

Ecosystem Enhancement Program

Kootenay Lake Ecological Priorities

The following ecosystem priorities were identified through a review of regional plans and research, and by seeking input from community groups, First Nations representatives, government agencies, and subject matter experts. Priorities are listed in random order; no ranking is intended. Species, habitats and processes are not limited to those listed below.

Aquatic		
Conservation, restoration, and enhancement of aquatic habitat		
<i>Priority Habitat</i>	<i>Priority Species</i>	<i>Priority Processes</i>
<ul style="list-style-type: none"> • rivers and tributary streams that support spawning, rearing, overwintering, foraging from valley bottom to upper basin headwaters • ponds and lakes • natural lake foreshore and shallow water habitat • alluvial fans and creek mouths • cold water refugia • migratory stopover sites • groundwater-surface water interface (warm water spring; mineral springs; cold water source) • fisheries sensitive watersheds 	<ul style="list-style-type: none"> • native fish (Kokanee, Rainbow Trout (including Gerrard Rainbow Trout, Westslope Cutthroat Trout, Bull Trout, White Sturgeon, Burbot) • waterbirds (American Dipper, Black Swift, Forster's Tern, Western Grebe, American White Pelican, Vaux's Swift, Osprey) • native freshwater mussels • invertebrates • species at risk 	<ul style="list-style-type: none"> • connectivity • fish passage • water availability • water quality • nutrient cycling and exchange • productivity • geomorphic processes (erosion, levees, gravel, sedimentation, woody debris) • habitat complexity (large woody debris, gravel, rocks, sediment) • fish overwintering • fish spawning and rearing
Wetland/Riparian		
Conservation, restoration and enhancement of wetlands and riparian areas		
<i>Priority Habitat</i>	<i>Priority Species</i>	<i>Priority Processes</i>
<ul style="list-style-type: none"> • low elevation historic wetlands • floodplain ecosystems • mature cottonwood stands • riparian habitats • alluvial fans and creek mouths • natural shoreline • wildlife corridors • wildlife trees • Heron rookeries and raptor nests • ecosystems at risk 	<ul style="list-style-type: none"> • western toad • northern leopard frog • Columbia spotted frog • western painted turtle • at risk migratory birds and waterfowl (American Avocet, American Bittern, Swallows (all), Long-billed Curlew, Great Blue Heron, Western Screech-Owl, Yellow Breasted Chat, Olive-sided Flycatcher) • bats • Coeur d'Alene salamander 	<ul style="list-style-type: none"> • connectivity; valley bottom to mountain top • hydrologic processes (filtering, recharge, flooding, storage) • geomorphological function • productivity • nutrient dynamics • beaver wetland creation • breeding and nesting • carbon storage • wildlife movement and migration • resiliency

	<ul style="list-style-type: none"> American beaver macroinvertebrates plants – species at risk and culturally important species at risk 	<ul style="list-style-type: none"> biodiversity
Terrestrial		
Protection, enhancement and identification of corridors and linkage areas		
<ul style="list-style-type: none"> Lardeau Duncan Corridor, Retallack – Hwy 31A, Creston Valley South of Hwy 3 North-South Corridor along Kootenay River floodplain, East-West corridor linking Goat River Canyon to Yaqaan Nu?kiy to Kootenay River to Corn Creek. Key Biodiversity Area: Creston Valley 		
Conservation and restoration of upland habitats that support species at risk and focal species		
<i>Priority Habitat</i>	<i>Priority Species</i>	<i>Priority Processes</i>
<ul style="list-style-type: none"> old growth forests inland temperate rainforest dry interior forests brushlands and grasslands grassland open forest alpine and high elevation meadows climax grasslands camas meadows ungulate winter range ecosystems at risk rock outcrops and caves nesting and/or roosting sites burrows or denning areas hibernacula wildlife trees and snags mineral licks calcareous rock / soils climate change refugia climax grasslands huckleberry patches wildlife corridors wildlife trees avalanche chutes wildlife habitat areas (WHAs) and habitat features (WHFs) 	<ul style="list-style-type: none"> mountain caribou grizzly bear elk moose mountain goat bats rubber boa western skink wolverine American badger Bobolink Common Nighthawk Northern Goshawk Lewis’s Woodpecker Peregrine Falcon Sandhill Crane Short-eared Owl Clark’s Nutcracker whitebark pine huckleberry pollinators and other invertebrates (western bumblebee, pale jumping slug, magnum mantleslug, banded tigersnail) plants – species at risk and culturally important fungi Northern alligator lizard Northern pocket gopher Red tailed chipmunk species at risk 	<ul style="list-style-type: none"> connectivity habitat (valley bottom to top) wildlife movement and migration connectivity climate refugia food web interactions (predator-prey, seed dispersal, pollination) natural fire regime carbon storage breeding and nesting resiliency deciduous regeneration biodiversity
Cultural		
Supporting Indigenous stewardship through:		
<ul style="list-style-type: none"> Indigenous-led conservation Incorporating Indigenous knowledge, values and approaches 		

Kootenay Lake Subregion Emerging Issues

- Climate change
- Invasive species
- Biodiversity loss
- Emergent and persistent diseases/pests
- Wildfire and fire management
- Cumulative effects (dams, forestry, agriculture and range management, recreation and access management, rural/urban development, shoreline/foreshore development)
- Human wildlife conflicts
- Loss of snowpack and cold water creeks

Key References (Priorities and Emerging Issues):

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