ORIGINAL PURPOSE To conserve rare plants and cliff-nesting birds associated with limestone cliffs

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Date established: ORC #:	19 March 1981 3101	Location:	W bank of Fraser River, 24 km SSW of Williams Lake			
Map number:	92 O/16	Latitude:	51°56'N			
wap number.	<i>72</i>	Longitude:	122°16'W			
Total Area:	52 ha	Elevation:	365-700 m			
Land:	52 ha	Elevation.	303-700 III			
Land:	32 nu					
Access:	Access via dirt road south from Highway 20. This road forms the western boundary of the reserve.					
Biogeoclimatic Zone:	Bunchgrass (BG)					
Biogeochinatic Zone.	BGxw2 Alkali Very Dry Warm					
Biogeoclimatic Variant:	DOXW2 Alkali V		Fraser River Basin			
8		•				
Biogeoclimatic Variant:		•				

Physical:

The reserve encompasses a prominent north-south trending ridge on the west side of the Fraser River. The river here is relatively straight and incised over 500 m below the general level of the Interior Plateau. From its sharp crest 335 m above river level, the ridge slopes at about a 30° angle to a saddle at the west boundary, and precipitously to the river on the east. On the river side, the upper two-thirds of the ridge has largely bare, almost vertical cliffs. These are composed of limestone, and feature several unique caves and sink holes created by running water.

Biological:

Steep slopes below the bluffs and around the north end of the ridge support fairly continuous Douglas-fir forest. The ridge crest and southern end of the reserve have scattered tree cover.

Two Douglas-fir communities have been noted. On dry southwest to southeast oriented slopes, Douglas-fir trees are well spaced and dominant understory species are Rocky Mountain juniper and bluebunch wheatgrass. In areas with a more continuous tree cover, pinegrass is the most abundant understory plant. A fern community in which Fee's lip fern, Oregon woodsia, Rocky Mountain woodsia, smooth cliff-brake, and fragile fern are constituents occurs among the rocky cliffs. The reserve is noteworthy for its assemblage of limestone-loving or calcicolous plants. Ninety species of vascular plants, 53 lichens and 28 mosses have been recorded here. Rare vascular plants include lotus milk-vetch, Carolina draba, littleseed rice grass, five-leaved cinquefoil, slender lip fern, and trailing fleabane.

Noteworthy avian features include one of Canada's few colonies of White-

throated Swifts and a Golden Eagle nest. Other typical birds here are Say's Phoebe, Nighthawk, Cliff Swallow, Rock Wren, and Townsend's Solitaire. California Bighorn Sheep utilize cliffy areas.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Carolina draba	Red listed		1
sickle-pod rockcress	Red listed		2
Upland Sandpiper	Red listed		1
Drummond's campion	Blue listed		4
five-leaved cinquefoil	Blue listed		3
Flammulated Owl	Blue listed	Special Concern (2010)	2
Gastony's cliff-brake	Blue listed		2
Geyer's onion	Blue listed		3
Long-billed Curlew	Blue listed	Special Concern (2002)	2
Townsend's Big-eared Bat	Blue listed	-	2
Western Small-footed Myotis	Blue listed		3
White-throated Swift			4

THREATS

Climate Change: Interior Douglas-fir and bunchgrass communities are projected to

proliferate and possibly expand in distribution and area due to

warmer and drier climatic conditions.

Recreation: Graffiti, vandalism, trampling of vegetation and general overuse

has resulted from high volume of local recreational traffic.

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE DOC ENGLISH BLUFF ER ACCOUNT

Flora

campion, Drummond's (Silene drummondii var. drummondii)

cinquefoil, five-leaved (Potentilla nivea var. pentaphylla)

cliff-brake, Gastony's (Pellaea gastonyi)

Douglas-fir (Pseudotsuga menziesii)

draba, Carolina (*Draba reptans*)

fern, fragile (Cystopteris fragilis)

fern, mountain cliff (aka Rocky Mountain woodsia) (Woodsia scopulina)

fern, slender lip (Cheilanthes feei)

fern, western cliff (aka Oregon woodsia) (Woodsia oregana ssp. oregana)

fleabane, trailing (Erigeron flagellaris var. flagellaris)

juniper, Rocky Mountain (Juniperus scopulorum)

milk-vetch, lotus (Astragalus lotiflorus)

onion, Geyer's (Allium geyeri var. tenerum)

pinegrass (Calamagrostis rubescens)

ricegrass, small-flowered (Piptatherum micranthus)

rockcress, sickle-pod (Arabis sparsiflora)

wheatgrass, bluebunch (Pseudoroegneria spicata)

Fauna

Bat, Townsend's Big-eared (Corynorhinus townsendii)

Curlew, Long-billed (Numenius americanus)

Eagle, Golden (Aquila chrysaetos)

Myotis, Western Small-footed (Myotis ciliolabrum)

Nighthawk, Common (Chordeiles minor)

Owl, Flammulated (Otus flammeolus)

Phoebe, Say's (Sayornis saya)

Sandpiper, Upland (Bartramia longicauda)

Sheep, Bighorn (Ovis canadensis)

Solitaire, Townsend's (Myadestes townsendi)

Swallow, Cliff (Petrochelidon pyrrhonota)

Swift, White-throated (Aeronautes saxatalis)

Wren, Rock (Salpinctes obsoletus)