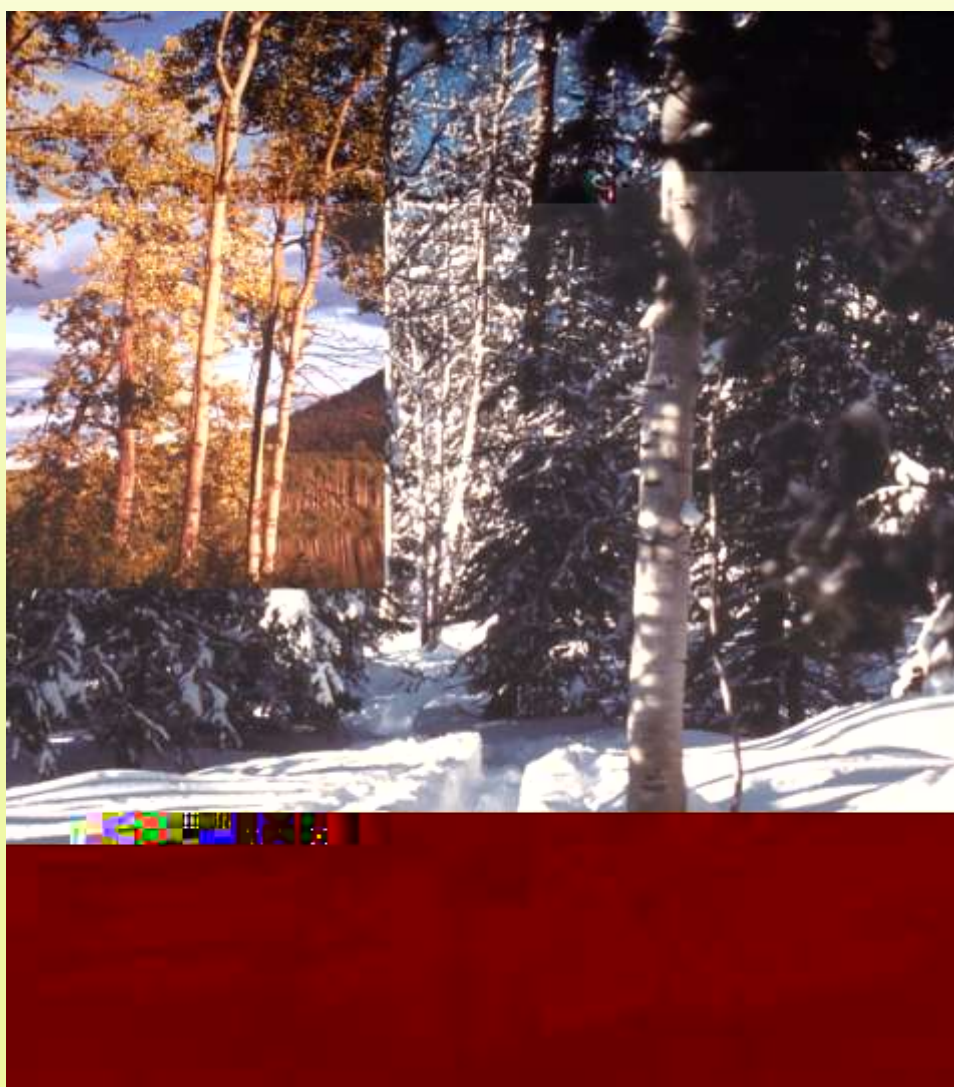


# **Ecosystem-based Conservation Planning towards**

## **Ecological and Cultural Sustainability on**

### **Xeni Gwet'in Lands**



# **Ecosystem-based Conservation Planning**

is an

# **ECOSYSTEM PICTURE**



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# Old-Growth Douglas-fir Forests



# **Wetland—Forest Landscapes**



# Interesting Terminology

---

**ECOSYSTEM**



eco  
(Greek)  
means  
home



**HOME SYSTEM**

+

**ECONOMICS**



nomics  
(Greek)  
means  
management



**HOME MANAGEMENT**

Ecosystem  
Economics  
means  
Management  
of the  
Home System





**Ecosystem-based  
Conservation Planning  
starts with**

# **ECOSYSTEM PICTURE**

**does not start with**

**Human Values...**

**Human Activities**



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# **Ecosystem-based Conservation Planning**

**Human values/activities  
include:**

- **Ranching**
- **Tourism**
- **Eco-Forestry**
- **Wilderness Designations—  
Wild Horse “Preserves”**
- **Forest Restoration**



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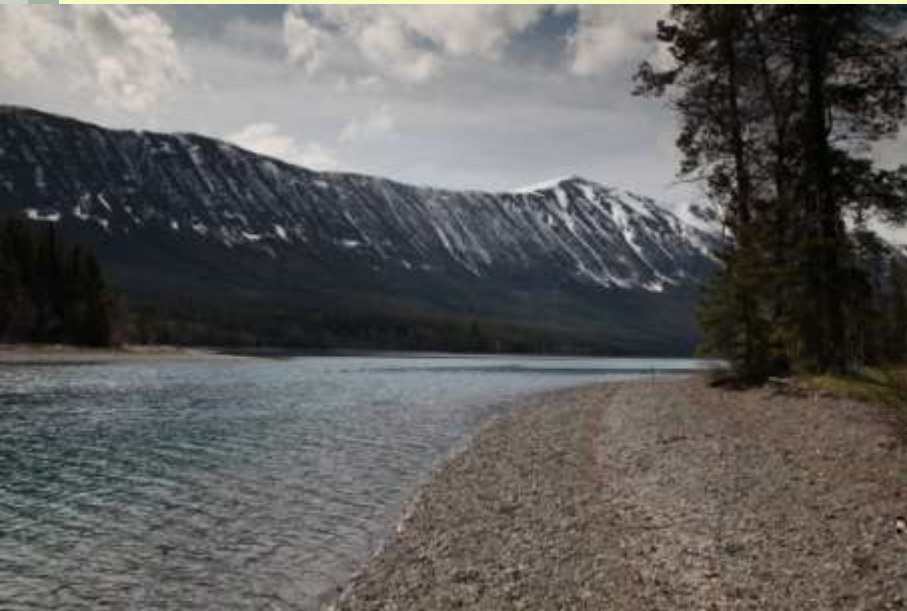
# Ecosystem-based Conservation Planning

primary goal...

to maintain or restore

## Ecological Integrity

*Keeping all of the parts all of  
the time.*



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# **Ecosystem-based Conservation Planning**

**maintaining or restoring**

## **Ecological Integrity**

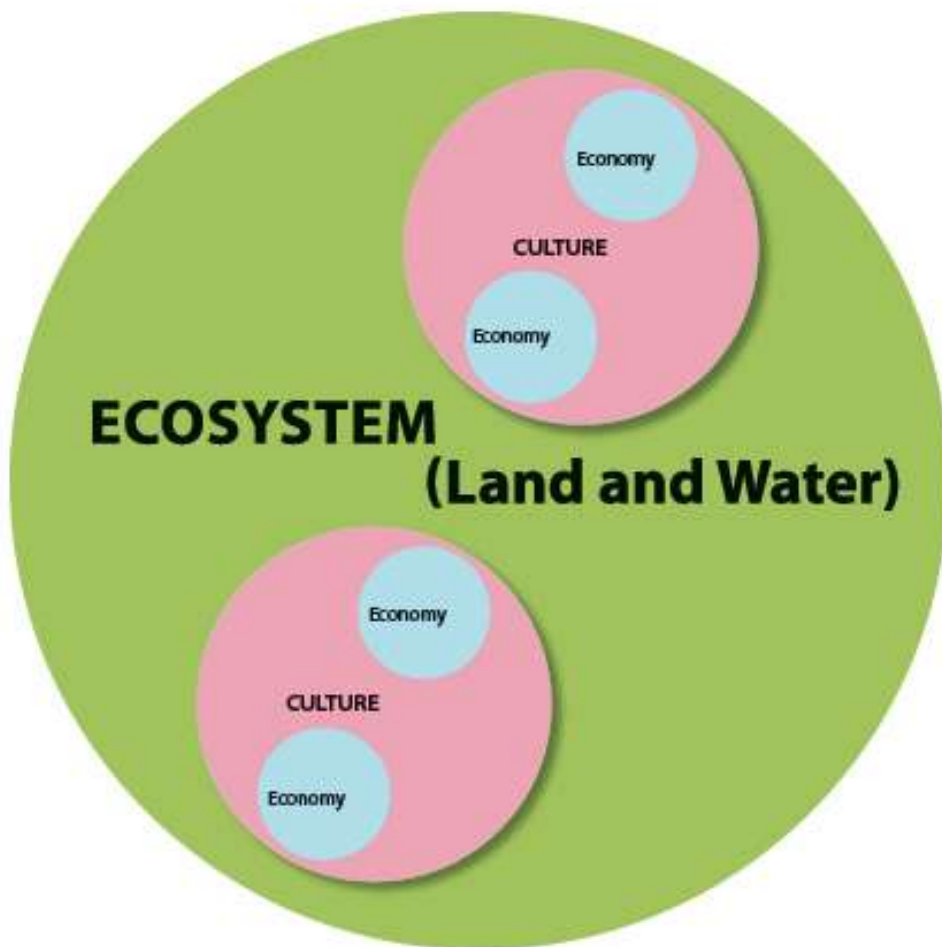
***Necessary to sustain  
human cultures and  
their economies***



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## **AN ECOSYSTEM-BASED CONSERVATION PLAN IS BASED UPON A HIERARCHIAL RELATIONSHIP**



Economies are part of human cultures, which are part of ecosystems. Therefore, maintaining the integrity of ecosystems provides the basis for sustainable cultures, including their economies.

# CONCEPTUAL VIEW OF AN ECOSYSTEM-BASED CONSERVATION PLAN

— a framework for making decisions —

First, protect the land and water—ecosystem.

Second, use the land and water—ecosystem in ways that maintain all of the parts and processes.



Ecosystem-based conservation plans are community-based.

Healthy communities have place, are diverse, and take responsibility for their actions, ensuring that the needs of future generations guide their actions in the present.

Community-based plans share decision-making power, are inclusive of most interests, and develop clear lines of accountability for activities.



**Ecosystem-based  
Conservation Planning**  
**maintaining or restoring**  
**Ecological Integrity**

***Necessary to slow  
global warming***

**most important issue  
facing  
Xeni Gwet'in**



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**Ecological Integrity requires**  
***Intact Ecosystems***  
***(Forests)***  
**to slow global warming**

- **Corridors** for movement of species
- Sources of **genetic variants**—warmer genotypes
- “Uniform” storage and release of **water**—counteract drought stress, freeze-thaw damage, & altered flow regimes
- Delay permafrost melt by decades/centuries
- Late seral/**old-growth**/mature forests best able to:
  - store & sequester carbon
  - modify effects of warmer, drier
  - furnish “replacement” & “adapted” individuals









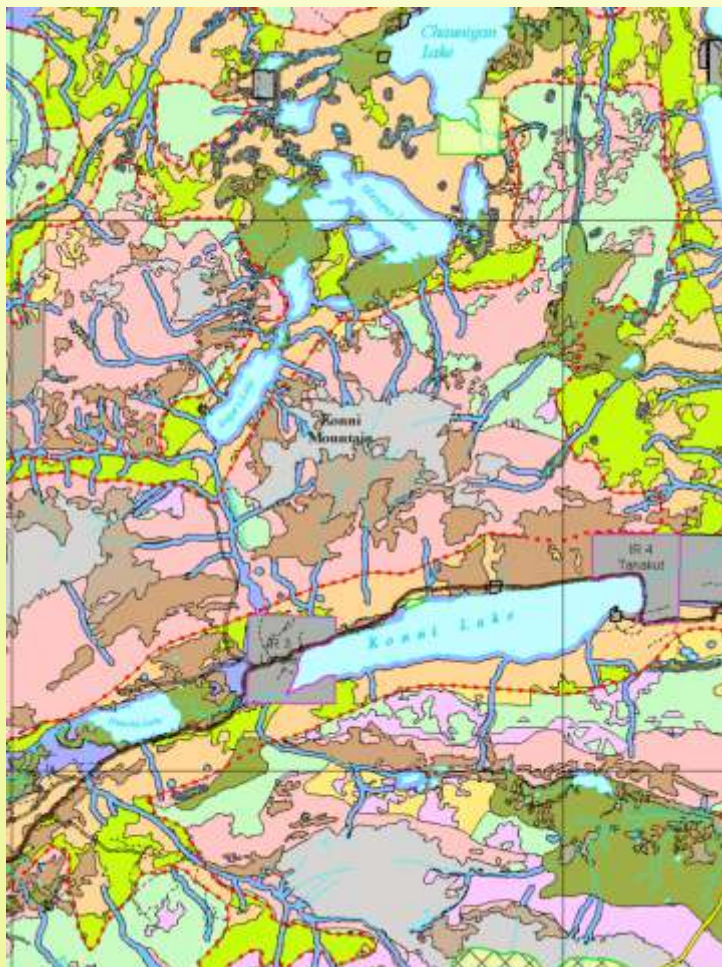


# *Xeni Gwet'in Ecosystem-based Conservation Plan*

## **Interpretive Maps**

**show the**

## **ECOSYSTEM PICTURE**

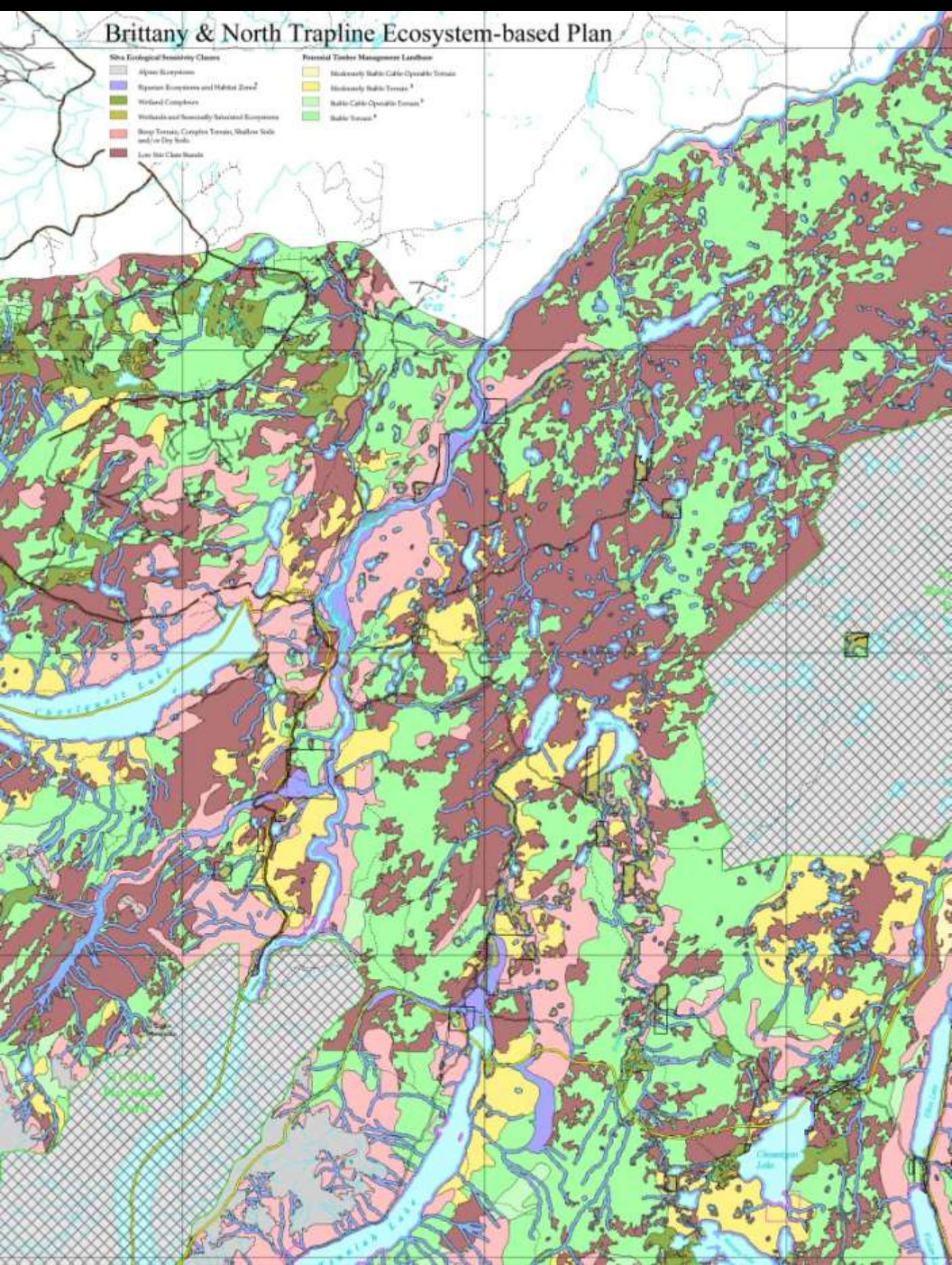


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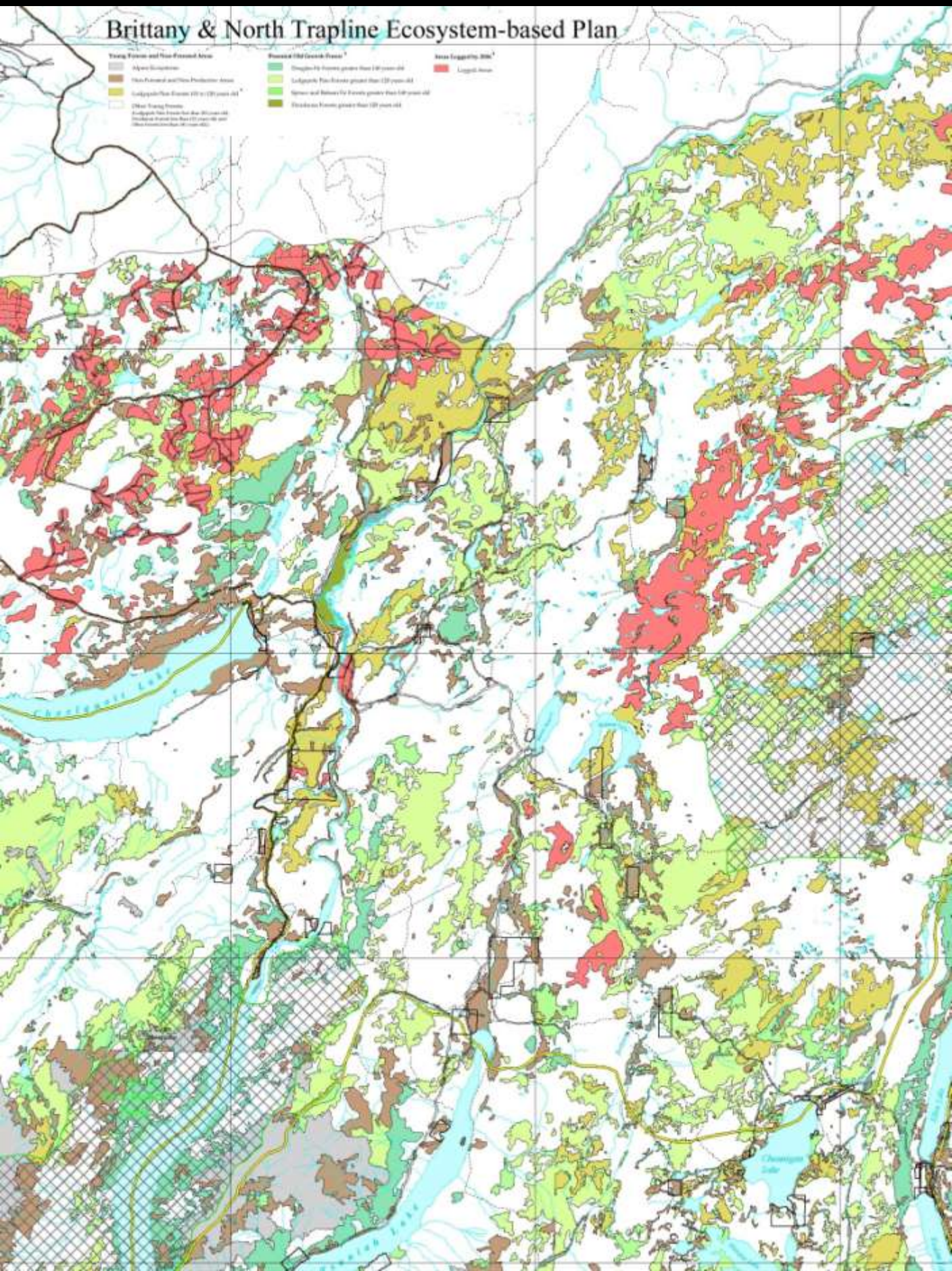


# Ecosystem Sensitivity to Disturbance





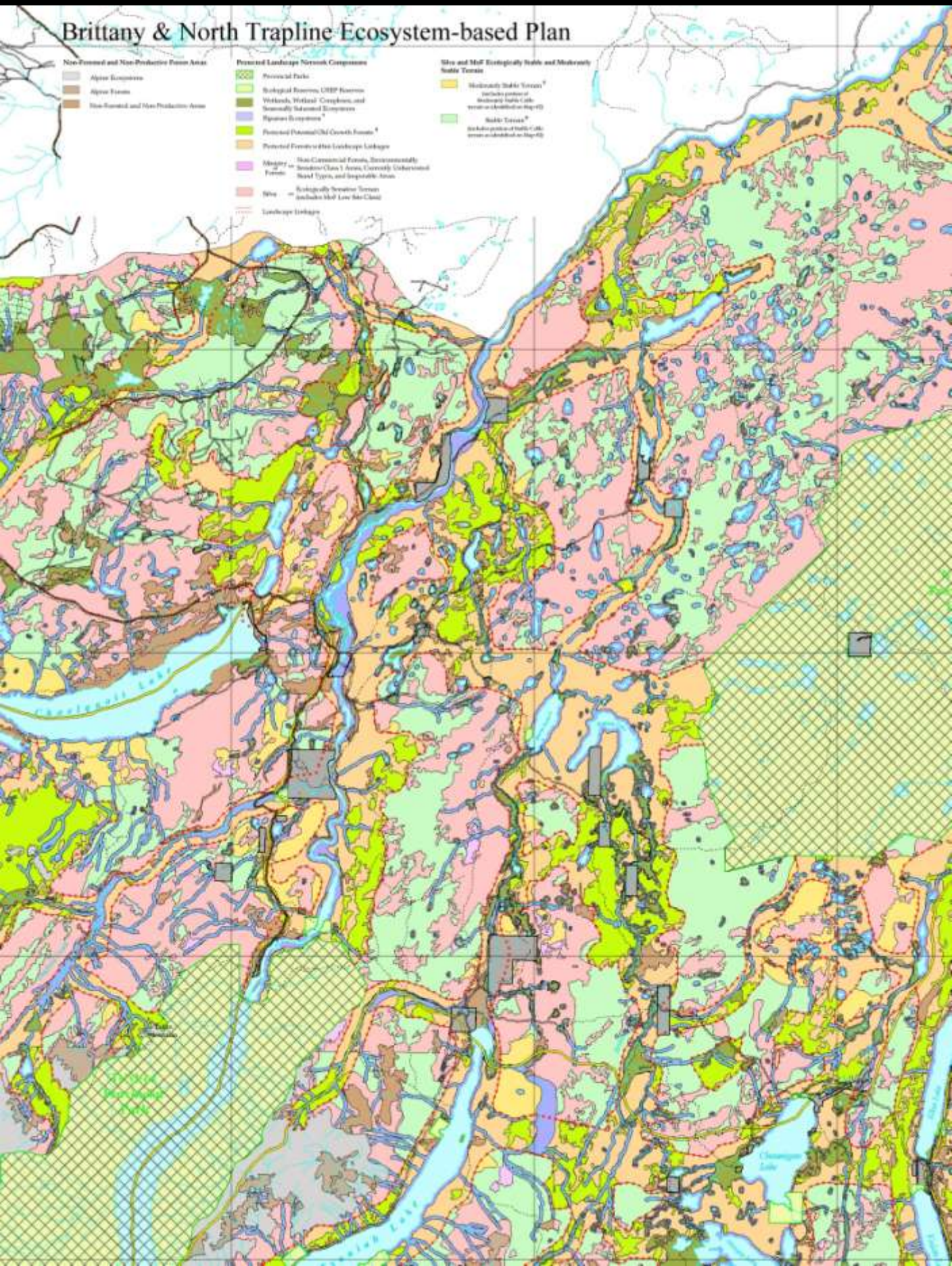
# Potential Old-Growth Forests





# Protected Landscape Network

The minimum framework to protect ecological integrity—intact forests





# Riparian Ecosystems



**... Wet forests and upland forests adjacent to rivers, streams, lakes, ponds, & wetlands**

**...Movement corridors/linkages**

**...Energy storage & regulation**

**...Biological “Hot Spots”**



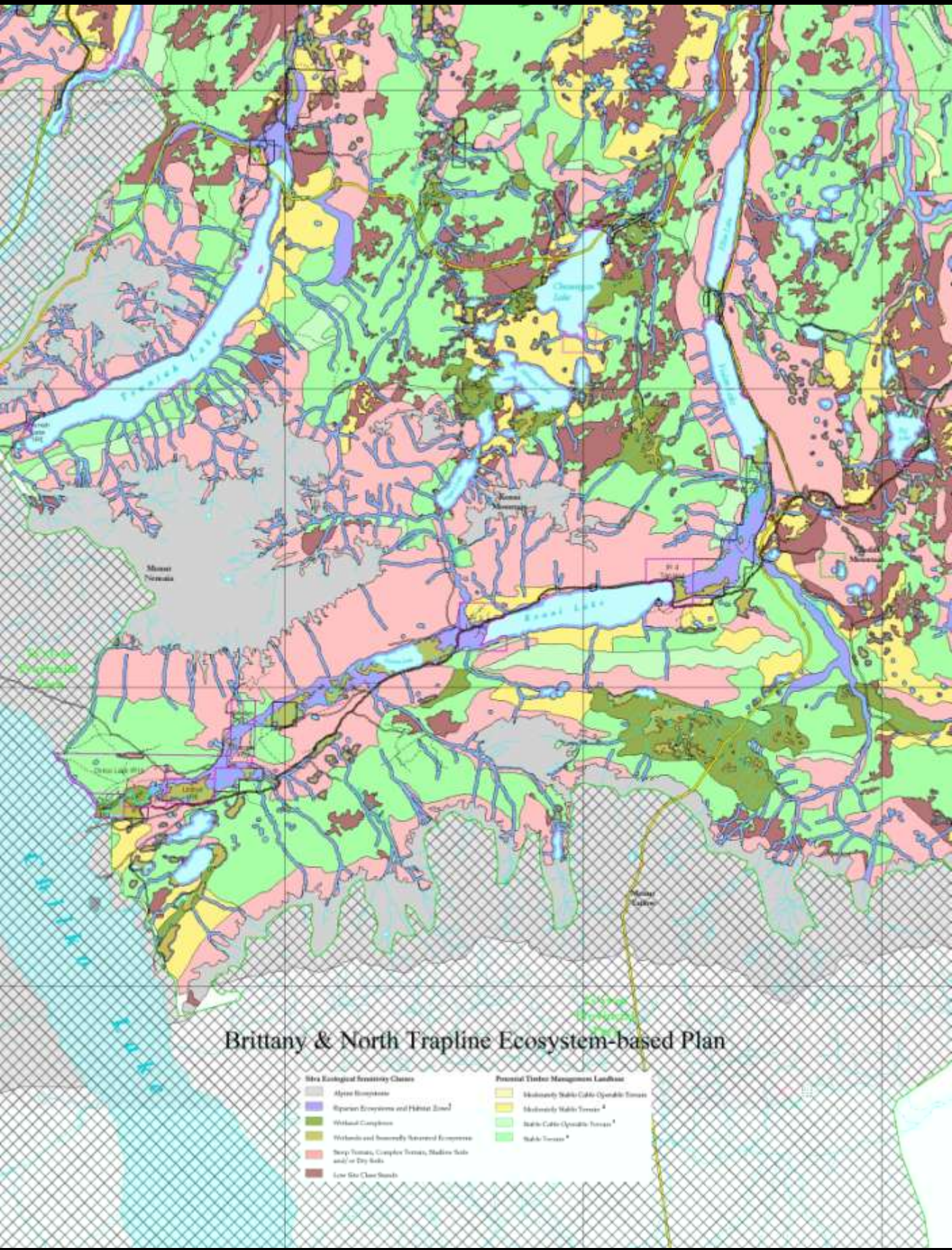
# Riparian Ecosystems



**. . . wetland - forest complex—  
high levels of biological  
diversity & used by most  
animal species in the  
landscape**



# Ecosystem Sensitivity to Disturbance





**Brittany & North Trapline Ecosystem-based Plan**

**Young Forests and Non-Forest Areas**

- Revised Old Growth Forests
- Non-Extensive Old Growth Forests
- Extensive Old Growth Forests
- Other Young Forests

**Revised Old Growth Forests**

- Single-Tree Forests greater than 100 years old
- Large-Scale Forests greater than 100 years old
- Small-Scale Forests greater than 100 years old
- Deciduous Forests greater than 100 years old

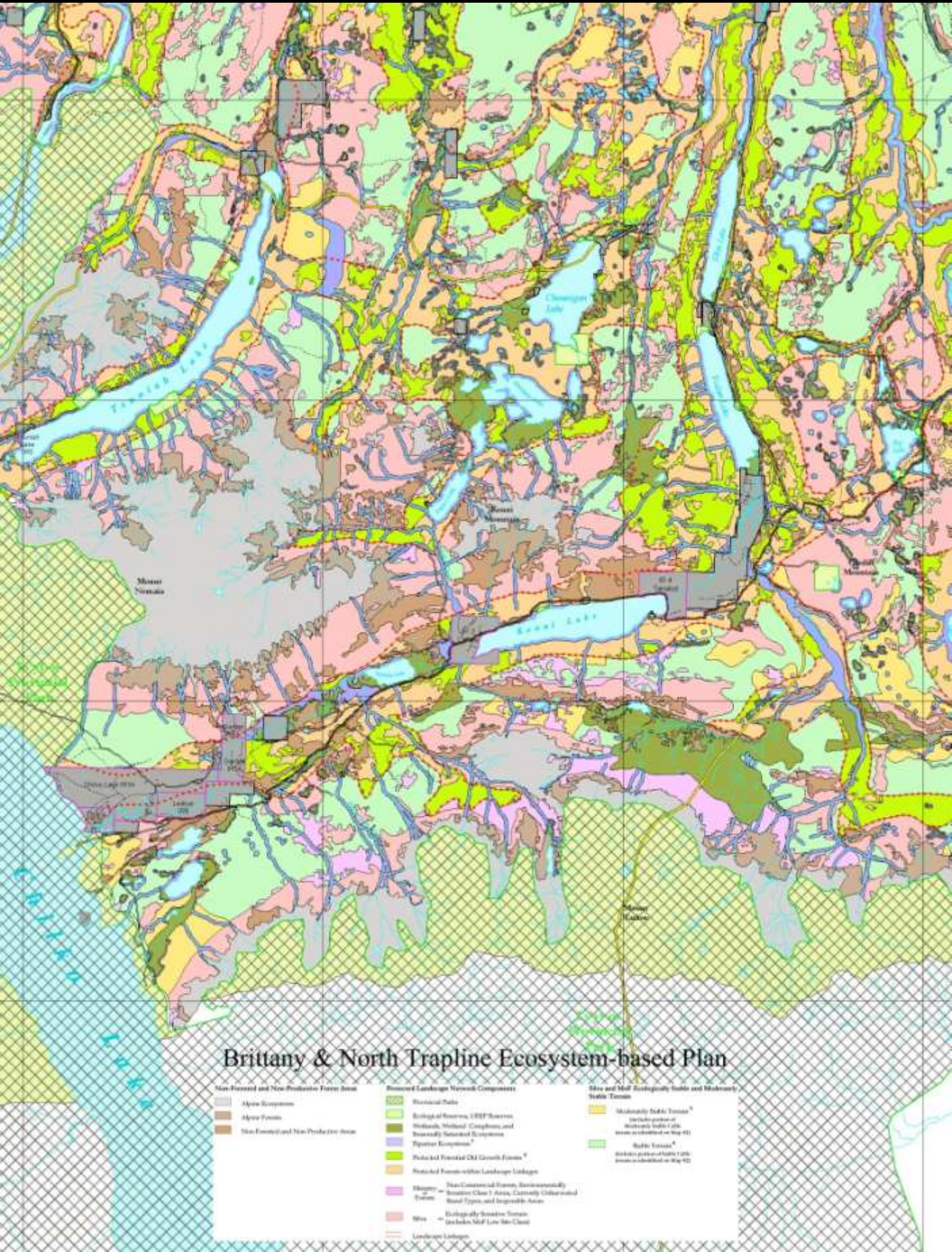
**Areas Logged by 2001**

- Logged Areas

[illegible]

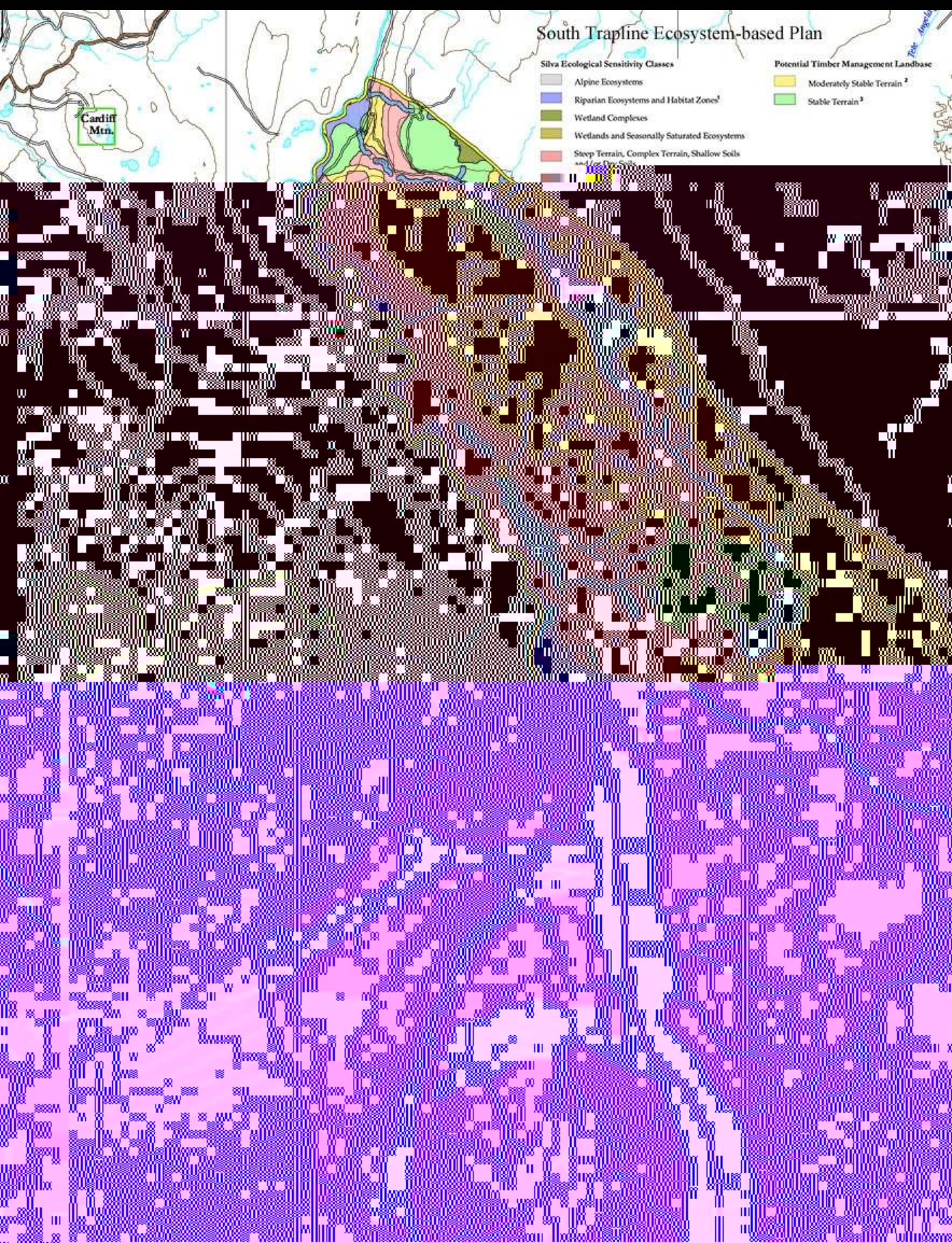


## The minimum framework to protect ecological integrity—intact forests





# Ecosystem Sensitivity to Disturbance





# Potential Old-Growth Forests





# Protected Landscape Network

The minimum framework to protect ecological integrity—intact forests





# ***Xeni Gwet'in Ecosystem-based Conservation Plan***

# Interpretive Maps

show

# Human Use Areas

***Places where human  
cultural and economic  
activities take place  
while maintaining  
ecological integrity—intact  
ecosystems***



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***Xeni Gwet'in Ecosystem-based  
Conservation Plan***

**Interpretive Maps**  
**show**  
**Human Use Areas**

**Designated by**  
**Xeni Gwet'in**

**through**  
**Community-based**  
**Discussions**  
**and**  
**Decision-making**



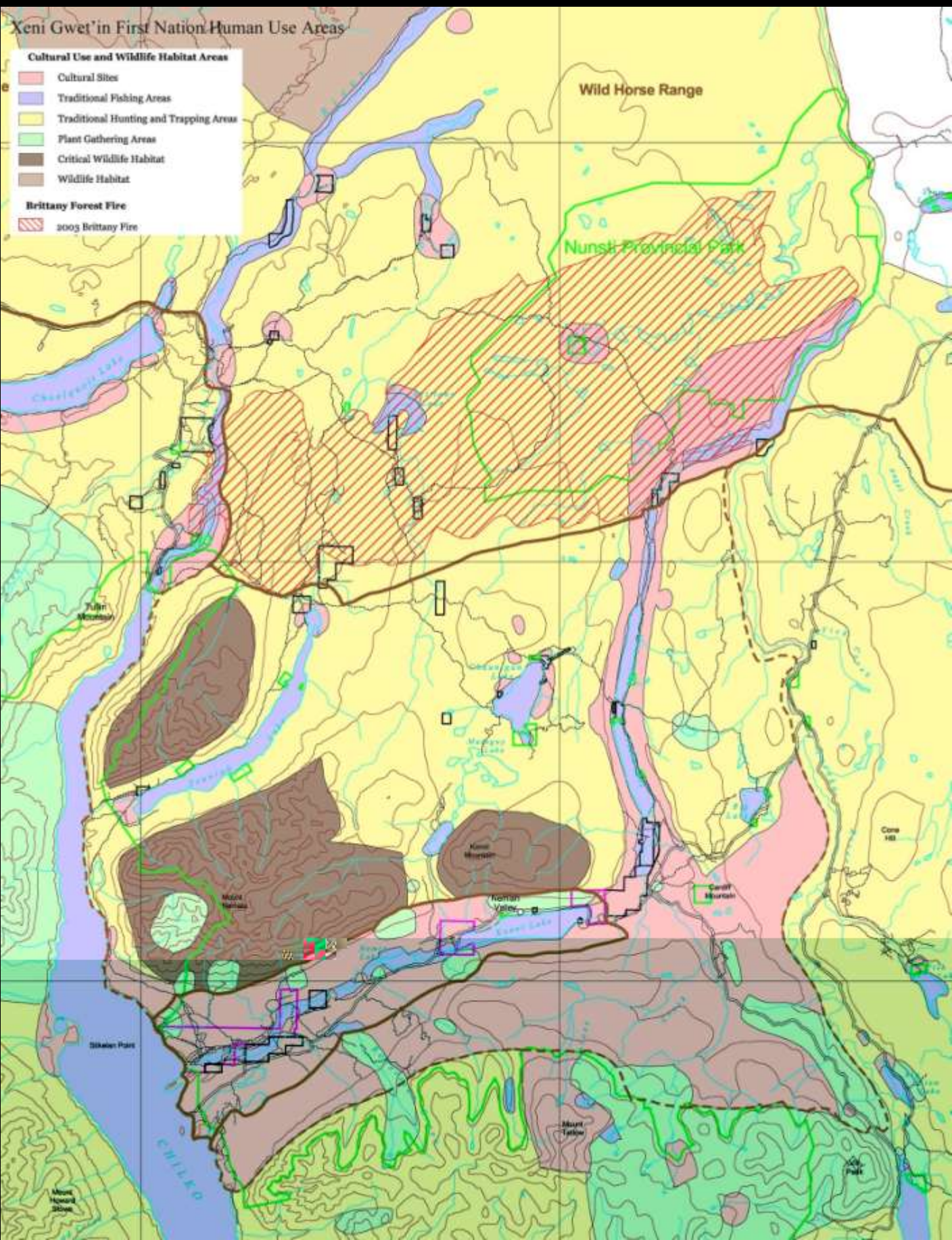


# Xeni Gwet'in—Interview Data for Cultural Use & Wildlife Habitat Areas



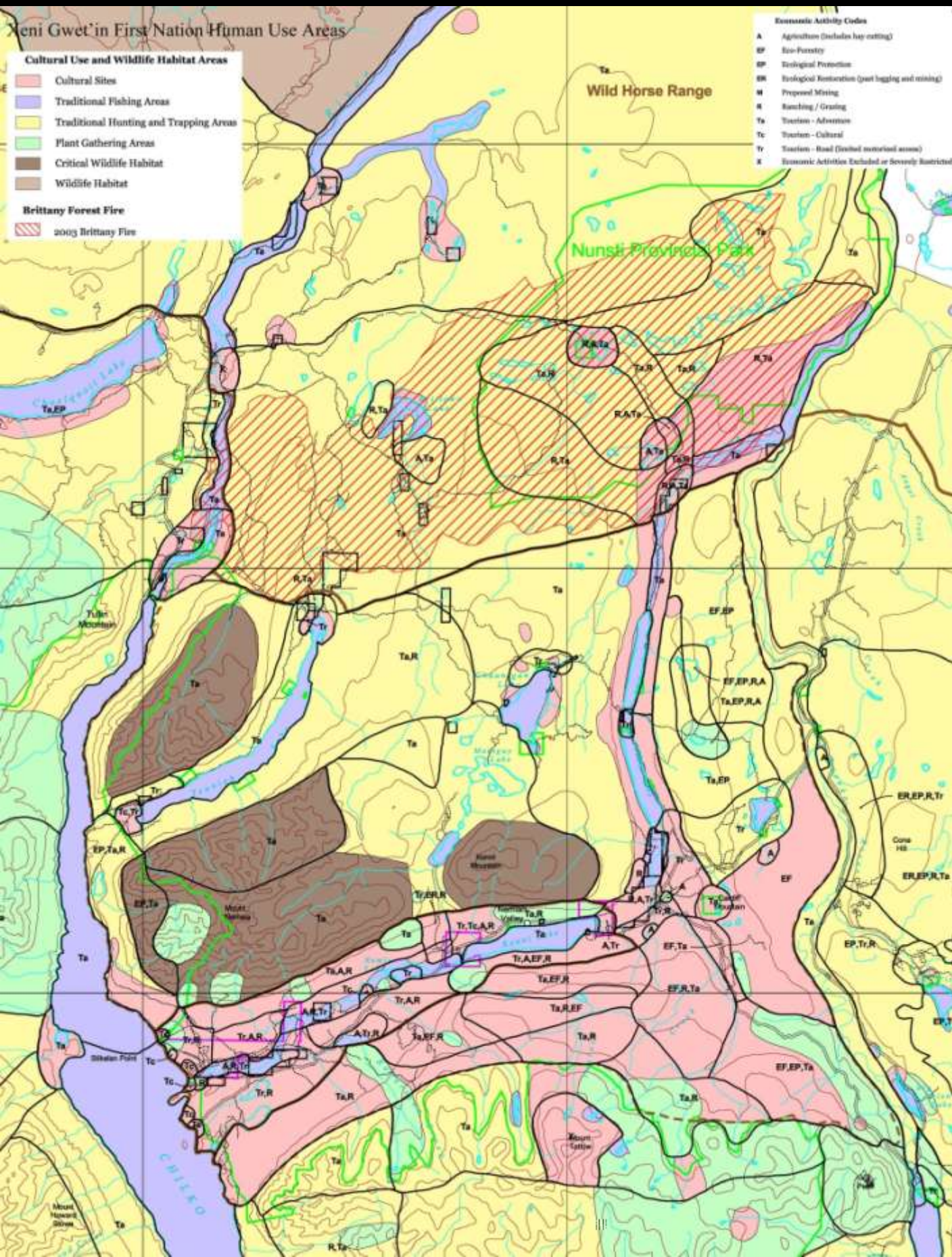


# Xeni Gwet'in designated Cultural Use & Wildlife Habitat Areas



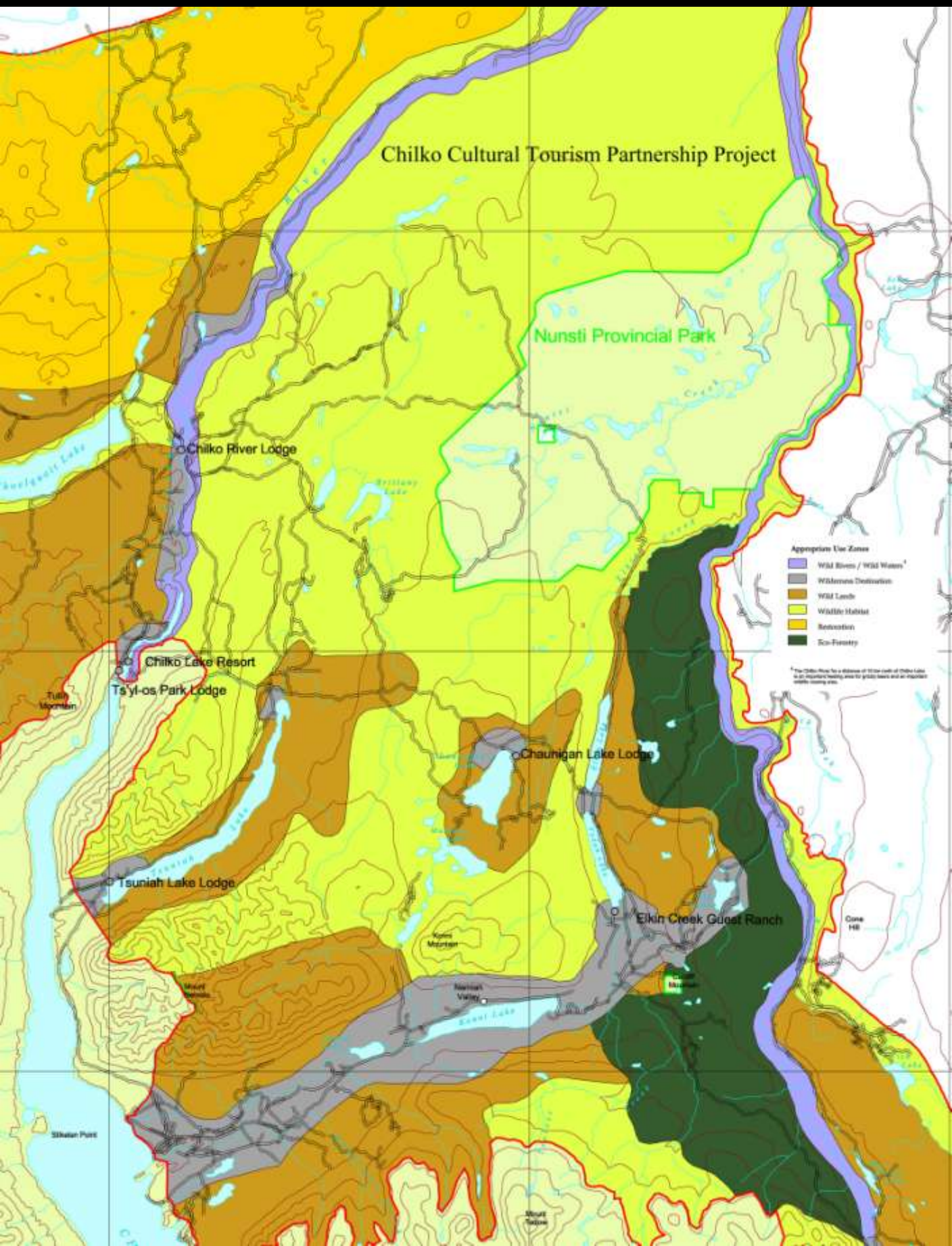


## Xeni Gwet'in designated Cultural Use & Wildlife Habitat Economic Activity Areas





# Xeni Gwet'in designated Tourism Areas with Chilko Resorts





***Xeni Gwet'in Ecosystem-based  
Conservation Plan***

**All  
Human Use Areas  
Require  
*Protected Ecosystem  
Networks  
(PENs)*  
to  
Maintain or Restore  
Ecological Integrity  
where  
Human Activities  
occur**







... small riparian ecosystems



# Protected Ecosystem Networks PENs



**. . . maintain full-cycle trees**



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# Protected Ecosystem Networks PENs



**. . . maintain fallen trees that  
provide a foundation for  
living trees, & other plants  
and animals**



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***Xeni Gwet'in Ecosystem-based  
Conservation Plan***

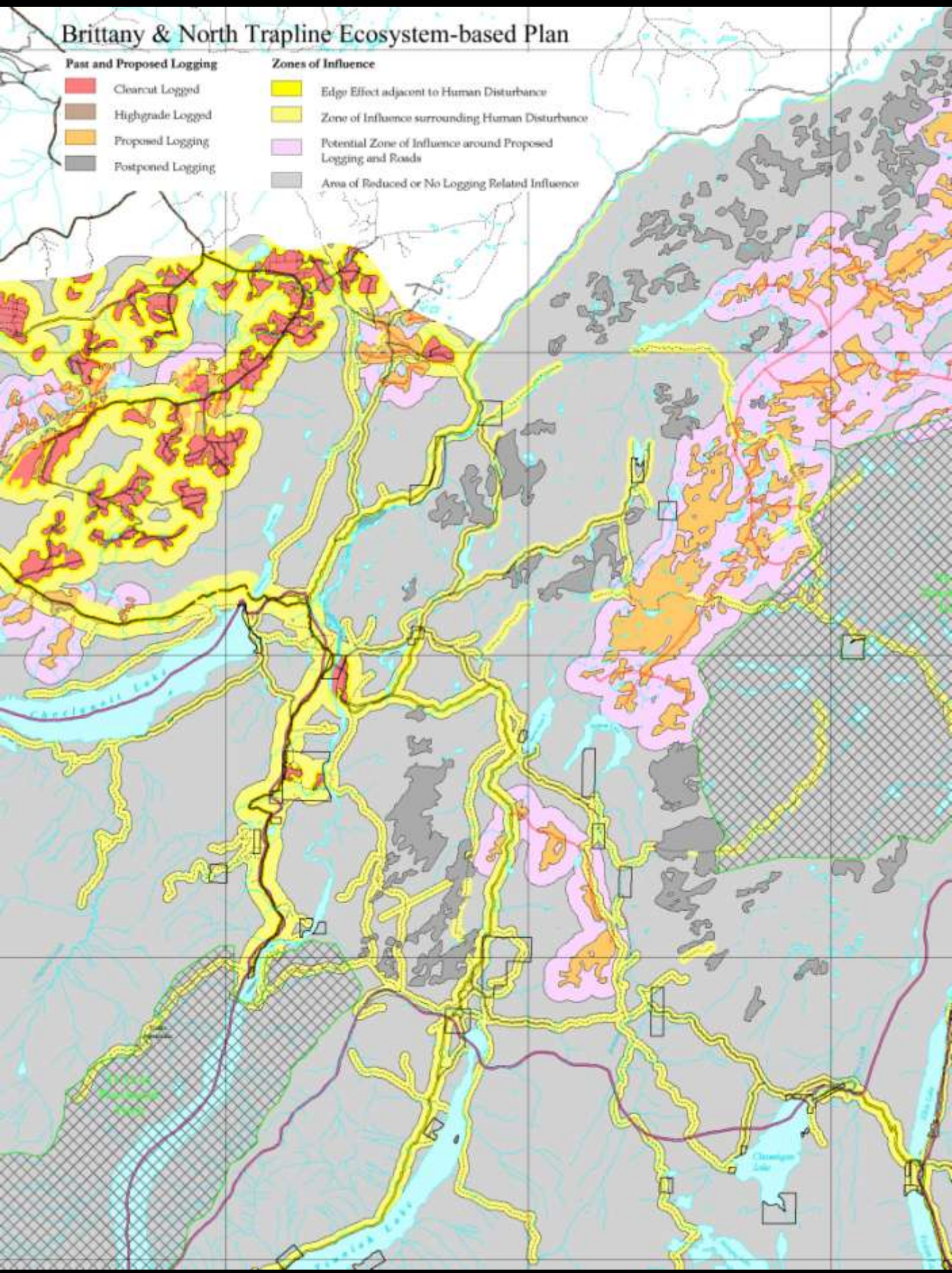
**Interpretive Maps**  
**show**  
**Industrial Damage**  
**(Past & Planned)**

**Updating these maps  
will show the current  
condition of, and  
threats to  
Xeni Gwet'in  
Ecosystems**



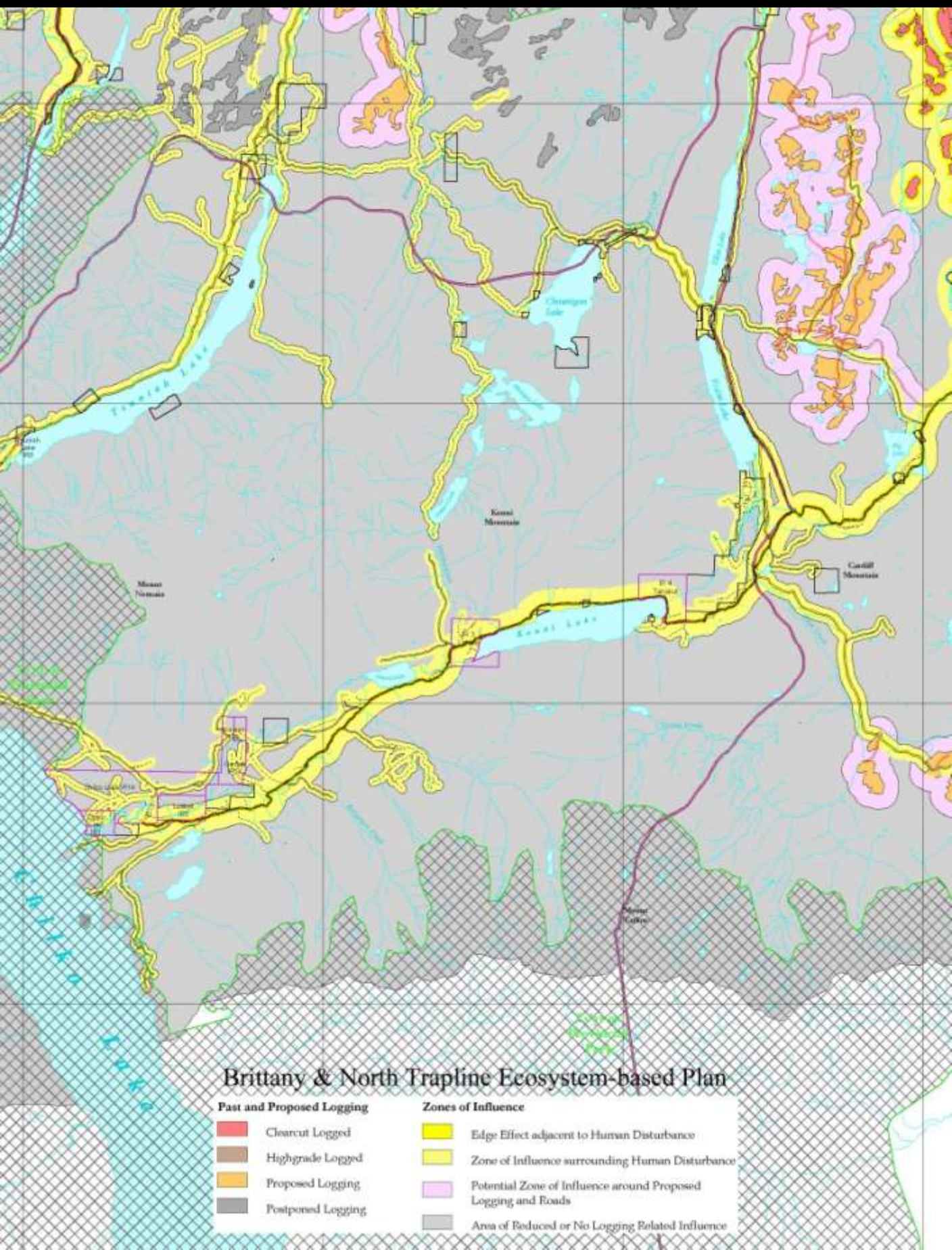


# Past and Planned Logging with Zones of Influence



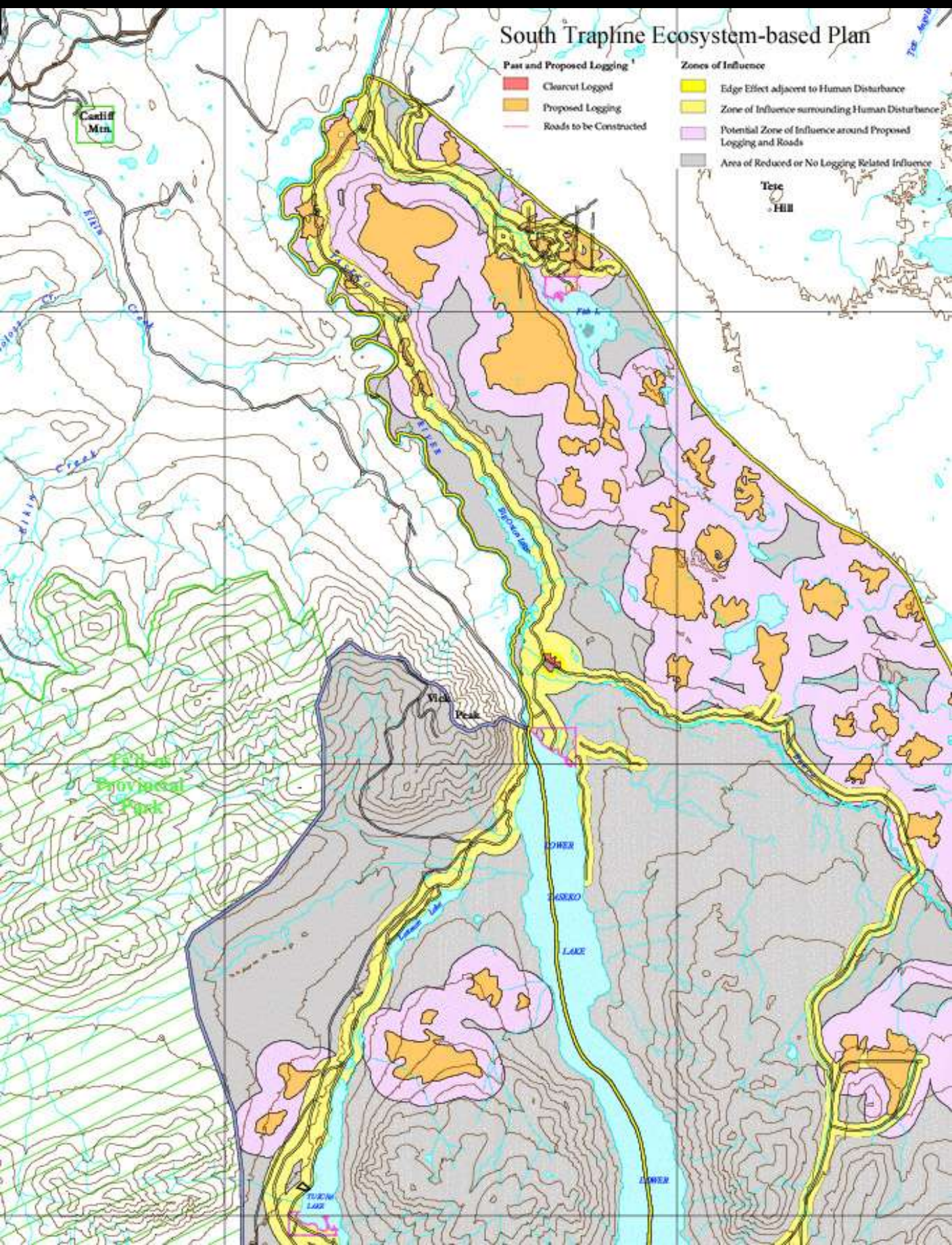


# Past and Planned Logging with Zones of Influence





# Past and Planned Logging with Zones of Influence





## *Xeni Gwet'in Ecosystem-based Conservation Plan*

### **Asserting Xeni Gwet'in First Nation's Aboriginal Title & Rights**

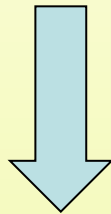
- **About forests and water, not mining and forestry**
- **Provides for ecologically and culturally sustainable forest use**
- **Important parts are Restoration & Reestablishing Xeni Gwet'in management systems**
- **Solutions oriented—accommodates a different world view, while sharing Xeni Gwet'in land, water, & resources**





# **Solution to Implement**

***Xeni Gwet'in Ecosystem-based  
Conservation Plan***



# **Community Forest Agreement (CFA)**





# What is a **Community Forest Agreement (CFA)**?

- Tenure Agreement (contract) with BC
- Without prejudice to Xeni Gwet'in Title & Rights—an **interim measure**
- Provides **control** over Xeni Gwet'in Territory according to **EBCP** and **Cultural laws, needs, & resources**
- Xeni Gwet'in CFA provides **control over:**
  - Cultural protection/restoration
  - Eco-forestry
  - Cultural and adventure tourism
  - Agriculture & Ranching
  - Other activities Xeni Gwet'in desires for your land and negotiates with B.C.
- Industrial forestry does not occur in CFA
- Improves ability to prevent mining





# Some Summary Thoughts...

- Xeni Gwet'in CFA is about **control**
- Opportunity to **assert title & rights** in an effective, far reaching ways:
  - Employment in diverse activities
  - Restoration of land & culture
  - Protection of land & culture from inappropriate activities
- Resolution for much of “**divide and conquer**” politics of BC
- CFA may be main **economic development structure** for Xeni Gwet'in



## Some Summary Thoughts (con't)...

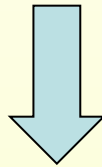
- What kind of activities are done where...a **Xeni Gwet'in decision**...Ecological Reserves (EBCP), Reserve Declarations, Human Use Areas (culture & economic development)
- Need to **coordinate and refine** these decisions—will provide direction and clarity for land use guidelines
- Foundations & many of the details** for land use guidelines exist in:
  - Reserve Declarations,
  - EBCP,
  - Human Use Areas
  - Tourism & Access Plans, &
  - Climate Change Reports



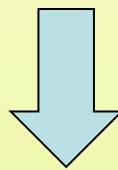


# Some Summary Thoughts (con't)...

**Land Use Guidelines  
start with**



**Cultural & Ecological Reserves**  
Maintaining ecological &  
cultural integrity at *different  
levels and ways* throughout  
Care Taker Area  
**Reserves tell us “what & where”**



**Human Use Categories, Tourism  
Plans, Access Plans, & Climate  
Change Plans**  
Provide direction for  
**“how”**



## Some Summary Thoughts (con't)...

- **Synthesizing meaningful land use guidelines ... a big job!**
  - Synthesis of reports/plans with varying terms of reference, values, & information
  - **Field ecosystem checks & verification**
  - **Community verification**
- **Start with general guidelines supported by community**
- **Refine with *doing it*—on the ground activities**

**Cultural Activities**

***Tourism Businesses***

***Ecosystem Restoration***

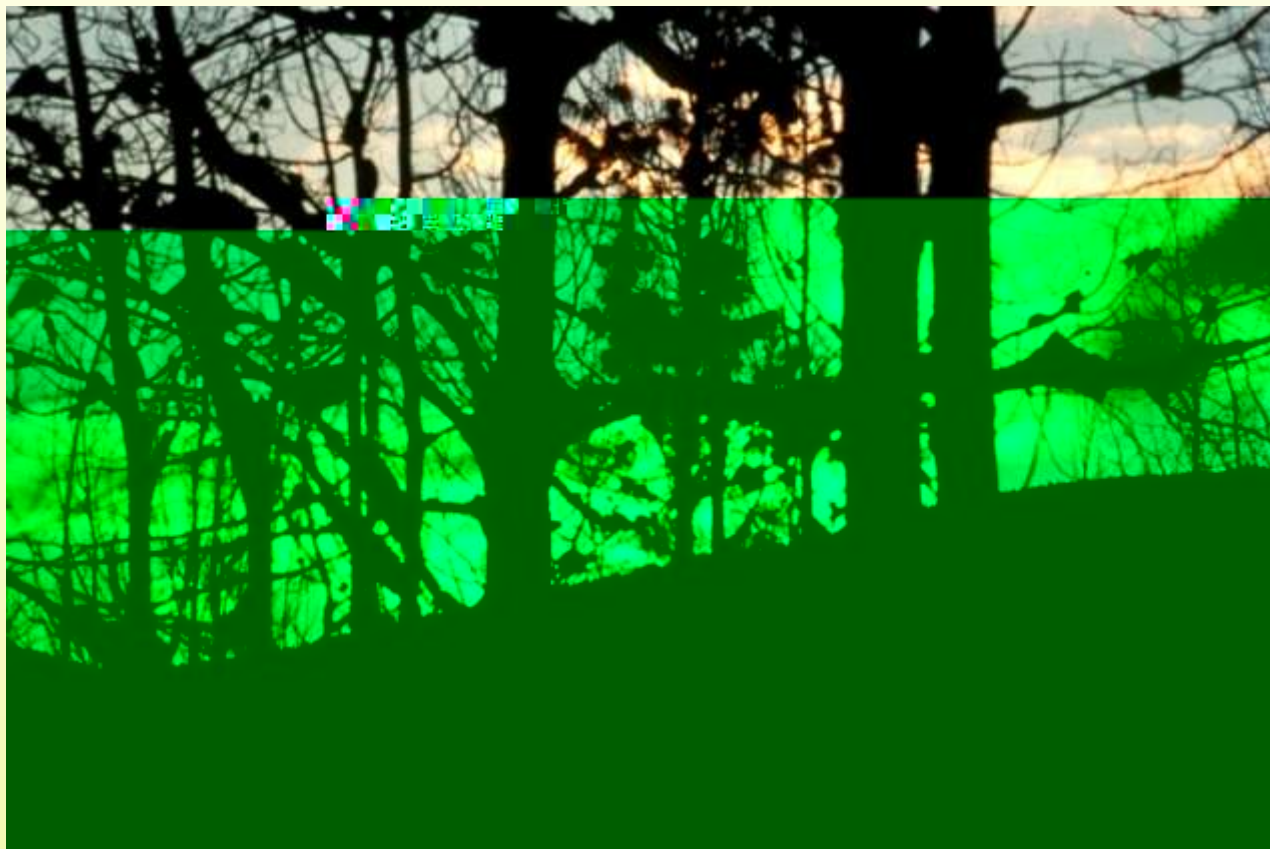
***Eco-Forestry***

***Fisheries—Commercial & Subsistence***





**The forest sustains us . . .**



**. . . we do not sustain the forest.**



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