

**ORIGINAL PURPOSE** To protect a productive floodplain in the Fort Nelson Lowland supporting mature river bottom cottonwood forests

**OVERVIEW**

<b>Date established:</b>	1 May 1975	<b>Location:</b>	W bank of Fort Nelson River, 20 km NE of Fort Nelson
<b>ORC #:</b>	3062	<b>Latitude:</b>	58°57'N
<b>Map number:</b>	94 J/15	<b>Longitude:</b>	122°30'W

<b>Total Area:</b>	148 ha	<b>Elevation:</b>	290-295 m
<b>Land:</b>	125 ha		
<b>Foreshore:</b>	23 ha		

**Access:** Access by boat along Fort Nelson River, 15 km downstream from Fort Nelson Airport

<b>Biogeoclimatic Zone:</b>	Boreal White and Black Spruce (BWBS)
<b>Biogeoclimatic Variant:</b>	BWBSmw2 Fort Nelson Moist Warm
<b>Ecosection:</b>	Fort Nelson Lowland
<b>Region:</b>	Peace
<b>Management Area:</b>	Liard

**COMPOSITION**

**Physical:** The reserve is situated at the north (downstream) end of an elongated section of floodplain/low terrace land on the west side of the Fort Nelson River. The silt charged river, about 200 m wide and flowing slowly in a single channel, has cut a trench 50 to 100 m below the level of the adjacent plain. The shoreline of the northern half of the reserve is on an inside bend of the river and subject to sediment deposition, especially during the spring flood in June. This process has been going on for many years with the result that much of the reserve displays forest growth in a series of concentric bands which increase in age up-valley and away from the river.

**Biological:** The majority of the reserve contains balsam poplar (cottonwood) forest. The older, slightly higher elevation floodplain land immediately south of the reserve formerly supported white spruce stands of superior growth, but these have now been logged. A few mature white spruce trees occur in the southern extremity of the reserve. Juvenile spruce are becoming established in and will eventually replace the older balsam poplar forest.

The most recent bars along the downstream edge of the reserve have a shrub community dominated by sandbar willow, mountain alder, and scouring-rush. These sites catch considerable silt during the spring flood, and may also be scoured by moving ice during break-up. Inland and upstream from the shrub fringe are juvenile balsam poplar stands, followed by poplar woods of increasing age. The latter have been described as a balsam poplar-white spruce-paper birch-red osier dogwood-common horsetail association.

The fauna has not been surveyed but typical wildlife species in these habitats include moose, beaver and ruffed grouse. Floodplain sites like this have high primary production due in part to the continual destruction of older soil-vegetation complexes and redistribution of their nutrients.

#### MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Bay-breasted Warbler	Red listed		2
Cape May Warbler	Red listed		2
Emerald Shiner	Unknown		Not Assessed
Black-throated Green Warbler	Blue listed		1
Canada Warbler	Blue listed	Threatened (2008)	2
Philadelphia Vireo			2

#### THREATS

##### Climate Change:

The productivity of this floodplain may be heavily impacted by projected warming temperatures and changes in hydrology. The warm temperatures are projected to reduce snow pack and induce spring freshets earlier and faster. Extreme winter-spring flooding may result, followed by summer drought due to the loss of stored water reserves and little precipitation. These conditions could alter the sedimentation rate, water quality and moisture availability during the growing season, directly affecting the associated flora and fauna in this wetland area.

#### RESEARCH OPPORTUNITIES

This is an ideal site to monitor channel meander and to study rates of succession on new alluvial deposits and affect of changing hydrology on sedimentation rate.  
Faunal survey would provide a baseline.

#### SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE FORT NELSON RIVER ER ACCOUNT

##### Flora

alder, mountain (*Alnus incana* ssp. *tenuifolia*)  
 birch, paper (*Betula papyrifera*)  
 dogwood, red-osier (*Cornus stolonifera*)  
 horsetail, common (*Equisetum arvense*)  
 poplar, balsam (*Populus balsamifera* ssp. *balsamifera*)  
 scouring-rush (*Equisetum hyemale* ssp. *affine*)  
 spruce, white (*Picea glauca*)  
 willow, coyote (aka sandbar willow) (*Salix exigua*)

##### Fauna

Beaver, American (*Castor canadensis*)  
 Grouse, Ruffed (*Bonasa umbellus*)  
 Moose (*Alces americanus*)  
 Shiner, Emerald (*Notropis atherinoides*)

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Vireo, Philadelphia (*Vireo philadelphicus*)  
Warbler, Bay-breasted (*Dendroica castanea*)  
Warbler, Black-throated Green (*Dendroica virens*)  
Warbler, Canada (*Wilsonia canadensis*)  
Warbler, Cape May (*Dendroica tigrina*)