

Ecosystem Enhancement Program

North Columbia 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		
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 spawning, rearing, overwintering areas • lakes and ponds • lake foreshore and shallow water habitat • migratory stopover sites • alluvial fans and creek mouths • ground surface water interface 	<ul style="list-style-type: none"> • native fish (White Sturgeon, Burbot, Westslope Cutthroat Trout, Bull Trout, Kokanee, Rainbow Trout (including Gerrard Rainbow Trout), Mountain Whitefish) • waterbirds (Harlequin Duck, Western Grebe, American Dipper, Osprey, Cliff Swallow, Black Swift) • freshwater mussels • invertebrates • river otter • species at risk 	<ul style="list-style-type: none"> • fish passage • connectivity • water availability • water temperature, water quality, nutrient cycling • geomorphic processes (erosion, levees, gravel, sedimentation, woody debris) • fish spawning, rearing and overwintering • cold water stream refugia
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 and floodplain wetlands • valley bottom cottonwood and coniferous riparian areas • high elevation wetlands • bird breeding habitat within ponds, shrub-wetland complexes, swamps and marsh • riparian habitat directly adjacent to rivers and lakes • mature cottonwood forests • ecosystems at risk 	<ul style="list-style-type: none"> • western painted turtle • western toad • Columbia spotted frog • Coeur d'Alene salamander • At risk migratory birds and waterfowl (Great Blue Heron, Western Screech -Owl, Common Nighthawk, Bank Swallow, Barn Swallow, Olive-sided Flycatcher, American Bittern) • American beaver • plants – species at risk and culturally important • macroinvertebrates • muskrat 	<ul style="list-style-type: none"> • connectivity, linkage areas valley bottom to top • hydrologic processes (filtering, recharge, flooding, storage) • geomorphological function • productivity • carbon storage • resiliency • beaver and wetland creation

Terrestrial		
Protection, enhancement and identification of corridors and linkage areas <ul style="list-style-type: none"> • Lardeau Duncan corridor, cross-valley corridor linking Purcell and Selkirk mountain ranges, Retallack corridor, Central Selkirks Key Biodiversity Area 		
Conservation and restoration of upland habitats that support species at risk and species of conservation concern		
<i>Priority Habitat</i>	<i>Priority Species</i>	<i>Priority Processes</i>
<ul style="list-style-type: none"> • old growth forests • grassland and open forest • ungulate winter range • alpine meadows • alpine and high elevation grasslands • avalanche chutes • rock outcrops and caves • nesting and/or roosting sites • burrows or denning areas • steep-sided slopes • ungulate winter range • hibernacula • wildlife trees and snags • calcareous rocks/soils • mineral licks • climate change refugia • cold water sources • huckleberry patches • ice fields and glaciers • ecosystems at risk • wildlife habitat areas (WHAs) and wildlife habitat features (WHFs) 	<ul style="list-style-type: none"> • mountain caribou • moose • elk • mule deer • mountain goat • bats • grizzly bear • Bobolink • Pileated Woodpecker • Clark's Nutcracker • Common Nighthawk • northern alligator lizard • wolverine • whitebark pine • huckleberry • American marten • moose • porcupine • giant cedars • species at risk • pollinators and other invertebrates • plants – species at risk and culturally important 	<ul style="list-style-type: none"> • wildlife movement and migration • connectivity • climate refugia • food web interactions (predator-prey, seed dispersal, pollination) • natural fire regime • carbon storage • ecological corridors • resiliency
Cultural		
Supporting Indigenous Stewardship through: <ul style="list-style-type: none"> • Indigenous-led conservation • Incorporating Indigenous knowledge, values and approaches 		

North Columbia Emerging Issues

- Climate change
- Invasive species
- Biodiversity loss
- Emergent and persistent diseases/pests
- Wildfire and fire management
- Cumulative effects (dams, forestry, recreation and access management, rural/urban development, shoreline/foreshore development)

Key References (Priorities and Emerging Issues):

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