

Ecosystem Enhancement Program

Upper 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.

Wetland/Riparian								
Conservation, restoration and enhancement of wetlands and riparian areas								
Priority Habitat	Priority Species	Priority Processes						
 valley bottom wetlands high elevation wetlands interconnected floodplain wetlands riparian areas associated with rivers and streams mature riparian cottonwood forests steep-sided clay banks migratory stopover sites rare ecosystems 	 northern leopard frog western painted turtle western toad Columbia spotted frog At risk wetland and migratory birds (Great Blue Heron, Western Screech-Owl, Western grebe, Bobolink, Swallows (all), Long-billed Curlew, Olive-sided Flycatcher, Sandhill crane, American Bittern) American beaver rare plants macroinvertebrates 	 landscape connectivity valley bottom to mountain top ecological corridors hydrologic processes (filtering, recharge, flooding, storage) geomorphic processes (erosion, levees, gravel, sedimentation, woody debris) productivity wildlife movement and migration carbon storage breeding and nesting beaver wetland creation resiliency refugia and recruitment 						
Torroctrial								

Terrestrial

Protection, enhancement and identification of corridors and linkage areas

Priority: Golden - Donald, Columbia River and Wetlands, Blaeberry E-W, Kicking Horse Canyon E-W, West Bench N-S/E-W, Canyon Creek to Glacier E-W, Beaverfoot N-S/E-W, Valemount Valley. Climate change connectivity corridors.

Conservation and restoration of upland habitats that support species at risk and focal species

Priority Habitat	Priority Species	Priority Processes
 open forest ungulate winter range climax grasslands alpine and high elevation grasslands mature aspen old growth forest inland temperate rainforest 	 elk, moose, mule deer bighorn sheep mountain caribou mountain goat bats grizzly bear lynx wolverine 	 landscape connectivity valley bottom to mountain top ecological corridors wildlife movement and migration refugia and recruitment

 rare ecosystems ice fields/glaciers avalanche chutes rock outcrops and caves nesting and/or roosting sites burrows or denning areas hibernacula wildlife trees and snags mineral licks calcareous rock / soils 	 American badger American beaver American marten Lewis's Woodpecker Clark's Nutcracker Peregrine falcon Common Nighthawk Bobolink Short Eard Owl Red tailed chipmunk whitebark pine, limber pine huckleberry native pollinators and other invertebrates rare plants fungi 	 food web interactions (predator-prey, seed dispersal, pollination) natural fire regime climate refugia resiliency
Aquatic	, ,	,
Conservation, restoration, and	enhancement of aquatic habitat	
Priority Habitat	Priority Species	Priority Processes
 rivers and tributary streams that support rearing, spawning, overwintering, foraging mainstem spawning alluvial fans and creek mouths cold water refugia lakes and ponds lake foreshore shallow open water groundwater-surface water interface (warm water spring; cold water source) migratory stopover sites 	 native fish (White sturgeon, Westslope Cutthroat Trout, Bull Trout, Kokanee, Rainbow Trout, Burbot, Sculpin, Dace) waterbirds (Harlequin Duck, Western Grebe, Horned Grebe, Eared Grebe, Pied billed Grebe, American Dipper, Cliff Swallow, Black Swift, Trumpeter Swan) freshwater mussels (Rocky Mountain ridged mussel) invertebrates 	 fish passage fish spawning and rearing fish overwintering Hydrologic functions (filtering, recharge, scouring, flooding, storage) connectivity water quality nutrient cycling and exchange geomorphological function (erosion, sedimentation, large woody debris, gravel recruitment) refugia and recruitment
Cultural		
Protection and enhancement of		,
Priority Habitat	Priority Species	Priority Processes
 cultural use areas riparian areas and wetlands fisheries sensitive watersheds berry habitat old growth grizzly bear habitat and connectivity corridors fire maintained ecosystems ungulate winter range caribou habitat 	 culturally significant and medicinal plants furbearers wide ranging carnivores ungulates species at risk traditional fisheries anadromous salmon 	 Indigenous knowledge and traditional practices Indigenous-led conservation Listening to the land Connectivity Bioculture connections (traditional travel and trade routes Maintenance of subsistence networks (Hunting, trapping and fishing) Cultural heritage resources

•	wildlife habitat areas (WHAs)	•	Wildlife food resource
	and features (WHFs)		conservation
•	biodiversity		

Upper Columbia Emerging Issues

- Climate Change
- Invasive Species
- Wildfire and fire management
- Emergent and persistent pests and diseases
- Imminent species/habitat decline
- Cumulative effects (dams, forestry, agriculture and range management, recreation and access management, rural/urban development, shoreline/foreshore development)

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Wildsight Golden resources: https://wildsight.ca/branches/golden/