IMPORTANT WILDLIFE AREAS IN THE WESTERN NORTHWEST TERRITORIES

Joanna M. Wilson
and Claudia A. Haas

Environment and Natural Resources
Government of the Northwest Territories

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ABSTRACT

With increasing development pressures and the signing of land claims that required the development of land use and protected areas planning in the Mackenzie Valley, there is a renewed interest in updating information on areas important to wildlife in the western Northwest Territories (NWT). The purpose of this report and maps is to provide information on Important Wildlife Areas in the NWT to help make sound management decisions.

This report presents known Important Wildlife Areas, to the best knowledge of the people involved, based on discussions during 2006 to 2009 with communities, co-management boards, departmental staff and others as well as review of available reports. This report includes Important Wildlife Areas for the following regions of the NWT:

- Inuvialuit Settlement Region
- Gwich'in Settlement Area
- Sahtu Settlement Area, and
- The area covered by the draft Dehcho Land Use Plan (Dehcho Land Use Planning Committee 2006) (referred to as the 'Dehcho Territory')

The intent is to expand the report to include the eastern NWT and to publish a revised version every 10 years.

Wildlife species for which the Government of the Northwest Territories (GNWT) has management responsibility were considered for Important Wildlife Areas. A species also had to meet at least one of the following conditions to be considered:

- high socio-economic importance as identified through discussions with harvesters and biologists; or
- identified as a species at risk in 2006, either
  - by being nationally assessed as ‘endangered’ or ‘threatened’ by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (Committee on the Status of Endangered Wildlife in Canada 2006), or
  - by being nationally assessed as ‘special concern’ by COSEWIC *and* territorially assigned a status rank of ‘sensitive’ or higher in the NWT (Working Group on General Status of NWT Species 2006).

Important Wildlife Areas were defined as key wildlife habitat areas that meet at least one of the following six criteria:

1. Are there areas that many animals use traditionally, around the same time each year (e.g. barren-ground caribou calving grounds)?
2. Are there places where animals consistently occur in relatively large numbers (e.g. areas with a consistently high density of peregrine falcon nests)?
3. What areas do animals repeatedly use under adverse conditions as refugia (e.g. a place where muskoxen are able to persist during extreme climatic conditions)?
4. Are there areas where there are source populations (places where animals come from)?
5. Does a species have very low numbers in NWT, or very limited suitable habitat, such that year-round range may be identified as important (e.g. western toad)?

6. What unique areas are used by many different species (e.g. mineral licks, hot springs and some wetlands)?

Important Wildlife Areas were mapped for barren-ground caribou, mountain woodland caribou, Peary caribou, Dolphin-Union caribou, Dall's sheep, moose, mountain goat, muskox, wood bison, beaver, grizzly bear, polar bear, lynx, marten, muskrat, and western toad. Unique areas that were considered to be important for multiple wildlife species were mapped, including warm and hot springs and mineral licks. Important Wildlife Areas for peregrine falcons were also mapped but the data are considered sensitive and are only available upon request.

DISCLAIMER

The information in this report and its maps was gathered from many sources in an attempt to compile the best available information on Important Wildlife Areas. The authors do not claim that all Important Wildlife Areas in this report are equally important. Information is provided so that users may evaluate which areas are of most interest to them.

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INTRODUCTION

Purpose of this report

In 1987 the Government of the Northwest Territories (GNWT) published 'Wildlife Areas of Special Interest to the Department of Renewable Resources' (Ferguson 1987). Over twenty years have passed since. The 1987 report highlights many arctic areas, including several in what is now Nunavut, but few in the western Northwest Territories (NWT). With increasing development pressures and the signing of land claims that required the development of land use and protected areas planning in the Mackenzie Valley, there is a renewed interest in updating information on areas important to wildlife in the western NWT.

The purpose of this report and maps is to provide information on Important Wildlife Areas in the NWT to help make sound management decisions. The information contained in this report and the accompanying maps will be useful in the development and review of land use plans, community conservation plans, protected area proposals, environmental impact assessments, wildlife management plans, and regulatory decisions.

The report, its accompanying maps, and the digital shapefiles are publicly available through the GNWT website at www.enr.gov.nt.ca. Important Wildlife Areas for peregrine falcons are not available online because of concerns about possible poaching. They can be accessed under a data sharing agreement (see Appendix D). Mineral lick locations and hot and warm spring locations are also considered sensitive, therefore the maps of mineral licks and springs have been

generalized. More detailed information on mineral licks and springs can be accessed under a data sharing agreement. The request can be made to:

Director, Wildlife Division
Department of Environment and Natural Resources
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, NT X1A 2L9
Fax: (867) 873-0293

Future improvements to this report

This report presents known Important Wildlife Areas, to the best knowledge of the people involved, based on discussions during 2006 to 2009 with communities, co-management boards, departmental staff and others as well as review of available reports (see the section titled ‘Process of area identification’ pg. 10 for details). The intent is to expand the report to include the eastern NWT and to publish a revised version every 10 years.

The state of knowledge about areas important to wildlife, and the areas themselves, will change over time. As well, some relevant information was likely missed in the preparation of this report. Our hope is that the publication of this report will prompt NWT residents to provide additional information that can be used to improve its accuracy and usefulness in the future. Information or feedback on the report and maps may be provided at any time to the Director, Wildlife Division, at the address noted above.

METHODOLOGY

Study area

This report includes Important Wildlife Areas for the following regions of the NWT:

- Inuvialuit Settlement Region
- Gwich'in Settlement Area
- Sahtu Settlement Area, and
- The area covered by the draft Dehcho Land Use Plan (Dehcho Land Use Planning Committee 2006) (referred to as the 'Dehcho Territory').

Important Wildlife Areas have not yet been mapped for the eastern portion of the NWT, including the Wek'èezhìi Area and the Akaitcho Territory.

Defining 'Important Wildlife Areas'

Important areas are defined differently here than in other reports (e.g. Ferguson 1987). For this report, Important Wildlife Areas are **key wildlife habitat areas** that meet at least one of the following six **criteria**:

1. Are there areas that many animals use traditionally, around the same time each year (e.g. barren-ground caribou calving grounds)?
2. Are there places where animals consistently occur in relatively large numbers (e.g. areas with a consistently high density of peregrine falcon nests)?

3. What areas do animals repeatedly use under adverse conditions as refugia (e.g. a place where muskoxen are able to persist during extreme climatic conditions)?
4. Are there areas where there are source populations (places where animals come from)?
5. Does a species have very low numbers in NWT, or very limited suitable habitat, such that year-round range may be identified as important (e.g. western toad)?
6. What unique areas are used by many different species (e.g. mineral licks, hot springs and some wetlands)?

The applicable criteria are identified as part of the written description for each Important Wildlife Area. To date, no areas have been identified under criterion #4.

To identify key habitat sites, participants were asked to focus on specific areas according to the above criteria. Sites important to individual animals or small numbers of animals, such as individual nest sites or den sites, were not considered to be Important Wildlife Areas.

Important Wildlife Areas would not necessarily qualify as ‘critical habitat’ as defined under the federal *Species At Risk Act* (SARA). SARA defines ‘critical habitat’ as “the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species’ critical habitat in the recovery strategy or in an action plan for the species” (*Species at Risk Act* 2002). To

identify and map critical habitat according to this definition is beyond the scope of this project.

The areas that animals use can change from year to year. Participants were asked to map areas that are believed to be important for wildlife over a long period, not just for one year or a few years. For example, moose in the NWT prefer early successional habitats and relatively high moose densities are generally associated with burned areas and river drainages (Maclean 1994). Suitable food species such as willow can be found in burned areas, but over time as succession proceeds they are replaced by other, less suitable species. In contrast, willow communities in some riparian areas are maintained at an early successional stage by periodic flooding, ice scouring and sedimentation (Treseder and Graf 1985). For Important Wildlife Areas, participants were asked to identify areas where moose densities are high consistently, and not temporarily as a result of burns. Therefore, many river drainages were identified, as well as wetlands which provide aquatic vegetation and are important in summer (Treseder and Graf 1985).

Contributors were asked to identify areas from the perspective of wildlife habitat, not harvesting. Many NWT residents harvest wildlife for subsistence or recreation and some important harvesting areas are well known. Important Wildlife Areas will overlap considerably with areas that are important for harvesting wildlife.

Many Important Wildlife Areas contain values that communities may see as worth protecting. There is no intent by GNWT Environment and Natural

Resources (ENR) to develop protective measures for these Important Wildlife Areas. However, GNWT-ENR will work with communities through existing processes, such as the Protected Areas Strategy or Land Use Planning, if special conservation measures are recommended.

Species considered

Wildlife species for which the GNWT has management responsibility were considered for Important Wildlife Areas. This includes species covered by the NWT *Wildlife Act* (*Wildlife Act*, R.S.N.W.T. 1988). Important Wildlife Areas were not mapped for fish, marine mammals and migratory birds (geese, ducks, swans, etc.) as these are covered by the *Fisheries Act* and the *Migratory Birds Convention Act* and are managed by the federal government (*Fisheries Act,* R.S.C. 1985; *Migratory Birds Convention Act* 1994). A report on important migratory bird habitat sites is available from Environment Canada (Latour *et al.* 2008). Peregrine falcon, short-eared owl and rusty blackbird were considered for this report because they are not listed under Article 1 of the *Migratory Birds Convention Act* (1994).

A species also had to meet at least one of the following conditions to be considered:

- high socio-economic importance (identified through discussions with harvesters and biologists); or
- identified as a species at risk in 2006, either

- by being nationally assessed as ‘endangered’ or ‘threatened’ by COSEWIC (Committee on the Status of Endangered Wildlife in Canada 2006), or
- by being nationally assessed as ‘special concern’ by COSEWIC *and* territorially assigned a status rank of ‘sensitive’ or higher in the NWT (Working Group on General Status of NWT Species 2006).

Species considered for Important Wildlife Areas are listed in Table 1.

Throughout the process of Important Wildlife Area identification, it was recognized that it may not be possible to identify Important Wildlife Areas for all the species of interest. This could be because of insufficient information or because certain species do not use habitat in a way that lends itself to the identification of key areas.

Although short-eared owl and rusty blackbird were considered for mapping, no known key habitat areas were identified for these species. Some potential areas were identified for boreal woodland caribou and wolverine, but information from different sources was contradictory and it was unclear whether the areas truly fit the criteria for Important Wildlife Areas. Therefore, no areas for short-eared owl, rusty blackbird, boreal woodland caribou or wolverine are included in this report.

Rusty blackbird is found in the boreal forest of the NWT (Government of the Northwest Territories 2009d) while short-eared owl is found in most of the NWT except for the High Arctic Islands (Government of the Northwest Territories

2009b). Boreal woodland caribou are found in the boreal forest from nearly the northern mainland limit to the southern limit of the NWT, including the Mackenzie River, most of Great Bear Lake and the western portion of Great Slave Lake, but not the Mackenzie Mountains (Government of the Northwest Territories 2009a). Wolverines are found throughout the NWT (Government of the Northwest Territories 2009c). Maps showing the distribution of these species in the NWT may be found on the NWT Spatial Data Warehouse (http://maps.gnwtgeomatics.nt.ca/portal/index.jsp).

Some unique areas important to multiple species were also recognized to meet the requirements of Important Wildlife Areas under criterion #6. For these unique areas, the species of interest were expanded beyond those covered by the NWT *Wildlife Act*. Plants and invertebrates, as well as migratory birds, were also considered to contribute to the biodiversity and importance of the areas.

Table 1. Species considered for Important Wildlife Areas

	High Socio-Economic Importance	*Endangered* or *Threatened* (COSEWIC 2006)	*Special Concern* (COSEWIC 2006) and NWT status rank of *Sensitive* or higher (2006)
Barren-ground caribou	√		
Boreal woodland caribou*	√	√	
Mountain woodland caribou	√		
Peary caribou	√	√	
Dolphin-Union caribou	√		√
Dall's sheep	√		
Moose	√		
Mountain goat	√		
Muskox	√		
Wood bison	√	√	
Grizzly bear			√
Polar bear	√		√
Beaver	√		
Lynx	√		
Marten	√		
Muskrat	√**		
Wolverine*			√
Western toad			√
Peregrine falcon***		√	
Rusty blackbird*			√
Short-eared owl*			√

* Boreal woodland caribou, wolverine, rusty blackbird and short-eared owl were considered but no Important Wildlife Areas could be mapped for these species.

** Muskrat was deemed to be of high socio-economic importance only in the Gwich'in Settlement Area and Inuvialuit Settlement Region.

*** Important Wildlife Areas for Peregrine falcons were mapped but are only available under a data sharing agreement due to the sensitivity of the information.

Process of area identification

A great deal of work on identifying important wildlife habitat in the NWT has been done previously. This process began by reviewing existing information sources such as:

- Community conservation plans for the Inuvialuit Settlement Region (e.g. Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000);
- Regional land use plans, both approved and draft (Dehcho Land Use Planning Committee 2006; Gwich'in Land Use Planning Board 2003; Sahtu Land Use Planning Board 2007; Sahtu Land Use Planning Board 2009);
- Wildlife habitat maps from the Dehcho Wildlife Working Group, which combined information from biologists and community harvesters in the Dehcho Territory (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003);
- Existing reports and maps of special areas and habitats in the NWT (e.g. Beckel 1975; Department of Environment 1974; Ferguson 1987; Mackenzie River Basin Committee 1981; Nettleship and Smith 1975; Sahtu Heritage Places and Sites Joint Working Group 1999).

Potential areas from these sources deemed to be relevant under the criteria were reviewed with harvesters, biologists and other knowledgeable people (hereafter referred to as ‘experts’). Potential areas were included,

excluded or modified as Important Wildlife Areas on the advice of these experts. For example, some areas from the report ‘Wildlife Areas of Special Interest to the Department of Renewable Resources’ (Ferguson 1987) were excluded because they were believed to be no longer important to the species. Some were excluded because they did not fit any of the six criteria for Important Wildlife Areas. Others were kept or modified based on new information. As well, many new Important Wildlife Areas were added.

Because past reports often did not include the necessary information to evaluate areas against the six criteria, expert advice was required in order to include an area as an Important Wildlife Area. While past reports were very valuable in suggesting potential Important Wildlife Areas and providing information to assess them, no area was deemed an Important Wildlife Area solely on the basis of being included in a past report. Appendix B lists the expert(s) that initially recommended inclusion for each Important Wildlife Area.

Draft maps of Important Wildlife Areas were reviewed in meetings including the following:

- Discussions with wildlife management staff of Environment and Natural Resources;
- Dehcho Regional Wildlife Workshop, October 17-18, 2006;
- Meeting with the Sahtu Renewable Resources Board, February 14-15, 2007;
- Meeting with staff of Inuvialuit Game Council, Joint Secretariat and ENR, January 14, 2008;

- Meeting of Gwich'in Renewable Resource Councils, February 21, 2008;
- Meeting with Gwich'in Renewable Resources Board staff, February 22, 2008;
- Meeting of Inuvialuit community representatives to revise Inuvialuit Community Conservation Plans, April 8-9, 2008;
- Sahtu Renewable Resources Board Meeting, October 8, 2008;
- Dehcho Regional Wildlife Workshop, October 21-22, 2008;
- Meeting with harvesters of K'átł'odeeche First Nations, December 2, 2008;
- Meeting with Gwich'in Renewable Resource Councils in Aklavik, Tsiigehtchic and Fort McPherson, December 8-10, 2008; and
- Other discussions with knowledgeable people as opportunities arose.

Important Wildlife Areas are listed in Table 2. Overview maps of their locations are shown in Figure 1 and Figure 2. Detailed maps of individual Important Wildlife Areas are found in Appendix C.

Table 2. Important Wildlife Areas in the western NWT

ID	Important Wildlife Area Name	Page #
UNGULATES		
Barren-ground caribou		**21**
1	Core Calving and Post-calving Areas 1996 - 2006	22
2	Porcupine Caribou Migration Area	23
3	Horton Lake	24
4	Edaʔʔla (Caribou Point)	25
Mountain woodland caribou		**27**
5	Headwaters of Arctic Red River and Ramparts Rivers	28
6	South Nahanni Summer and Rut Range	30
7	South Nahanni Winter Range	31
8	Coal River - LaBiche Winter Range	32
9	Caribou Pass	33
10	Drum Lake (Wrigley Lake)	34
11	Redstone Calving and Early-midsummer Range	36
Peary caribou		**40**
12	Banks Island Calving Areas	41
13	Prince Albert Peninsula Calving Area	41
Dolphin-Union caribou		Error! Bookmark not defined.
14	Nigiyok Naghak Calving Area	43
15	Kugaluk River Calving Area	44
Dall's sheep		**45**
16	Black Mountain and Northern Richardson Mountains	46
17	Northern Mackenzie Mountains	48
18	Palmer Lake	49
19	Dehcho Sheep Concentration Areas	49
20	Tlogotsho Plateau Lambing Area	51
21	Dehcho Sheep Critical Areas	52
22	Dodo Canyon	53
23	Between Carcajou Falls and Pyramid Mountain	53
Moose		**55**
24	Mackenzie Delta and Inuvik to Tsiigehtchic	56
25	Richardson Mountains	58
26	Arctic Red River	60
27	Tsiigehtchic / Travaillant Lake Area	61
28	Between Peel and Arctic Red Rivers	62
29	Sahtu Rivers	63
30	Ramparts River Wetlands	64
31	Wetlands Southwest of Lac à Jacques	65

ID	Important Wildlife Area Name	Page #
32	Florence Lake	66
33	Three Day Lake	66
34	Mirror Lake	67
35	Wetlands southwest of Lac Ste Thérèse	68
36	O'Grady Lake	69
37	Dehcho Winter Use Areas	69
38	Dehcho Summer Use Areas	71
39	Buffalo Lake and River	72
40	Hay River	73
41	Tathlina Lake Moose Area	74
42	Norman Wells to Fort Good Hope Winter Road	75
Mountain goat		**76**
43	Dehcho Goat Concentration Areas	77
44	Flat River Goat Concentration Area	78
Muskox		**80**
45	Ibbett Bay to McCormick Inlet	81
46	Bailey Point	81
47	Southwest Banks Island	83
48	Aulavik National Park	84
49	Parker River	85
50	Sahtu Muskox Areas	86
51	Hare Indian River	87
Wood bison		**88**
52	Falaise Lake	89
53	Mink Lake	91
54	Mills Lake	92
55	Nahanni Wood Bison Herd Range	94
FURBEARERS		
Grizzly bear		**97**
56	Critical Grizzly Bear Denning Areas	97
57	Big Fish Watershed and Richardson Mountains	100
58	Mackenzie Mountains Barrens	102
59	Grizzly Bear Area West of Wrigley	103
60	Greater Nahanni Grizzly Bear Areas	104
Polar bear		**106**
61	Mainland Coastal Polar Bear Denning Areas	106
62	Northern Banksland Critical Polar Bear Denning Area	108
63	Offshore Banks Island	109
64	Glenelg Bay and Richard Collinson Inlet	111
65	Prince Albert Sound and Minto Inlet	112
Beaver		**115**
66	Inner Mackenzie Delta	116
67	Gwich'in Beaver Concentration Areas	117

ID	Important Wildlife Area Name	Page #
68	Ramparts River Wetlands	119
69	Loon Lake Wetlands	119
70	Wetlands North of Lac à Jacques	120
71	Willow Lake Wetlands	121
72	Johnny Hoe River and Lac Ste Thérèse	122
73	Dehcho Beaver Concentration Areas	122
74	Buffalo Lake, Copp Lake and Buffalo River	124
75	Hay River and Wetlands to the West	125
76	Northern Slopes of the Horn Plateau	126
Lynx		**128**
77	Dehcho Lynx Concentration Areas	129
78	Lynx Area South of Great Slave Lake	129
79	Tathlina Lake Lynx Area	130
80	Lynx Area North of Mackenzie River	131
Marten		**133**
81	Northern Sahtu Marten Area	134
82	Caribou Point Marten Area	135
83	Whitefish River Marten Area	135
84	Wetlands Southwest of Lac Ste Thérèse	136
85	Marten Area South of Great Slave Lake	136
Muskrat		**138**
86	Inner Mackenzie Delta	139
87	Muskrat Concentration Areas A	140
88	Muskrat Concentration Areas B	141
AMPHIBIANS		
Western toad		**143**
89	Distribution of Western Toad	144
UNIQUE AREAS		
90	Hot and Warm Springs	147
91	Density of Known Mineral Licks	150
92	Ibbett Bay to McCormick Inlet	153
93	Omingmakyok, Ungirut Bay and Okpilik Lake Areas	153
94	Cape Bathurst Polynya	155
95	Cape Bathurst and Smoking Hills	157
96	Anderson River Delta	158
97	Mackenzie Delta	160
98	Caribou Hills	163
99	Campbell Lake	164
100	Southern Gwich'in Settlement Area	166
101	Cardinal Lakes and Travaillant Lake Area	167
102	Ramparts River Wetlands	168
103	Plains of Abraham	170
104	Willow Lake Wetlands	171

ID	Important Wildlife Area Name	Page #
105	Edaʃʃla (Caribou Point)	172
106	Moose Ponds	173
107	Mills Lake Area	174
108	Buffalo Lake Area	176
109	Alluvial Zone South of Tathlina Lake	178
110	Tui Ta Tui Lake	180
111	Johnny Hoe River	180
112	LaBiche Valley and Kotaneelee Range and River	182
BIRDS		
Peregrine falcon*		**337***
113 to 127	CONFIDENTIAL – see Appendix D	

* Peregrine Falcon Important Wildlife Areas are available from the Director of Wildlife, Environment and Natural Resources, Government of the Northwest Territories upon the signing of a Data Release Agreement.

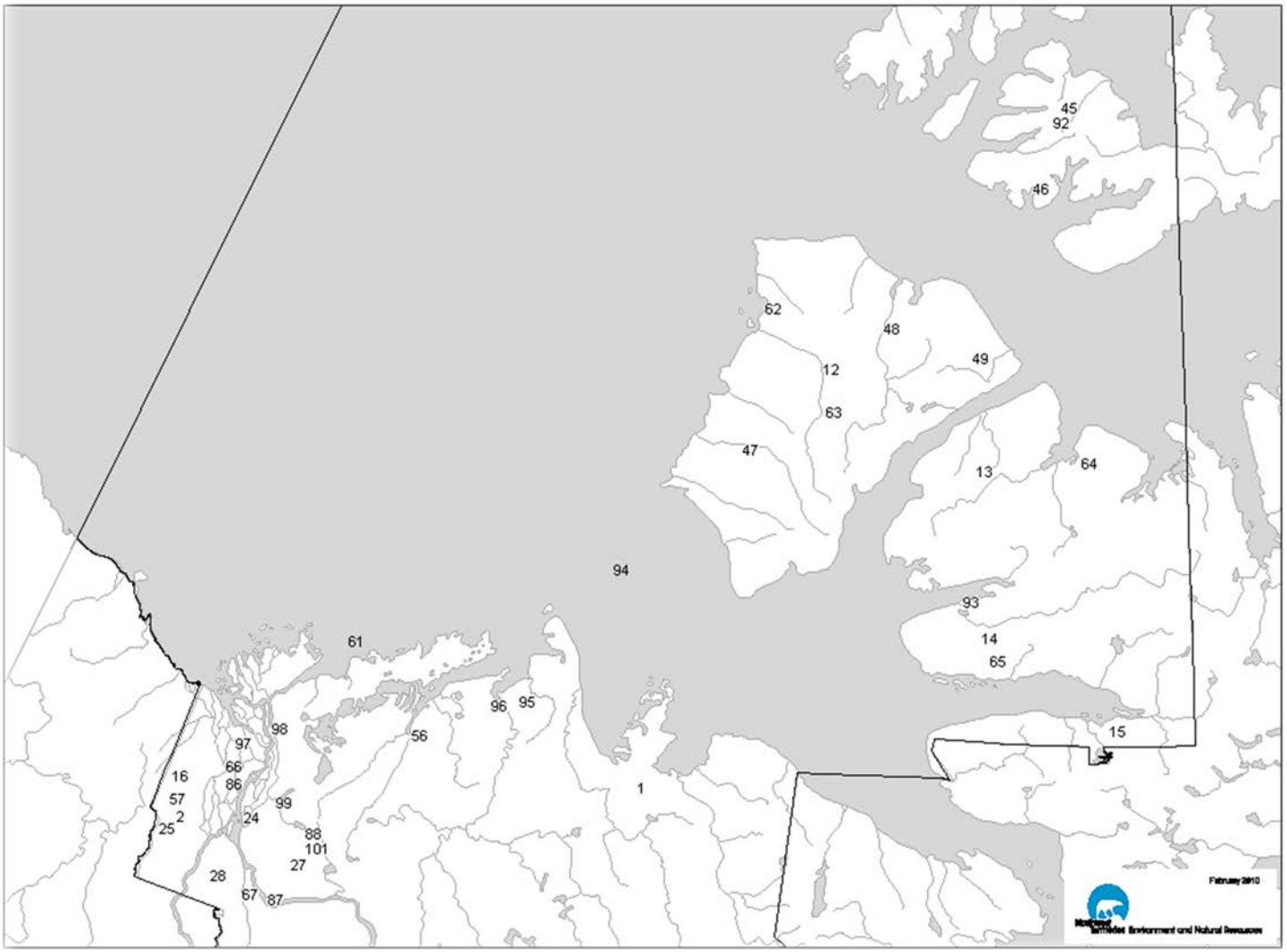

Figure 1. Northern key of Important Wildlife Areas in the western Northwest Territories.

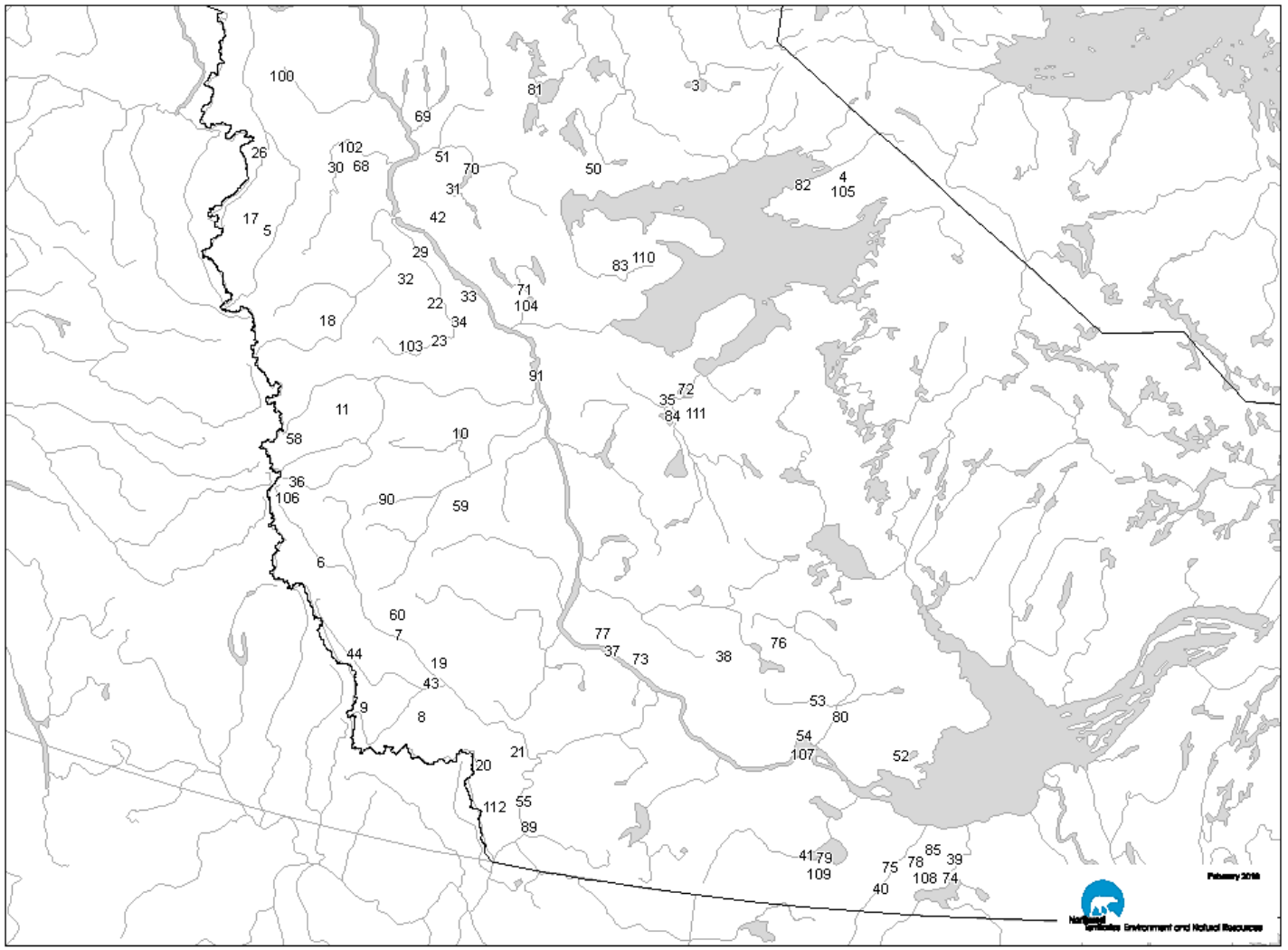

Figure 2. Southern key of Important Wildlife Areas in the western Northwest Territories.

Considerations for using this Information

The text for each Important Wildlife Area describes how and why each area was identified and summarizes other relevant information that is available for the area. This information is provided so that readers can make an informed decision about which Important Wildlife Areas are of most interest to them.

In order to use the information in this report appropriately, readers should consider the following:

- Although these Important Wildlife Areas are key habitat sites, all of the NWT provides habitat for wildlife. It is important that impact assessments consider ways to reduce environmental impacts for all habitat, not just for these Important Wildlife Areas.
- The type and amount of information available to identify and support each Important Wildlife Area varies. Some Important Wildlife Areas are based on traditional knowledge, while others are supported by scientific research such as wildlife surveys. Some are well known by multiple parties, while others are initially based on the knowledge of one person. Inclusion of an area as an Important Wildlife Area does not necessarily imply that all sources were in agreement on this area.
- Criteria were established to help guide the process of Important Wildlife Area identification and to increase consistency across the study area. The criteria are qualitative, not quantitative, and therefore decisions about which areas to include were somewhat subjective. Different Important Wildlife Areas are not necessarily equally important. The Important Wildlife

Area maps look different in each region because of differences in the people involved and the information available. Over time, as additional information becomes available, it will be used to increase the accuracy and consistency of these maps.

- Mapping that uses expert knowledge must rely on the spatial scale at which that knowledge exists. Each participant holds knowledge at a different spatial scale – some for the entire NWT, some for a region, and some for a more local area. Most Important Wildlife Areas were identified based on their significance at a regional scale. For example, moose concentration areas were identified in the Gwich'in Settlement Area (GSA) even though overall moose density is relatively low in the GSA compared to other similar areas in the north (Gwich'in Renewable Resources Board 2000). However, for some Important Wildlife Areas the significance may be at a local or territorial scale.
- The areas identified are biased towards the parts of the NWT that people know well. In general, this includes the Mackenzie Valley, areas close to communities and other areas that are used for subsistence harvesting. The Mackenzie Mountains and other areas more remote from communities are generally less well known. Certain species are well known, particularly important harvested species (e.g. moose and caribou). Other species are less well known in the NWT (e.g. toads). It is expected that the state of knowledge will continue to improve and that some of these information gaps will be filled in future versions of this report.

IMPORTANT WILDLIFE AREAS FOR UNGULATES

Barren-ground Caribou

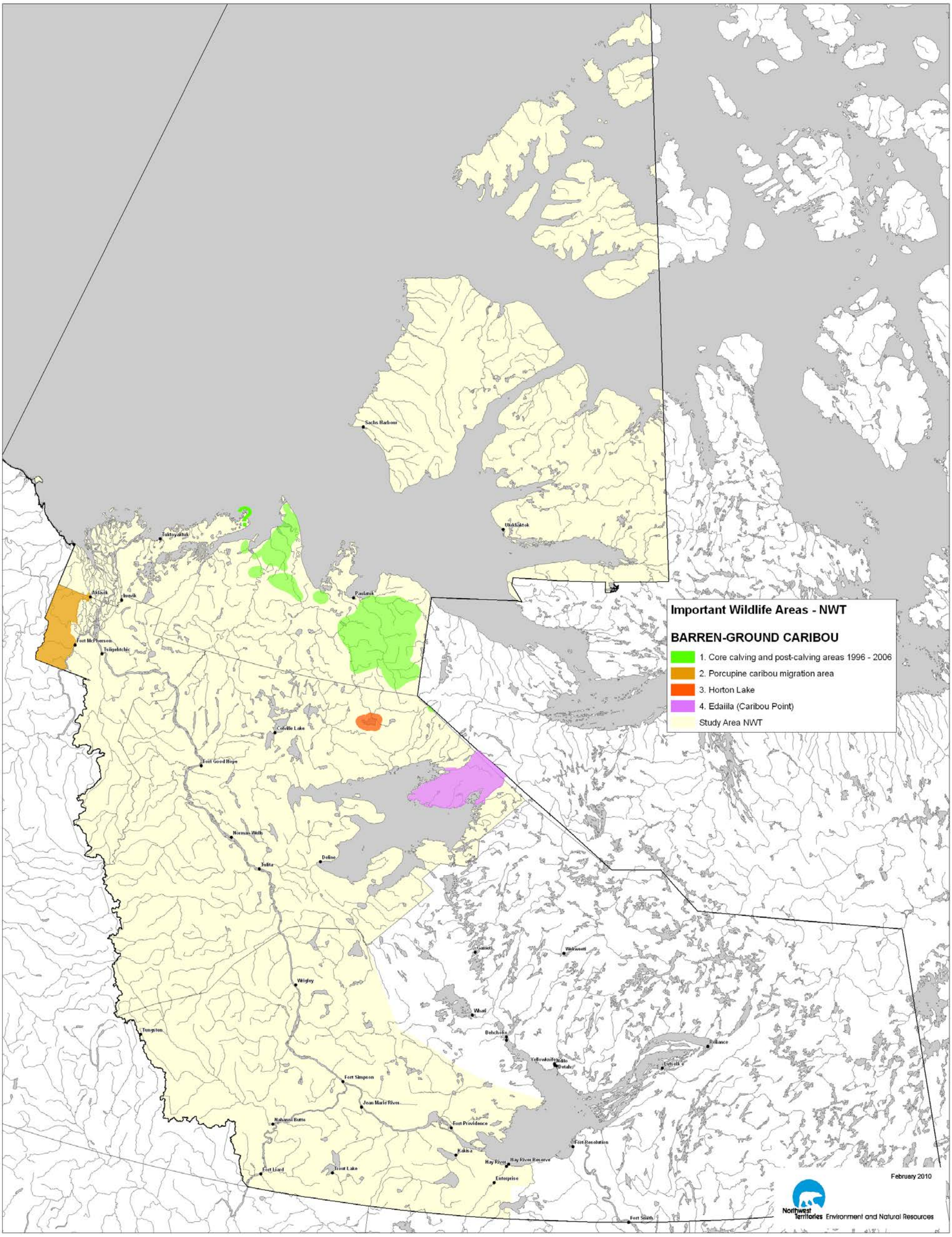

Figure 3. Important Wildlife Areas for barren-ground caribou in the Northwest Territories.

ID: 1

Name: Core Calving and Post-calving Areas 1996 - 2006

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 4,209 km^2

Substantiation:

- These areas represent the core calving and post-calving areas for the Cape Bathurst and Bluenose-West barren-ground caribou herds, based on 11 years of tracking satellite-collared female caribou from 1996 to 2006 (Environment and Natural Resources 2008a unpublished data).
- Core calving and post-calving areas for Bluenose-East, Bathurst, Ahiak and Beverly herds are not included in this report as they are located in Nunavut. Some caribou calved on the Tuktoyaktuk Peninsula in 2006 and 2007 but there is not enough information on the long-term use of this area to delineate a calving and post-calving area there (Environment and Natural Resources 2008a unpublished data). It is also possible that these animals were feral reindeer (Gunn 2009, pers.comm.).
- There is a great deal of overlap between these areas and those identified by Inuvialuit communities as core calving and post-calving grounds (Community of Paulatuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

- The post-calving and calving period was defined as June 1 to June 25; caribou cows and their calves are concentrated during this period (Banfield 1977; Nagy *et al.* 2005).
- Barren-ground caribou cows return to a traditional calving ground every year and these traditions have held for hundreds of years. Although calving areas can shift over longer periods of time, they generally have a large degree of overlap from year to year (Gunn and Fournier 2000).

Boundary Delineation: The boundaries are based on a 95% utilization distribution for collared caribou (95% of the caribou locations were within these areas) from 1996 - 2006 (Environment and Natural Resources 2008a unpublished data; Nagy *et al.* 2005).

ID: 2

Name: Porcupine Caribou Migration Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 6,987 km^2

Substantiation:

- This area encompasses important migration corridors in the Richardson Mountains used by the Porcupine barren-ground caribou herd in fall, winter and spring (Gwich'in Land Use Planning Board 2003; International Porcupine Caribou Board 1993; Meeting with Ehdiitat Gwich'in Renewable

Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

- This area includes James Creek, the most important area in the Gwich'in Settlement Area for Porcupine caribou hunting (Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resources Board staff to include zones from the Gwich'in Land Use Plan (Conservation Zones A and B, Special Management Zones 1 and 2, and the portion of Special Management Zone 16 west of Fort McPherson) (Gwich'in Land Use Planning Board 2003), as well as additional land in the Gwich'in Settlement Area west of Husky Channel. It was subsequently expanded to include additional land to the west of Aklavik (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 3

Name: Horton Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 1,172 km^2

Substantiation:

- The area around Horton Lake consistently has a high concentration of barren-ground caribou in the fall. It appears that, during the fall migration,

bull caribou hang back at the treeline in this area (Popko and Veitch 2006 pers. comm.).

- This is an important caribou hunting area for the people of Colville Lake and Fort Good Hope (Sahtu Land Use Planning Board 2009).

Boundary Delineation: The boundary is for the draft Horton Lake Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 4

Name: Edaʔíla (Caribou Point)[1]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 8,805 km^2

Substantiation:

- The people of Déline say that people have traveled to Caribou Point for centuries for caribou hunting, and recommend that it should be designated as a critical wildlife area to protect caribou (Sahtu Heritage Places and Sites Joint Working Group 1999).
- Tracking of collared caribou by ENR has confirmed that caribou of the Bluenose-East herd concentrate in this area in the late summer and fall, and that there is a major convergence of migration trails at Caribou Point

[1] This area is also a unique landscape important to multiple species (see ID: 92).

in spring (Environment and Natural Resources 2007; Nagy *et al.* 2005 unpublished data; Popko and Veitch 2006 pers. comm.).

Boundary Delineation: The boundary is for the draft Caribou Point Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

Mountain Woodland Caribou

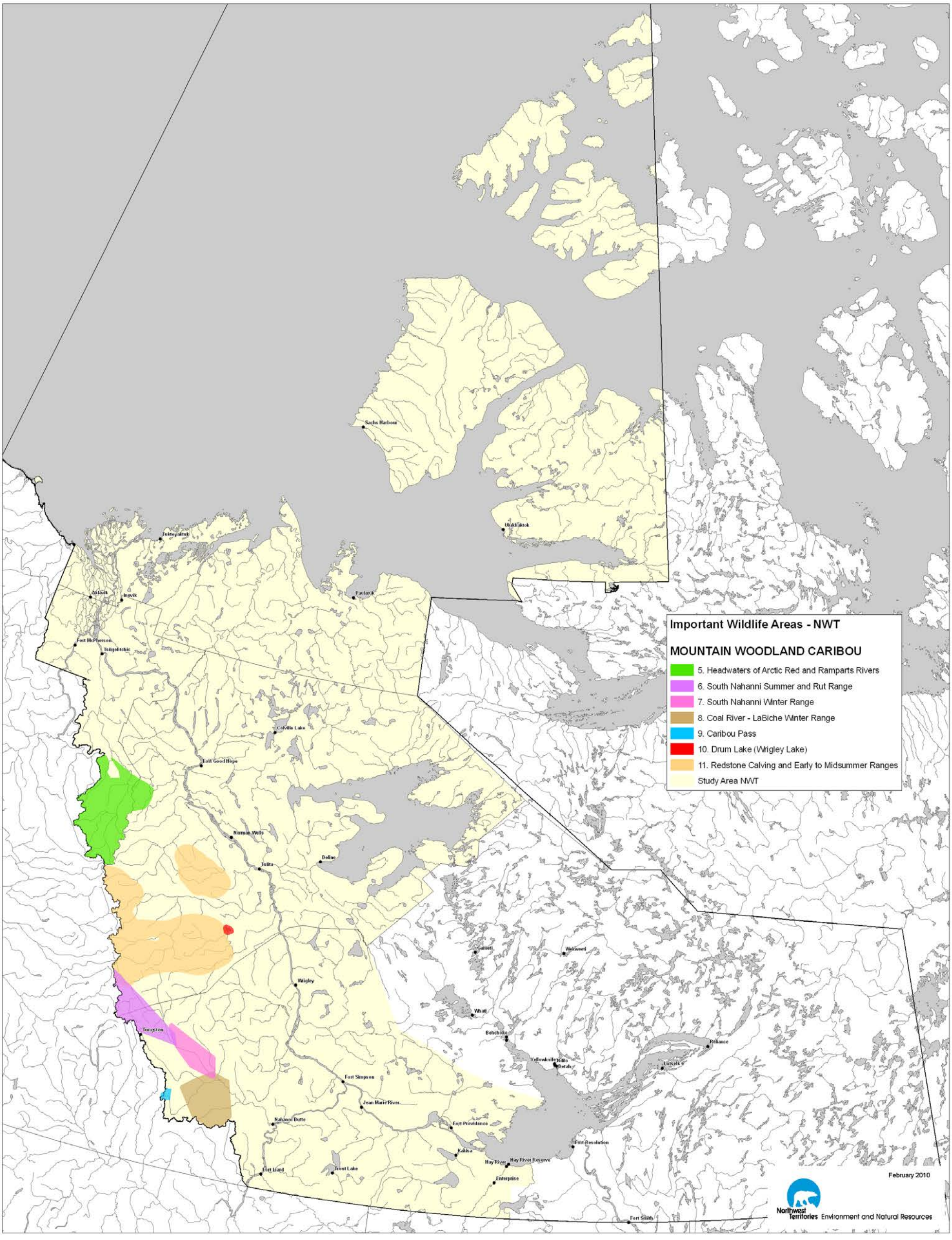

Figure 4. Important Wildlife Areas for mountain woodland caribou in the Northwest Territories.

ID: 5

Name: Headwaters of Arctic Red and Ramparts Rivers

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 13,010 km^2

Substantiation:

- This area is known as a concentration area for mountain woodland caribou (Dokum and Thompson 2008 pers. comm.; Latour 2008 pers. comm.; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- The caribou in this area belong to the Bonnet Plume herd, which is shared with the Yukon Territory. In the winter, the caribou are found in the eastern foothills where the Arctic Red and Ramparts Rivers flow out of the Mackenzie Mountains (Latour 2008 pers. comm.; Olsen *et al.* 2001).
- Gwich'in Settlement Area portion:
    - In the Gwich'in Settlement Area, the greatest densities of mountain woodland caribou occur along the front ranges of the Mackenzie Mountains in the winter and the headwater areas of the Arctic Red River in the summer (Shaw and Benn 2001).
    - Surveys in 1980-1982 identified the upper Arctic Red River as a traditional core wintering area with a consistently high concentration of caribou. In one winter with deep snow, large numbers of caribou

wintered in the foothills region of the Arctic Red River where there was relatively low snow accumulation (Farnell and Russell 1986).

- In 2006, a late winter survey found a concentration of 1000 mountain woodland caribou in groups of 5 – 200 individuals along the Arctic Red River inside the Gwich'in Settlement Area (Canadian Wildlife Service 2008).
- One harvester noted that there are abundant mountain caribou trails at Tabasco Lake (Sahtu Renewable Resources Board Meeting 2008).

- Sahtu Settlement Area portion:
  - A late winter survey in 2006 found extensive caribou cratering in the foothills around the headwaters of the Ramparts River, indicating long-term winter occupation by mountain woodland caribou (Canadian Wildlife Service 2008; Popko 2009 pers. comm.).
  - The headwaters of the Ramparts River has been mapped as important wintering habitat for mountain woodland caribou (Department of Environment 1974) and as a caribou hunting area (Sahtu Renewable Resources Board Meeting 2008).

Boundary Delineation: The original boundary was drawn by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and followed the boundary of the southern Gwich'in Settlement Area. It was subsequently expanded to include key winter habitat

around the headwaters of the Ramparts River using a boundary from Creighton (2006) and a winter range key area based on known animal locations (Government of Yukon 2008 unpublished data).

ID: 6

Name: South Nahanni Summer and Rut Range

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 5,319 km^2

Substantiation:

- Mountain woodland caribou of the South Nahanni herd (also known as the Upper Nahanni herd) return to calving, post-calving and rutting sites within this area year after year (Weaver 2008b pers. comm.).
- An analysis of locations from 45 collared adult female caribou of the South Nahanni herd from 1995-2001 showed that most animals moved into the upper part of the South Nahanni River watershed during the calving period and remained in this same area during the summer and the fall rut (Weaver 2006). They seemed to show a high degree of fidelity for these areas (Gunn *et al.* 2002; Weaver 2006; Weaver 2008b pers. comm.).

Boundary Delineation: The boundary includes calving (May 21 – June 5), post-calving (June 6 – September 24) and rutting (September 25 – October 15) range for 45 collared adult female caribou of the South Nahanni herd during 1995 to 2001 (Weaver 2006; Weaver 2008b pers. comm.).

ID: 7

Name: South Nahanni Winter Range

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 3,551 km^2

Substantiation:

- Mountain woodland caribou of the South Nahanni herd (also known as the Upper Nahanni herd) are relatively concentrated within this area in winter (Adamczewski 2008 pers. comm.; Weaver 2008b pers. comm.).
- In the Mackenzie Mountains caribou forage primarily on terrestrial lichens, either on windblown alpine sites or in mature conifer forests at lower elevations where the snow is shallow (Weaver 2006). When snow is deep caribou are forced down out of the mountains into smaller core areas with less snow. Therefore, mountain woodland caribou tend to clump together in late winter and many herds are the most spatially concentrated at that time (Adamczewski 2008 pers. comm.).
- An analysis of locations from 45 collared adult female caribou of the South Nahanni herd from 1995-2001 showed that, in most years, the herd wintered in the montane spruce-lichen woodlands along the South Nahanni River valley above Virginia Falls and lower reaches of the adjacent Clearwater-Cathedral Creek basin. The herd appeared to show strong fidelity to this winter range between years (Weaver 2006; Weaver 2008b pers. comm.).

- This area is in a snow shadow, meaning that snowfall is relatively light, and has abundant lichens. This unique combination of conditions makes it good winter habitat for mountain woodland caribou (Adamczewski 2008 pers. comm.).

Boundary Delineation: The boundary includes winter (December 1 – April 15) range for 45 collared adult female caribou of the South Nahanni herd during 1995 to 2001 (Weaver 2006; Weaver 2008b pers. comm.).

ID: 8

Name: Coal River - LaBiche Winter Range

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 6,289 km^2

Substantiation:

- Mountain woodland caribou of the Coal River and LaBiche groups (collectively kown as the Lower Nahanni herd) are relatively concentrated within this area in winter (Weaver 2008b pers. comm.).
- In the Mackenzie Mountains caribou forage primarily on terrestrial lichens, either on windblown alpine sites or in mature conifer forests at lower elevations where the snow is shallow (Weaver 2006). When snow is deep caribou are forced down out of the mountains into smaller core areas with less snow. Therefore, mountain woodland caribou tend to clump together

in late winter and many herds are most spatially concentrated at that time (Adamczewski 2008 pers. comm.).

- A study of satellite-collared adult female caribou of the Coal River and LaBiche groups from 2000 to 2007 showed that they spent the winter (December 1 – April 15) in this area (Weaver 2008a; Weaver 2008b pers. comm.), which is located in a 'snow shadow' in the lee of prevailing winter storms (Weaver 2006). Caribou distribution in winter was influenced by snow depth. In early winter, Coal River caribou coalesced into a tighter distribution south of and inside Nahanni National Park Reserve. LaBiche caribou stayed around the Territorial border when snowfall was relatively light, but moved toward and into the Park in years with heavier snowfall. By late winter, both groups were usually restricted to low-elevation spruce forests with shallower snow depth inside or adjacent to the Park. The distributions of both groups overlapped during this period (Weaver 2008a).

Boundary Delineation: The boundary includes winter (December 1 – April 15) range for 24 satellite-collared adult female caribou of the Coal River and LaBiche groups during 2000 to 2007 (Weaver 2008a; Weaver 2008b pers. comm.).

ID: 9

Name: Caribou Pass[2]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

[2] Note: This Caribou Pass is near Nahanni National Park Reserve and is different from the Caribou Pass mentioned in the Important Wildlife Area entitled "Redstone Calving and Early-midsummer Ranges" (ID: 11).

Size: 278 km^2

Substantiation:

- Mountain woodland caribou are concentrated in this area when they migrate across the Yukon-NWT border in spring and fall (Dehcho Regional Wildlife Workshop 2008; Weaver 2008a).
- A study of satellite-collared adult female caribou of the Coal River group (part of the Lower Nahanni herd) from 2000 to 2007 showed that, when they migrated westward in spring, they used a variety of routes. However, nearly all of these routes converged at the continental divide in the vicinity of Caribou Pass. When they migrated back into the NWT in the fall they used different pathways, but these routes again converged in the vicinity of Caribou Pass (Weaver 2008a).
- High numbers of caribou have been noted by a trapper who uses the area (Dehcho Regional Wildlife Workshop 2008).

Boundary Delineation: The boundary was drawn by participants at the Dehcho Regional Wildlife Workshop (Dehcho Regional Wildlife Workshop 2008).

ID: 10

Name: Drum Lake (Wrigley Lake)

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 248 km^2

Substantiation:

- The area around Drum Lake, also known as Wrigley Lake, is known as an important winter concentration area for mountain woodland caribou of the Redstone herd (Latour 2008 pers. comm.; Sahtu Renewable Resources Board Meeting 2008).
- According to traditional knowledge, the Drum Lake area is important winter range (Olsen *et al.* 2001).
- Aerial surveys in the 1970s and 1980s suggested that a major portion of the Moose Horn caribou population (a subgroup of the Redstone herd) resided in the general vicinity of Drum Lake during the winter months, although Drum Lake itself seemed to be at the eastern extent of the winter range with more caribou observed to the west and south (Collin 1983).
- Not all sources support a concentration of caribou in this area. A study of collared caribou from 2002 to 2007 showed that they occasionally passed through the Drum Lake area but did not show a particular concentration of activity there (Creighton 2006; Nagy 2008 pers. comm.; Sahtu Renewable Resources Board 2008 unpublished data).
- A model of mountain woodland caribou habitat predicts that the Drum Lake area contains a high proportion of preferred habitat overall and especially in winter (Creighton 2006).
- According to traditional knowledge, Drum Lake is an important area for caribou hunting (Olsen *et al.* 2001).

- In the winter caribou are found between Drum Lake and Caribou Flats on the Keele River and are thus easily accessed from Drum Lake. An archaeological survey also found two caribou fences approximately 30 km southwest of Drum Lake (PACTeam Canada 2007).

Boundary Delineation: The boundary is for the draft Drum Lake Conservation Zone in early drafts of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2006 unpublished data).

ID: 11

Name: Redstone Calving and Early-midsummer Ranges

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 29,390 km^2

Substantiation:

- Mountain woodland caribou of the Redstone herd appear to return to these calving and post-calving areas year after year (Nagy 2008 pers. comm.; Sahtu Renewable Resources Board 2008 unpublished data).
- An analysis of locations from 10 collared adult female caribou from 2002 to 2007 showed 3 groups with significantly different calving areas: a group that calved mostly to the north of the Keele River (4 collared individuals), a group that calved mostly to the south of the Keele River (4 collared individuals), and a relatively sedentary group that spent the entire year in the Carcajou Lake area (2 collared individuals). The general areas

occupied in early-midsummer (June 24 – July 21) were very similar to the areas occupied during calving (May 27 – June 23), except for the southern group which expanded eastward towards the Moose Horn and Redstone Rivers. Collared caribou showed high fidelity to calving areas on a herd basis, indicating that they returned to the same general areas year after year but used different specific sites within those areas. Fidelity to early-midsummer areas was moderate but still higher than for winter. Caribou locations were also relatively concentrated within these calving and early-midsummer ranges compared to in other seasons (Nagy 2008 pers. comm.; Sahtu Renewable Resources Board 2008 unpublished data).

- Additional support for calving at certain locations within these areas:
    - The area east of Macmillan Pass that includes O'Grady Lakes and the headwaters area of the Keele, Twitya, and Caribou Cry Rivers is well known as a calving area for mountain woodland caribou (Latour 2008 pers. comm.; Sahtu Land Use Planning Board 2007).
    - In the 1970s and 1980s calving was observed near O'Grady Lakes, Natla River and its headwaters, Keele River headwaters, Mackenzie Mountain Barrenlands, and Plains of Abraham (Collin 1983; EBA Engineering Consultants Ltd. 2007b).
    - The areas around O'Grady Lakes and the Mackenzie Mountain Barrenlands provide subarctic tundra habitat for calving (Collin 1983).

- Additional support for use of certain locations within these areas during the post-calving period:
    - In 1980, major post-calving concentrations were observed around O'Grady Lakes, Mackenzie Mountain Barrenlands and north of Caribou Pass, and caribou were also seen in the Caribou Flats area (Collin 1983).
    - The Moose Horn headwaters area is known as summer range (Beckel 1975).
    - Areas along the Yukon-NWT border, west of Caribou Flats and north of Caribou Pass[3], contain snow fields and high, windswept ridges that provide escape from insect harassment (Collin 1983).
    - A model of mountain woodland caribou habitat predicts a relatively high amount of preferred post-calving habitat in areas near the Yukon-NWT border (Creighton 2006).
    - The Caribou Flats area attracts many caribou due to its saline-rich streams (Beckel 1975; Sahtu Renewable Resources Board Meeting 2008).

Boundary Delineation: The boundaries are based on a utilization distribution for collared caribou from 2002 to 2007 (97.5% utilization distribution for calving areas and 95% for early-midsummer) (Nagy 2008 pers. comm.; Sahtu Renewable Resources Board 2008 unpublished data). Calving and early-

[3] Note: The Caribou Pass mentioned above is near the Canol Trail and is <u>different from</u> the Caribou Pass mentioned in the Important Wildlife Area entitled "Caribou Pass" (ID: 9).

midsummer ranges were determined separately for the three sub-groups but there is some overlap between them.

Peary and Dolphin-Union Caribou

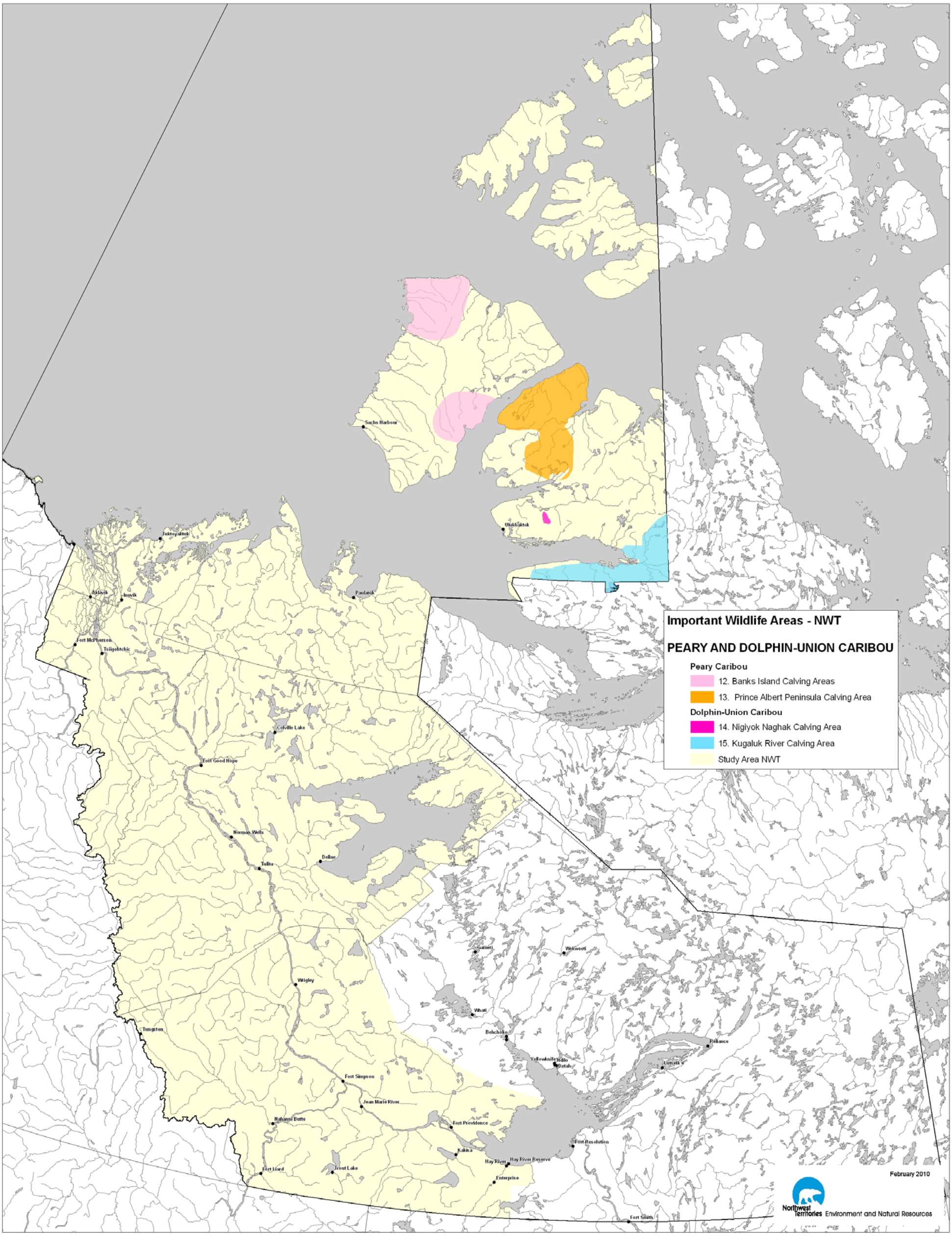

Figure 5. Important Wildlife Areas for Peary and Dolphin-Union caribou in the Northwest Territories.

ID: 12

Name: Banks Island Calving Areas

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 16,310 km^2

Substantiation:

- Residents of Sachs Harbour say that these two areas contain critical calving grounds for Peary caribou (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- Other sources of information provide strong support for the calving ground on northwest Banks Island and some support for the calving ground around Jesse Bay (COSEWIC 2004; Larter and Nagy 2000).
- Peary caribou cows are faithful to their calving areas, although calving is at a lower density and more dispersed than the high densities usually described for barren-ground caribou, and calving site fidelity is balanced by occasional range shifts (COSEWIC 2004).

Boundary Delineation: The boundary is for zone 619E from Inuvialuit Community Conservation Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 13

Name: Prince Albert Peninsula Calving Area

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 16,971 km^2

Substantiation:

- According to residents of Ulukhaktok, this area is important calving habitat for caribou (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- A large portion of this area overlaps with the calving ground delineated by Gunn and Fournier (2000) based on aerial surveys in the 1980s.
- A survey of elders' traditional knowledge compiled in 1993 supported the idea that caribou calve, or used to calve, north of Prince Albert Sound (Gunn 2005).
- The herd using this area declined in the 1990s; few caribou were found here in 1993, 1998, 2001, and 2003 (Gunn and Fournier 2000; Nagy *et al.* 2006).
- Peary caribou cows are faithful to calving areas, although calving is at a lower density and more dispersed than the high densities usually described for barren-ground caribou, and calving site fidelity is balanced by occasional range shifts (COSEWIC 2004).

Boundary Delineation: The boundary includes zone 524C and northern portions of zone 516D from Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 14

Name: Nigiyok Naghak Calving Area

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 204 km^2

Substantiation:

- Residents of Ulukhaktok say that this small area on Diamond Jenness Peninsula, on the south side of the Kuukyuak River, is a sensitive calving area for caribou (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- Dolphin-Union caribou cows are faithful to calving areas, although calving is at a lower density and more dispersed than the high densities generally described for barren-ground caribou, and calving site fidelity is balanced by occasional range shifts (COSEWIC 2004).
- Additional calving areas used by the Dolphin-Union caribou were not included on these maps as they are located in the Nunavut portion of Victoria Island.

Boundary Delineation: The boundary is for a small portion of zone 517E identified as Nigiyok Naghak in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 15

Name: Kugaluk River Calving Area

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 8,754 km^2

Substantiation:

- According to residents of Ulukhaktok, this part of Victoria Island includes important calving habitat for caribou (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- Gunn and Fournier (2000) identified most of this area as a calving ground based on aerial surveys and radio-tracking in the 1980s and 1990s.
- Dolphin-Union caribou cows are faithful to calving areas, although calving is at a lower density and more dispersed than the high densities usually described for barren-ground caribou, and calving site fidelity is balanced by occasional range shifts (COSEWIC 2004).

Boundary Delineation: The boundary encompasses two areas with very similar boundaries: the southernmost portion of zone 516D from Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000) as well as the Victoria Island – Dolphin and Union Strait calving ground delineated by Gunn and Fournier (2000). Only portions within the NWT are included.

Dall's Sheep

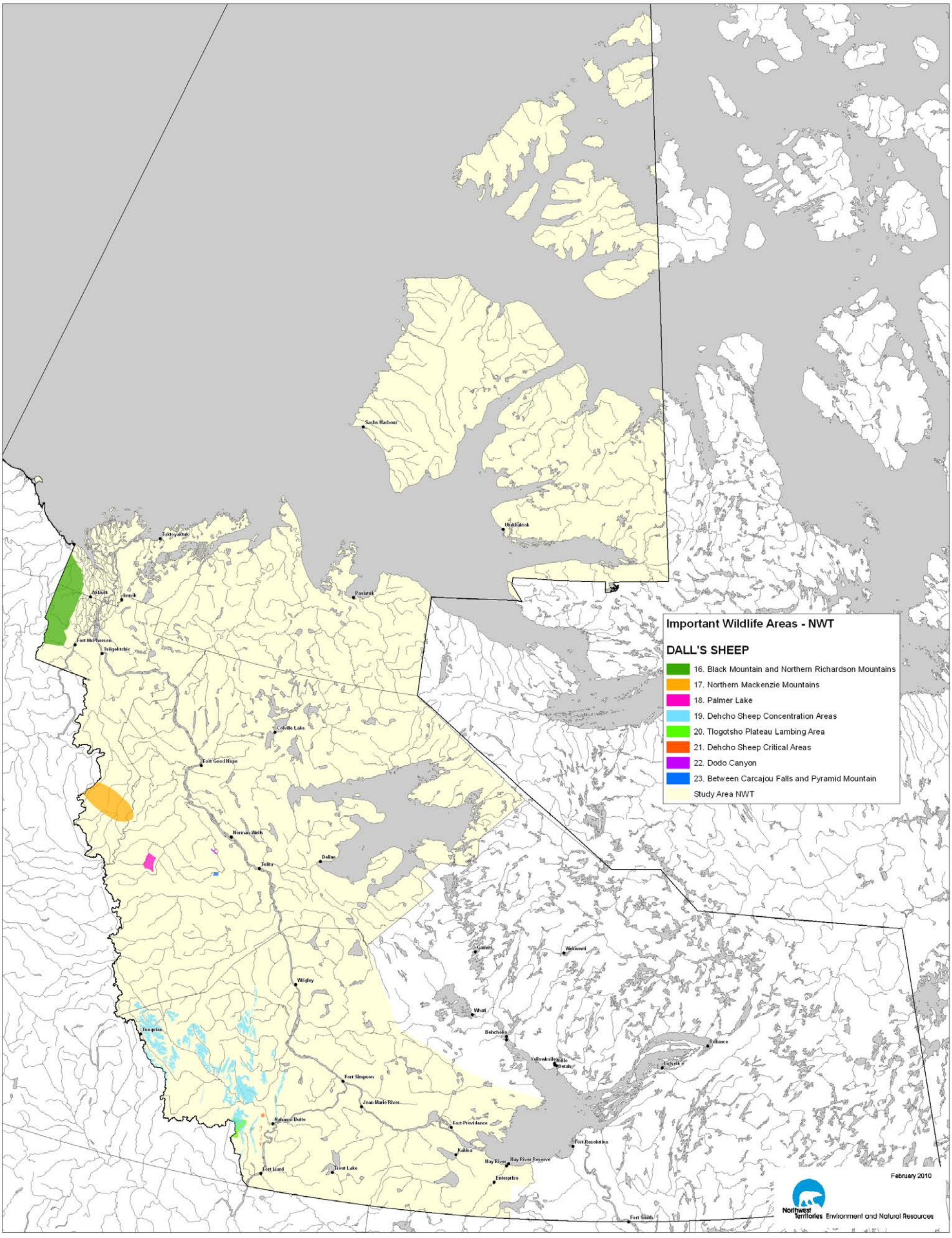

Figure 6. Important Wildlife Areas for Dall's sheep in the Northwest Territories.

ID: 16

Name: Black Mountain and Northern Richardson Mountains

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 16,964 km^2

Substantiation:

- This part of the northern Richardson Mountains is a Dall's sheep concentration area (Dokum and Thompson 2008 pers. comm.; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- Dall's sheep in the Richardson Mountains represent a relatively small and isolated population at the northeastern limit of the species' range. Their numbers seem to be declining since the mid-1990s and recruitment rates are low (Lambert Koizumi 2006a).
- Gwich'in Settlement Area portion:
    - The area around Rat River and Black Mountain (formerly called Mount Goodenough) contains relatively high densities of sheep and the most important Dall's sheep habitat in the NWT northern Richardson Mountains. It includes at least seven lambing areas, six

mineral licks, nine winter ranges and several movement corridors, as well as rutting habitat (Ferguson 1987; Government of Canada 1973; Gwich'in Land Use Planning Board 2003).

- Residents of Fort McPherson report that there are also many Dall's sheep further south by Stony Creek (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- The Gwich'in have traditionally hunted Dall's sheep in these areas (Gwich'in Elders 1997).

- Inuvialuit Settlement Region portion:
  - The north slope east of Babbage River has been described as important habitat for Dall's sheep. It includes winter range, lambing areas, rutting areas, and migration corridors (Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
  - Dall's sheep are hunted in the area around Cache Creek (Gwich'in Elders 1997).

Boundary Delineation: The boundary includes the Rat, Husky, Black Mountain Conservation Zone (excluding Husky Channel) (Gwich'in Land Use Planning Board 2003), Mount Goodenough Wildlife Area of Special Interest (Ferguson 1987) and Zone 725 D from Inuvialuit Community Conservation Plans (Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000) as well as the land between these areas (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008). It was also expanded

to the south to include part of Stony Creek (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 17

Name: Northern Mackenzie Mountains

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 3,331 km^2

Substantiation:

- The northern front range of the Mackenzie Mountains is a concentration area for Dall's sheep according to some Gwich'in people (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- Gwich'in Elders have said that Dall's sheep can be found at the headwaters of the Arctic Red River where it leaves the Mackenzie Mountains (Gwich'in Elders 1997).
- An aerial survey in 1988 estimated a density of 0.19 sheep/km^2 for a portion of the northern Mackenzie Mountains that partially overlaps with this area. However, density was lower in the front range than in the central or back ranges (Latour 1992).
- Outfitted hunting of Dall's sheep takes place in this area (Gwich'in Land Use Planning Board 2005).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008).

ID: 18

Name: Palmer Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 413 km^2

Substantiation:

- The Palmer Lake area has a high density of Dall's sheep and has been called the 'best sheep area in the Sahtu'. This evaluation is based on an annual monitoring program that has been running since 1997 (Popko and Veitch 2006 pers. comm.).
- In 1997 the sheep density was estimated as 0.53/km^2 for Palmer Lake (Veitch *et al.* 1998).
- Sahtu community members report many Dall's Sheep in this area (Sahtu Renewable Resources Board Meeting 2008).

Boundary Delineation: The boundary is for the draft Palmer Lake Conservation Zone in early drafts of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2006 unpublished data).

ID: 19

Name: Dehcho Sheep Concentration Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 7,628 km^2

Substantiation:

- These areas include mountain ranges and plateaus that were mapped as Dall's sheep concentration areas at a workshop that included biologists and community harvesters. The original generalized polygons were refined using elevation and surface criteria from landsat imagery (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- These areas also include sites that were ranked as high or medium priority ranges because they were found to support more than 50 sheep, contain karst caves used by sheep, and/or provide useful or important landscape connectivity to other sheep ranges (Weaver 2006; Weaver 2008b pers. comm.).
- The Liard Range, Headless and Funeral Ranges, and Nahanni Plateau support relatively large populations of sheep (Weaver 2006).
- Sheep density has been estimated at 4.33/km^2 for the Liard Range, 2.25/km^2 for the Headless Range, 0.48/km^2 for the Funeral Range, 0.08/km^2 for the Nahanni Plateau, 0.44/km^2 for the Ram Plateau, 0.18/km^2 for the southern Ragged Range, and 0.11/km^2 for the northern Ragged Range (Weaver 2006).

- The Kotaneelee, Liard and Nahanni Ranges, as well as the Nahanni Plateau and Ram Plateau, are known to include Dall's sheep nursery areas (Case 1989; Larter and Allaire 2005; Weaver 2006).
- The Nahanni Range and Ram Plateau are of particular interest because many sheep are associated with caves in these areas. The advantages of using caves likely include ample food, escape from predators, a moderate environment, and shelter (Case 1989; Weaver 2006).

Boundary Delineation: The boundaries are from the Dehcho Land Use Planning Committee Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003), subsequently expanded to include areas ranked as high or medium priority ranges for Dall's sheep (Weaver 2006; Weaver 2008b pers. comm.).

ID: 20

Name: Tlogotsho Plateau Lambing Area

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 413 km^2

Substantiation:

- The Tlogotsho Plateau was mapped as a known Dall's sheep lambing area at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

- Surveys in 1984 and 1988 found many sheep using the area, including ewes with lambs (Case 1989; Ferguson *et al.* 1985).
- The area supports a relatively large sheep population, with an estimated density of 0.84 sheep/km^2 (Weaver 2006).
- The area also includes winter ranges for sheep (Simmons 1982).

Boundary Delineation: The boundaries are from the Dehcho Land Use Planning Committee Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

ID: 21

Name: Dehcho Sheep Critical Areas

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 155 km^2

Substantiation:

- These areas were mapped as critical areas for Dall's sheep at a workshop that included biologists and community harvesters. The original generalized polygons were refined using elevation and surface criteria from landsat imagery. Based on the definition of 'critical areas' used at the workshop, they are likely nursery or lambing areas for sheep (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

- These areas include portions of the Liard and Nahanni Ranges that are known nursery areas, including the northernmost part of the Liard Range near the South Nahanni River (Case 1989; Larter and Allaire 2005).

Boundary Delineation: The boundaries are from the Dehcho Land Use Planning Committee Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

ID: 22

Name: Dodo Canyon

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 41 km^2

Substantiation:

- Sahtu community members report that there are many Dall's sheep in this area (Sahtu Renewable Resources Board Meeting 2008).
- ENR staff report seeing Dall's sheep in this area (Popko 2009 pers. comm.).

Boundary Delineation: The boundary was drawn by participants at a Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008).

ID: 23

Name: Between Carcajou Falls and Pyramid Mountain

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 54 km^2

Substantiation:

- Sahtu community members report that there are many Dall's sheep in this area (Sahtu Renewable Resources Board Meeting 2008).
- Sheep have been seen in this area near a mineral lick (Popko 2009 pers. comm.).

Boundary Delineation: The boundary was drawn by participants at a Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008).

Moose

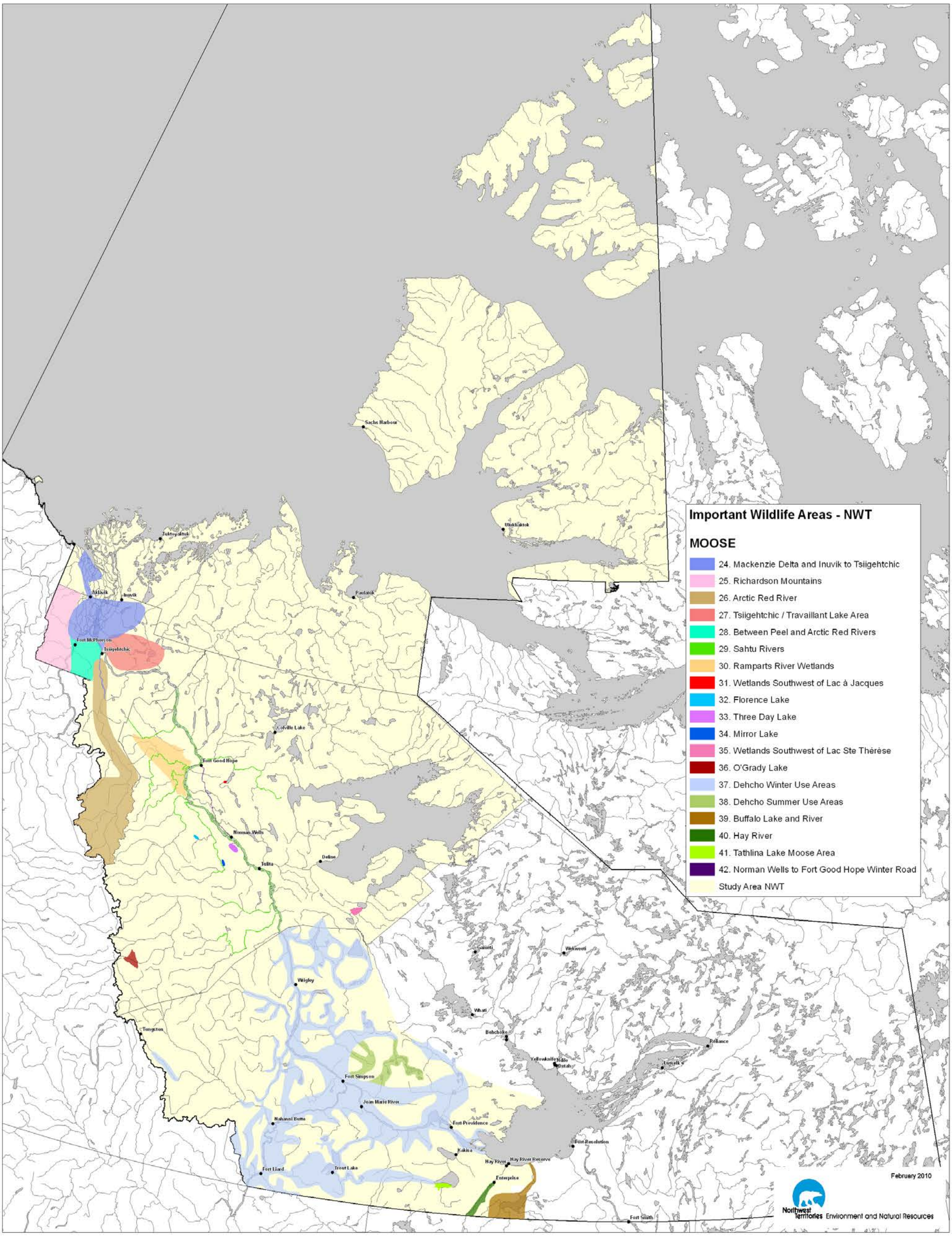

Figure 7. Important Wildlife Areas for moose in the Northwest Territories.

ID: 24

Name: Mackenzie Delta and Inuvik to Tsiigehtchic

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 9,669 km^2

Substantiation:

- This area is regionally important for moose (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008), although overall moose density is relatively low in the Gwich'in Settlement Area compared to other similar areas in the north (Gwich'in Renewable Resources Board 2000).
- The portion of this area that lies in the Gwich'in Settlement Area has been identified as a high density area for moose through community workshops (Lambert Koizumi 2006b).
- One harvester reported seeing 23 moose in a recent trip to this area (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- This area includes portions of the Mackenzie Delta and Great Bear Lake Plain ecoregions (Lambert Koizumi 2006b). Past aerial surveys produced variable moose density estimates, from 1/100km^2 to 7/100km^2 for portions of this area, with relatively low densities in the Delta (Gwich'in Renewable

Resources Board 2000). However, an aerial survey in 2006 found high moose density in the Mackenzie Delta portion of the area (4.69/100 km^2) and lower density in the Great Bear Lake Plain portion (1.07/100km^2) (Lambert Koizumi 2006b).

- Although the Mackenzie Delta was previously classified as poor moose habitat (Government of Canada 1973; Mackenzie River Basin Committee 1981), recent studies have classified it as relatively high quality moose habitat for the region (IMG Golder Corporation 2008; Inuvialuit Environmental and Geotechnical 2002). The importance of the Delta for moose is now recognized (Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Elders 1997; Gwich'in Land Use Planning Board 2003).
- Moose seem to be more common in the Delta now than they were in the 1980s (Gwich'in Elders 1997). Residents of Aklavik and Tsiigehtchic noted that there are many more moose than there used to be, including from north of Aklavik all the way to the Beaufort Sea. (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- One particular area along the West Channel is especially good for moose, probably because there are minerals available there (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).

- The west bank of the Mackenzie River, with its river valleys and associated floodplains, is believed to be particularly important for moose in winter (IMG Golder Corporation 2008). Moose spend most of their time at the edges of lakes and along the creeks where there are many birch and willows (Gwich'in Elders 1997).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and subsequently expanded northward to Shallow Bay (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 25

Name: Richardson Mountains

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 6,469 km^2

Substantiation:

- This area is regionally important for moose (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008), although overall moose density is relatively low in the Gwich'in Settlement Area compared to other similar areas in the north (Gwich'in Renewable Resources Board 2000).

- One resident of Aklavik reported that you can see about 100 moose a day in a trip of about 120 miles in the mountains. Another resident said that he once saw one or two moose every half-mile along the edge of the mountains between Fort McPherson and Aklavik (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).
- The foothills of the Richardson Mountains were identified as a high moose density area at community workshops (Lambert Koizumi 2006b). An aerial survey of the Richardson Mountains and foothills in 2006 found relatively high moose density (3.54/100 km^2) (Lambert Koizumi 2006b).
- The Peel River, Rat River and Stony Creek areas were all identified as high moose density areas at community workshops (Lambert Koizumi 2006b). However, an aerial survey of the Peel River valley area in 2006 found relatively low moose density (0.84/100 km^2) (Lambert Koizumi 2006b).
- The southernmost portion of this area, around the Dempster Highway and Peel River, is used as a staging area by moose in fall (Dokum and Thompson 2008 pers. comm.).
- The Peel River and its tributaries, including Stony Creek and Vittrekwa River, have been highlighted as important habitat for moose in winter (Government of Canada 1973; Mackenzie River Basin Committee 1981).
- There are several important moose harvesting places in this area (Benn 2001; Gwich'in Elders 1997; Gwich’in Renewable Resources Board 2000).

Boundary Delineation: The boundary was drawn by residents of Aklavik (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008) and encompasses a smaller area drawn by Gwich’in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.).

ID: 26

Name: Arctic Red River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 15,724 km^2

Substantiation:

- The Arctic Red River, particularly the northern part, is believed to support relatively high densities of moose (Dokum and Thompson 2008 pers. comm.; Mackenzie River Basin Committee 1981; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008), although overall moose density is relatively low in the Gwich’in Settlement Area compared to other similar areas in the north (Gwich’in Renewable Resources Board 2000).
- Moose surveys in the Arctic Red River area have yielded variable moose density estimates, from a high of 17/100 km^2 in 1980 (targeting known good habitat), to 5.5/100 km^2 in 1999, to zero in 2006, suggesting a

declining population (Benn 1999; Brackett *et al.* 1985; Lambert Koizumi 2006b).

Boundary Delineation: The boundary was initially drawn on the northern part of the river by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and was subsequently expanded south into the Mackenzie Mountains by Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.).

ID: 27

Name: Tsiigehtchic / Travaillant Lake Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 5,249 km^2

Substantiation:

- This area has been called the highest density moose area in the Gwich'in Settlement Area, particularly the open area around Cardinal Lakes in the west (Dokum and Thompson 2008 pers. comm.), although overall moose density is relatively low in the Gwich'in Settlement Area compared to other similar areas in the north (Gwich'in Renewable Resources Board 2000).
- A survey of the Rengleng River area in 1986 found a moose density of 4/100km^2 (Gwich'in Renewable Resources Board 2000).

- A wildlife habitat suitability model rated large portions of this area as optimal and suitable habitat for moose (Inuvialuit Environmental and Geotechnical 2002).
- The area around Travaillant Lake is used for moose harvesting (Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.).

ID: 28

Name: Between Peel and Arctic Red Rivers

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,839 km^2

Substantiation:

- This area is regionally important for moose (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008), although overall moose density is relatively low in the Gwich'in Settlement Area compared to other similar areas in the north (Gwich'in Renewable Resources Board 2000).
- Previous studies have rated large portions of this area as relatively high quality habitat for moose (Inuvialuit Environmental and Geotechnical 2002;

Mackenzie River Basin Committee 1981; West-Delta Golder Corporation 2008).

- The western half of this area was identified as an important moose harvesting area at community workshops (Gwich'in Renewable Resources Board 2000).

Boundary Delineation: The boundary was drawn by residents of Tsiigehtchic and subsequently expanded by residents of Fort McPherson (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 29

Name: Sahtu Rivers

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,096 km^2

Substantiation:

- These riparian areas consistently have relatively high moose densities (Popko and Veitch 2006 pers. comm.; Sahtu Renewable Resources Board Meeting 2007).
- Moose surveys in the Sahtu region have shown that riparian areas along the Mackenzie River and its tributaries, including islands in the Mackenzie River, generally have relatively high moose densities in winter (Brackett *et*

al. 1985; Government of Canada 1973; Jingfors *et al.* 1987; Maclean 1994; Swallow *et al.* 2003).

- Harvesters have said that, in January, cold temperatures and deep snow cause moose to congregate along major river valleys (Swallow *et al.* 2003).
- Ice and flood action along relatively fast-flowing river drainages keeps much of the vegetation in an early successional stage, providing important food species for moose such as willow and alder. Moose are also believed to use tributary river valleys as movement corridors between the Mackenzie Valley and surrounding uplands (Jingfors *et al.* 1987).
- These riparian areas are important moose hunting areas (Popko and Veitch 2006 pers. comm.; Sahtu Renewable Resources Board Meeting 2007).

Boundary Delineation: The boundary was drawn by ENR staff to include the Mackenzie, Mountain, Carcajou, Ramparts, Ontaratue, Hume, Hare Indian, Keele, and Redstone Rivers, up to the edge of the Mackenzie Mountains, as well as 500 metres to either side of each river (Popko and Veitch 2006 pers. comm.).

ID: 30

Name: Ramparts River Wetlands[4]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

[4] This area is also a concentration area for beaver (see ID: 92) and a unique area important to multiple species (see ID: 92).

Size: 4637 km^2

Substantiation:

- This is an extensive wetland that consistently supports high densities of moose (Canadian Wildlife Service 2008; Popko and Veitch 2006 pers. comm.).
- Surveys of a larger area that includes the Ramparts River have reported moose densities that are relatively high compared to elsewhere in the NWT (Graf 1992; Jingfors *et al.* 1987; Maclean 1994).
- This is an important moose harvesting area for Fort Good Hope families (Sahtu Heritage Places and Sites Joint Working Group 1999).

Boundary Delineation: The boundary is for the Ramparts River Wetlands (Tuyetah) Key Migratory Bird Terrestrial Habitat Site (Latour *et al.* 2008).

ID: 31

Name: Wetlands Southwest of Lac à Jacques

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 19 km^2

Substantiation:

- The wetlands on the southwest end of Lac à Jacques are a year-round moose concentration area (Sahtu Renewable Resources Board Meeting 2007).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 32

Name: Florence Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 43 km^2

Substantiation:

- Florence Lake is a moose concentration area. This lake is good for moose in summer and fall, although moose stay away from big lakes in winter because of snowdrifts (Sahtu Renewable Resources Board Meeting 2007).
- In the 1970s, this area was classified as 'fair' winter habitat for moose and was believed to be some of the only winter range available in the area (Government of Canada 1973).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 33

Name: Three Day Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 148 km^2

Substantiation:

- Three Day Lake is known for having consistently high moose densities, some of the highest in the Sahtu (Popko and Veitch 2006 pers. comm.; Sahtu Land Use Planning Board 2009).
- Three Day Lake is a good area for moose in summer and fall, although moose stay away from big lakes in winter because of snowdrifts (Sahtu Renewable Resources Board Meeting 2007).
- This is a popular moose hunting area for residents of Norman Wells (Veitch *et al.* 1995).
- Not all sources support Three Day Lake as being important for moose. This area was previously described as poor habitat for moose (Mackenzie River Basin Committee 1981).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007) and includes the draft 3-Day Lake Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 34

Name: Mirror Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 48 km^2

Substantiation:

- Mirror Lake is a moose concentration area (Sahtu Renewable Resources Board Meeting 2007).
- This lake is good for moose in summer and fall, although moose stay away from big lakes in winter because of snowdrifts (Sahtu Renewable Resources Board Meeting 2007).
- A survey in the winter of 1984 found a high density of moose in this area (Jingfors *et al.* 1987).

Boundary Delineation: The boundary is for the draft Mirror Lake Conservation Zone (a portion of the Mountain Lakes Conservation Zone) in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 35

Name: Wetlands southwest of Lac Ste Thérèse[5]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 188 km^2

Substantiation:

- The wetlands southwest of Lac Ste Thérèse are a moose concentration area (Sahtu Renewable Resources Board Meeting 2007)
- The wetlands southwest of Lac Ste Thérèse are very productive habitat for moose (Sahtu Land Use Planning Board 2007).

[5] This area is also a marten concentration area (see ID: 92).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 36

Name: O'Grady Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 394 km^2

Substantiation:

- Compared to the rest of the Mackenzie Mountains, the O'Grady Lake area has a relatively high density of moose (Popko and Veitch 2006 pers. comm.; Sahtu Land Use Planning Board 2007).

Boundary Delineation: The boundary is for the draft O'Grady Lake Conservation Zone in early drafts of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2006 unpublished data).

ID: 37

Name: Dehcho Winter Use Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 64,391 km^2

Substantiation:

- These are areas where many moose are found in the winter (Dehcho Regional Wildlife Workshop 2006).
- Together with the Dehcho Summer Use Areas (#33) this Important Wildlife Area encompasses almost all of the areas of very high moose concentration identified at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003), as well as some additional areas.
- In 2003, areas around Fort Simpson and Jean Marie River, areas along the Mackenzie, Willowlake, Liard, and South Nahanni Rivers, and an area around Blackwater Lake were classified as having a relatively high probability of finding moose. This classification was based on both traditional and scientific knowledge (Larter *et al.* 2004; Larter 2006 pers. comm.).
- Various aerial surveys have confirmed relatively high numbers or densities of moose for some portions of this Important Wildlife Area. These portions include the Liard Valley, Martin River area, Manners Creek and Goodall Lake area, Mackenzie River, islands in the Mackenzie River around Camsell Bend, Blackwater Lake, the area north and northwest of Fort Simpson, the southern escarpment of the Horn Plateau, the Rabbitskin River area, the gradually sloping northwestern portion of the Horn Plateau, and the Willowlake River (Donaldson and Fleck 1980; EBA Engineering

Consultants Ltd. and Canadian Wildlife Service 2006; IMG-Golder Corporation 2007; Larter *et al.* 2006; Treseder and Graf 1985).

- The area around Mills Lake, Horn River, and Mink Lake has been surveyed repeatedly with density estimates ranging from high in 1991 (0.17 moose/km^2) to low in 1997 (0.03 moose/km^2) (Bradley *et al.* 1998; Bradley and Johnson 2000).
- Some portions of this Important Wildlife Area have not been recently surveyed but traditional knowledge confirms their importance as moose habitat. These areas include the upper Kakisa River and its associated wetlands to the west of Tathlina Lake, the shores of Beaver Lake, Big Island, Trout River, Tetcho Lake, Trainor Lake, and Cormack Lake, and the area between Trout Lake and the Alberta border (Crosscurrent Associates Ltd. and Crosscurrent Environmental Services Ltd. 2005; EBA Engineering Consultants Ltd. 2007a).

Boundary Delineation: The boundary was drawn by ENR staff, community harvesters and other participants at the Dehcho Regional Wildlife Workshop (Dehcho Regional Wildlife Workshop 2006).

ID: 38

Name: Dehcho Summer Use Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 64,785 km^2

Substantiation:

- These areas on the top of the Horn Plateau are places where many moose are found, mainly in the summer (Dehcho Regional Wildlife Workshop 2006).
- This Important Wildlife Area partially overlaps with areas of very high moose concentration identified at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- Wildlife surveys in the summer of 2002 and 2003 recorded some moose sign in this area (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006).

Boundary Delineation: The boundary was drawn by ENR staff, community harvesters and other participants at the Dehcho Regional Wildlife Workshop (Dehcho Regional Wildlife Workshop 2006).

ID: 39

Name: Buffalo Lake and River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 3,118 km^2

Substantiation:

- The area around Buffalo Lake and along the Buffalo River is good moose habitat that consistently supports high numbers of moose year-round (Meeting with harvesters of K'átł'odeeche First Nation 2008).

- Various scientists and wildlife surveys have noted a particular abundance of moose around Buffalo Lake and Buffalo River (Bidwell *et al.* 2004; Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).
- Within this area, the alluvial zones to the south and southeast of Buffalo Lake – particularly around the mouths of the Yates and Whitesand Rivers – appear to have the highest concentrations of moose and moose harvesting sites (Bidwell *et al.* 2004; Chowns 2008 pers. comm.; Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).
- At the alluvial zones to the south and southeast of Buffalo Lake, several creeks and rivers drain into the lake, delivering nutrient-rich sediments that support very productive wildlife habitat (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008) and encompasses a smaller concentration area drawn by an environmental consultant (Chowns 2008 pers comm.).

ID: 40

Name: Hay River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 655 km^2

Substantiation:

- The area along the Hay River is good moose habitat that consistently supports lots of moose year-round (Meeting with harvesters of K'átł'odeeche First Nation 2008).
- Moose and moose tracks have been observed along both sides of the river during aerial wildlife surveys (Bidwell *et al.* 2004; Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008).

ID: 41

Name: Tathlina Lake Moose Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 217 km^2

Substantiation:

- The extensive alluvial zone south of Tathlina Lake is a moose concentration area (Chowns 2008 pers. comm.).
- In this area, the Cameron River and other streams drain into the lake from the slopes of the Cameron Hills, delivering nutrient-rich sediments that

support heavy riparian growth and very productive moose habitat (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).

- Traditional knowledge confirms that the northern slopes of the Cameron Hills are moose habitat (EBA Engineering Consultants Ltd. 2007a).
- A survey in the winter of 1972 reported a concentration of moose or moose tracks in this area (Ruttan 1974).

Boundary Delineation: The boundary was drawn by an environmental consultant (Chowns 2008 pers. comm.).

ID: 42

Name: Norman Wells to Fort Good Hope Winter Road

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 146 km^2

Substantiation:

- Moose tend to be concentrated along the winter road between Norman Wells and Fort Good Hope. The road is mowed down periodically, which keeps it in an early successional stage with many willows that are attractive to moose (Sahtu Renewable Resources Board Meeting 2008).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2008).

Mountain Goat

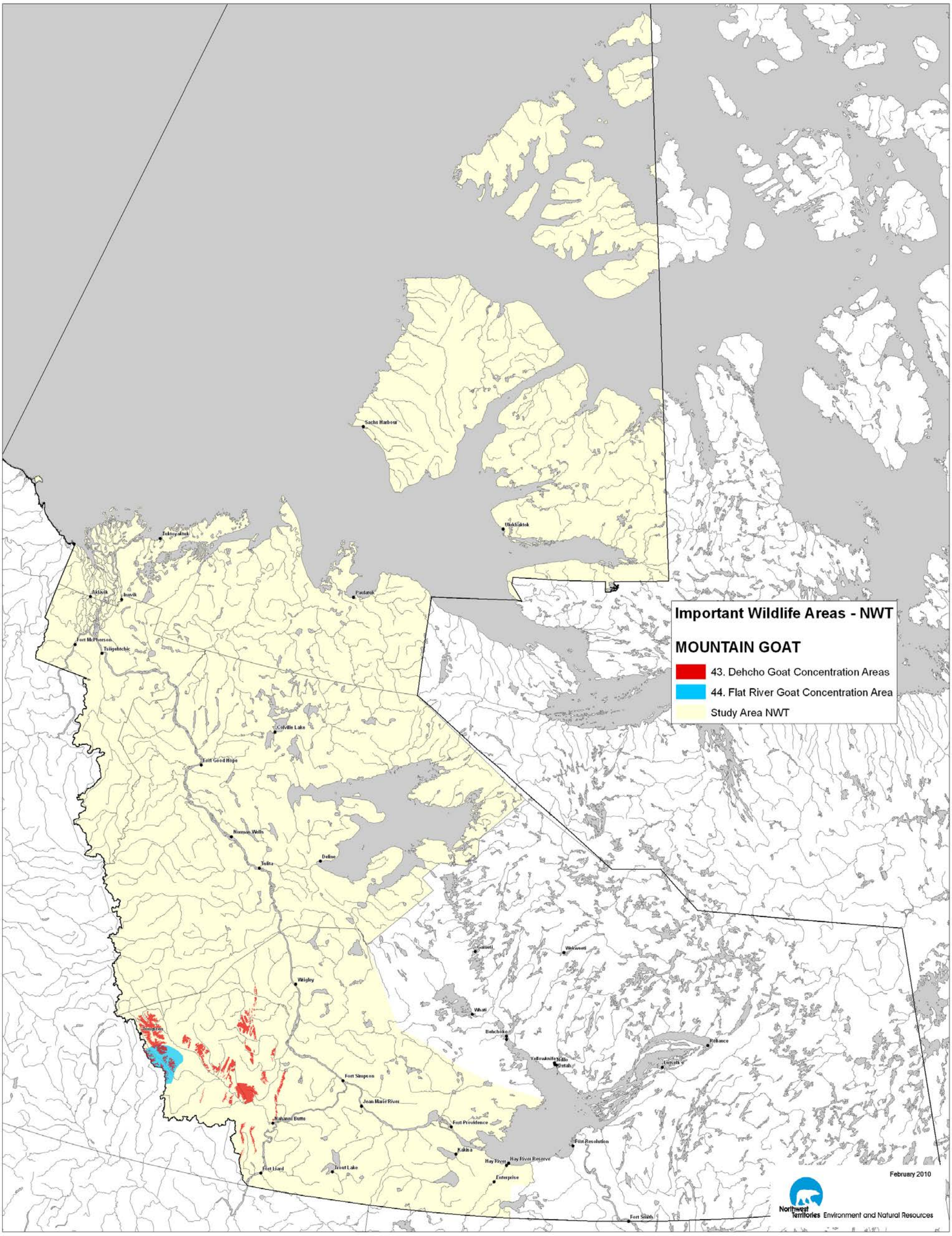

Figure 8. Important Wildlife Areas for mountain goat in the Northwest Territories.

ID: 43

Name: Dehcho Goat Concentration Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 5,395 km^2

Substantiation:

- These portions of mountain ranges and plateaus were mapped as areas with concentrations of goat populations at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003). They are likely based primarily on habitat criteria rather than on goat observations (Larter 2008 pers. comm.). The original generalized polygons were refined using elevation and surface criteria from landsat imagery (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- Other studies have suggested that the majority (43-47%) of the estimated mountain goat population of the NWT lives within the Nahanni Butte outfitting zone (D/0T/02) which surrounds Nahanni National Park Reserve, and that most of these goats are in the area of the Logan Mountains and Flat River valley. This is based on interviews with big game outfitters and Parks Canada staff, as well as two mountain goat surveys in the area of the Logan Mountains and Flat River valley (Larter 2004; Veitch *et al.* 2002).

- Mountain goats are known to occupy a small proportion of Nahanni National Park Reserve at locally high density; observations of goats have also been reported to the north and northwest of Nahanni National Park Reserve in outfitter zones D/OT/01, S/OT/05, S/OT/04, and S/OT/03 (Veitch *et al.* 2002).
- These areas are at the northern limit of the distribution of mountain goats in Canada (Festa-Bianchet 2008).

Boundary Delineation: The boundaries are from the Dehcho Land Use Planning Committee Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

ID: 44

Name: Flat River Goat Concentration Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,439 km^2

Substantiation:

- This area around the Flat River and Logan Mountains has a high density of mountain goats (Larter 2008 pers. comm.). This assessment is based on goat observations from aerial surveys of the area in 1983 and 2004 (Larter 2004).

- Interviews with big game outfitters and Parks Canada staff identified a larger overlapping area as containing the majority (43-47%) of the estimated mountain goat population of the NWT (Veitch *et al.* 2002).
- These areas are at the northern limit of the distribution of mountain goats in Canada (Festa-Bianchet 2008).

Boundary Delineation: The boundary was drawn by ENR staff (Larter 2008 pers. comm.).

Muskox

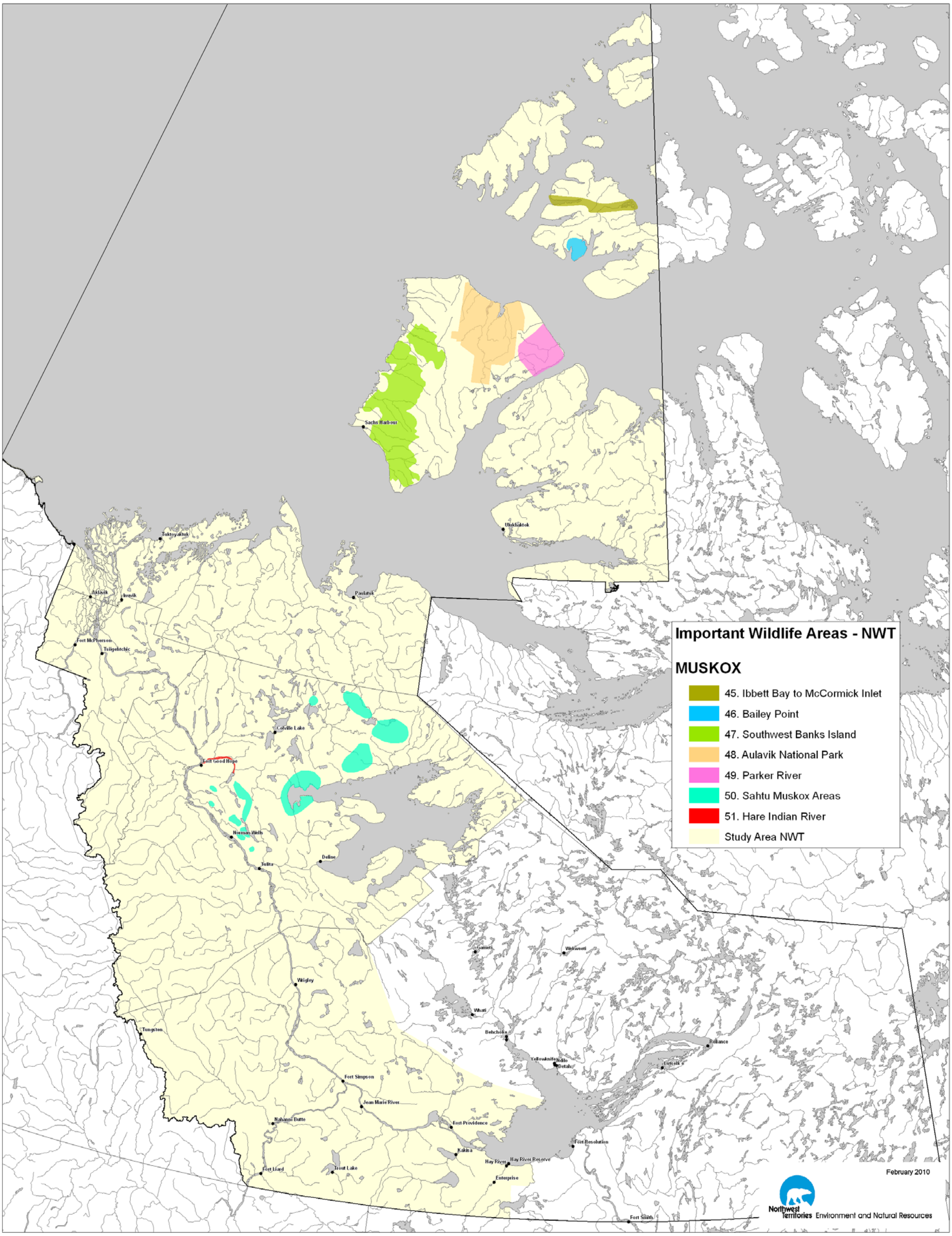

Figure 9. Important Wildlife Areas for muskoxen in the Northwest Territories.

ID: 45

Name: Ibbett Bay to McCormick Inlet[6]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,490 km^2

Substantiation:

- This area on Melville Island has high muskox densities in the eastern part around McCormick Inlet. Sedge meadows occur locally within the area, making it important muskox habitat year round (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Nettleship and Smith 1975).
- The reported high muskox densities are based on surveys in the 1970s; more recent information on muskoxen in the area is lacking (Gunn 2009 pers. comm.).

Boundary Delineation: The boundary is for zone 504E from Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 46

Name: Bailey Point

Criterion Satisfied: #3 (area that animals repeatedly use under adverse conditions as a refugium)

[6] This area is also a unique landscape important to multiple species (see ID: 92).

Size: 941 km^2

Substantiation:

- The peninsula on Melville Island has been identified as a refugium for muskoxen during extreme climatic conditions. When muskox numbers on most of Melville Island and Bathurst Island were decimated due to a severe winter in 1973-1974, the population in the Bailey Point area appeared to remain unaffected. It was believed that the area served as a reservoir for Melville Island's muskox population and a source of muskoxen for repopulating other areas in the western Queen Elizabeth Islands (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Ferguson 1987; Fournier and Gunn 1998; Gunn 2009 pers. comm.; Nettleship and Smith 1975; Thomas *et al.* 1981).
- The Bailey Point area is considered to be excellent muskox habitat because of a combination of factors including low precipitation, lack of rain and snow melt during winter, protection from winds, and productive and fertile lands (Ferguson 1987; Nettleship and Smith 1975; Thomas *et al.* 1981). This particular microclimate and vegetation make this area quite different than any other area on Melville Island (Gunn 2009 pers. comm.).
- Estimated muskox densities for the area were consistently high in 16 aerial surveys from 1972 to 1983 (average 53/100km^2), leading to the conclusion that Bailey Point has one of the highest densities of muskoxen in the Canadian Arctic (Ferguson 1987).

- A survey in 1987 found an estimated muskox density of 30/100km^2 for the portion of southwestern Melville Island that includes Bailey Point (Miller 1988).
- Not all sources support the importance of Bailey Point for muskoxen. The most recent aerial survey in 1997 counted only one muskox herd on Bailey Point, with an estimated density of 6.3/100km^2 for the larger area that includes Bailey Point (Gunn and Dragon 2002).

Boundary Delineation: The boundary is for zone 506D from Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 47

Name: Southwest Banks Island

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 16,809 km^2

Substantiation:

- Periodic aerial surveys of Banks Island have shown that this area consistently has relatively high densities of muskoxen. Aerial surveys from 1985 to 1998 estimated densities of non-calf muskoxen ranging from 0.50 to 1.92/km^2 for the Egg River area and from 0.68 to 2.91/km^2 for the Masik River area (Larter and Nagy 1999). Aerial surveys in 2001 and 2005 also

recorded densities of non-calf muskoxen greater than 1/km^2 for southwest Banks Island (Nagy *et al.* 2007b; Nagy *et al.* 2007a).

- Portions of this area are important for muskox harvesting (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

Boundary Delineation: The boundary encompasses several 5 km^2 grid cells estimated to contain at least one non-calf muskox per km^2 in either or both of two peak years, 1994 and 2001. Observations of muskoxen on transects were converted to cell density by 'kriging': interpolating the density for a 5 km^2 grid cell based on observations at the center (Nagy 2008 pers. comm.; Nagy *et al.* 2007b; Nagy *et al.* 2007a).

ID: 48

Name: Aulavik National Park

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 12,381 km^2

Substantiation:

- High densities of muskoxen are found year-round in this area, which includes the Thomsen and Muskox Rivers (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Ferguson 1987).

- Aerial surveys from 1985 to 1998 estimated densities of non-calf muskoxen ranging from 1.32 to 2.66/km^2 for the area (Larter and Nagy 1999). An aerial survey in 2001 also recorded a density of non-calf muskoxen greater than 1/km^2 for the Thomsen River drainage (Nagy *et al.* 2007b).
- The area is believed to be among the best year-round habitats for muskoxen on Banks Island (Ferguson 1987) and includes calving, grazing, and sheltering areas (Nettleship and Smith 1975).

Boundary Delineation: The boundary is for zone 613E from Inuvialuit Community Conservation Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 49

Name: Parker River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 4,348 km^2

Substantiation:

- The Parker River area has been identified as a high density muskox area and one of the best year-round habitats for muskoxen on Banks Island (Ferguson 1987).
- Aerial surveys from 1985 to 1998 estimated densities of non-calf muskoxen ranging from 0.63 to 1.62/km^2 for the area (Larter and Nagy

1999). Relatively high densities were also seen in this area in 2001 and 2005 (Nagy *et al.* 2007b; Nagy *et al.* 2007a).

Boundary Delineation: The boundary is for the eastern portion of Wildlife Area of Special Interest #22, previously identified by the Department of Renewable Resources (Ferguson 1987).

ID: 50

Name: Sahtu Muskox Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 9,900 km^2

Substantiation:

- These are places in the Sahtu region where one can consistently find large numbers of muskoxen (Popko and Veitch 2006 pers. comm.; Veitch 1997). With the exception of the area at the base of Smith Arm (off the western end of Great Bear Lake), they are upland areas such as ridgelines and eskers.
- The easternmost areas, near Horton Lake, are the places in the Sahtu where muskoxen have historically been present the longest. Their importance for muskoxen is confirmed by published aerial survey reports and traditional knowledge (Case and Poole 1985; Ferguson 1987; Fournier and Gunn 1998; McLean 1992; Sahtu Heritage Places and Sites

Joint Working Group 1999; Sahtu Land Use Planning Board 2009; Veitch 1997).

- No systematic surveys have been done in the area since 1997, but muskoxen are known to have expanded their range to the southwest near Norman Wells and Tulita (Popko and Veitch 2006 pers. comm.).

Boundary Delineation: The boundaries were drawn by ENR staff (Popko and Veitch 2006 pers. comm.).

ID: 51

Name: Hare Indian River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 253 km^2

Substantiation:

- In spring, when the water is high, muskoxen are concentrated along the stretch of the Hare Indian River between Lac à Jacques and Fort Good Hope (Sahtu Renewable Resources Board Meeting 2007; Sahtu Renewable Resources Board Meeting 2008).

Boundary Delineation: An area between Lac à Jacques and the Colville winter road was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007) and subsequently expanded all the way to Fort Good Hope (Sahtu Renewable Resources Board Meeting 2008).

Wood Bison

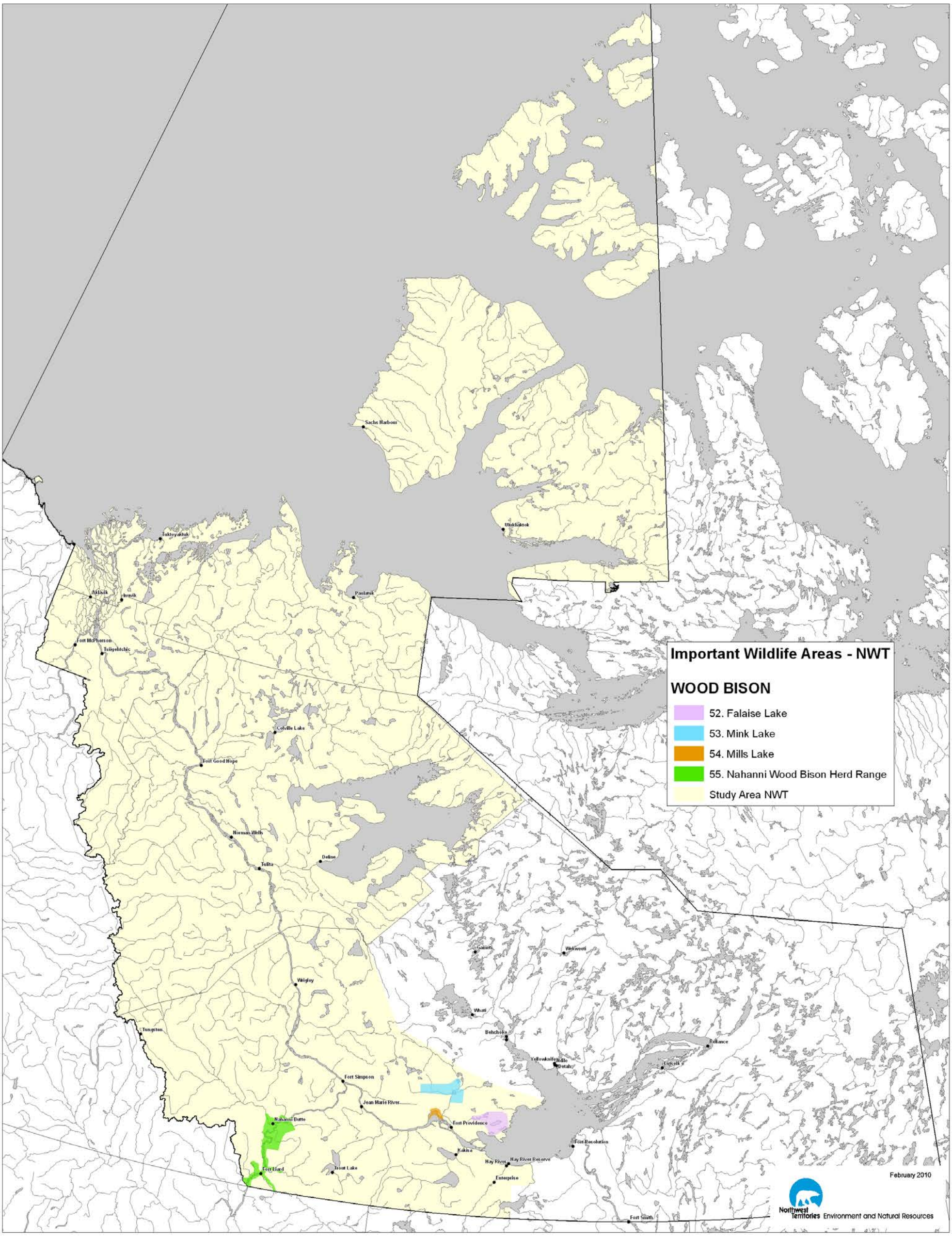

Figure 10. Important Wildlife Areas for wood bison in the Northwest Territories.

ID: 52

Name: Falaise Lake

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 1,649 km^2

Substantiation:

- This Important Wildlife Area contains several lakebeds including Falaise, Prairie, Dieppe, Calais, 690, 650[7], and Boulogne Lakes, as well as the two arms of Sulphur Bay. It is one of four key areas[8] for the Mackenzie wood bison population that contain the best available habitat for the herd and that are consistently used by bison over time (Ellsworth 2007 pers. comm.).
- The year-round importance of this area for bison has been demonstrated by numerous surveys (Chowns 1987b; Chowns and Graf 1987; Ellsworth 2007 pers. comm.; Ferguson 1987; Gates *et al.* 1991).
- Within this Important Wildlife Area, a slightly smaller area was identified as a known bison concentration and breeding area at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- Shortly after their release in 1963, the Mackenzie wood bison population moved to Falaise Lake. They were seen only on Falaise Lake until 1968,

[7] Lakes 690 and 650 are named by their elevation in feet above sea level. Lake 650 is located at approximately 61° 31.79' N and 116° 56.68' W. Lake 690 is located at approximately 61° 34.10' N and 116° 31.86' W.

[8] The four key areas mentioned include Falaise Lake (ID: 52), Mink Lake (ID: 53) and Mills Lake (ID: 54). The fourth key area, Lonely Bay, is outside the study area for this report.

and thereafter expanded to Calais Lake, Boulogne Lake, and other nearby lakebeds (Gates and Larter 1990; Larter *et al.* 2000). This was the only core area for the herd until the mid-1980s when they began to expand out of the Mackenzie Bison Sanctuary (Chowns and Graf 1987).

- The shallow lakebeds in this area characteristically contain very little water. Receding water levels in the early 1980s transformed the basins into sedge-grass prairies (Chowns 1987a), which are prime foraging habitats in the range of the Mackenzie wood bison population for whom suitable prairie habitats are relatively limited (Chowns 1987a; Ellsworth 2007 pers. comm.; Gates and Larter 1990).
- Sulphur Bay has natural salt deposits that attract bison. Surveys consistently record approximately 150-200 bison at Sulphur Bay, mostly during the summer (Ellsworth 2007 pers. comm.).
- Within this Important Wildlife Area, bison shift their distribution based on habitat availability, water levels and season (Chowns 1987b; Ellsworth 2007 pers. comm.). For example, in 2007, high water levels in the main lake basins caused bison to split up into many small groups in small pockets of suitable habitat, and fewer bison were seen on Falaise Lake than in the past. However, it was expected that large numbers of bison would use the area again once water levels go back down (Ellsworth 2007 pers. comm.). A similar situation occurred in 1983 (Graf *et al.* 1990).

Boundary Delineation: The boundary was drawn by ENR staff (Ellsworth 2007 pers. comm.).

ID: 53

Name: Mink Lake

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 1,700 km^2

Substantiation:

- This Important Wildlife Area includes Laferte Creek, Sharun Lake, Mink Lake, and an area east of the Horn River. It is one of four key areas for the Mackenzie wood bison population that contain the best available habitat for the herd and that are consistently used by bison over time. They are among the relatively few prime prairie habitats available to the Mackenzie wood bison population (Ellsworth 2007 pers. comm.).
- Multiple surveys have confirmed that this area is important for bison year-round (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006; Ellsworth 2007 pers. comm.; Gates *et al.* 1991).
- When the Mackenzie wood bison population began expanding out of its core habitats in the Mackenzie Bison Sanctuary in the mid-1980s, the first place it colonized was the area east of the Horn River and south of Mink Lake (Chowns and Graf 1987; Ellsworth 2007 pers. comm.). The expansion followed forest fires which improved habitat suitability for bison in the area (Chowns and Graf 1987; Gates and Larter 1990). A breeding

population was established by 1983, and the number of bison in the area increased thereafter (Gates and Larter 1990).

- The Laferte Creek plains in the western portion of this area were recognized as good bison habitat early on (Chowns and Graf 1987), but bison were not observed in this area until 1996, the year following a forest fire. Since then, surveys have consistently counted over 300 bison in this area (Ellsworth 2007 pers. comm.).
- Recently, wood bison expanded towards the Horn Plateau and individuals have been observed on the east flank of the Plateau (Larter *et al.* 2000; Larter *et al.* 2006).
- For about the last five years, summer use of Mink Lake itself by bison has been lower than in the past because of flooding (Ellsworth 2007 pers. comm.). However, wet areas can still be used by bison in winter when they are frozen (Gates and Larter 1990). It is believed that Mink Lake remains an important winter area for bison (Ellsworth 2007 pers. comm.).

Boundary Delineation: The boundary was drawn by ENR staff (Ellsworth 2007 pers. comm.).

ID: 54

Name: Mills Lake

Criterion Satisfied: #1 (area that many animals use traditionally, around the same time each year)

Size: 295 km^2

Substantiation:

- This Important Wildlife Area encompasses the northern shore of Mills Lake and the northern portion of the lakebed itself. It is one of four key areas for the Mackenzie wood bison population that contain the best available habitat for the herd and that are consistently used by bison over time. They are among the relatively few prime prairie habitats available to the Mackenzie wood bison population (Ellsworth 2007 pers. comm.).
- This Important Wildlife Area is similar to an area identified as a bison concentration area at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003). However, the westernmost portion of the shoreline was removed because the grassy shoreline is narrow and bison are not typically seen here during surveys (Ellsworth 2007 pers. comm.). The northern portion of the lakebed was added because it is actually a huge wet meadow which maintains good bison habitat through periodic flooding (Chowns 2008 pers. comm.).
- Mills Lake was recognized as good bison habitat as early as 1983 (Chowns and Graf 1987). Small numbers of adult males were seen at Mills Lake during the 1980s, and a herd expansion episode began in the winter of 1992-1993 when females and juveniles were observed occupying the Mills Lake area for the first time (Larter *et al.* 2000). Since then, relatively large numbers of bison have been observed in this area during surveys in

1995-2000, 2003, and 2004 (Bidwell *et al.* 2004; EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006; Nishi 2002).

- The Mills Lake area is particularly important for winter use by bison (Bidwell *et al.* 2004; EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006; Nishi 2002), although bison groups are also found here in summer (Ellsworth 2007 pers. comm.).
- Mills Lake is a shallow lakebed and marsh, and major portions are flooded annually (Beckel 1975; Larter *et al.* 2000). When water levels are low, large areas of sedge-grass meadow are exposed which allows larger numbers of bison to occupy the area for longer periods (Nishi 2002). However, suitable habitat can be available for bison under moderate water levels as well (Ellsworth 2007 pers. comm.).

Boundary Delineation: The boundary was initially drawn by ENR staff (Ellsworth 2007 pers. comm.) and subsequently expanded by an environmental consultant (Chowns 2008 pers. comm.).

ID: 55

Name: Nahanni Wood Bison Herd Range

Criterion Satisfied: #5 (year-round range)

Size: 3,616 km^2

Substantiation:

- This area along the Liard River valley is the NWT portion of what is believed to be the majority of the range used by the Nahanni wood bison

population, based on historical bison observations and input from biologists, harvesters, local First Nations, and community meetings (Larter *et al.* 2007; Allaire and Larter 2008 pers. comm.; Dehcho Regional Wildlife Workshop 2008).

- Bison shift their distribution to different parts of this area throughout the year (Allaire and Larter 2008 pers. comm.).
- Wood bison historically used this area before they were nearly hunted to extinction in the late 1800s. As part of a national recovery strategy, wood bison were released into the Nahanni Butte area in 1980, 1989 and 1998. The population has since established itself along both sides of the Liard River from the Blackstone River south to northern British Columbia (Larter and Allaire 2007). In 2004 the population was estimated at 399 non-calf bison (Larter *et al.* 2007).
- Unlike the range of the Mackenzie wood bison population, the majority of the Nahanni herd's range is forested and bisected by major river drainages, mountains and deep valleys. There are no large open sedge-dominated meadows. Instead, bison use the abundant riparian habitats and small oxbow meadows associated with rivers (Larter *et al.* 2007). Future range expansion is blocked to the west by a mountain range, and limited to the east by a lack of meadow habitat and oxbow lakes (Larter and Allaire 2007).

Boundary Delineation: The boundary was originally delineated by ENR staff based on the distribution of all historical bison observations and refined following

comments from biologists, harvesters, local First Nations, and community meetings (Larter *et al.* 2007). Range extensions were subsequently added by participants at the Dehcho Regional Wildlife Workshop (2008).

IMPORTANT WILDLIFE AREAS FOR FURBEARERS

Grizzly Bears

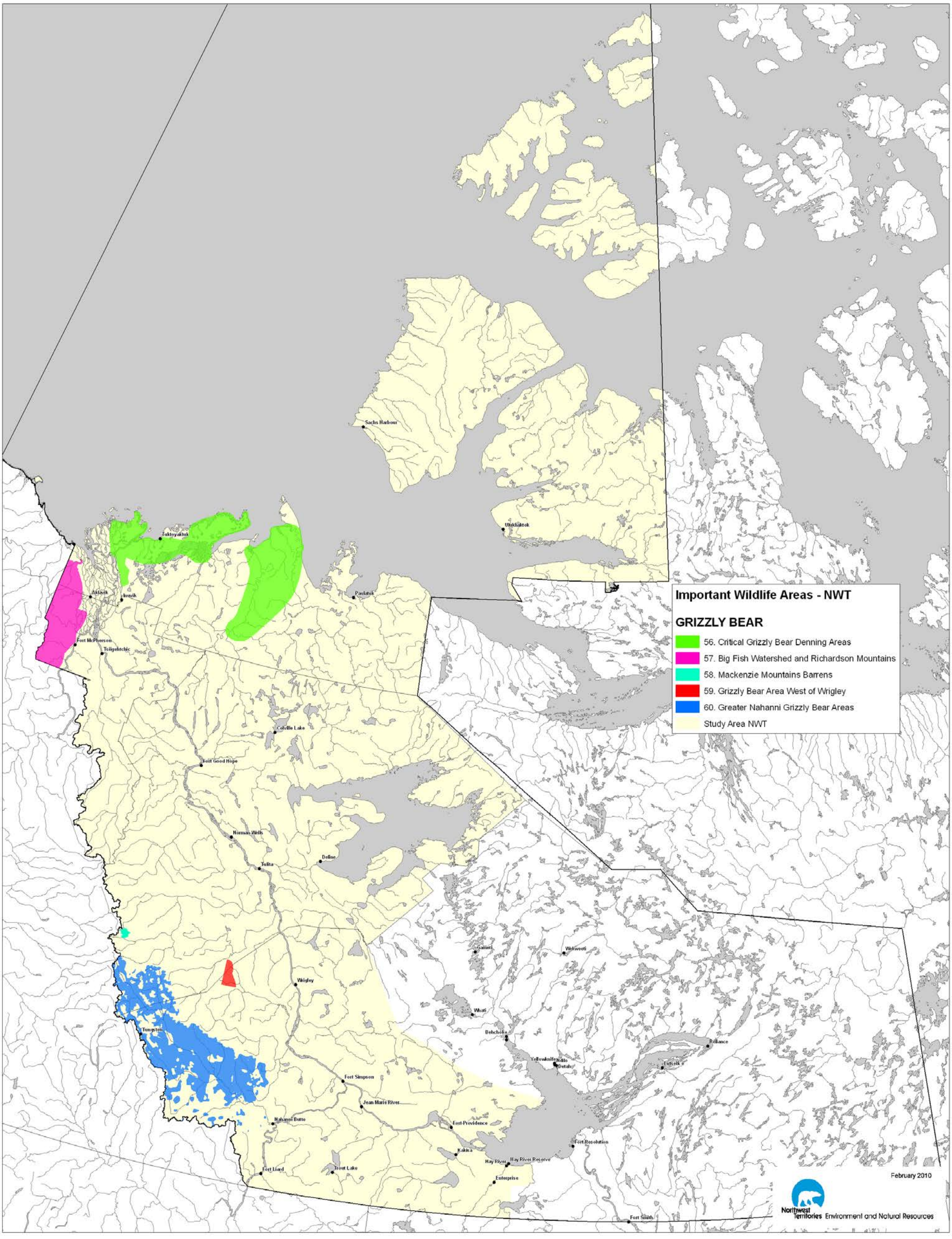

Figure 11. Important Wildlife Areas for grizzly bear in the Northwest Territories.

ID: 56

Name: Critical Grizzly Bear Denning Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 28,371 km^2

Substantiation:

- This Important Wildlife Area includes three areas: a coastal area from Richards Island to Tuktoyaktuk Peninsula, an area that includes parts of the Anderson and Horton Rivers, and the Caribou Hills. These areas are important for denning grizzly bears (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Derocher 2008 pers. comm.) and are therefore grizzly bear concentration areas (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008; Derocher 2008 pers. comm.).
- Richards Island to Tuktoyaktuk Peninsula portion:
    - Numerous dens have been recorded on Richards Island and the Tuktoyaktuk Peninsula, including 101 old and recently excavated dens during 1973 to 1978 (Nagy *et al.* 1983).
    - Part of Tuktoyaktuk Peninsula and the Kugaluk River area was noted as a grizzly bear denning area in a report on ecologically significant sites (Beckel 1975).

- Numerous grizzly bear sightings have been reported in this area, particularly in the vicinity of Richards Island (Government of Canada 1973).
- The overall grizzly bear density for this population, approximately 4/1000 km^2 (Nagy and Branigan 1998), is relatively low compared to populations elsewhere in interior North America which have richer food sources (Nagy *et al.* 1983).

- Anderson-Horton Rivers portion:
  - In the Anderson-Horton Rivers area, 14 dens were located in a similar (but slightly smaller) area in 1987 and 1988. Although there appears to be suitable denning habitat throughout this area, most known dens are associated with either the Anderson or Horton River valleys or tributaries (Clarkson and Liepins 1989b).
  - The grizzly bear density for this population has been estimated at approximately 8/1000 km^2 (Clarkson and Liepins 1992; Nagy and Branigan 1998).
  - Inuvialuit hunters have said that there are lots of bears in this area (Clarkson and Liepins 1989a).
  - This has been described as one of the few places where the barren-ground grizzly bear can readily be found (Nettleship and Smith 1975).
- Caribou Hills portion:

- The Caribou Hills are used extensively by grizzly bears for denning and have some of the highest concentrations of denning grizzly bears in the Delta area (Derocher 2008 pers. comm.).

Boundary Delineation: The boundary is for zones 322C and 702B identified in Inuvialuit Community Conservation Plans (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 57

Name: Big Fish Watershed and Richardson Mountains

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 8,660 km^2

Substantiation:

- This area has a relatively high density of grizzly bears (Branigan 2008 pers. comm.; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- In 1992-1993 grizzly bear density was estimated at 19/1000 km^2 for an area that largely overlaps with this Important Wildlife Area (Nagy and Branigan 1998).

- A habitat study in the 1970s ranked the Richardson Mountains portion of this area as a high use area for grizzly bear, and the foothills portions as common use areas (Government of Canada 1973).
- Sources have noted that grizzly bears are common around Canoe Lake (Nettleship and Smith 1975) and that the James Creek area is sensitive habitat for grizzly bears in all seasons (Gwich'in Land Use Planning Board 2003).
- Tracks and scat of grizzly bears were observed along many rivers and creeks in the Rat River watershed area in 1999 (Haszard and Shaw 2000).
- Residents of Fort McPherson have reported that there are many grizzly bears in the eastern foothills of the Richardson Mountains (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- Gwich’in elders have said that grizzly bears live in the mountains because they find large berry patches, good fishing in the fast water, many denning and hiding sites, and fewer mosquitoes than in the Delta (Gwich'in Elders 1997).
- Barren-ground caribou passing through this area in spring and fall provide an available food source for grizzly bears (Government of Canada 1973).
- The Richardson mountains are considered to be a prime area for hunting grizzly bears (Lambert Koizumi 2006a). Stony Creek, Brass House, and Rat River are three places where grizzly bears are hunted (Gwich'in Elders 1997).

Boundary Delineation: The boundary includes zone 720DE identified in Inuvialuit Community Conservation Plans (Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000) as well as additional areas drawn by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and residents of Fort McPherson (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 58

Name: Mackenzie Mountains Barrens

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 192 km^2

Substantiation:

- Compared to the rest of the Mackenzie Mountains, the Mackenzie Mountains Barrens area has a relatively high density of grizzly bears (Popko and Veitch 2006 pers. comm.).
- The Mackenzie Mountains Barrens area has been called "excellent grizzly country" (Beckel 1975).
- A study of grizzly bears in an area that partially overlaps with this Important Wildlife Area estimated an average grizzly bear density of 8.8/1000 km^2 (Miller *et al.* 1982),

- Grizzly bear density here is magnitudes lower than in southern Canada, where it reaches 70 to 100/1000km^2 at the Brititish Columbia coast and 30 to 60/1000 km^2 in the interior British Columbia mainland (Province of British Columbia 2002).

Boundary Delineation: The boundary is for the Mackenzie Mountains Barrens International Biological Programme (IBP) Site (Beckel 1975).

ID: 59

Name: Grizzly Bear Area West of Wrigley

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 770 km^2

Substantiation:

- This area in the Backbone Ranges of the Mackenzie Mountains was mapped as a high use area for grizzly bears, at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- A study in the 1970s classified this area as excellent grizzly habitat. Several grizzly bears were observed here in early spring and there were strong indications of denning in the area. The excellent grizzly habitat may continue to the west and/or south but these areas were not studied (Government of Canada 1973).

Boundary Delineation: The boundary is from the Dehcho Land Use Planning Committee Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

ID: 60

Name: Greater Nahanni Grizzly Bear Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 23,470 km^2

Substantiation:

- This portion of the southern Mackenzie Mountains supports relatively high densities of grizzly bears (Dehcho Regional Wildlife Workshop 2008; Weaver 2008b pers. comm.).
- From 2002 to 2005, researchers used hair snagging and DNA analysis techniques to survey grizzly bears across the entire Greater Nahanni Ecosystem, an area which includes the South Nahanni River watershed and the Nahanni Karstlands. A model of bear distribution was developed based on terrain and land cover. The study showed that the diverse mountain landscapes in the north-central and northwest sectors of the Greater Nahanni Ecosystem had higher occurrence and density of grizzly bears than the boreal forests to the south (Weaver 2006). This Important Wildlife Area includes the portions of the Greater Nahanni Ecosystem

where grizzly bear density was predicted to be moderate, high or very high (Weaver 2006; Weaver 2008b pers. comm.).

- With an average predicted grizzly bear density of approximately 21/1000 km^2 (Weaver 2008b pers.comm.), these are among the highest density areas for grizzly bears known in the NWT (COSEWIC 2002b).
- Grizzly bear density here is magnitudes lower than in southern Canada, where it reaches 70 to 100/1000km^2 at the Brititish Columbia coast and 30 to 60/1000 km^2 in the interior British Columbia mainland (Province of British Columbia 2002).

Boundary Delineation: The area includes portions of the Greater Nahanni Ecosystem where grizzly bear density was predicted to be moderate, high or very high based on a model of bear distribution using survey results from 2002 to 2005, terrain and land cover (Weaver 2006; Weaver 2008b pers. comm.).

Polar Bear

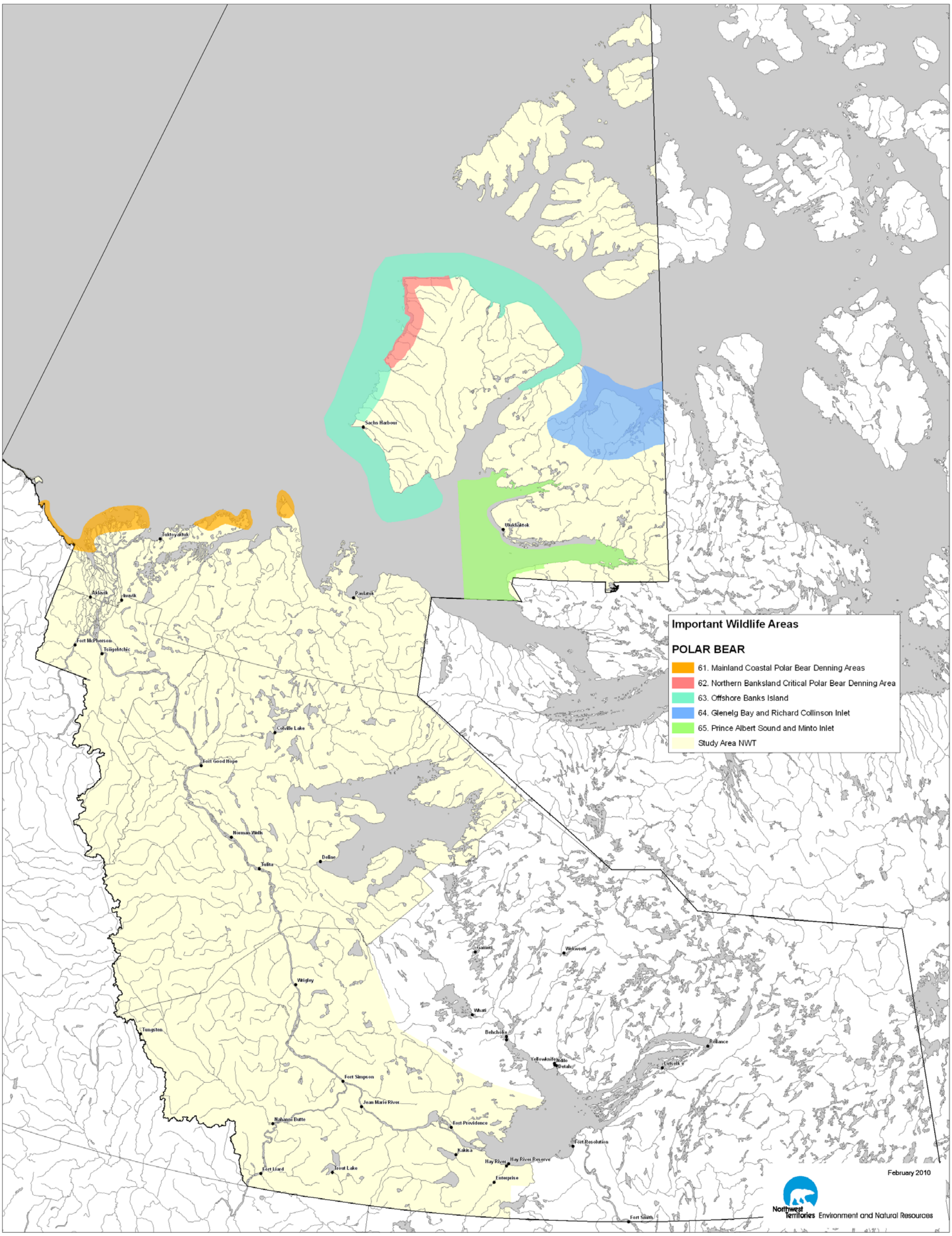

Figure 12. Important Wildlife Areas for polar bear in the Northwest Territories.

ID: 61

Name: Mainland Coastal Polar Bear Denning Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 9,785 km^2

Substantiation:

- This Important Wildlife Area includes three coastal and offshore areas: Kay Point to Summer Island, the northeast portion of the Tuktoyaktuk Peninsula, and the northern portion of Cape Bathurst and Baillie Islands. The area is important for polar bear denning from October to March (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000) and therefore a polar bear concentration area (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008). However, denning for the Southern Beaufort subpopulation of polar bears is more concentrated in northeastern Alaska and Yukon than in the NWT (Amstrup and Gardner 1994).
- In the 1970s and earlier, maternity denning on land was generally uncommon on the mainland coast, although the small islands west of Tuktoyaktuk appeared to be relatively important for denning (Stirling and Andriashek 1992). More maternity dens were located offshore in pack ice (Amstrup and Gardner 1994). The frequency of maternity denning on land may have been increasing in the 1980s because of reduced hunting pressure. However, maternity denning on land will probably never be as

common here as on the west coast of Banks Island because freeze-up occurs later along the mainland coast, inhibiting access of pregnant bears to the shoreline (Stirling and Andriashek 1992).

- Cape Bathurst is known as a particularly good area for polar bear hunting (Usher 1976).

Boundary Delineation: The boundary is for zone 323C identified in Inuvialuit Community Conservation Plans (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 62

Name: Northern Banksland Critical Polar Bear Denning Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 5,238 km^2

Substantiation:

- This area is a critical polar bear denning area from November to April (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000) and therefore a concentration area for polar bears of the Northern Beaufort subpopulation (Branigan 2008 pers. comm.).
- Inuvialuit people and scientists have long known that maternity denning is common on the western coast of Banks Island, particularly in the vicinity of Norway Island, and many dens have been reported here. The greatest

amount of maternity denning in the western Canadian Arctic occurs here and on the southern coast of Banks Island (Stirling and Andriashek 1992).

- Drifting pack ice lies close to the west coast of Banks Island almost every fall, so that under normal conditions pregnant bears can easily reach the land to den (Stirling and Andriashek 1992).
- Predictive modeling shows Banks Island as continuing to be important winter polar bear habitat, even with predicted changes to sea ice (Durner *et al.* 2009).

Boundary Delineation: The boundary is for zone 618C identified in Inuvialuit Community Conservation Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 63

Name: Offshore Banks Island

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 51,346 km^2

Substantiation:

- This area has been delineated as a polar bear concentration area by a resident of Sachs Harbour (Meeting of Inuvialuit Community Representatives to Revise Inuvialuit Community Conservation Plans 2008).

- Not all sources support this as a polar bear concentration area. A polar bear researcher stated that polar bears do use this area but to a similar degree as offshore areas along the mainland coast. Furthermore, preliminary data from radio telemetry studies suggest that patterns of polar bear distribution may be shifting away from coastal areas (Derocher 2008 pers. comm.).
- Capture-recapture studies show that the western and southern offshore areas of Banks Island are key activity areas for bears from the Northern Beaufort subpopulation (Stirling *et al.* 2007; Stirling 2002).
- The importance of this area is greatest in spring; summer and winter use by polar bears extends much further offshore (Derocher 2008 pers. comm.).
- The area is important habitat for denning polar bears from November to May. Maternity denning appears to occur particularly frequently on the small islands along the northwestern coast (Norway, Bernard, and Robilliard Islands) and at Nelson Head (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Stirling and Andriashek 1992).
- Polar bears are harvested for subsistence and sport throughout the area (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Lunn *et al.* 1995).

- Predictive modeling shows the waters around Banks Island as continuing to be important winter polar bear habitat, even with predicted changes to sea ice (Durner *et al.* 2009).

Boundary Delineation: The boundary was drawn by a resident of Sachs Harbour (Meeting of Inuvialuit Community Representatives to Revise Inuvialuit Community Conservation Plans 2008).

ID: 64

Name: Glenelg Bay and Richard Collinson Inlet

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 21,980 km^2

Substantiation:

- This area is a known concentration area for polar bears of the Viscount Melville Sound subpopulation. Most of the range for this subpopulation is heavy multi-year ice, which is poor habitat for ringed seals and for polar bears. Therefore, both seals and polar bears are concentrated in the bays and coastal areas where there are tide cracks, active ice, annual ice, and mixed annual and multi-year ice (Taylor *et al.* 2002).
- Aerial surveys and mark-recapture studies from 1972 – 1978 and 1989 - 1992 show concentrations of bear activity around Wynniatt and Glenelg Bays and to a lesser extent Richard Collinson Inlet, as well as Hadley Bay in Nunavut (Ferguson 1987; Taylor *et al.* 2002).

- Polar bears are concentrated near the coastline in late winter and spring and may remain there in summer during the open-water period (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Ferguson 1987).
- The coastal areas adjacent to Wynniatt Bay and Richard Collinson Inlet are important denning areas November to May (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Ferguson 1987; Messier *et al.* 1994).
- Polar bears are hunted in the area (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Lunn *et al.* 1995).

Boundary Delineation: The boundary is for zone 523D identified in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 65

Name: Prince Albert Sound and Minto Inlet

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 24,062 km^2

Substantiation:

- This has been delineated as important habitat for polar bears year-round (Community of Holman, Wildlife Management Advisory Council (NWT)

and Joint Secretariat 2000) and is therefore considered to be a polar bear concentration area (Branigan 2008 pers. comm.).

- Not all sources support this as a polar bear concentration area. A polar bear researcher stated that polar bears do use this area but to a similar degree as offshore areas along the mainland coast. Furthermore, preliminary data from radio telemetry studies suggests that patterns of polar bear distribution may be shifting away from coastal areas (Derocher 2008 pers. comm.).
- Capture-mark-recapture studies from 1971 to 1998 confirm that bears do use this area, although less heavily than the western and southern coasts of Banks Island (Stirling 2002).
- The importance of this area is greatest in spring; summer and winter use by polar bears extends much further offshore (Derocher 2008 pers. comm.).
- Minto Inlet is an important pupping area for ringed seals, owing to the stable ice in the inlet, and polar bears pass through the inlet enroute to the north coast (Nettleship and Smith 1975).
- Polar bears are hunted in this area (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Lunn *et al.* 1995).
- Maternity denning is uncommon here (Stirling and Andriashek 1992).

Boundary Delineation: The boundary is for zone 509BE identified in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

Beaver

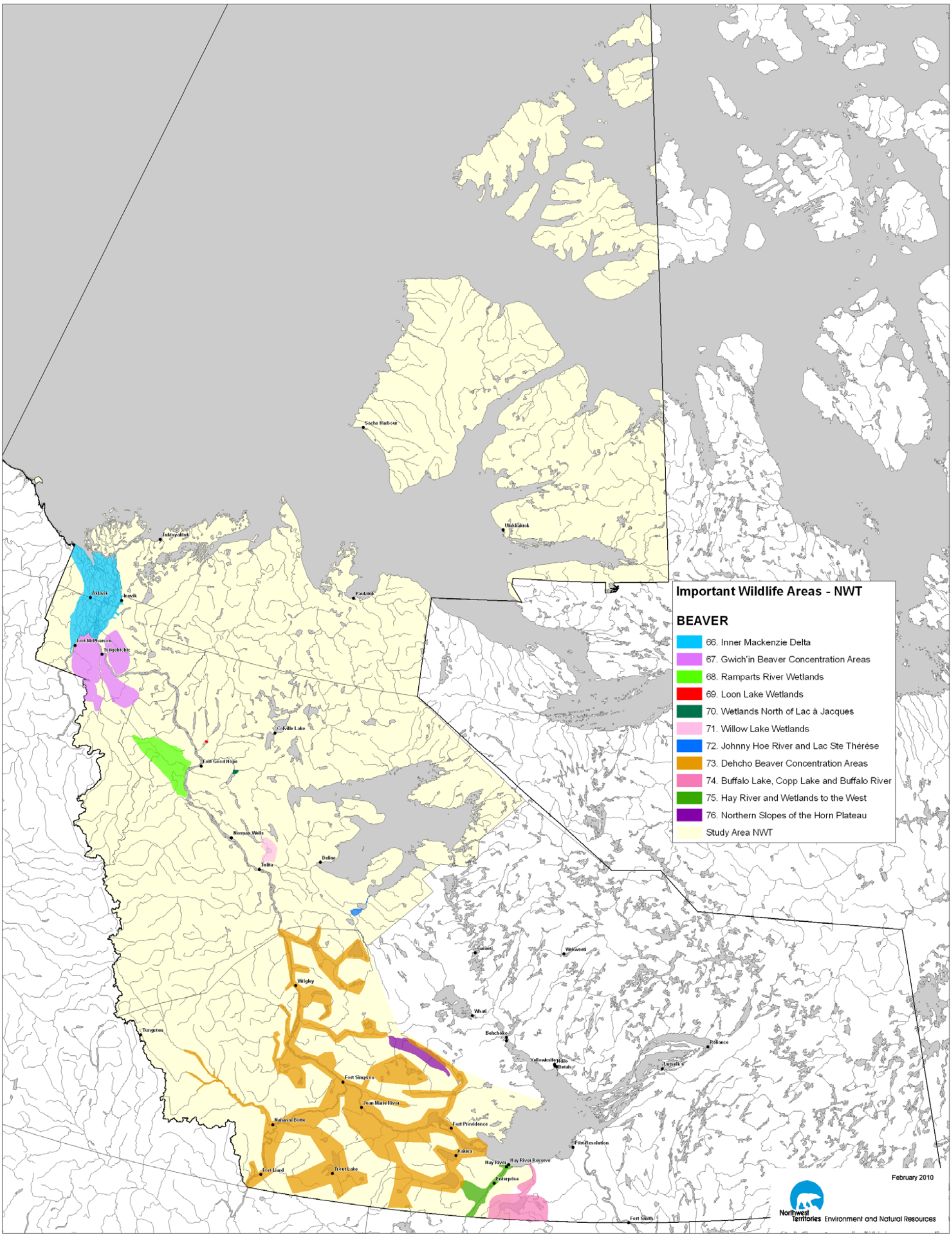

Figure 13. Important Wildlife Areas for beaver in the Northwest Territories.

ID: 66

Name: Inner Mackenzie Delta[9]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 10,360 km^2

Substantiation:

- The inner Mackenzie Delta is good beaver country and beavers are concentrated here (Gwich'in Elders 1997; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- Beavers used to be common in this area but they experienced population declines in the past, attributed to intensive trapping. Recently their numbers have increased again in the Delta, possibly because there are fewer people hunting them now (Gwich'in Elders 1997; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).
- Various sources have rated the inner Delta anywhere from “intermediate quality” to “very important” beaver habitat (Government of Canada 1973; Mackenzie River Basin Committee 1981).
- The density of optimal habitat for beaver is greatest in the southern portion of the Delta, with shorelines of streams and lakes having the best beaver habitat (Inuvialuit Environmental and Geotechnical 2002). The suitability of

[9] This area is also a muskrat concentration area (see ID: 92).

beaver habitat partly depends on the availability of shrubs as food and building materials in close proximity to water bodies. Therefore, the density of suitable habitat in the Delta decreases towards the north as shrub cover decreases (IMG Golder Corporation 2008).

- Beavers are at their northern limit in the Mackenzie Delta (Inuvialuit Environmental and Geotechnical 2002).

Boundary Delineation: For the portion in the Gwich'in Settlement Area, the boundary is for the Mackenzie Delta HS Ecoregion (Ecosystem Classification Group 2007). For the portion in the Inuvialuit Settlement Region, the boundary is for zone 719C identified in Inuvialuit Community Conservation Plans (Community of Inuvik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 67

Name: Gwich'in Beaver Concentration Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 9,477 km^2

Substantiation:

- These areas contain numerous lakes and are high density beaver areas (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008;

Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008; Wooley 1974).

- The area between the Peel and Arctic Red Rivers has been previously identified as important beaver habitat and a beaver hunting area (Government of Canada 1973; Gwich'in Elders 1997; Mackenzie River Basin Committee 1981). It contains many beaver houses, some of which are between 50 and 60 years old (Gwich'in Elders 1997).
- Few people travel to the southernmost area west of the Arctic Red River at Martin House, which may contribute to high beaver densities there (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- Portions of the areas east of the Arctic Red River have been classified as intermediate quality habitat for beaver (Government of Canada 1973).

Boundary Delineation: The boundaries were drawn by Gwich’in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and subsequently expanded by residents of Tsiigehtchic and Fort McPherson (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 68

Name: Ramparts River Wetlands[10]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 4637 km^2

Substantiation:

- This is an extensive wetland with high quality beaver habitat (Government of Canada 1973; Wooley 1974) that consistently supports high beaver densities (Popko and Veitch 2006 pers. comm.).
- This area has been called 'the best beaver habitat north of Fort Simpson' (Wooley 1974).
- Surveys in 1989, 1997 and 2001 reported densities ranging from 58 to 86 active beaver lodges/100 km^2 for a portion of this area (Popko *et al.* 2002).
- This is an important beaver harvesting area for Fort Good Hope families (Sahtu Heritage Places and Sites Joint Working Group 1999).

Boundary Delineation: The boundary is for the Ramparts River Wetlands (Tuyetah) Key Migratory Bird Terrestrial Habitat Site (Latour *et al.* 2008).

ID: 69

Name: Loon Lake Wetlands

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

[10]This area is also a concentration area for moose (see ID: 92) and a unique area important to multiple species (see ID: 102).

Size: 20 km^2

Substantiation:

- The Loon Lake Wetlands are known to some Sahtu residents as a beaver concentration area (Sahtu Renewable Resources Board Meeting 2007).
- Not all sources support the importance of this area for beaver. This area was previously described as relatively poor quality habitat for beaver (Government of Canada 1973), however the beaver population was also low at this time (Fleck 2009 pers. comm.).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 70

Name: Wetlands North of Lac à Jacques

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 60 km^2

Substantiation:

- The wetlands north of Lac à Jacques are known to some Sahtu residents as a beaver concentration area (Sahtu Renewable Resources Board Meeting 2007).
- The area has been previously described as ‘intermediate quality’ habitat (Government of Canada 1973) or ‘very critical habitat’ (Mackenzie River Basin Committee 1981) for beaver.

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 71

Name: Willow Lake Wetlands[11]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 907 km^2

Substantiation:

- The wetlands around Willow Lake (sometimes called Brackett Lake) consistently support high beaver densities, although generally not as high as Ramparts River Wetlands (Popko and Veitch 2006 pers. comm.; Sahtu Land Use Planning Board 2009).
- Surveys in 1989, 1997 and 2001 reported densities ranging from 41 to 69 active beaver lodges/100 km^2 for a portion of this area (Popko *et al.* 2002).
- These wetlands are high quality beaver habitat (Government of Canada 1973; Mackenzie River Basin Committee 1981).

Boundary Delineation: The boundary is for the draft Willow Lake Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

[11] This area is also a unique landscape important to multiple species (see ID: 92).

ID: 72

Name: Johnny Hoe River and Lac Ste Thérèse

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 210 km^2

Substantiation:

- Johnny Hoe River and the wetlands southwest of Lac Ste Thérèse are known to some Sahtu residents as beaver concentration areas (Sahtu Renewable Resources Board Meeting 2007).
- This Important Wildlife Area is part of a larger area which is important to the life cycles of beaver (Sahtu Land Use Planning Board 2007) and an important spring hunting area for beaver (Sahtu Heritage Places and Sites Joint Working Group 1999).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 73

Name: Dehcho Beaver Concentration Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 61,060 km^2

Substantiation:

- These are areas in the Dehcho Territory that are believed to have consistently high densities of beavers (Allaire 2008 pers. comm.).
- This Important Wildlife Area encompasses almost all of the areas of high beaver concentration that were identified at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003), as well as some additional areas.
- Many of these areas have been highlighted in previous studies as having relatively high densities of beavers. These include Tathlina Lake, the Kakisa River drainage and its associated wetlands, the many small lakes south of Dogface Lake, Redknife River, Tetcho Lake and the river that flows into it, an area southeast of Fort Simpson, the Martin River area southwest of Fort Simpson, an area south of Ebbutt Hills, areas around Camsell Bend, and Willowlake River (Beckel 1975; Crosscurrent Associates Ltd. and Crosscurrent Environmental Services Ltd. 2005; Dennington and Johnson 1974; Department of Environment 1974; EBA Engineering Consultants Ltd. 2007a; Fuller 1953; Poole and Croft 1990; Wooley 1974).
- Bulmer Lake and the top of the Horn Plateau are not usually listed as beaver concentration areas. However, participants at a traditional knowledge workshop noted that beavers used to be abundant here (Deh Cho First Nations 2001) and several beaver observations have been

recorded here (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006).

- Some of these areas were highlighted in a habitat mapping study as having the best available beaver habitat within the study area, although only a portion of the Dehcho Territory was studied. These are the Kakisa River and associated wetlands, Redknife River, the Island River south of Tetcho Lake, an area south of Cormack Lake, the Martin and Matou Rivers area, Sibbeston Lake, the area northwest of Fort Simpson, and Camsell Bend (Government of Canada 1973).

Boundary Delineation: The boundaries were drawn by ENR staff (Allaire 2008 pers. comm.).

ID: 74

Name: Buffalo Lake, Copp Lake and Buffalo River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 5,065 km^2

Substantiation:

- The area that includes Buffalo Lake, Copp Lake, and Buffalo River is a concentration area for beavers. Even though beavers are widespread throughout the southern Dehcho Territory, this area contains a relatively high number of creeks with beavers in them (Meeting with harvesters of K'átł'odeeche First Nation 2008).

- The area has been described as ideal habitat for beaver (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).
- Within this area, the alluvial zones to the south and southeast of Buffalo Lake have been highlighted as particularly good beaver habitat (Chowns 2008 pers. comm.). Several creeks and rivers drain into the lake here, delivering nutrient-rich sediments that support very productive wildlife habitat (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008) and includes a smaller concentration area drawn by an environmental consultant (Chowns 2008 pers comm.).

ID: 75

Name: Hay River and Wetlands to the West

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,056 km^2

Substantiation:

- The area that includes the Hay River, Hay River Delta and the wetlands between the Hay River and Tathlina Lake is a concentration area for beavers. Even though beavers are widespread throughout the southern Dehcho Territory, this area contains a relatively high number of creeks

with beavers in them (Meeting with harvesters of K'átł'odeeche First Nation 2008).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008).

ID: 76

Name: Northern Slopes of the Horn Plateau

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,154 km^2

Substantiation:

- The streams descending from the northern slopes of the Horn Plateau into the Horn River have relatively high beaver densities (Chowns 2008 pers. comm.).
- This area is believed by some to have much higher beaver densities than the top of the Horn Plateau itself. Because the area experiences less human use it may also be important as a 'population source' for beavers (Chowns 2008 pers. comm.).
- Wildlife habitat mapping projects in the 1960s and 1970s identified this area as critical beaver habitat and the most productive beaver habitat in the region (Cizek 2001).

- A few beaver observations were recorded here in 2002 and 2003 (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006).
- A very small portion of this area was mapped as beaver habitat at a traditional knowledge workshop (Cizek 2001).

Boundary Delineation: The boundary was drawn by an environmental consultant (Chowns 2008 pers comm.).

Lynx

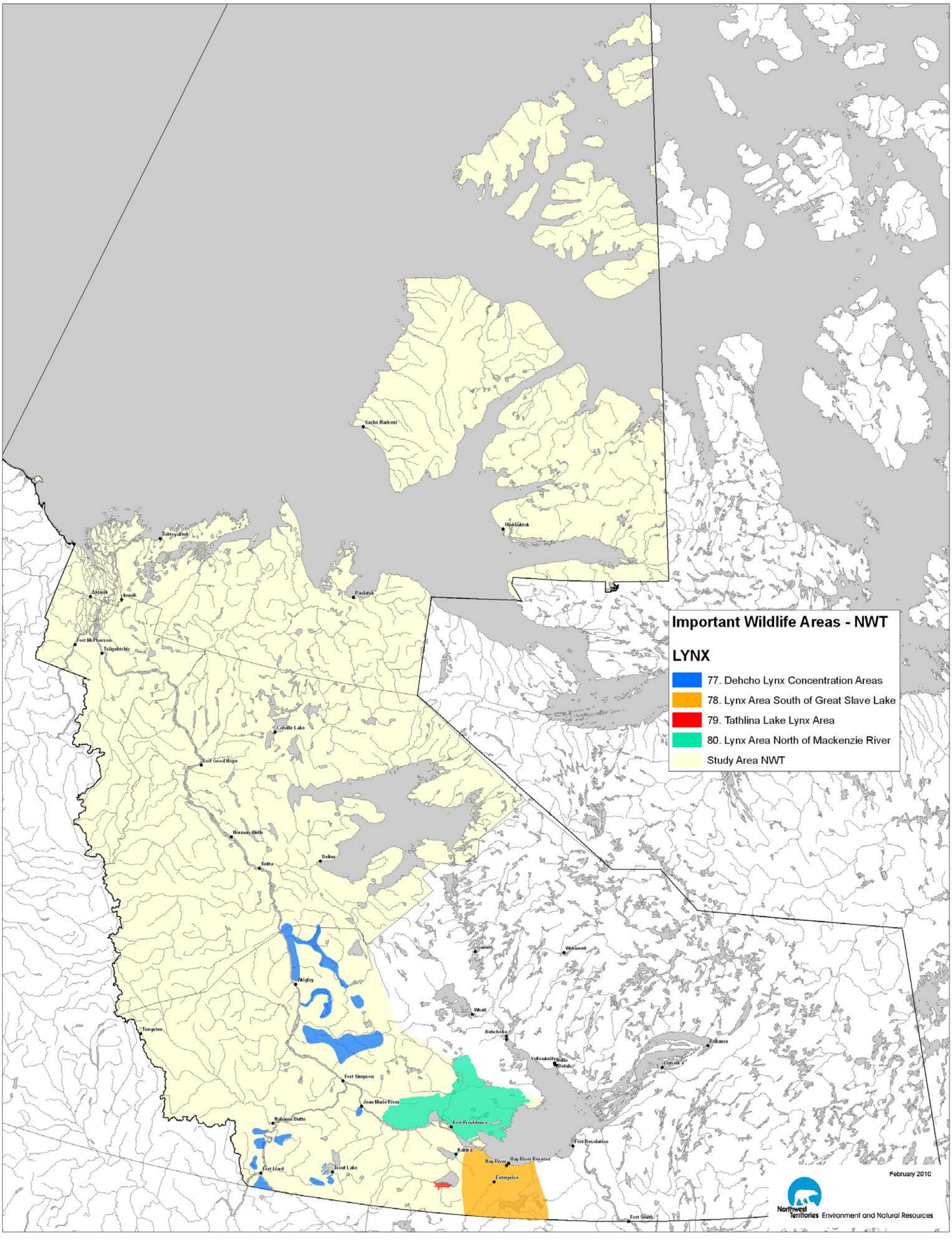

Figure 14. Important Wildlife Areas for lynx in the Northwest Territories.

ID: 77

Name: Dehcho Lynx Concentration Areas

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 10,328 km^2

Substantiation:

- At a workshop that included biologists and Dehcho community harvesters, these areas were identified as having a concentration of lynx populations (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).
- Lynx populations cycle in relation to their main prey, the snowshoe hare (Poole 1992; Poole 1994).

Boundary Delineation: The boundaries were drawn at a workshop that included biologists and Dehcho community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

ID: 78

Name: Lynx Area South of Great Slave Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 14,184 km^2

Substantiation:

- A broad area which includes Buffalo Lake and extends from Great Slave Lake to the Alberta-NWT border supports relatively high numbers of lynx (Meeting with harvesters of K'átł'odeeche First Nation 2008).
- Within this area, the alluvial zones to the south and southeast of Buffalo Lake have been highlighted as particularly good lynx habitat (Chowns 2008 pers. comm.). Several creeks and rivers drain into the lake here delivering nutrient-rich sediments that support very productive wildlife habitat (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008) and includes a smaller lynx concentration area drawn by an environmental consultant (Chowns 2008 pers. comm.).

ID: 79

Name: Tathlina Lake Lynx Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 217 km^2

Substantiation:

- The alluvial zone south of Tathlina Lake supports a relatively high number of lynx (Chowns 2008 pers. comm.).

- The Cameron River and other streams drain into the lake from the slopes of the Cameron Hills, delivering nutrient-rich sediments that support very productive wildlife habitat (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).

Boundary Delineation: The boundary was drawn by an environmental consultant (Chowns 2008 pers. comm.).

ID: 80

Name: Lynx Area North of Mackenzie River

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 16,628 km^2

Substantiation:

- This area west of Great Slave Lake and north of the Mackenzie River supports relatively high numbers of lynx (Chowns 2008 pers. comm.).
- This area lies in the basin of the former Glacial Lake McConnell where nutrient-rich lacustrine soils produce dense vegetation for snowshoe hares and lynx to thrive (Chowns 2008 pers. comm.).
- A smaller area along the Horn River and Laferte River was mapped as known critical habitat for lynx, at a workshop that included biologists and community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003).

- A small area on the Laferte River was mapped as a lynx wintering area at a traditional knowledge workshop (Cizek 2001).
- A study of lynx from 1989 to 1993 within the Mackenzie Bison Sanctuary, in the eastern part of this Important Wildlife Area, found that lynx densities peaked at about 30/100 km^2 and declined to about 3/100 km^2 the winter after a decline in hare numbers. The peak lynx densities attained were among the highest recorded anywhere, and snowshoe hare densities were also relatively high. This suggested that the area was good lynx habitat, although low trapping pressure within the Sanctuary was also believed to be a factor (Poole 1994).
- Trapping records from the early 1990s show a relatively high lynx harvest by the community of Fort Providence (Poole 1992).
- Some traplines in this area have produced over 100 pelts per year when the lynx population cycle is high (Chowns 2008 pers. comm.).

Boundary Delineation: The boundary was drawn by an environmental consultant (Chowns 2008 pers. comm.).

Marten

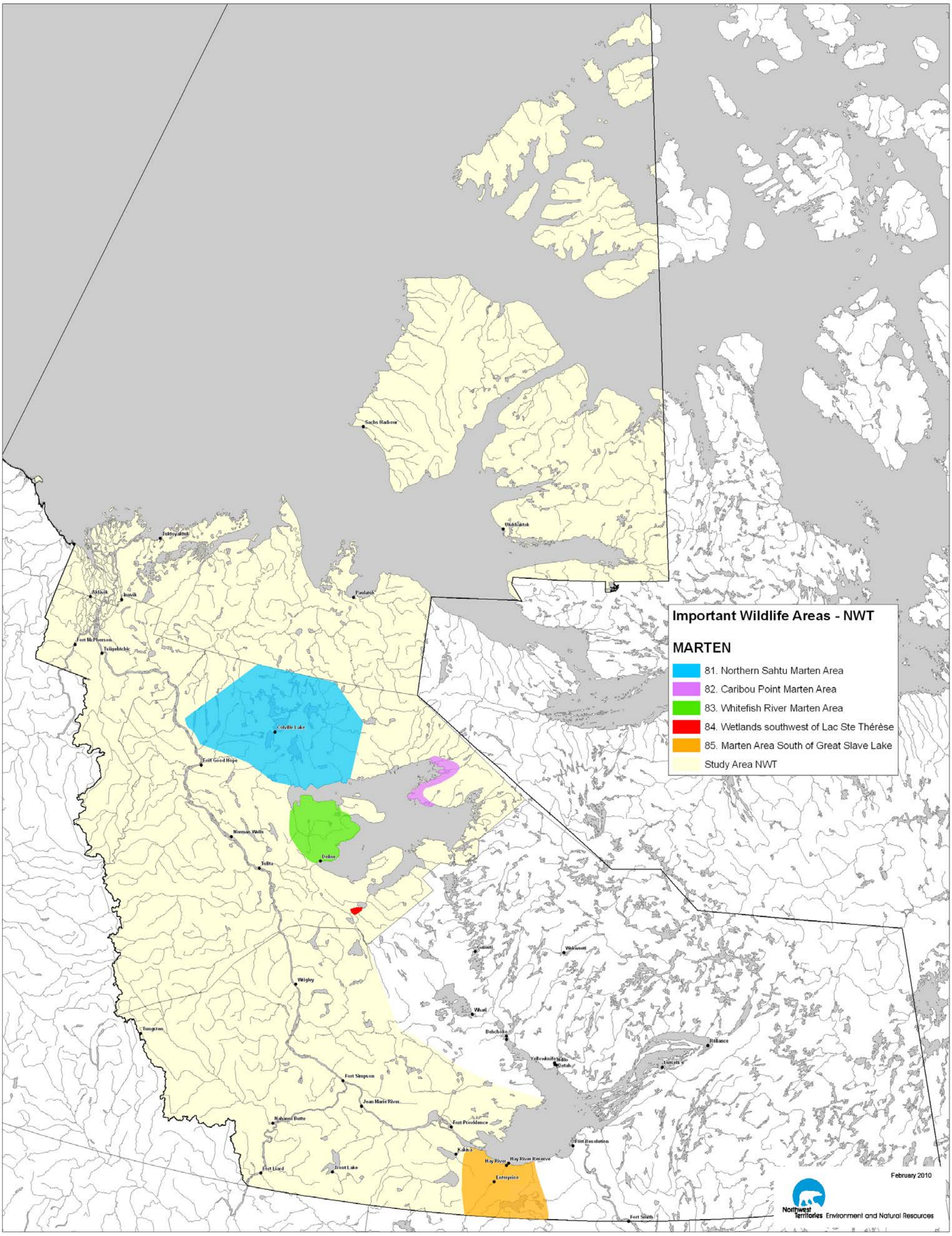

Figure 15. Important Wildlife Areas for marten in the Northwest Territories.

ID: 81

Name: Northern Sahtu Marten Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 44,446 km^2

Substantiation:

- This large general area consistently supports high densities of marten and the marten here are known for their high quality fur (Popko and Veitch 2006 pers. comm.).
- Some smaller areas within this Important Wildlife Area have been specifically highlighted by Sahtu community members as important for marten. These include Lac Des Bois, Carcajou Lake, Rorey Lake, Tchendferi Lake, Tadek Lake, Anderson River, Underground River (Neyidalin), Maunoir Dome, the area around Colville Lake, and an area around the Colville winter road (Sahtu Heritage Places and Sites Joint Working Group 1999; Sahtu Land Use Planning Board 2007; Sahtu Renewable Resources Board Meeting 2007).
- Sahtu harvesters have noted that marten are particularly numerous in this area one to two years after a fresh burn (Sahtu Renewable Resources Board Meeting 2007).

Boundary Delineation: The boundary was drawn by ENR staff (Popko and Veitch 2006 pers. comm.).

ID: 82

Name: Caribou Point Marten Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 2,264 km^2

Substantiation:

- This area consistently supports high densities of marten and the marten here are known for their high quality fur (Popko and Veitch 2006 pers. comm.).
- Elders from Déline have noted the importance of Caribou Point for marten (Sahtu Land Use Planning Board 2007).

Boundary Delineation: The boundary was drawn by ENR staff (Popko and Veitch 2006 pers. comm.).

ID: 83

Name: Whitefish River Marten Area

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 9,678 km^2

Substantiation:

- This area consistently supports high densities of marten and the marten here are known for their high quality fur (Popko and Veitch 2006 pers. comm.).

- This is an important trapping area (Sahtu Heritage Places and Sites Joint Working Group 1999).

Boundary Delineation: The boundary was drawn by ENR staff (Popko and Veitch 2006 pers. comm.).

ID: 84

Name: Wetlands Southwest of Lac Ste Thérèse[12]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 188 km^2

Substantiation:

- The area southwest of Lac Ste Thérèse is known to some Sahtu residents as a marten concentration area (Sahtu Renewable Resources Board Meeting 2007).

Boundary Delineation: The boundary was drawn by Sahtu community members (Sahtu Renewable Resources Board Meeting 2007).

ID: 85

Name: Marten Area South of Great Slave Lake

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 14,184 km^2

[12] This area is also a concentration area for moose (see ID: 92).

Substantiation:

- A broad area which includes Buffalo Lake and extends from Great Slave Lake to the Alberta-NWT border is believed to support relatively high numbers of marten (Meeting with harvesters of K'átł'odeeche First Nation 2008), although overall marten density is relatively low in the region compared to the Sahtu Settlement Area (Chowns 2008 pers. comm.).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008).

Muskrat

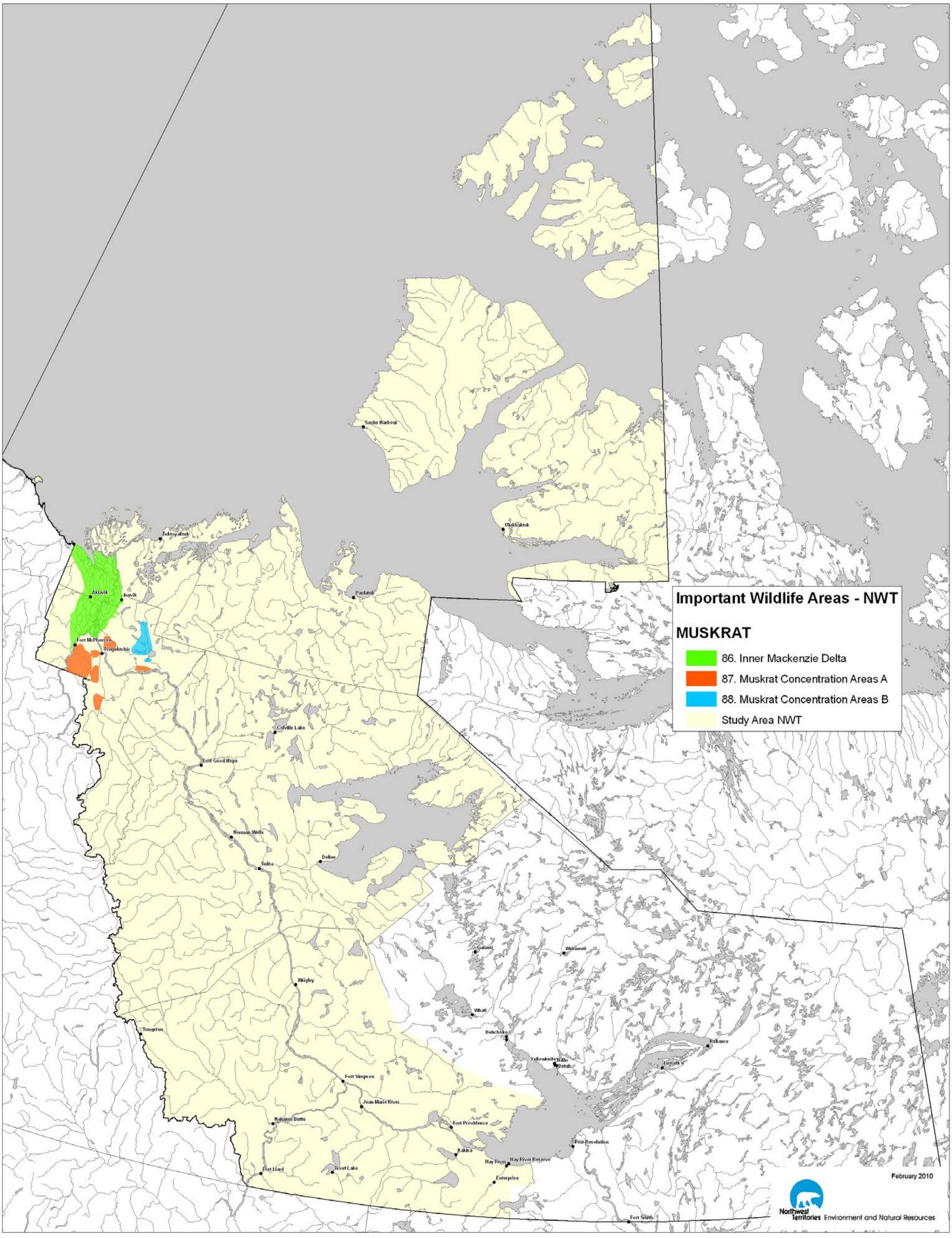

Figure 16. Important Wildlife Areas for muskrat in the Northwest Territories.

ID: 86

Name: Inner Mackenzie Delta[13]

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 10,360 km^2

Substantiation:

- The inner Mackenzie Delta generally supports a high density of muskrats, although their numbers have fluctuated in the past (Gwich'in Elders 1997; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).
- This area is excellent muskrat habitat, some of the best in the Mackenzie Valley (Government of Canada 1973; Mackenzie River Basin Committee 1981). Eroded cutbanks of channels and lakes are very abundant and are used for muskrat burrows (IMG Golder Corporation 2008; Mackenzie River Basin Committee 1981).
- Muskrats likely use this entire area, wherever water bodies do not freeze to the bottom. However, within the inner Delta, the areas west of the Caribou Hills and west of the Campbell Hills have been highlighted as particularly good muskrat habitat (IMG Golder Corporation 2008).

[13] This area is also a beaver concentration area (see ID: 92).

- The inner Mackenzie Delta is a very important traditional area for trapping muskrats in the spring (Community of Aklavik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Elders 1997).

Boundary Delineation: For the Gwich’in Settlement Area portion, the boundary is for the Mackenzie Delta HS Ecoregion (Ecosystem Classification Group 2007). For the Inuvialuit Settlement Region portion, the boundary is for zone 719C identified in Inuvialuit Community Conservation Plans (Community of Inuvik, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 87

Name: Muskrat Concentration Areas A

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 3,431 km^2

Substantiation:

- These five areas are known by Gwich’in people to have a high density of muskrats (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

- In 1997, Gwich’in elders said that muskrats had not been seen up the Arctic Red River since 1958, but that the muskrats were starting to come back there (Gwich'in Elders 1997).
- Residents of Tsiigehtchic report that there are always lots of muskrats at Martin House where harvesters rarely go (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- A habitat model predicts several zones of highly suitable muskrat habitat within these five areas (West-Delta Golder Corporation 2008).
- Portions of the areas between the Peel and Arctic Red Rivers have been identified as productive habitat for muskrat (Government of Canada 1973; Mackenzie River Basin Committee 1981).
- The easternmost area, along the Mackenzie River, is part of a larger area that is good for trapping muskrat (Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundaries were drawn by Gwich’in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and subsequently expanded by residents of Fort McPherson (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 88

Name: Muskrat Concentration Areas B

Criterion Satisfied: #2 (place where animals consistently occur in relatively large numbers)

Size: 1,330 km^2

Substantiation:

- These two areas are known to have many muskrat push-ups (Dokum and Thompson 2008 pers. comm.).
- Not all sources support the importance of this area for muskrat. Muskrat habitat in these areas has previously been classified as poor or insignificant (Government of Canada 1973).
- These two areas are part of a larger area that is a good trapping area for muskrat (Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundaries were drawn by Gwich’in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.).

IMPORTANT WILDLIFE AREAS FOR AMPHIBIANS

Western Toad

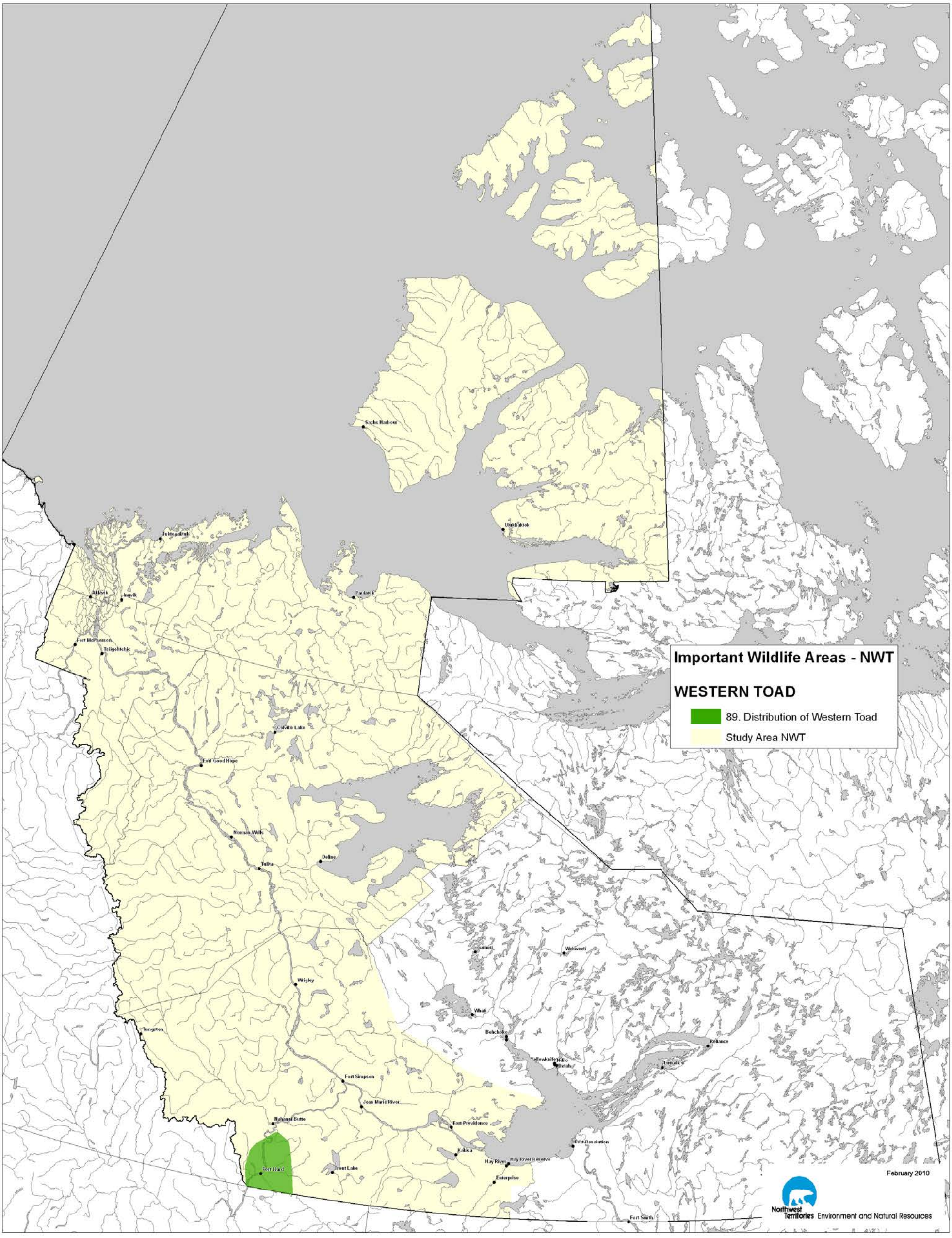

Figure 17. Important Wildlife Areas for western toad in the Northwest Territories.

ID: 89

Name: Distribution of Western Toad

Criterion Satisfied: #5 (year-round range)

Size: 6,909 km^2

Substantiation:

- In the NWT, the western toad is known only from the southwest corner of the Dehcho Territory around the Liard River (Environment Canada and Environment and Natural Resources 2008). Because its distribution is so limited in the NWT, its entire extent of occurrence is identified as an Important Wildlife Area.
- The western toad was previously known to occur in the Liard River basin in B.C. and Yukon (COSEWIC 2002a). Its occurrence in NWT, at the northern edge of its distribution, has only recently been confirmed. The NWT population is believed to be small but likely viable (M.A. Fournier pers. comm. cited in Government of the Northwest Territories 2007a).
- Known locations in the Liard River valley include a place near Rabbit Creek where juvenile toads are seen year after year, as well as a sighting east of Flett Rapids. Residents of Fort Liard sometimes fill pails with large numbers of adult toads near the Muskeg River (B. Decker and C. Machtans pers. comm. cited in Government of the Northwest Territories 2007a).
- A western toad specimen was recorded as collected at Fort Simpson in 1897, but the location for this record may be inaccurate (Fournier 1997).

- Western toads return to the same breeding sites year after year. Most northern records for this species come from valleys that receive early high accumulations of snowfall annually, assuring safe winter hibernation (COSEWIC 2002a).

Boundary Delineation: The boundary is the approximate distribution of western toad in the NWT as delineated by ENR (Environment Canada and Environment and Natural Resources 2008; Wildlife Division 2007).

IMPORTANT WILDLIFE AREAS: UNIQUE AREAS IMPORTANT TO MULTIPLE SPECIES

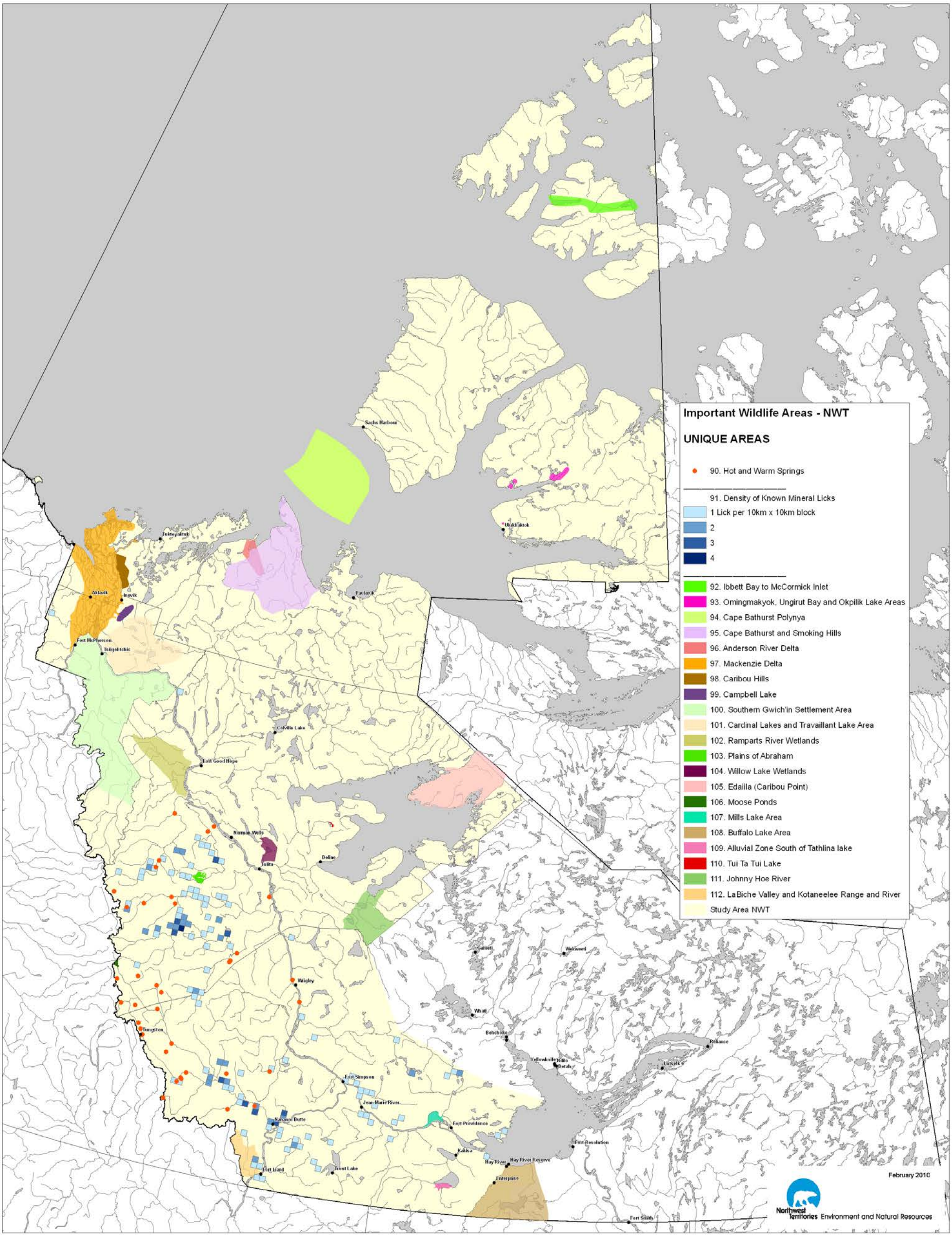

Figure 18. Important Wildlife Areas: unique areas important to multiple species in the Northwest Territories.

ID: 90

Name: Hot and Warm Springs[14]

Criterion Satisfied: #6 (unique areas used by many different species)

Number: 39 hot and warm springs

Substantiation:

- These are approximate locations for known hot and warm springs in the NWT, compiled from several different sources (Houseknecht 1984; Woodsworth 1999; Popko 2005 unpublished data; Bonny 2006 unpublished data; Parks Canada 2006 unpublished data; Caron *et al.* 2007; Grasby 2008 pers. comm.).
- Hot and warm springs often have unique ecosystems and are important to many different species. At a hot or warm spring, water temperature, air temperature, humidity, and water chemistry all differ from the surrounding area. As a result the area around a hot or warm spring sometimes supports species or communities that are uniquely adapted to these environments, such as calcium-tolerant plants or warm-water bacteria. Hot or warm springs can sometimes support disjunct populations for species that are usually found further south. Furthermore, their salty spring deposits are often used by wildlife as mineral licks (Houseknecht 1984; Woodsworth 1999).
- Unique characteristics and importance to wildlife have been noted for certain NWT hot and warm springs:

[14] Because some hot and warm springs are used as mineral licks, there is some overlap with Important Wildlife Area #91.

- Four or five hot springs in the Nahanni National Park Reserve support the Nahanni aster, an endemic plant that is found nowhere else in the world (Government of the Northwest Territories 2007b).
- Studies at Rabbitkettle Hotsprings recorded several plant species that were only found in hotspring environments (Ford 1985).
- Roche-qui-trempe-à-l'eau, near Wrigley, supports a salt-tolerant plant community (Houseknecht 1984).
- In the Sahtu region, Tuitye Hotsprings provides unusual plant habitat and is heavily used as a mineral lick by wildlife (Sahtu Land Use Planning Board 2009).
- At Lymnaea [Lymnae] Springs, a unique snail (perhaps an endemic sub-species of *Lymnaea bulmoides)* is abundant and active year round (Beckel 1975; Sahtu Land Use Planning Board 2009).
- Godlin (Ekwi) hotsprings are believed to have the highest dissolved mineral content of any hot springs in Canada (Woodsworth 1999).

Boundary Delineation: Spring locations are considered sensitive information. Therefore, only approximate locations are shown. More detailed information on springs can be accessed under a data sharing agreement. The request can be made to:

Director, Wildlife Division
Department of Environment and Natural Resources
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, NT X1A 2L9
Fax: (867) 873-0293

These spring locations were compiled from the following data sources:

- A database of springs in the Mackenzie Mountains NWT including records from N. Simmons, R. Popko, and N. Dale (Popko 2005 unpublished data)
- Field notes from NWT springs research in 2004 and 2005 (Bonny 2006 unpublished data)
- Hot Springs of Western Canada: A Complete Guide (Woodsworth 1999)
- A database of hot springs in and around the Nahanni National Park Reserve (Parks Canada 2006 unpublished data)
- Springs in the Mackenzie Mountains sampled from 2003 to 2005 as part of the Mineral and Energy Resource Assessment for the proposed expansion to the Nahanni National Park Reserve (Caron *et al.* 2007; Grasby 2008 pers. comm.)
- An inventory of known thermal springs in Canada (Houseknecht 1984)

Only springs that were described as ‘hot’ or ‘warm’ or where water temperature was at least 10ºC were included (Grasby and Hutcheon 2001). Latitudes and longitudes had varying degrees of precision, including some that were digitized based on descriptions, therefore all locations should be considered approximate. Where two springs appeared to be duplicates of each other (i.e. same name and/or very close together) one was removed. It is possible that some springs were removed in error or that two separate points on the map could represent the same spring. Other hot or warm springs may exist that were not available for this mapping effort.

ID: 91

Name: Density of Known Mineral Licks[15]

Criterion Satisfied: #6 (unique areas used by many different species)

Number: 91 blocks with 1 mineral lick/100 km^2

26 blocks with 2 mineral licks/100 km^2

9 blocks with 3 mineral licks/100 km^2

1 block with 4 mineral licks/100 km^2

Substantiation:

- These show the approximate density of known mineral licks in the NWT, compiled from several different sources (Department of Environment 1974; Cizek 2001; Wiebe 2003; Popko 2005 unpublished data; Bonny 2006 unpublished data; Dehcho Regional Wildlife Workshop 2006; Dehcho Wildlife Working Group 2006 unpublished data; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008; Sahtu Renewable Resources Board Meeting 2008; Gordon 2009 pers. comm.).
- Mineral licks are unique habitat features that are important to many different wildlife species. Various animals visit these naturally-occurring, exposed deposits of salts or other minerals in order to ingest the mineral nutrients they need for healthy growth. Therefore, mineral licks are often located in areas of high wildlife activity and are sometimes marked by game trails.

[15] Because some hot and warm springs are used as mineral licks, there is some overlap with Important Wildlife Area #90.

- Many species, including moose, caribou and mountain goats use mineral licks. Mineral licks have a particularly strong influence on habitat use by Dall's sheep and are critical to the well-being of sheep populations. Dall's sheep may travel long distances to mineral licks, and often use the same licks year after year. In summer, the distribution of nursery bands (ewes, yearlings and lambs) is heavily influenced by mineral licks (Simmons 1982; Weaver 2006).

Boundary Delineation: Mineral lick locations are considered sensitive information. Therefore, the map has been generalized to show only mineral lick densities per 10km^2. More detailed information on mineral licks can be accessed under a data sharing agreement. The request can be made to:

Director, Wildlife Division
Department of Environment and Natural Resources
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, NT X1A 2L9
Fax: (867) 873-0293

Mineral lick locations were compiled from the following data sources:

- o A database of mineral licks in the Mackenzie Mountains NWT including records from N. Simmons, R. Popko, N. Dale, A. Veitch, K. Hickling, L. Marion, and W. Bayha (Popko 2005 unpublished data)
- o Field notes from NWT springs research in 2004 and 2005 (Bonny 2006 unpublished data)
- o Licks mapped by participants at the Dehcho Regional Wildlife Workshop in 2006

- Licks mapped at a workshop that included biologists and Dehcho community harvesters (Dehcho Wildlife Working Group 2006 unpublished data; Wiebe 2003)
- Licks mapped at a traditional knowledge workshop on the Horn Plateau and Horn River area (Cizek 2001)
- Licks mapped by participants at a Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)
- One lick mapped at a meeting with residents of Fort McPherson (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008)
- One lick location mapped by a resident of Aklavik (Gordon 2009 pers. comm.)
- General approximate areas known to contain mineral licks used by Dall's sheep, mountain goats, mountain woodland caribou, and/or moose in the 1970s (Department of Environment 1974)

Records whose name and/or description included the word 'lick' were included. Records of hot and/or mineral springs where the description indicated heavy use by wildlife were also assumed to be licks and were included.

Latitudes and longitudes had varying degrees of precision therefore all locations should be considered approximate. Where two licks appeared to be duplicates of each other (i.e. same name, very close together) one was removed. For the general approximate mineral lick areas (Department of Environment 1974), if they overlapped with other mapped licks they were removed; if not, one lick per polygon was assumed. It is possible that some licks were removed in

error, or that two separate points on the map could represent the same lick. Other mineral licks may exist that were not available for this mapping effort.

ID: 92

Name: Ibbett Bay to McCormick Inlet[16]

Criterion Satisfied: #6 (unique area used by many different species)

Size: 2,490 km^2

Substantiation:

- This area on Melville Island is a unique landscape because parts of this broad, sheltered valley support extremely dense Arctic willow communities, which is unusual for this latitude. The area also supports large numbers of wolves, foxes, and muskoxen, and is important habitat for caribou (Branigan 2008 pers. comm.; Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Nettleship and Smith 1975).

Boundary Delineation: The boundary is for zone 504E identified in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 93

Name: Omingmakyok, Ungirut Bay and Okpilik Lake Areas

Criterion Satisfied: #6 (unique area used by many different species)

[16] This area is also a concentration area for muskox (see ID: 45).

Size: 474 km^2

Substantiation:

- These four small areas on Victoria Island are unique and sensitive landscapes because they all support tall willow bushes, which are unusual in this region (Branigan 2008 pers. comm.; Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- The thickets of tall willow bushes are found in deep valleys and sheltered ravines along the north shore of the inlet where the microclimate is favourable. They are the northernmost members of a disjunct population of tree-sized willows that are more typically found on floodplains near the treeline, far to the south. Near the head of Minto Inlet, a few thickets of feltleaf willow reach heights of up to 8 m and are at least 81 years of age (Edlund and Egginton 1984; Ferguson 1987).
- These four areas are also important to many different species including Peary caribou, muskox, wolf, arctic and red fox, arctic hare, and fish including trout and char (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).
- These are important subsistence harvesting areas (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

Boundary Delineation: The boundary is for zone 507D identified in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 94

Name: Cape Bathurst Polynya

Criterion Satisfied: #6 (unique area used by many different species)

Size: 13,909 km^2

Substantiation:

- The Cape Bathurst Polynya in the Amundsen Gulf is a highly productive marine area of intermittently open water that is important to many different species (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008).
- The biological significance of polynyas includes early season access to open water and high biological productivity. Marine birds, mammals, and microscopic organisms tend to concentrate along the interface of the ice edge and the open water (Stirling and Cleator 1981).
- The Cape Bathurst Polynya recurs in approximately the same time and place every year, and there is at least some open water in the system in almost all months (Stirling and Cleator 1981; Stirling 2002).
- The Cape Bathurst Polynya is a prime feeding area for beluga and bowhead whales. They migrate long distances each spring in order to reach it and many remain there for 2 to 3 months during the open water period to continue feeding even after their movement is no longer restricted by ice. Beluga whales may also calve here (Community of

Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Stirling and Cleator 1981).

- Ringed and bearded seals concentrate at the polynya in winter (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Stirling and Cleator 1981).
- Polar bears concentrate at the Cape Bathurst Polynya and associated shore leads, probably because seals are more abundant and accessible here (Stirling and Cleator 1981; Stirling 2002).
- Other marine mammal species (narwhals, killer whales, harp seals, harbour seals, hooded seals, northern fur seals, and possibly ribbon seals) have been reported here but occurrences are rare (Stirling and Cleator 1981).
- The Cape Bathurst Polynya is very important for seabirds and seaducks. It is a critical staging and feeding area for king eider, common eider, and long-tailed ducks migrating eastwards and southeastwards in spring. Flocks of over 50,000 birds have been recorded in the polynya in May. The polynya appears to be important for colonies of common eider and thick-billed murre nesting on neighbouring Banks Island, Cape Bathurst Peninsula, and Cape Parry (Stirling and Cleator 1981).

Boundary Delineation: The boundary was digitized from a map by Stirling (2002). The actual distribution of open water is determined by marine currents, wind, temperature, seasonal climate changes, and movement of the polar pack

ice. The size and shape of the polynya vary from year to year, therefore this boundary is approximate (Stirling and Cleator 1981; Stirling 2002).

ID: 95

Name: Cape Bathurst and Smoking Hills

Criterion Satisfied: #6 (unique area used by many different species)

Size: 15,561 km^2

Substantiation:

- This area is a unique environment that supports unusual biological communities (Carrière 2008 pers. comm.).
- Cape Bathurst Peninsula portion:
    - The Cape Bathurst Peninsula remained ice-free during the last glaciation and probably served as a refugium for plants. It is home to hairy braya, an extremely rare endemic plant believed to be a glacial relic. Hairy braya has not been found anywhere else in the world (Dyke *et al.* 2003; Harris 2004).
    - Little is known about the other plants of this area, but it is very probable there are other unusual or interesting species (Carrière 2008 pers. comm.).
    - Cape Bathurst also contains the core calving and post-calving area for the Cape Bathurst barren-ground caribou herd (see Important Wildlife Area #1).
- Smoking Hills portion:

- In the Smoking Hills, underground deposits of bituminous shale spontaneously ignite when erosion exposes them to the air, resulting in plumes of smoke. This fumigates the surrounding tundra with sulphur dioxide and sulphuric acid, which has a profound effect on the local ecosystem. Unlike typical alkaline tundra ponds, ponds in the Smoking Hills area are acidic and contain high concentrations of metals. The aquatic invertebrates and plants in these ponds differ from the typical Arctic communities and are more similar to acidic environments elsewhere such as in volcanic lakes and aquatic environments near coal-mines. Terrestrial plant communities in the fumigated areas are also atypical; they tend to be dominated by the more pollution-tolerant species (Freedman *et al.* 1990; Havas and Hutchinson 1983; Sheath *et al.* 1982).

Boundary Delineation: The boundary was drawn by ENR staff (Carrière 2008 pers. comm.).

ID: 96

Name: Anderson River Delta

Criterion Satisfied: #6 (unique area used by many different species)

Size: 1,275 km^2

Substantiation:

- This is a unique area important for many species (Branigan 2008 pers. comm.).
- This area is key nesting habitat for geese, swans and ducks, and shorebirds. It has been recognized as a key migratory bird terrestrial habitat site and an Important Bird Area (Bird Studies Canada, Nature Canada and Bird Life International 2004; Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Latour *et al.* 2008).
- Barren-ground grizzly bears are common here; they den in the area and prey on goose eggs during nesting season (Branigan 2008 pers. comm.; Latour *et al.* 2008).
- Moose inhabitat the area during summer, and raptors nest in the area (Latour *et al.* 2008).
- This area features diverse vegetation which transitions from spruce forest to tundra over a relatively short distance and includes the northernmost range extension for many plant species (Beckel 1975). The variety of vegetation types found here supports a high diversity of songbirds (Latour *et al.* 2008).
- Because part of this area was unglaciated during the last ice age, it provided a refugium for some Beringian plants and insects (Dyke *et al.* 2003; Latour *et al.* 2008).

- The Anderson River Delta is an important area for waterfowl hunting and other traditional use (Latour *et al.* 2008).

Boundary Delineation: The boundary is for zone 707D identified in Inuvialuit Community Conservation Plans (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 97

Name: Mackenzie Delta

Criterion Satisfied: #6 (unique area used by many different species)

Size: 14,017 km^2

Substantiation:

- The Mackenzie Delta is a unique area that is important to many different species (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Land Use Planning Board 2003; IMG Golder Corporation 2008; Latour *et al.* 2008; Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).
- This is the largest delta and the second largest wetland in Canada, and one of the largest and most northerly river deltas in the world (Beckel 1975; Ecosystem Classification Group 2007; Mackenzie River Basin Board 2003). Although it is at 68-69^{o}N, most of the Delta has discontinuous permafrost due to the warming effect of the Mackenzie River. This allows the boreal forest to extend further north here than

anywhere else in Canada (EMAN 2005; Mackenzie River Basin Committee 1981).

- The vegetation of the Delta ranges from tundra along the Beaufort Sea to taiga further inland, with many successional communities created by seasonal flooding and by fire, and sometimes a large variety of plant communities in a small area (EMAN 2005; Mackenzie River Basin Committee 1981). These diverse habitats support a large variety of wildlife that is more diverse than what is usually found at this latitude, including approximately 54 mammal species, 137 bird species, 55 fish species, and one amphibian (Ecosystem Classification Group 2007; EMAN 2005; IMG Golder Corporation 2008).
- The Mackenzie Delta includes particularly important habitat for waterfowl. It has been recognized as a key migratory bird terrestrial habitat site and an Important Bird Area because of its importance for waterfowl and other migratory birds (Bird Studies Canada, Nature Canada and Bird Life International 2004; Latour *et al.* 2008). The Delta is used for feeding, staging, breeding, nesting, and moulting by a diverse group of ducks, geese, swans, shorebirds, and several other aquatic birds. For many of these, the Delta supports greater than 1% of the Canadian population at a given time of year (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Land Use Planning Board 2003; Latour *et al.* 2008).

- The lakes and channels of the Delta are important habitats for fish including broad and lake whitefish, inconnu, trout, burbot, jackfish, chum salmon, and dolly varden. Their uses include feeding, overwintering, migration, spawning, and nursery areas (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Land Use Planning Board 2003).
- Wildlife species that find particularly good habitat in the Delta include muskrat, beaver, moose, black bears, grizzly bears, and polar bears (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Gwich'in Land Use Planning Board 2003; IMG Golder Corporation 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008). Mink, lynx, red fox, wolves, wolverine, and raptors are also often found within the Delta (EMAN 2005).
- The surrounding waters of the Mackenzie estuary are very important for beluga whales (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Latour *et al.* 2008) and whales sometimes come right into the inner Delta when the water is high (Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008).
- The Delta is an important area for subsistence fishing and waterfowl harvesting (Community of Tuktoyaktuk, Wildlife Management Advisory

Council (NWT) and Joint Secretariat 2000; Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundary includes the Mackenzie Delta HS Ecoregion and zones 715C, 718D, and 719C from Inuvialuit Community Conservation Plans (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Ecosystem Classification Group 2007).

ID: 98

Name: Caribou Hills

Criterion Satisfied: #6 (unique area used by many different species)

Size: 863 km^2

Substantiation:

- This is a unique area used by many different species (Branigan 2008 pers. comm.).
- This upland area rises abruptly from the Mackenzie Delta then levels off into a rolling plateau. The west-facing slopes are extremely sensitive and contain unique plant and animal associations because of the unique combination of a steep eroding slope plus the warming effect of the Mackenzie River. The vegetation includes beringian, cordilleran, and prairie plants, including several species that are usually found further south (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000; Nettleship and Smith 1975).

- Wildlife includes both boreal and tundra species, including a large and diverse bird population. This area was recognized as an International Biological Programme site because of its unique and sensitive nature (Nettleship and Smith 1975).
- The Caribou Hills are used extensively by grizzly bears for denning and have some of the highest concentrations of denning grizzly bears in the Delta area (Derocher 2008 pers. comm.).
- This is an important area for berry picking and subsistence harvesting (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

Boundary Delineation: The boundary is for zone 702B identified in Inuvialuit Community Conservation Plans (Community of Tuktoyaktuk, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000).

ID: 99

Name: Campbell Lake

Criterion Satisfied: #6 (unique area used by many different species)

Size: 403 km^2

Substantiation:

- This is a unique area used by many different wildlife species (Meeting of Gwich'in Renewable Resource Councils 2008).
- The lake is recognized as a significant migratory bird staging area in the fall, nesting habitat for gulls, and an unusual example of a reversing delta

between Campbell Lake and the main Mackenzie Delta in the spring (Kritsch 1994; Tourism and Parks 2000; West-Delta Golder Corporation 2005). The reversing delta experiences water flows in either into or out of the lake depending on the water level of the Mackenzie River (Ecosystem Classification Group 2007).

- This area overlaps with Gwich'in Territorial Park, which has significant habitat for peregrine falcons, waterfowl and fish (Edwards 1996; Gwich'in Land Use Planning Board 2003).
- The dolomite upland to the west of Campbell Lake is known for its unusual and rich plant communities. Many arctic-alpine plant species that thrive in calcium-rich environments live on the dolomite rocks. Several metaberingian plant species also occur in the area, one of the few places where these species are found in the entire Mackenzie River basin. A small number of plant species restricted to northwest North America also occur here, with this area being one of the few locations in the Mackenzie River basin where they can be found (Beckel 1975; Ritchie 1976; West-Delta Golder Corporation 2005).
- Campbell Lake is an important area for Gwich'in and Inuvialuit people who traditionally traveled there to trap, fish, and hunt moose, caribou, ducks, swans, and geese (Kritsch 1994).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008).

ID: 100

Name: Southern Gwich’in Settlement Area

Criterion Satisfied: #6 (unique area used by many different species)

Size: 22,300 km^2

Substantiation:

- This large portion of the Gwich’in Settlement Area is a unique area that contains good habitat for many species (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- This Important Wildlife Area includes concentration areas for moose, beaver, muskrat, and peregrine falcon. See Important Wildlife Areas ID: 26 (pg. 60), ID: 28 (pg. 62), ID: 67 (pg. 117), ID: 87 (pg. 140), and ID: 121 (pg. **Error! Bookmark not defined.**) for more information. It also supports many boreal woodland caribou, marten, mink, fox, wolves, wolverine, lynx, and hares. Otters are starting to come into the area as well (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).
- There are many good fish lakes in the area (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008). There is also important fish spawning and nursery habitat along the Arctic Red River (Gwich'in Land Use Planning Board 2003; Mackenzie River Basin Committee 1981).
- The lowland area in between the Peel and Arctic Red Rivers has been specifically highlighted as a unique area featuring many water bodies, some of which are active with methane gas and do not freeze in winter

(Dokum and Thompson 2008 pers. comm.). It is important habitat for beaver, muskrat, moose, boreal woodland caribou, and fish (Dokum and Thompson 2008 pers. comm.; Gwich'in Land Use Planning Board 2003; Mackenzie River Basin Committee 1981; Meeting of Gwich'in Renewable Resource Councils 2008). It also supports concentrations of waterfowl in the spring and summer (Gwich'in Land Use Planning Board 2003; Mackenzie River Basin Committee 1981).

Boundary Delineation: The boundary combines an area between the Peel and Arctic Red Rivers drawn by Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.) with a portion of the southeastern Gwich'in Settlement Area drawn by residents of Tsiigehtchic (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008).

ID: 101

Name: Cardinal Lakes and Travaillant Lake Area

Criterion Satisfied: #6 (unique area used by many different species)

Size: 8,615 km^2

Substantiation:

- This is a unique area that features many interconnected lakes. It is used by many different wildlife species, including large numbers of moose, caribou, waterfowl, and fish (Dokum and Thompson 2008 pers. comm.).
- The eastern part of this area around Travaillant Lake is significant for furbearers and is used as a wintering area for barren-ground caribou.

Relatively high concentrations of waterfowl use the area for breeding, moulting, and staging in the spring and fall. Travaillant Lake supports its own unique population of lake whitefish (Gwich'in Land Use Planning Board 2003).

- The western part of this area around Cardinal Lakes differs from the surrounding area in being relatively open habitat. It contains many lakes that are important waterfowl habitat in summer, mainly for scaup and scoters (Dokum and Thompson 2008 pers. comm.; Gwich'in Land Use Planning Board 2003). It is also home to a relatively large number of boreal woodland caribou (Dokum and Thompson 2008 pers. comm.; Meeting of Gwich'in Renewable Resource Councils 2008).
- The Travaillant Lake area is a very important fishing, hunting and trapping area for the people of Tsiigehtchic. Gwich'in people also fish in many of the western lakes (Gwich'in Land Use Planning Board 2003).

Boundary Delineation: The boundary was drawn by Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.).

ID: 102

Name: Ramparts River Wetlands[17]

Criterion Satisfied: #6 (unique area used by many different species)

Size: 4637 km^2

Substantiation:

[17] This area is also a concentration area for moose (see ID: 92) and for beaver (see ID: 92).

- This extensive wetland along the lower Ramparts and upper Ontaratue Rivers is important to many different species (Popko and Veitch 2006 pers. comm.; Sahtu Renewable Resources Board Meeting 2008).
- The area supports several species at risk: boreal woodland caribou, wolverine, peregrine falcon, short-eared owl, rusty blackbird and olive-sided flycatcher (Canadian Wildlife Service 2008).
- The area is used by thousands of nesting and staging waterfowl each year and has been identified as a key habitat site for migratory birds (Latour *et al.* 2008). It is locally known as a critical waterfowl breeding site (Sahtu Heritage Places and Sites Joint Working Group 1999).
- Surveys in the late 1990s reporded 20 000 greater and lesser scaup and 6000 surf and white-winged scoters in these wetlands during the nesting period, indicating that 1% of the estimated Canadian populations of both scaup and scoters were nesting here. The wetlands also provide staging habitat for many scaup and scoters migrating northward (Latour *et al.* 2008).
- Relatively high densities of Pacific loons have been observed in the wetlands, likely over 1% of the Canadian population of this species (Latour *et al.* 2008)
- The wetlands are known to Sahtu residents to be important for muskrats, beaver, waterfowl and moose (Sahtu Renewable Resources Board Meeting 2008).

- This area supports relatively high densities of beaver and moose (see ID: 30 and ID: 68 for details).
- This is an important harvesting area for Fort Good Hope families and is particularly important for hunting moose, beaver, and muskrats (Sahtu Heritage Places and Sites Joint Working Group 1999).

Boundary Delineation: The boundary is for the Ramparts River Wetlands (Tuyetah) Key Migratory Bird Terrestrial Habitat Site (Latour *et al.* 2008).

ID: 103

Name: Plains of Abraham

Criterion Satisfied: #6 (unique area used by many different species)

Size: 283 km^2

Substantiation:

- The Plains of Abraham is a tundra plateau that is important to many different species. It is similar in many respects to Arctic areas in the far north, but is located in the Mackenzie Mountains (Beckel 1975; Popko and Veitch 2006 pers. comm.).
- During the last glaciation, the Plains of Abraham remained ice-free and provided a refugium for a variety of plants and animals. The area now supports a high diversity of species, including unique animals like the long-tailed jaeger, singing vole and tundra grasshopper (Beckel 1975; Catling 2008; Porsild 1945; Sahtu Land Use Planning Board 2009).

- Mountain woodland caribou have also been observed calving here (Collin 1983).

Boundary Delineation: The boundary was digitized from a geological map by Ford (2010, *in prep*).

ID: 104

Name: Willow Lake Wetlands[18]

Criterion Satisfied: #6 (unique area used by many different species)

Size: 907 km^2

Substantiation:

- Willow Lake (sometimes called Brackett Lake) and the nearby wetlands are important to many different species. The area has relatively high productivity and supports relatively large populations of animals, especially beaver, moose, and waterfowl (Beckel 1975; Latour *et al.* 2008; Mackenzie River Basin Committee 1981; Popko and Veitch 2006 pers. comm.; Rescan 2007; Sahtu Heritage Places and Sites Joint Working Group 1999; Sahtu Land Use Planning Board 2009).
- The area has a long history as an important place for hunting, fishing, and trapping (Sahtu Heritage Places and Sites Joint Working Group 1999; Sahtu Land Use Planning Board 2009).

[18] This area is also a concentration area for beaver (see ID: 92).

Boundary Delineation: The boundary is for the draft Willow Lake Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 105

Name: Edaʃʃla (Caribou Point)[19]

Criterion Satisfied: #6 (unique area used by many different species)

Size: 8,805 km^2

Substantiation:

- This large peninsula on Great Bear Lake is a unique area important to many different species (Popko and Veitch 2006 pers. comm.).
- Edaʃʃla is a transition zone between areas above and below the treeline. It has high species diversity because it contains three broad habitat types (boreal forest, tundra, and forest-tundra transition) with species from each, many of which are on the northern or southern margin of their ranges (Beckel 1975; Sahtu Land Use Planning Board 2007).
- Edaʃʃla is a concentration area for barren-ground caribou (see Important Wildlife Area ID: 4).
- It is possible that habitats found in the unique fjord-like topography along the shoreline could support uncommon or rare plant species (EBA Engineering Consultants Ltd. 2006; Ritchie 1976).

[19] This area is also a concentration area for barren-ground caribou (see ID: 92).

Boundary Delineation: The boundary is for the draft Caribou Point Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 106

Name: Moose Ponds

Criterion Satisfied: #6 (unique area used by many different species)

Size: 58 km^2

Substantiation:

- This unique area at the headwaters of the South Nahanni River is a wide flat valley with significant wetlands, which is not very common in the Mackenzie Mountains. It appears to be a productive, biologically diverse site (Tate 2008 pers. comm.).
- The area is notable for its shorebirds which include spotted sandpiper, Wilson's snipe, a dowitcher (presumably short-billed), and unusually high numbers of red-necked phalaropes and lesser yellowlegs. Other birds that have been observed in the area include trumpeter swan (otherwise uncommon in this part of the Mackenzie Mountains), mallard, American wigeon, mew gull, arctic tern, bald eagle, osprey, common yellowthroat, red-winged blackbird, rusty blackbird, short-eared owl, and several species of songbirds. Most of these records were gathered in a short visit of only two half-days at the site (Tate 2008 pers. comm.).

- Several moose have been observed in the ponds and along river channels. There are also several beaver lodges and dams in the area (Tate 2008 pers. comm.).
- Large mountain woodland caribou herds have been observed here (Tate 2008 pers. comm.) and the area overlaps with calving and early-midsummer range for the Redstone caribou herd (see Important Wildlife Area ID: 11).
- This was historically a traditional use area for the Mountain Dene, although current use seems to be low (Tate 2008 pers. comm.).

Boundary Delineation: The boundary was drawn by Parks Canada staff (Tate 2008 pers. comm.).

ID: 107

Name: Mills Lake Area

Criterion Satisfied: #6 (unique area used by many different species)

Size: 382 km^2

Substantiation:

- Mills Lake, a widening of the Mackenzie River at the mouth of the Horn River, is a large shallow lake bed and marsh ringed by well-developed emergent and submergent vegetation communities and floating sedge mats (Beckel 1975; Latour *et al.* 2008). It is an important area for many different species (Chowns 2008 pers. comm.).

- Mills Lake is particularly notable for its importance to waterfowl and waterbirds. It is the only major staging wetland between sites in northern Alberta and sites well up the Mackenzie Valley (Latour 2003). It is a crucial staging area for thousands of geese and ducks in the spring and fall, including greater white-fronted geese, tundra swans, lesser snow geese, Canada and cackling geese, American wigeons, northern pintail, mallard and canvasback ducks. Peak numbers from surveys in 1972 and 1994-1997 showed that as many as 14% of the Western Mid-continent population of greater white-fronted geese, 10% of the Western Arctic population of lesser snow geese, and 12% of the Eastern Population of tundra swans use the area (Latour *et al.* 2008).
- Mills Lake is also an important feeding wetland for large numbers of moulting migrant diving ducks in late summer (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006; Latour *et al.* 2008).
- American coots are abundant here in some years, and there is a large colony of black terns (Latour *et al.* 2008).
- The lake and surrounding wetlands also support many other species of birds. A breeding bird survey in 2003 recorded 81 bird species, including ruddy duck (believed to be at the northern limit of its breeding range here), western kingbird (a species of southern grasslands) and gadwall (uncommon in the NWT) (EBA Engineering Consultants Ltd. and Canadian Wildlife Service 2006; Latour *et al.* 2008) .

- Mills Lake is among the relatively few prime prairie habitats available to the Mackenzie wood bison population and is a key area for wood bison, particularly in winter (see Important Wildlife Area ID: 54pg. 92). Mills Lake is known as a rich area for moose (Chowns 2008 pers. comm.; Cizek 2001), although a 1997 survey showed that moose density in the area had declined from previous surveys (Bradley and Johnson 2000).
- Black bears are common around Mills Lake (Ciezek 2001).
- Mills Lake is also good fish habitat because of the emergent vegetation and continual input of fresh water. Whitefish and jackfish spawn here (Cizek 2001).

Boundary Delineation: The boundary is for the Mills Lake Key Migratory Bird Terrestrial Habitat Site (Latour *et al.* 2008).

ID: 108

Name: Buffalo Lake Area

Criterion Satisfied: #6 (unique area used by many different species)

Size: 9,164 km^2

Substantiation:

- The area around Buffalo Lake, extending from Great Slave Lake to the Alberta border, supports abundant wildlife (Dehcho Regional Wildlife Workshop 2008; Meeting with harvesters of K’átł’odeeche First Nation 2008).

- Within this area, the alluvial zones to the south and southeast of Buffalo Lake have been highlighted as particularly productive wildlife habitat. Several creeks and rivers drain into the lake here depositing moist, rich mineral soils that support diverse plant communities and relatively vigourous forests (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).
- Large portions of this Important Wildlife Area have been highlighted as concentration areas for moose, beaver, lynx, and marten. See Important Wildlife Areas ID: 39 (pg. 72), ID: 74 (pg. 124), ID: 78 (pg. 129), and ID: 85 (pg. 136) for more information.
- There is a relatively high level of wolf activity in the area (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007; Meeting with harvesters of K'átł'odeeche First Nation 2008). The alluvial area south of Buffalo Lake has been described as the most productive area for muskrat in the Hay River district (Chowns 2008 pers. comm.).
- Other species believed to be present in the area include mule deer, cougar, wolverine, fisher, otter, mink, red fox, least weasel, snowshoe hare, woodchuck, red squirrel, least chipmunk, southern red-backed vole, meadow vole, deer mouse and masked shrew (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).
- Buffalo Lake and lakes to the east are used as fall staging sites for waterfowl and have been identified as important habitat for migratory birds (Latour *et al.* 2008). Over 2400 Canada and cackling geese and lesser

numbers of tundra swans and greater white-fronted geese were observed on a partial survey of Buffalo Lake in September 1972 (Latour *et al.* 2008). Many other bird species occur in this area, including yellow rail. There is a small amount of potential whooping crane habitat, however it does not yet appear to be occupied by breeding pairs (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007).

- This area also contains important fish habitat. Inconnu spawning grounds have been documented along the Buffalo River and likely also occur in the Whitesand and Yates Rivers (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007). The streams that flow across the alluvial plain into Buffalo Lake are important refuges for walleye, northern pike, whitefish and other species of fish during winter when most of Buffalo Lake freezes to the bottom (Chowns 2008 pers. comm.).
- This Important Wildlife Area is a very important area for traditional hunting, trapping and fishing (Crosscurrent Associates Ltd. and Maskwa Environmental Services Ltd. 2007; Dehcho Regional Wildlife Workshop 2008; Meeting with harvesters of K'átł'odeeche First Nation 2008).

Boundary Delineation: The boundary was drawn by harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008).

ID: 109

Name: Alluvial Zone South of Tathlina Lake

Criterion Satisfied: #6 (unique area used by many different species)

Size: 217 km^2

Substantiation:

- The extensive alluvial zone south of Tathlina Lake is a unique area important to many different species (Chowns 2008 pers. comm.). The Cameron River and other streams drain into the lake from the slopes of the Cameron Hills, delivering nutrient-rich sediments that support heavy riparian growth, diverse plant communities, vigorous forests and very productive habitat for several species of wildlife (Chowns 2008 pers. comm.; Ecosystem Classification Group 2007).
- This area has been highlighted as a concentration area for moose, lynx, and beaver. See Important Wildlife Areas ID: 41 (pg. 74), ID: 73 (pg. 122), and ID: 79 (pg. 130) for more information.
- This area is said to be important habitat for muskrat (Chowns 2008 pers. comm.; EBA Engineering Consultants Ltd. 2007a).
- Black bear and boreal woodland caribou are also found here (EBA Engineering Consultants Ltd. 2007a).
- The area is important for waterfowl. The mouth of the Cameron River is considered an important staging and nesting area. A 2003 survey of five sites in the southern Dehcho Territory found that the area south of Tathlina Lake supported the highest density of breeding pairs (EBA Engineering Consultants Ltd. 2007a).

Boundary Delineation: The boundary was drawn by an environmental consultant (Chowns 2008 pers. comm.).

ID: 110

Name: Tui Ta Tui Lake

Criterion Satisfied: #6 (unique area used by many different species)

Size: 21 km^2

Substantiation:

- This area is special because the lakes are connected by many small streams that remain open in the winter. These open water places are important for furbearers and other wildlife, as well as for people (Sahtu Renewable Resources Board Meeting 2008).
- Tui Ta Tui Lake is known for having healthy, good quality fish which also attracts wildlife (Sahtu Renewable Resources Board Meeting 2008).
- The Sahtu Harvest Study recorded large numbers of furbearers harvested from this area between 1998 and 2003. Fish harvesting areas have also been identified here (Wilson 2006).

Boundary Delineation: The boundary was drawn by participants at a Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008).

ID: 111

Name: Johnny Hoe River

Criterion Satisfied: #6 (unique area used by many different species)

Size: 4,192 km^2

Substantiation:

- According to the elders of Déline, this area contains very productive wildlife habitat and is important to the life cycles of many wildlife species (Sahtu Land Use Planning Board 2007).
- Traditional knowledge indicates that the area is important habitat for beaver and muskrat and is an important harvesting area for these species (Sahtu Heritage Places and Sites Joint Working Group 1999; Wilson 2006).
- The area has been identified as 'critical habitat' for moose and is known for year-round moose hunting (Sahtu Heritage Places and Sites Joint Working Group 1999).
- The area from Lac Ste Thérèse to Great Bear Lake is considered sensitive when barren-ground caribou migrate through in early winter. If hunters disturb the caribou too early then they will abandon the area, but if they are left alone for a short while they will take up winter foraging in the area west of the Johnny Hoe River, where they can be hunted all winter (Sahtu Heritage Places and Sites Joint Working Group 1999; Sahtu Renewable Resources Board Meeting 2008).
- The area is also important for waterfowl (Sahtu Land Use Planning Board 2007). Lac Ste Thérèse has been highlighted as a sheltered, shallow lake

particularly important for migratory birds (Sahtu Renewable Resources Board Meeting 2008).

- This watershed supports many fish and was the site of a traditional domestic spring fishery (Sahtu Land Use Planning Board 2007; Sahtu Renewable Resources Board Meeting 2008). In fall there are concentrations of spawning whitefish at the mouth of the Johnny Hoe River (Wilson 2006).

Boundary Delineation: The boundary is for the draft Johnny Hoe River Conservation Zone in Draft 2 of the Sahtu Land Use Plan (Sahtu Land Use Planning Board 2009).

ID: 112

Name: LaBiche Valley and Kotaneelee Range and River

Criterion Satisfied: #6 (unique area used by many different species)

Size: 1,712 km^2

Substantiation:

- This area on the border between the Yukon Territory and the Northwest Territories is believed to support a high diversity of species (Adamczewski 2008 pers. comm.; Bennett 2008 pers. comm.; Carrière 2009 pers. comm.).
- This Important Wildlife Area is found at the boundary between two large ecozones, the Taiga Plains and the Taiga Cordillera (Ecological

Stratification Working Group 1996). It likely supports a mixture of species from both ecozones (Bennett 2008 pers. comm.).

- Portions of this Important Wildlife Area remained ice-free during the last glaciation, providing a refugium for certain species that now exhibit a unique geographical distribution (Carrière 2009 pers. comm.; Dyke *et al.* 2003).
- Studies on the Yukon side of the border found that the LaBiche Valley was highly productive, diverse, and unique, with assemblages of birds, plants, mammals, fish, and amphibians found nowhere else in the Yukon Territory (LaBiche/Beaver Ecosystem Technical Group 1999; Yukon Chapter, Canadian Parks and Wilderness Society 2001).
- On the Yukon portion of the Kotaneelee Ridge, there are Beringian plant species that likely persisted in the glacial refugium e.g. Porsild's poa and Yukon groundsel (Bennett 2008 pers. comm.; Yukon Ecoregions Working Group 2004).
- Although the NWT portions of these same geological features have not been studied, it is likely that they also contain a high diversity of plants and wildlife similar to the Yukon portion (Adamczewski 2008 pers. comm.; Bennett 2008 pers. comm.).
- A species endemic to only Western Canada, Raup's willow, is found at Fisherman Lake, a known glacial refugium (Environment and Natural Resources 2009).

- Lake whitefish in this region, including in Fisherman Lake, are genetically distinct and hypothesized as being remnants of a population that survived the last ice age by surviving in a glacial refugium in the Nahanni Region (Foote *et al.* 1992; Rogers 2008).

Boundary Delineation: The boundary was drawn by a Government of Yukon staff to include the NWT portion of the La Biche Range, the southern NWT portion of the Kotaneelee Range and the Kotaneelee River drainage (Bennett 2008 pers. comm.), and expanded by ENR staff to include Fisherman Lake (Carrière 2009 pers. comm.).

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[21] Sahtu Land Use Plan 2006 unpublished data - DRAFT ONLY. All mapped and/or digital datasets depicting proposed boundaries for the Sahtu Land Use Plan from 2006 unpublished data were derived from ongoing consultation and were current only to August 2006.

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APPENDIX A.

Common and scientific names of all species mentioned in the text

Common Name	**Scientific Name** (Government of the Northwest Territories 2010)
Ungulates	
Barren-ground Caribou	*Rangifer tarandus groenlandicus*
Mountain Woodland Caribou	*Rangifer tarandus caribou*
Boreal Woodland Caribou	*Rangifer tarandus caribou*
Peary Caribou	*Rangifer tarandus pearyi*
Dolphin-Union Caribou	*Rangifer tarandus groenlandicus x pearyi*
Mule Deer	*Odocoileus hemionus*
Moose	*Alces americanus*
Mountain Goat	*Oreamnos americanus*
Muskox	*Ovibos moschatus*
Dall's Sheep	*Ovis dalli dallii*
Wood Bison	*Bison bison athabascae*
Furbearers	
Beaver	*Castor canadensis*
Black Bear	*Ursus americanus*
Grizzly Bear	*Ursus arctos*
Polar Bear	*Ursus maritimus*
Cougar	*Puma concolor*
Fisher	*Martes pennanti*
Red Fox	*Vulpes vulpes*
Lynx	*Lynx canadensis*
Marten	*Martes americana*
Mink	*Neovison vison*
Muskrat	*Ondatra zibethicus*
Otter	*Lontra canadensis*
Least Weasel	*Mustela nivalis*
Wolf	*Canis lupus*
Wolverine	*Gulo gulo*
Small Mammals	
Least Chipmunk	*Tamias minimus*
Snowshoe Hare	*Lepus americanus*
Deer Mouse	*Peromyscus maniculatus*
Masked Shrew	*Sorex cinereus*
Red Squirrel	*Tamiasciurus hudsonicus*
Meadow Vole	*Microtus pennsylvanicus*
Singing Vole	*Microtus miurus*
Southern Red-backed Vole	*Myodes gapperi*
Woodchuck	*Marmota monax*

Common Name	**Scientific Name** (Government of the Northwest Territories 2010)
Marine Mammals	
Bearded Seal	*Erignathus barbatus*
Harbour Seal	*Phoca vitulina*
Harp Seal	*Phoca groenlandica*
Hooded Seal	*Cystophora cristata*
Northern Fur Seal	*Callorhinus ursinus*
Ribbon Seal	*Histriophoca fasciata*
Ringed Seal	*Pusa hispida*
Beluga	*Delphinapterus leucas*
Bowhead Whale	*Balaena mysticetus*
Killer Whale	*Orcinus orca*
Narwhal	*Monodon monoceros*
Amphibians	
Western Toad	*Anaxyrus boreas*
Birds	
Rusty Blackbird	*Euphagus carolinus*
American Coot	*Fulica americana*
Whooping Crane	*Grus americana*
Short-billed Dowitcher	*Limnodromus griseus*
Canvasback	*Aythya valisineria*
Mallard	*Anas platyrhynchos*
Ruddy Duck	*Oxyura jamaicensis*
Long-tailed Duck	*Clangula hyemalis*
Bald Eagle	*Haliaeetus leucocephalus*
Common Eider	*Somateria mollissima*
King Eider	*Somateria spectabilis*
Gyrfalcon	*Falco rusticolus*
Peregrine Falcon	*Falco peregrinus*
Olive-sided Flycatcher	*Contopus cooperi*
Gadwall	*Anas strepera*
Cackling Goose	*Branta hutchinsii*
Canada Goose	*Branta canadensis*
Greater White-fronted Goose	*Anser albifrons*
Lesser Snow Goose	*Chen caerulescens caerulescens*
Mew Gull	*Larus canus*
Long-tailed Jaeger	*Stercorarius longicaudus*
Western Kingbird	*Tyrannus verticalis*
Pacific Loon	*Gavia pacifica*
Thick-billed Murre	*Uria lomvia*
Osprey	*Pandion haliaetus*
Short-Eared Owl	*Asio flammeus*
Red-necked Phalarope	*Phalaropus lobatus*

Common Name	**Scientific Name** (Government of the Northwest Territories 2010)
Northern Pintail	*Anas acuta*
Yellow Rail	*Coturnicops noveboracensis*
Spotted Sandpiper	*Actitis macularius*
Greater Scaup	*Aythya marila*
Lesser Scaup	*Aythya affinis*
Surf Scoter	*Melanitta perspicillata*
White-winged Scoter	*Melanitta fusca*
Wilson's Snipe	*Gallinago delicata*
Tundra Swan	*Cygnus columbianus*
Trumpeter Swan	*Cygnus buccinator*
Arctic Tern	*Sterna paradisaea*
Black Tern	*Chlidonias niger*
American Wigeon	*Anas americana*
Lesser Yellowlegs	*Tringa flavipes*
Common Yellowthroat	*Geothlypis trichas*
Plants	
Nahanni Aster	*Symphyotrichum nahanniense*
Arctic Willow	*Salix arctica*
Feltleaf Willow (Alaska Willow)	*Salix alaxensis*
Hairy Braya	*Braya pilosa*
Porsild's Poa (Porsild's Bluegrass)	*Poa porsildii*
Yukon Groundsel	*Tephroseris yukonensis*
Raup's Willow	*Salix raupii*
Insects	
Tundra Grasshopper	*Bohemanella frigid frigida*
Fish	
Burbot	*Lota lota*
Dolly Varden	*Salvelinus malma*
Arctic Char	*Salvelinus alpinus*
Inconnu (Coney)	*Stenodus leucichthys*
Northern Pike (Jackfish)	*Esox lucius*
Chum Salmon	*Oncorhynchus keta*
Walleye (Pickerel)	*Sander vitreus*
Whitefish Broad Whitefish Lake Whitefish Humpback Whitefish Pigmy Whitefish Round Whitefish	 *Coregonus nasus* *Coregonus clupeaformis** *Coregonus pidschian** *Prosopium coulterii* *Prosopium cylindraceum* **Coregonus clupeaformis* and *C. pidschian* are difficult to distinguish in the field

APPENDIX B.

Experts that recommended inclusion as Important Wildlife Areas

This table lists the experts that originally recommended inclusion of an Important Wildlife Area in this report. ENR regional staff were relied on because of their extensive engagement with communities.

Many of these areas have also been highlighted in Land Use Planning documents or other reports. These documents were very valuable in suggesting potential Important Wildlife Areas and providing information to assess them, and are included in the substantiation for each area. However, no area was deemed an Important Wildlife Area solely on the basis of such a document. See the substantiation section of each Important Wildlife Area for details on documents and other supporting information.

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
UNGULATES			
Barren-ground caribou			**21**
1	Core Calving and Post-calving Areas 1996 - 2006	ENR staff (Branigan 2008 pers. comm.; Case 2008 pers. comm.)	22
2	Porcupine Caribou Migration Area	Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.)	23
3	Horton Lake	ENR staff (Popko and Veitch 2006 pers. comm.)	24
4	Edaʃʃla (Caribou Point)	ENR staff (Popko and Veitch 2006 pers. comm.)	25

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
Mountain woodland caribou			**27**
5	Headwaters of Arctic Red River and Ramparts Rivers	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008)	28
6	South Nahanni Summer and Rut Range	Wildlife Conservation Society researcher (Weaver 2008b pers. comm.)	30
7	South Nahanni Winter Range	ENR staff and Wildlife Conservation Society researcher (Adamczewski 2008 pers. comm.; Weaver 2008b pers. comm.)	31
8	Coal River - LaBiche Winter Range	Wildlife Conservation Society researcher (Weaver 2008b pers. comm.)	32
9	Caribou Pass	Dehcho community representatives and Wildlife Conservation Society researcher (Dehcho Regional Wildlife Workshop 2008; Weaver 2008a)	33
10	Drum Lake (Wrigley Lake)	Sahtu community members and Environment Canada staff (Latour 2008 pers. comm.; Sahtu Renewable Resources Board Meeting 2008)	34
11	Redstone Calving and Early-midsummer Range	ENR staff (Nagy 2008 pers. comm.)	36
Peary caribou			**40**
12	Banks Island Calving Areas	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	41

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
13	Prince Albert Peninsula Calving Area	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	41
Dolphin-Union caribou			Error! Bookmark not defined.
14	Nigiyok Naghak Calving Area	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	43
15	Kugaluk River Calving Area	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	44
Dall's sheep			**45**
16	Black Mountain and Northern Richardson Mountains	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	46
17	Northern Mackenzie Mountains	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008)	48
18	Palmer Lake	ENR staff (Popko and Veitch 2006 pers. comm.)	49
19	Dehcho Sheep	ENR staff (Allaire and	49

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
	Concentration Areas	Larter 2008 pers. comm.) based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	
20	Tlogotsho Plateau Lambing Area	ENR staff (Allaire and Larter 2008 pers. comm.) based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	51
21	Dehcho Sheep Critical Areas	ENR staff (Allaire and Larter 2008 pers. comm.) based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	52
22	Dodo Canyon	Participants at the Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)	53
23	Between Carcajou Falls and Pyramid Mountain	Participants at the Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)	53
Moose			**55**
24	Mackenzie Delta and Inuvik to Tsiigehtchic	Gwich'in Renewable Resource Council members and residents of Aklavik (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008)	56
25	Richardson Mountains	Residents of Aklavik and Fort McPherson and Gwich'in Renewable	58

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		Resources Board staff (Dokum and Thompson 2008 pers. comm.; Meeting with Ehdiitat Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008)	
26	Arctic Red River	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008)	60
27	Tsiigehtchic / Travaillant Lake Area	Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.)	61
28	Between Peel and Arctic Red Rivers	Residents of Tsiigehtchic and Fort McPherson (Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008)	62
29	Sahtu Rivers	ENR staff (Veitch and Popko 2006 pers. comm.) and participants at Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	63
30	Ramparts River Wetlands	ENR staff (Popko and Veitch 2006 pers. comm.)	64
31	Wetlands Southwest of Lac à Jacques	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	65
32	Florence Lake	Participants in Sahtu	66

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	
33	Three Day Lake	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007) and ENR staff (Popko and Veitch 2006 pers. comm.)	66
34	Mirror Lake	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	67
35	Wetlands Southwest of Lac Ste Thérèse	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	68
36	O'Grady Lake	ENR staff (Popko and Veitch 2006 pers. comm.)	69
37	Dehcho Winter Use Areas	ENR staff (Popko and Veitch 2006 pers. comm.) and participants at Dehcho Regional Wildlife Workshop (Dehcho Regional Wildlife Workshop 2006)	69
38	Dehcho Summer Use Areas	ENR staff (Allaire and Larter 2008 pers. comm.) and participants at Dehcho Regional Wildlife Workshop (Dehcho Regional Wildlife Workshop 2006)	71
39	Buffalo Lake and River	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	72
40	Hay River	Harvesters of the K'átł'odeeche First Nation	73

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		(Meeting with harvesters of K'átł'odeeche First Nation 2008)	
41	Tathlina Lake Moose Area	Environmental consultant (Chowns 2008 pers. comm.)	74
42	Normal Wells to Fort Good Hope Winter Road	Participants at the Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)	75
Mountain goat			**76**
43	Dehcho Goat Concentration Areas	ENR staff (Allaire and Larter 2008 pers. comm.) based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	77
44	Flat River Goat Concentration Area	ENR staff (Larter 2008 pers. comm.)	78
Muskox			**80**
45	Ibbett Bay to McCormick Inlet	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	81
46	Bailey Point	Wildlife consultant (Gunn 2009 pers. comm.)	81
47	Southwest Banks Island	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008; Nagy 2008 pers. comm.)	83
48	Aulavik National Park	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation	84

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	
49	Parker River	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	85
50	Sahtu Muskox Areas	ENR staff (Popko and Veitch 2006 pers. comm.)	86
51	Hare Indian River	Participants in Sahtu Renewable Resources Board meetings (Sahtu Renewable Resources Board Meeting 2007; Sahtu Renewable Resources Board Meeting 2008)	87
Wood bison			**88**
52	Falaise Lake	ENR staff (Ellsworth 2007 pers. comm.)	89
53	Mink Lake	ENR staff (Ellsworth 2007 pers. comm.)	91
54	Mills Lake	ENR staff (Ellsworth 2007 pers. comm.)	92
55	Nahanni Wood Bison Herd Range	ENR staff (Allaire and Larter 2008 pers. comm.)	94
FURBEARERS			
Grizzly bear			**97**
56	Critical Grizzly Bear Denning Areas	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008) and University of Alberta researcher (Derocher 2008 pers. comm.).	97
57	Big Fish Watershed and Richardson Mountains	ENR staff (Branigan 2008 pers. comm.), Gwich'in Renewable Resource Council members (Meeting	100

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		of Gwich'in Renewable Resource Councils 2008) and residents of Fort McPherson (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008)	
58	Mackenzie Mountains Barrens	ENR staff (Popko and Veitch 2006 pers. comm.)	102
59	Grizzly Bear Area West of Wrigley	ENR staff (Allaire and Larter 2008 pers. comm.), based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	103
60	Greater Nahanni Grizzly Bear Areas	Dehcho community representatives and Wildlife Conservation Society researcher (Dehcho Regional Wildlife Workshop 2008; Weaver 2008b pers. comm.).	104
Polar bear			**106**
61	Mainland Coastal Polar Bear Denning Areas	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	106
62	Northern Banksland Critical Polar Bear Denning Area	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Sachs Harbour, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	108

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
63	Offshore Banks Island	Inuvialuit community representative (Meeting of Inuvialuit Community Representatives to Revise Inuvialuit Community Conservation Plans 2008)	109
64	Glenelg Bay and Richard Collinson Inlet	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	111
65	Prince Albert Sound and Minto Inlet	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	112
Beaver			**115**
66	Inner Mackenzie Delta	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	116
67	Gwich'in Beaver Concentration Areas	Gwich'in Renewable Resource Council members and residents of Tsiigehtchic and Fort McPherson (Meeting of Gwich'in Renewable Resource Councils 2008; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008; Meeting with Tetlit Gwich'in Renewable Resource	117

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		Council and Harvesters 2008)	
68	Ramparts River Wetlands	ENR staff (Popko and Veitch 2006 pers. comm.)	119
69	Loon Lake Wetlands	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	119
70	Wetlands North of Lac à Jacques	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	120
71	Willow Lake Wetlands	ENR staff (Popko and Veitch 2006 pers. comm.)	121
72	Johnny Hoe River and Lac Ste Thérèse	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	122
73	Dehcho Beaver Concentration Areas	ENR staff (Allaire 2008 pers. comm.)	122
74	Buffalo Lake, Copp Lake and Buffalo River	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	124
75	Hay River and Wetlands to the West	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	125
76	Northern Slopes of the Horn Plateau	Environmental consultant (Chowns 2008 pers. comm.)	126
Lynx			**128**
77	Dehcho Lynx Concentration Areas	ENR staff (Allaire and Larter 2008 pers. com.), based on identification by the Dehcho Wildlife Working Group (Dehcho Wildlife Working Group 2006 unpublished data)	129

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
78	Lynx Area South of Great Slave Lake	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	129
79	Tathlina Lake Lynx Area	Environmental consultant (Chowns 2008 pers. comm.)	130
80	Lynx Area North of Mackenzie River	Environmental consultant (Chowns 2008 pers. comm.)	131
Marten			**133**
81	Northern Sahtu Marten Area	ENR staff (Popko and Veitch 2006 pers. comm.)	134
82	Caribou Point Marten Area	ENR staff (Popko and Veitch 2006 pers. comm.)	135
83	Whitefish River Marten Area	ENR staff (Popko and Veitch 2006 pers. comm.)	135
84	Wetlands Southwest of Lac Ste Thérèse	Participants in Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2007)	136
85	Marten Area South of Great Slave Lake	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	136
Muskrat			**138**
86	Inner Mackenzie Delta	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008) and staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	139
87	Muskrat Concentration Areas A	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable	140

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
		Resource Councils 2008) and residents of Fort McPherson (Meeting with Tetlit Gwich'in Renewable Resource Council and Harvesters 2008)	
88	Muskrat Concentration Areas B	Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.)	141
AMPHIBIANS			
Western toad			**143**
89	Distribution of Western Toad	ENR staff (Gau 2009 pers. comm.)	144
UNIQUE AREAS			
90	Hot and Warm Springs	ENR staff (Popko and Veitch 2006 pers. comm.)	147
91	Density of Known Mineral Licks	ENR staff (Popko and Veitch 2006 pers. comm.)	150
92	Ibbett Bay to McCormick Inlet	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	153
93	Omingmakyok, Ungirut Bay and Okpilik Lake Areas	ENR staff (Branigan 2008 pers. comm.), based on identification in Inuvialuit Community Conservation Plans (Community of Holman, Wildlife Management Advisory Council (NWT) and Joint Secretariat 2000)	153
94	Cape Bathurst Polynya	Staff of Inuvialuit Game Council, Joint Secretariat and ENR (Meeting with Staff of Inuvialuit Game Council, Joint Secretariat and ENR 2008)	155

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
95	Cape Bathurst and Smoking Hills	ENR staff (Carrière 2008 pers. comm.)	157
96	Anderson River Delta	ENR staff (Branigan 2008 pers. comm.)	158
97	Mackenzie Delta	ENR staff (Branigan 2008 pers. comm.)	160
98	Caribou Hills	ENR staff (Branigan 2008 pers. comm.)	163
99	Campbell Lake	Gwich'in Renewable Resource Council members (Meeting of Gwich'in Renewable Resource Councils 2008)	164
100	Southern Gwich'in Settlement Area	Residents of Tsiigehtchic and Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.; Meeting with Gwichya Gwich'in Renewable Resource Council and Harvesters 2008)	166
101	Cardinal Lakes and Travaillant Lake Area	Gwich'in Renewable Resources Board staff (Dokum and Thompson 2008 pers. comm.)	167
102	Ramparts River Wetlands	ENR staff (Popko and Veitch 2006 pers. comm.)	168
103	Plains of Abraham	ENR staff (Popko and Veitch 2006 pers. comm.)	170
104	Willow Lake Wetlands	ENR staff (Popko and Veitch 2006 pers. comm.)	171
105	Edaį́ła (Caribou Point)	ENR staff (Popko and Veitch 2006 pers. comm.)	172
106	Moose Ponds	Parks Canada staff (Tate 2008 pers. comm.)	173
107	Mills Lake Area	Environmental consultant (Chowns 2008 pers. comm.)	174
108	Buffalo Lake Area	Harvesters of the K'átł'odeeche First Nation (Meeting with harvesters of K'átł'odeeche First Nation 2008)	176

ID	Important Wildlife Area Name	Expert(s) originally recommending inclusion	Page #
109	Alluvial Zone Zouth of Tathlina Lake	Environmental consultant (Chowns 2008 pers. comm.)	178
110	Tui Ta Tui Lake	Participants at the Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)	180
111	Johnny Hoe River	Participants at the Sahtu Renewable Resources Board meeting (Sahtu Renewable Resources Board Meeting 2008)	180
112	LaBiche Valley and Kotaneelee Range and River	ENR staff (Adamczewski 2008; Carrière 2009 pers. comm.) and Yukon Government staff (Bennett 2008 pers. comm.)	182
BIRDS			
Peregrine falcon*			337 *
113 to 127	CONFIDENTIAL – see Appendix D		

* Peregrine Falcon Important Wildlife Areas are available from the Director of Wildlife, Environment and Natural Resources, Government of the Northwest Territories upon the signing of a Data Release Agreement.