

Ecosystem Enhancement Program

Southern Rocky Mountain Trench Ecological Priorities

The following ecosystem priorities and project ideas 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 spawning, rearing, overwintering valley bottom to upper basin headwaters • side channel habitat • alluvial fans/creek mouths • cold water refugia • ponds and lakes • lake foreshore and shallow water lake habitat • groundwater-surface water interface • migratory stopover sites 	<ul style="list-style-type: none"> • native fish (Westslope Cutthroat Trout, Rainbow Trout, Burbot, Bull Trout, Kokanee, Mountain Whitefish, Sculpin spp.) • waterbirds (Western Grebe, Eared Grebe, American Dipper, Cliff Swallow, Bank Swallow, Black Swift) • Rocky Mountain tailed frog • native freshwater mussels • invertebrates • species at risk 	<ul style="list-style-type: none"> • fish passage • connectivity • water availability • water temperature, water quality (nutrients, turbidity) • productivity • geomorphic processes (erosion, sedimentation, levees, large woody debris, gravel recruitment) • 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 and small upland wetlands • floodplain ecosystems • mature riparian cottonwood forests • riparian habitats directly adjacent to rivers • willow ecosystems • steep sided clay banks • ecosystems at risk 	<ul style="list-style-type: none"> • western toad • northern leopard frog • western painted turtle • at risk migratory birds and waterfowl (American Avocet, American Bittern, Forster's Tern, Great Blue Heron, Western Screech-Owl, Long-billed Curlew, Olive-sided Flycatcher, Swallows (all)) • bats • Coeur d'Alene salamander • American beaver • plants – species at risk and culturally important • macroinvertebrates • species at risk 	<ul style="list-style-type: none"> • connectivity, linkage areas valley bottom to montane • hydrologic processes and connectivity (filtering, recharge, flooding, storage) • geomorphological function • productivity • beaver wetland creation • breeding and nesting • carbon storage • wildlife movement and migration

Terrestrial		
Protection, enhancement and identification of corridors and linkage areas		
<ul style="list-style-type: none"> • Wycliffe Corridor, area between Koochanusa Reservoir and Cranbrook, Bummers Flats – Maple Cross Benchlands, Wardner - Jaffary • Key Biodiversity Areas: Yahk-Gilnockie, Elmer Creek, Yaqit ?aknuqli'it – Tobacco Plains, Skookumchuck Prairie 		
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"> • grassland open forest • old growth forest • mature aspen • brushlands and grasslands • rock outcrops • climax grasslands • old growth western larch stands • fescue grasslands • nesting and/or roosting sites • burrows or denning areas • steep-sided slopes • ungulate winter range • hibernacula • wildlife trees and snags • mineral licks • calcareous rock/soils • ecosystems at risk • wildlife habitat areas (WHAs) and habitat features (WHFs) 	<ul style="list-style-type: none"> • mountain caribou • grizzly bear • mountain goat • elk, deer, moose • bighorn sheep • wolf • bats • porcupine • American Badger • Lewis' Woodpecker • Common Nighthawk • Bobolink • Barn Swallow • Sandhill Crane • Williamsons Sapsucker • Flammulated Owl • American Kestrel • rubber boa • whitebark pine • limber pine • western larch • ponderosa pine • huckleberry • rare plants including Spalding's campion, pinewood peavine, Montana larkspur • culturally important plants • pollinators and other invertebrates • fungi • gastropods sheathed slug, pygmy slug, banded tigersnail) • species at risk 	<ul style="list-style-type: none"> • wildlife movement and migration • connectivity • climate refugia • food web interactions (predator-prey, seed dispersal, pollination) • natural fire regime • natural vegetation succession • biodiversity • resiliency
Cultural		
Supporting Indigenous Stewardship through:		
<ul style="list-style-type: none"> • Indigenous-led conservation • Incorporating Indigenous knowledge, values and approaches 		

Southern Rocky Mountain Trench Subregion Emerging Issues

- Climate change
- Invasive species
- Imminent species/habitat decline
- Emergent and persistent diseases/pests
- Wildfire and fire management
- Cumulative effects (dams, forestry, agriculture and range management, recreation and access management, rural/urban development)
- Conifer encroachment on native grasslands
- Human wildlife conflicts

Key References (Priorities and Emerging Issues):

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