



Conservation Area Design

The Core and Connectivity areas represented here are products of the Taku River Tlingit Conservation Area Design, and represent a suite of habitats providing for the maintenance of biodiversity and ecological processes across the Territory. The analyses that led to the identification of these areas is described in detail in the "Conservation Area Design for the Taku River Tlingit Traditional Territory", a report available at this Workshop or upon request from TRTFN. These analyses involved the integration of principles from conservation science and TRTFN and local ecological knowledge. We used a combination of methods, including development of habitat models for multiple focal species, development and use of the Ecological Land Unit model (see here at the Workshop), regional connectivity analyses, and spatial optimization procedures. Core Areas are selected specifically to meet goals around identifying those areas that are important for identified high value wildlife, salmon and ecosystem types (see report for details). Goals for these high value resources were to represent a minimum of 30% of the identified high value wildlife habitats and ecosystem types and 100% of the salmon spawning areas. The table below shows that we met or exceeded these goals in almost all cases through the analyses. It is important to recognize that the spatial analyses we used to identify the Core Areas effectively minimizes the "costs" of conservation through minimizing the area needed to meet the goals, and represents a highly efficient spatial configuration.

The connectivity analyses is an integral part of the CAD, as no single Core Area is sufficiently large to maintain viable populations of wildlife and support natural ecosystem processes (fire, for example). The connectivity analyses modeled the movements of grizzly bear, as one of the focal species with very wide-ranging habits and requirements. Because grizzly bear are also generalist in the habitats they will move through, the connectivity areas likely represent areas within which many species of wildlife may utilize for movement. Additionally, the Connectivity Areas significantly add to the overall representation of high valued wildlife habitats and ecosystems (see Table, below).

Valued Resource	Representation in Core Areas (%)	Representation in Core and Connectivity Areas (%)
Wildlife Seasonal Habitat		
Grizzly Bear Spring Habitat	34.9	64.7
Grizzly Bear Summer Habitat	36.7	66.0
Grizzly Bear Fall Habitat	35.3	62.4
Woodland Caribou Summer Habitat	33.2	47.0
Woodland Caribou Winter Habitat	40.6	76.1
Moose Summer Habitat	36	67.4
Moose Winter Habitat	36.5	68.3
Mountain Goat Summer Habitat	34.8	43.4
Mountain Goat Winter Habitat	37.9	50.2
Thinhorn Sheep Summer Habitat	39.7	50.9
Thinhorn Sheep Winter Habitat	43.1	54.1
Salmon Habitat		
Salmon Spawning Habitat	99.6	100
Salmon Distribution	73.4	99.2
Ecological Communities (Average)		
	51.2	79.4
Special Elements		
Wetlands	40.6	82.3
Swan Nests	87.5	93.8
Osgrey Nests	0	94.2
Special Interest Fish and Wildlife	1.2	100
Eagle Nests	40	100
Long-toed Salamander Locations	100	100
Rare and endangered species (CDC)	19	71.4

The CAD was developed by the TRTFN to provide a synthesis of existing information about the distribution of important areas for conservation management across their Territory, to guide their land management and planning efforts. It has not and does not represent land use zones. Similar analyses are being used world-wide by governments, universities, communities and native peoples to support land planning and management initiatives.

Atlin-Taku Planning Area: Conservation Area Design

