**Appendix A: Map Package** 

## Map Package Overview

## Hudson Bay Drainage Basin & North Saskatchewan - Nelson Watershed

This map provides an overarching context of the North Saskatchewan - Nelson Watershed within the Hudson Bay Drainage Basin across Canada.

## Nelson Drainage Area & North Saskatchewan - Nelson Watershed

This map provides an overarching context of the North Saskatchewan - Nelson Watershed within the Nelson Watershed.

# North Saskatchewan - Nelson Watershed & North Saskatchewan Watershed (Alberta)

This map provides an overarching context of the North Saskatchewan Watershed within the Alberta portion of the North Saskatchewan - Nelson Watershed.

# North Saskatchewan River Heritage Designation Area (Alberta) & Reach Overview

This map highlights the 5km Heritage Designation Area within Alberta, including the 8 reaches, and key communities and First Nations Reserves within the area. Reaches were defined with reference to recreational float times (approximately 2-3 days float), as well as biogeographic conditions) and include:

Reach 1 – Banff to Abraham Lake

Reach 2 – Nordegg Bridge to Rocky Mountain

House

Reach 3 – Rocky Mountain House to Drayton Valley

Reach 4 – Drayton Valley to the Highway 770 Bridge

Reach 5 - Highway 770 Bridge to Edmonton

Reach 6 - Edmonton to Pakan

Reach 7 - Pakan to Elk Point

Reach 8 – Elk Point to Alberta Border

# Reach Designation Area & Approximate River Valley Area (by Reach)

These maps highlight the North Saskatchewan riverbed, Approximate River Valley Area, and 5km Heritage Designation Area for each reach. Approximate River Valley Area are defined using a cost distance model based on slope: Spreading away from the river's edge the cost increases with distance multiplied by the percent slope to identify an approximate area where the river valley is most likely to transition to the tablelands.

### Valued Ecological Areas (by Reach)

These maps draw on existing ecological spatial data provided by the Province of Alberta highlighting:

Key Wildlife & Biodiversity Zones
Sensitive Raptor Ranges
Grizzly Bear Habitat Management Areas
Unique Landforms
Waterbodies
Watercourses
Wetlands (Bogs, Fens, Swamps, Marshes, and
Open Water)

### Tourism and Recreation Features (by Reach)

These maps draw on the Province of Alberta's Recreation / Tourism Features Inventory to highlight Staging Areas, Historic Features, Scenic Views, Overland and Water Routes, Provincial Recreation Areas, Provincial Parks, Natural Areas, Stocked Waterbodies, and Motorized and Non-Motorized Recreation Areas.

### **Provincial Historic Resource Value (by Reach)**

These maps draw on the Province of Alberta's Historic Resource Value data to identify Designated Provincial Historic Resources, known areas containing significant historic resources that require avoidance, and lands with a high potential to contain historic resources. These maps also identify historic settlement areas, and former Reserve lands.

## **Reach Mapping**

### Reach 1 - Banff to Abraham Lake

Reach 1 begins in Banff National Park, a national protected area, and intersects Provincial Parks and Recreation areas as well, including Thompson Creek Provincial Rec Area, Kootenay Plains Provincial Rec Area, and Douglas Fir Natural Area. The David Thompson highway affords easy access to staging areas throughout this reach, and additional public recreational infrastructure is being developed today. Abraham Lake is an iconic tourist draw to this area throughout the year, including frozen methane bubbles popular with photographers. Summer use of the lake poses hazards due to high winds, leading to frequent emergency responses. The lake itself has been developed due to the construction of a hydroelectric dam at the eastern edge of the lake, an important economic contributor to the province.

First Nations Lands include the Stoney Nakoda First Nation, northeast of Abraham Lake. There are numerous provincially designated environmentally sensitive areas in Reach 1 including ranges for Grizzly Bears, Caribou, Mountain Goats/ Sheep, and Threatened Plant Species, providing unique habitat for a diverse range of species. The North Saskatchewan River and associated tributaries also provide Critical Habitat for Bull Trout, protected at a federal level under the Fisheries Act. Provincial watercourse classifications include Class A (highest sensitivity) and Class C (moderate sensitivity) fish habitat. Historical resources are found along the full extent this reach with identified values of 4a,c, (previously recorded cultural and archaeological resources) and 5a (high potential for archaeological resources). Cultural occurrences are noted northeast of Abraham Lake.

## Reach 2 – Nordegg Bridge to Rocky Mountain House

Reach 2, beginning near Rocky Mountain house, includes Provincial Recreation Areas such as Aylmer, Saunders, Horburg Provincial Recreation Areas. Popular canoe routes through this reach provide important recreational draws, although significant rapids pose challenges and hazards. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals. This Reach also contains Critical Habitat for Bull Trout, protected at a federal level under the Fisheries Act. Provincial watercourse classifications include Class C (moderate sensitivity) fish habitat. Historical resources are found along the full extent of this reach with identified values of 3a (Historic Archaeological Site), 4a,p (previously recorded archaeological and palaeontological resources) and 5a (high potential for archaeological resources). Historic site is noted southwest of Rocky Mountain House.

## Reach 3 – Rocky Mountain House to Drayton Valley

Reach 3 encompasses the area stretching from Rocky Mountain House to Drayton Valley and includes Provincial Protected Areas such as the Mill Island Natural Area. Lack of easy public access to the river through this reach results in quiet natural river experiences. Beautiful white sand beaches and numerous islands provide idyllic recreational opportunities. Extensive historical exploration, fur trading, logging, and settlement through this area provides interpretive opportunities and tourism potential.

First Nations lands include the O'Chiese First Nation and Sunchild First Nation. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals. This Reach also contains Critical Habitat for Bull Trout, protected at a federal level under the Fisheries Act. Provincial watercourse classifications include Class C (moderate sensitivity) fish habitat. Historical resources are found along the full extent of this reach with identified values of 4a,p (previously recorded archaeological and palaeontological resources).

# Reach 4 – Drayton Valley to the Highway 770 Bridge

This stretch of the river has extensive cultural, natural, and recreational values, including prehistoric settlements, evidence of Indigenous westward migration, and European fur trading, mining, and settlement. In recent decades white sand beaches have been the site of numerous festivals and recreational gatherings. Today, the isolated natural riparian lands provide important tourism potential.

Reach 4 includes Provincial Protected Areas such as St. Francis Natural Area and Genesee Natural Area. Just north of the North Saskatchewan River is the Paul First Nation, adjacent to Wabamun Lake. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals, as well as a sensitive raptor range for Bald Eagles, and a Sharp-tailed grouse survey area. Provincial watercourse classifications include Class

C (moderate sensitivity) fish habitat. The reach does not contain federally designated critical fish habitat. Historical resources are found along the full extent of this reach with identified values of 4a (previously recorded archaeological resources) and 5 a, p (high potential for archaeological and palaeontological resources).

### Reach 5 - Highway 770 Bridge to Edmonton

Reach 5 includes the area surrounding the City of Edmonton in the capital region of the province. This reach sees the greatest total visitation from surrounding communities and tourism operations. First Nations lands include the Enoch Cree Nation. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals, as well as a sensitive raptor range for Bald Eagles, and a Sharp-tailed grouse survey area. Provincial watercourse classifications include Class A (highest sensitivity) and Class C (moderate sensitivity) fish habitat and does not contain federally designated critical fish habitat. Historical resources are found along the full extent of this reach with identified values of 4a (previously recorded archaeological resources) and 5a,p (high potential for archaeological and palaeontological resources). An additional provincial park has been proposed around the Big Island area in the southwest of the city lands, which is undergoing public engagement.

#### Reach 6 - Edmonton to Pakan

Reach 6 includes the areas northeast of Edmonton and Fort Saskatchewan, up to Smoky Creek. Provincial Protected areas include the Redwater Natural Area. These lands have seen extensive historical and present day use as industrial areas, and significant water licenses granted for economic activities. These industries have acted as important drivers for the development of central Alberta over the past century, but have resulted in disturbances that exist to this day.

Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals, as well as a sensitive raptor range for Bald Eagles, and a Sharp-tailed grouse survey area. A Great Blue Heron Colonial Nesting Bird area is identified where Beaverhill Creek enters the North Saskatchewan River. Provincial watercourse classifications include Class C (moderate sensitivity) fish habitat and does not contain federally designated critical fish habitat. Historical resources are found along the full extent of this reach with identified values of 4a (previously recorded archaeological resources) and 5a,p (high potential for archaeological and palaeontological resources).

## Reach 7 - Pakan to Elk Point

Reach 7 is centered around the Saddle Lake First Nation. Several Alberta Conservation Association sites are identified including Spruce Hills, Aspen Hills, North River, Stoney Lake, and Death River. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals. Provincial watercourse classifications include Class C (moderate sensitivity) fish habitat and does not contain federally designated critical fish habitat. Historical resources are found along the full extent of this reach with identified values of

4a (previously recorded archaeological resources) and 5a,p (high potential for archaeological and palaeontological resources).

#### Reach 8 - Elk Point to Alberta Border

Reach 8 ends at the Alberta/Saskatchewan border, First Nations and Métis Lands in this reach are extensive, including Frog Lake First Nation surrounding Frog Lake, Fishing Lake Métis Settlement surrounding Fishing Lake, and the Onion Lake Cree Nation surrounding Onion Lake on the Alberta/ Saskatchewan border. Provincially designated sensitive wildlife areas include a Key Wildlife and Biodiversity zone which provides a wildlife movement corridor for large mammals. Provincial watercourse classifications include Class C (moderate sensitivity) fish habitat but does not contain federally designated critical fish habitat. Historical resources are found along the full extent of this reach with identified values of 4a (previously recorded archaeological resources) and 5a,p (high potential for archaeological and palaeontological resources).







































































