

Ecosystem Enhancement Program

Lower 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					
Conservation, restoration, and enhancement of aquatic habitat					
Priority Habitat	Priority Species	Priority Processes			
 rivers and tributary streams spawning, rearing, overwintering valley bottom to upper basin headwaters cold water sources, upwellings from small tributaries ground-surface water interface alluvial fans and creek mouths ponds and lakes Wetland/Riparian	 native fish (Rainbow Trout, Westslope Cutthroat Trout, Bull Trout, White Sturgeon, Columbia Sculpin, Shorthead Sculpin, Kokanee, Umatilla Dace) native freshwater mussels waterbirds (Harlequin Duck, American Dipper, Cliff Swallows, Black Swift, Western Grebe, Horned Grebe) invertebrates 	 fish passage connectivity fish overwintering, spawning and rearing water temperature, water quality (nutrients, turbidity) productivity / nutrient dynamics geomorphic processes (erosion, sedimentation, levees, large woody debris, gravel recruitment) habitat complexity (large woody debris, gravel, rocks, sediment) climate change refugia 			
·	nhancement of wetlands and ripa	arian areas			
Priority Habitat	Priority Species	Priority Processes			
wetlands (vulnerable types at risk due to changes in hydrology) floodplain ecosystems mature riparian cottonwood forests riparian habitats western redcedar- skunk cabbage alluvial fans migratory stopover sites rare plant communities	 western toad western painted turtle at risk migratory birds and waterfowl (Great Blue Heron, Western Screech-Owl, Bobolink, Bank Swallow, Barn Swallow, American Bittern, American Avocet, Olive-sided Flycather) bats Coeur d'Alene Salamander American beaver North American river otter rare plants macroinvertebrates 	 connectivity, linkage areas valley bottom to montane hydrologic function (filtering, recharge, flooding, storage), geomorphological function productivity carbon storage beaver wetland creation breeding and nesting 			

Terrestrial

Protection, enhancement and identification of corridors and linkage areas

 Priority: Apex Creek headwaters – south of Nelson along Hwy 6, Fort Shepard – Hwy 22A across Columbia River, Fruitvale – Park Siding along Hwy 3B

Conservation and restoration of upland habitats that support species at risk and species of conservation concern

Priority Habitat	Priority Species	Priority Processes				
 open forest grassland brushlands and grasslands climax grasslands fescue grasslands old growth forests wildlife trees camas meadows milkweed patches huckleberry patches ungulate winter range rock outcrops and caves nesting and/or roosting sites burrows or denning areas hibernacula wildlife trees and snags mineral licks calcerous rock / soils 	 mountain goat moose grizzly bear bats rubber boa racer western skink wolverine Yellow Breasted Chat Common Nighthawk Lewis's Woodpecker Northern Goshawk Bobolink Short Eared Owl American badger porcupine pollinators and other invertebrates (checkered skipper, dun skipper, immaculate green hairstreak, monarch butterfly, sagebrush tiger beetle, twelve-spotted skimmer dragonfly, vivid dancer damselfly) gastropods (Coeur d'Alene Oregonian snail, magnum mantleslug, pale jumping slug, pygmy slug,) rare and important plants fungi 	 wildlife movement and migration connectivity food web interactions (predator-prey, seed dispersal, pollination) natural fire regime beaver-wetland creation natural vegetation succession climate change refugia biodiversity resiliency 				
Cultural						
Protection and enhancement of		District District				
Priority Habitat cultural use areas	Priority Species	Priority Processes Indigenous knowledge and				
cultural use areas camas meadows	 culturally significant and medicinal plants 	Indigenous knowledge and traditional practices				
 cold water refuge sites for 	furbearers	 Indigenous-led conservation 				
salmonids	wide ranging carnivores	eco-cultural restoration of				
 riparian areas and wetlands 	• ungulates	camas meadows				
fisheries sensitive	 species at risk 	 cultural heritage resources 				
watersheds	 traditional fish food sources 	 maintain fish habitat and 				
berry habitat		connectivity				
old growth		salmon reintroduction				
grizzly bear habitat and seppostivity corridors		wildlife food resource conservation				
connectivity corridorsfire maintained ecosystems		connectivity				
- me mamameu ecosystems		- connectivity				

 species at risk 		• bio	culture connections
 ungulate winter rang 	le	(tra	aditional travel and trade
 caribou habitat 		rou	ites)
 wildlife habitat areas 	(WHAs)		
and habitat features	(WHFs)		
 biodiversity 			

Lower Columbia Subregion Emerging Issues

- Climate Change
- Invasive Species
- Emergent and persistent diseases/pests
- Imminent species/habitat decline
- Wildfire and Fire suppression
- Recreation and access management

Key References (Priorities and Emerging Issues):

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