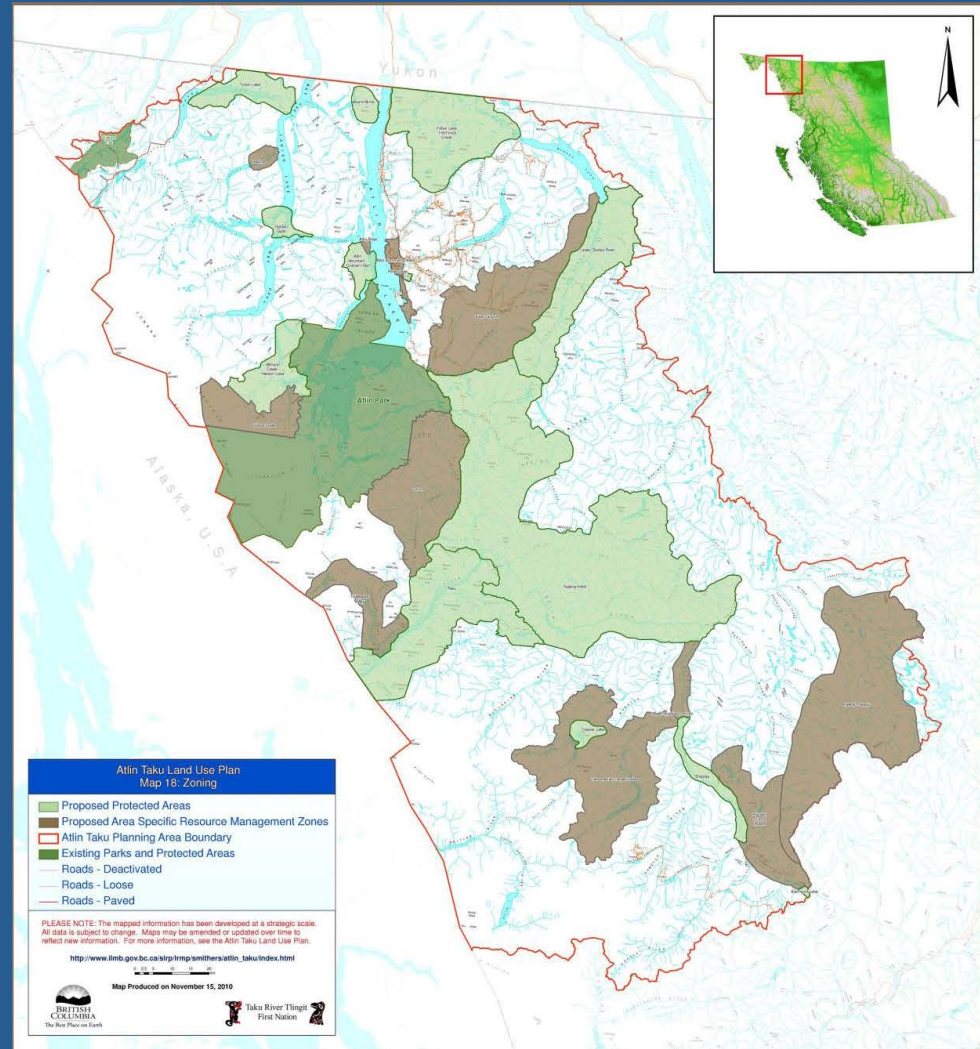
NOT FOR DISTRIBUTION  
11 March 2009

# Land Use Planning

Taku River Tlingit used these TK and TU-based analyses with other information and tools in land use planning with BC Govt.

Outcomes include:

- 25% Protected Areas
- 18% Special Mngt Areas
- 98% No Logging
- Shared Decision-Making

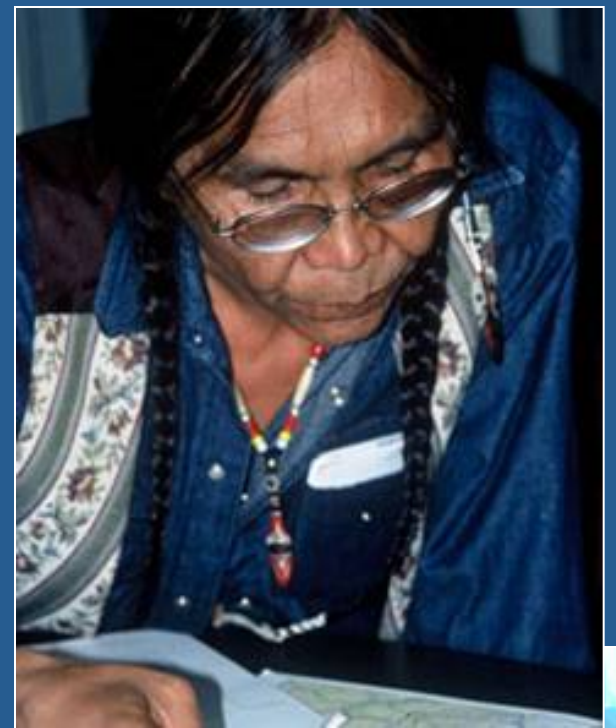


# Summary

- TRT has a rich array of TK and traditional use data
- TRT has used TK with western science tools to build planning products
- This approach has highlighted the power of TK and assisted TRT in advancing their land management goals









# Sustainability of wildlife depends on maintaining natural processes and habitat across large areas

