

OLD CROW FLATS

Van Tat K'atr'anahtii

Special Management Area

MANAGEMENT PLAN

Prepared by the TECHNICAL WORKING GROUP &
the MANAGEMENT COMMITTEE for the PARTIES

AUGUST, 2006



VUNTUT GWITCHIN GOVERNMENT



OLD CROW FLATS
Van Tat K'atr'anahtii
Special Management Area
MANAGEMENT PLAN

APPROVED BY



Joe Linklater
Chief, Vuntut Gwitchin Government



Dennis Fentie
Minister of Environment, Government of Yukon



Date

For more information, contact:

Government of Yukon, Department of Environment, 867-667-5803

Vuntut Gwitchin Government, Natural and Heritage Resources, 867-966-3261

COVER PHOTOS (top to bottom)

Rectangular lakes in Old Crow Flats are typically oriented with the prevailing wind. Vegetation debris blown across the surface tends to accumulate uniformly at the ends of long reaches. (Government of Yukon, J. Meikle)

Winter camp beside a lake. (Government of Yukon, Tourism and Culture)

EXECUTIVE SUMMARY

As required under the Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C, this document is the “Approved Management Plan” for the Old Crow Flats Special Management Area to implement the management principles set out in Schedule C, Section 3.0.

The Special Management Area includes one of the most important wetland and lake complexes in Canada, the Old Crow Flats. This area is also of major importance culturally to Vuntut Gwitchin First Nation. The ecological significance of the Flats has been acknowledged internationally through designation under the United Nations Ramsar Convention. This diverse lake network is home to major populations of waterfowl, the Porcupine Caribou Herd, muskrat, and moose, with its habitats and wildlife populations being of major

cultural and economic significance to Vuntut Gwitchin citizens, historically and presently.

The Old Crow Flats, or “Van Tat,” has been and remains a critical part of the traditional territory of the Vuntut Gwitchin. The Vuntut Gwitchin have lived in the Flats for thousands of years. They refer to it as “our bank.” The Vuntut Gwitchin remain committed to protecting this valuable resource for all time.

Accordingly, the designation of a special status and conservation regime for the entirety of the Flats was an essential part of the Vuntut Gwitchin Final Agreement with the governments of Canada and the Yukon. The bulk of the area of the Flats is contained in the north by the Vuntut National Park and in the south by Vuntut Gwitchin Category A Settlement Lands. The adjoining



Arctic Lupines. (©VGFN, S. Smith)

Special Management Area lands known as Area East and Area West are managed by the Government of Yukon. Together, these lands comprise the entire drainage of the Crow River.

This approved management plan recognizes these unique ecological and cultural relationships and is committed to maintain the ecological integrity of the area as a single ecological unit, including protection and conservation of fish, wildlife and their habitats, in consultation with, and enabling ongoing use of the resources of the area by, Vuntut Gwitchin citizens. The management plan recognizes ownership of parcels R-01A, R-10A and S-25A by the Vuntut Gwitchin First Nation.

The Vuntut Gwitchin First Nation Final Agreement requires the Government of Yukon (following devolution of responsibilities for natural resources from the Government of Canada) and the Vuntut Gwitchin First Nation to jointly prepare, recommend and approve a management plan for the area outside of the national park, which is compatible with the management regime in the national park portion of the Old Crow Flats. In August, 2005, the Yukon Minister of Environment and the Chief of the Vuntut Gwitchin First Nation, through a Letter of Understanding, directed the completion of this management planning and approval process. Preparation of this management plan included public consultation and involvement of the North Yukon Renewable Resources Council, and was coordinated with the work of the North Yukon Planning Commission.

The Vuntut Gwitchin First Nation Final Agreement obligates the Government of Yukon and the Vuntut Gwitchin Government to each manage their land in the area outside Vuntut National Park according to an Approved Management Plan.¹

MANAGEMENT PLAN RECOMMENDATIONS

To achieve the management principles of the Vuntut Gwitchin First Nation Final Agreement, this approved management plan recommends that:

- The core area (see map opposite page 1) of the Special Management Area comprising the Old Crow Flats wetland complex be protected and managed in a manner that *permanently protects* the ecological integrity of the Flats, including its diversity, its fish and wildlife populations and its habitats from activities that could reduce the land's capability, while maintaining access to this area by Vuntut Gwitchin citizens for traditional and current harvesting of fish and wildlife resources;
- Government of Yukon lands (Area East and Area West) outside the core area of the Old Crow Flats wetland complex be managed with the priority to protect the ecological integrity and diversity of fish and wildlife populations and habitats from activities that could reduce the land's capability, and secondarily, maintain the future possibility of some industrial activities²;
- Vuntut Gwitchin First Nation Settlement Lands (R-01A, R-10A, S-25A) be permanently protected from all industrial activities that could affect the ecological integrity of these areas;
- The Government of Yukon will establish its land (Area East and Area West) as a Habitat Protection Area pursuant to Section 187 of the *Yukon Wildlife Act*;
- The Vuntut Gwitchin Government will provide an equivalent designation for its lands (R-01A, R-10A, S-25A) through its land and resource legislation when promulgated, and by Chief and Council resolution in the interim;

¹For clarity, the establishment of Vuntut National Park is further described in the Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule A and in a management plan for the park completed in 2004.

²"Industrial activities" is defined as: 1) development of mines and minerals, oil and gas, hydroelectric and other energy resources, agricultural lands; 2) harvesting of timber resources; 3) development of town sites and; 4) any land use, activity or infrastructure associated with the above.

- Government of Yukon lands (Area East and Area West) located within the core of the Old Crow Flats wetland complex be permanently withdrawn from all industrial activities;
- Government of Yukon lands (Area East and Area West) outside the core area of the Old Crow Flats wetland complex be withdrawn from all industrial activities for a period of 20 years;
- The Government of Yukon and the Vuntut Gwitchin Government will review the status of all 20-year withdrawals (including oil and gas and minerals) pertaining to Area East Area West prior to expiration;
- No permanent disposition of land for industrial activities under the *Territorial Lands (Yukon) Act* or Vuntut Gwitchin First Nation land and resource legislation when promulgated;
- Non-industrial land use activities on Vuntut Gwitchin First Nation lands will be regulated through Vuntut Gwitchin Government lands and resources legislation when promulgated;
- Non-industrial land use activities on Government of Yukon lands will be regulated under the *Territorial Lands (Yukon) Act* and Habitat Protection Area regulations;
- The Government of Yukon, in consultation with the Vuntut Gwitchin Government, will develop habitat protection regulations for the Yukon Habitat Protection Area prior to expiration of the 20-year withdrawals and for greater certainty prior to any consideration of industrial activities;
- The Government of Yukon and Vuntut Gwitchin Government agree to make best efforts to immediately implement this approved management plan;
- The Government of Yukon will legislatively implement this management plan;
- The Vuntut Gwitchin Government will implement this management plan through its lands and resources legislation when promulgated, and in the meantime give effect to this intent through a Chief and Council resolution;
- A management committee of one representative each of the Yukon Government and the Vuntut Gwitchin Government will meet at least annually to coordinate implementation of the management plan, including provision of an annual report to the Yukon Minister of Environment and the Chief of the Vuntut Gwitchin First Nation. Management Committee may invite other agencies to participate as appropriate;
- Unless otherwise agreed to, the Government of Yukon and the Vuntut Gwitchin Government will review this management plan in 2011 and every 10 years thereafter.

EXECUTIVE SUMMARY

Jii Vuntut Gwitchin First Nation Final Agreement Chapter 10, Schedule C, dinehtl'eh zhit gwidinidhitl'oo gwik'it gwiheelyaa, aii nits'oo Van Tat gwa'an nanh k'aanaatyaa eenjit. Jii nin, luk goonch'ii kat nijin nanh kak gogwandaii aii chan k'aanaatyaa eenjit.

Jii nanh k'inaatii gwiinchii veegoo'aii. Nijin Van ts'at chuu goonlii zhat Canada gwizhik tthak ts'at Van Tat gwa'an chuu ts'at Van tthak chan. Jii nanh chan Vuntut Gwitchin kat nits'oo googwiindai' eh'an gwiintl'oh giiniinj'ahdhat. Jii nanh gwiinchii veegoo'aii aii jidii dzhii, chuu, ts'at jidii tr'idahzhak, ts'iiivii, ts'at nin tthak eh'an aii United Nations Ramsar Convention gootr'ahnyuu lagiljil dai' dinehtl'eh gwakak gwidinidhitl'oo. Jii Van tthak ch'ujuk t'iinch'uu ts'at jii dzhii chuu zhit gwandaii tthak zhat gwa'an gwigwandaii ts'at ch'izhii Nin kat chan vadzaai, dzan, ts'at dinjik kat tthak. Jii nin nits'oo gwigwandaii ts'at sriit'aanchy'aa aii jii Vuntut Gwitchin kat gwiintl'oh giit'iinjyahchy'uu niinzhitdai' gwanoo ts'at yuk drin gweedhaa khah tth'aii nihk'it t'igoonch'uu ts'at tth'aii nihk'it gwigwandaii.

Jii Van Tat gatr'ahnyuu, aii Vuntut Gwitchin kat jii nanh gwiintl'oh gwiinchii giiniinj'ahthat nits'oo yeenoo giikak gogwandaii eh'an. Yeenoo dai' gwats'at zhat gwa'an gogwiindai'. Jii nanh lazraa zheh goo'aii nijin lazraa k'anaatii k'it goveenjit t'iinch'uu. Vuntut Gwitchin jii nanh yeendoo gweedhaa eenjit tthak giieenjit giinji'dakhaagho. Jii Vuntut k'aanaatyaa aii jidii Final Agreement vatr'ahnyuu gwizhik gwidinidhitl'oo. Jii Vuntut gwa'an nanh sriit'ahchii aii nijin nanh thok natr'iniin'aii aii lat t'iinch'uu ts'at vaak'aanaatyaa. Ts'at jii nanh lat tsal chan, Vuntut Gwitchin Final Agreement gwik'aanaatyaa zhit gwidinidhitl'oo. Ts'at jii nanh veendi'chan ts'at

Jii nanh ni'ts'ii dhah'aii aii east and west aii Yukon Government giik'aanaatyaa, ts'at jii Chyaanjik nijin liidlaii aii chan vaak'aanaatyaa. Jii nanh kat tthak aii Crow Flats Management plan gwidinidhitl'oo aii k'it vik'aanaatyaa.

Jii nits'oo nanh k'aanaatyaa aii dinjii ts'at nanh khah ihlak k'it t'igiinch'uu nits'oo gogwandaii eh'an ts'at jii nanh nits'oo giik'eehaandak aii nits'oo gik'anahtii aii ni'k'it t'itheechy'aa. Jii Vuntut gwa'an luk, nin, goonch'ii tthak k'aanaatyaa eenjit ts'at jii nin nijin gogwandaii chan.

Jii August 2005, dai' jii Yukon Minister of Environment ts'at Vuntut Gwitchin gwikhehkwei' khah nihlaa gigeedi' ts'at jii akoo gwik'it gwiheelyaa gihnyuu ts'at juu goveenjit gwitr'it'aa gwaa'in kat goveenjit gwidigaantl'oo. Jii Vuntut gwich'in kaiik'it kat gwits'igiinyu' ts'at gwidigaantl'oo ts'at jii North Yukon Regional Land Use Planning Commission gootr'ahnyuu aii jidii gwidigaantl'oo ts'at jidii gagidaandaii khah gwits'igiinyu'

Jii VGFN Final Agreement vatr'ahnyuu aii Yukon ts'at Vuntut Gwitchin kat nihlaa jii nanh k'inaatii eh'ok dha'aii k'aganatyaa aii gwik'it gwiheelyaa eenjit gwidinidhitl'oo.

MANAGEMENT PLAN RECOMMENDATIONS

Aii nits'oo jii nanh k'ahahnaatyaa gwick'it gwiheelyaa eenjit jii gwidinidhitl'oo.

- Jii nanh tl'an dha'aii aii jii luk, nin, kat tthak jii nanh kak gwaandaii aii ts'at Vuntut Gwitchin nits'oo gogwandaii ts'at gogwiindai' ts'at nits'oo nanh t'igijyahch'uu eh'an jii nanh yeendoo tthak eenjit vik'aanaatyaa.

Jii khaii juuk'a ts'at nanh iizuu heelyaa ts'at khahtsyaa gwich'i vik'aanaatyaa. Jii Vuntut Gwitchin Government kat jii nanh iizuu heelyaa gwitch'i' gwak'aaganahtyaa, ts'at jii akoo t'igiiniindhan ji' chan ch'ujuk neegiikhahtsyaa jii nanh iizuu heelyaa kwaa geenjit. Aii gwits'o jii Vuntut gwickhehkwei' naii jii resolution vatr'ahnyuu aii zhit gwidigaantl'oo.
- Jii Yukon Government kat jii nanh Vuntut gwatsal k'aaganahtyaa, ts'at jii luk ts'at nin giikak gwaandaii kat tthak k'aaganahtyaa ts'at jidii nanh zhit t'iinch'uu kat tthak iizuu tr'ahahtsyaa gwichi' giik'aaganahtyaa.
- Areas East and West.
Jii nanh Yukon Government ts'ahn nilii aii ni'ts'ii dhah'aii aii nits'oo vaak'aanaatyaa jii luk, nin, nanh khah ahn heelyaa gwitch'i'giik'aanahtyaa. Jii yeendoo Khaii neekak juutin danshuk.

Jii khaii juuk'a goonch'ii kat gwitch'i'. Jii Yukon Government kat jii nanh vaat'aadaachy'aa gihnyuu gaa nanh iizuu heelyaa gwitch'i' gwick'aaganahtyaa. Yukon Government kat nin nits'oo googwandaii k'aaganahtyaa, aii Yukon Wildlife Act vatr'ahnyuu zhit gwidigiheentl'oo ts'at jii gwinjik aii Vuntut Gwatsal ts'at zhat gwa'an nanh oozri' gakhahtsyaa.

- Jii Yukon Government ts'at Vuntut Gwitchin Government kat nihlaa Committee giiheedyaa ts'at nihlaa khaii ch'ihlak gwideezhak giyeenjit ginji'gahdaaghoos ts'at nits'oo jii geenjit plan gwigwiltisaii eenjit ts'at gwitr'agwah'in ji'eenjit. Ts'at jii khaii neekak juutin gwideezhak aii khaii juuk'a goonch'ii ts'i'vik'aanaatyaa eenjit aii khaii neekak juutin gehndoo dageedyaa eenjit. Jii Yukon Government aii Vuntut Gwitchin Government khah gigiheekhyaa ts'at jii nits'oo nijin nin gwaandaii eegigiheekhyaa.
- Yukon Government ts'at Vuntut Gwitchin Government kat nihlaa jii nits'oo nanh k'aanaatyaa eenjit kxanh ts'o' giyyee gwitr'it t'agwahahyaa gwick'it gwiheelyaa eenjit. Jii ch'adai' akoo t'igeedyu' giinyu' kwaa ji' Yukon Government ts'at Vuntut Gwitchin kat jii khaii 2011 ji' chan nits'oo gwidinidhitl'oo chan neegiihaayaa ts'at zhat gwats'at khaii juutin gakhyyuk tthak neegiihaa'ik ts'at eegigiheekhyaa.

ACKNOWLEDGEMENTS

VUNTUT GWITCHIN GOVERNMENT

As I reflect on who we are as Vuntut Gwitchin and how we achieved completion of this last major protected area management regime in our traditional territory through our Final Agreement with Canada and Yukon, I am reminded of the sacrifices and accomplishments of our elders and predecessors that span the history of our people. The work of so many elders, leaders and community members in the past has made our task in writing this management plan so much easier. I believe it's appropriate to acknowledge those who have most prominently shaped our lives and set an example for us on how to work together to progress as a people, including projects such as the development of this management regime for the Old Crow Flats.

Most generally I wish to acknowledge and express our sincere appreciation to our people, the Vuntut Gwitchin, who, through the expression of our cultural perspectives, both historically and presently, have guided the detail of the management regime for this area, which is central to both our history and future as a people.

I would like to acknowledge and thank those who have encouraged and supported our long-term goal to maintain our culture with strong linkage to our traditional values, our return to self-governance, and protection and wise use of our traditional territory and resources.

Most prominently these special mentors have been our elders. Mahsi' cho to the late Sarah Abel, Charlie Abel, Moses Tizya, John Kendi, Myra Moses, Neil McDonald, Mary Thomas, Mary Kassi, Alice Frost, Andrew Tizya, and to Annie Lord, Dick Nukon, Edith Josie, John Joe Kyikavichik, Tabitha Kyikavichik, Lydia Thomas, Hannah Netro, Ellen Bruce, Mary Netro, Fanny Charlie, Charlie Peter Charlie, Charlie Thomas, Phares Thomas, Isaac Thomas, Peter Tizya, Joel Peter, Irwin Linklater, John Joseph Kaye, Elizabeth Kaye, Alfred Charlie, Josephine Fehr, Stephen Frost Sr., Donald Frost and Freddy Frost.

We would also like to recognize the exceptional efforts of Stanley Njootli Sr., the late Chief Johnny Abel and Councillor Lazarus Charlie, who provided an earnest and persistent presence at the negotiating table which proved to be vital in securing the inclusion of Van Tat, the Old Crow Flats Special Management Area, and the entire Crow River watershed in Schedule C.

Our Vuntut Gwitchin citizens and government value the support of our ancestors who have preceded us, and those now directly involved, as we achieve our long-standing major objective of completing a comprehensive and integrated protective management regime for the Old Crow Flats that also maintains our access and use of this area that is so critical to our culture.

We appreciate the active participation of our Vuntut Gwitchin citizens in the development of this integrated management regime for the Old Crow Flats, and the contribution of the North Yukon Renewable Resources Council.

In this regard we are also proud of, and appreciate, the effective work of our government's Natural Resources staff, including Greg Charlie, Hugh Monaghan, Sonja Foss, Melissa Valja, Mary Jane Moses, Megan Williams, William Josie and Robert Kaye. The positive contribution of their colleagues in the Yukon Government to this management plan is also appreciated.

Accordingly, on behalf of our Vuntut Gwitchin Government and citizens, I wholeheartedly endorse this Old Crow Flats Special Management Area Plan and look forward to working side-by-side with our partners in its implementation.

“Yeendoo Nanh Nakhweenjit K'atr'ahanahtyaa”

“Looking after the land for the future”

Joe Linklater
Chief
Vuntut Gwitchin Government

ACKNOWLEDGEMENTS

GOVERNMENT OF YUKON

The Old Crow Special Management Area Management Planning was truly a cooperative effort. The Government of Yukon would like to acknowledge the assistance of Vuntut Gwitchin Government staff, in particular Melissa Valja, Sonya Foss, Meaghan Williams and Greg Charlie. The elders and community members who attended the open houses and planning sessions helped guide the process and provide valuable information, stories and advice. The North Yukon Renewable Resources Council, in particular Robert Bruce and Stan Njotli Jr., participated, as well as staff Darcie Mathiessen and Angela Street. Robert also assisted in translation at community and elder meetings.

A management committee including Greg Charlie and Hugh Monaghan, Vuntut Gwitchin Government; Michael White and Shirley Abercrombie, Government of Yukon; and Jim Hawkings, Canadian Wildlife Service, provided direction to the technical working group.

The Department of Environment would like to thank Government of Yukon staff who participated on the technical working group, including: Geoff Bradshaw, Dorothy Cooley, Shanna Epp, Ruth Gotthardt, Ella LeGresley, Paul Matheus, Bruce McLean, Cathryn Paish, Lee Pigage and Debra Wortley.

In particular, we would like to acknowledge the work of Geoff Bradshaw of the Yukon Geological Survey who sadly died in an accident while doing geological studies last summer in the Yukon.

We would like to acknowledge the effort and technical work of Canadian Wildlife Service (Jim Hawkings and Debbie van derWetering), Parks Canada (Anne Landry), North Yukon Planning Commission (Shawn Francis, John Ryder and Richard Vladers), Department of Fisheries and Oceans (Al von Finster), Habitat Stewards Program (Jennifer Smith), and Yukon College (Dave Mossop). Ducks Unlimited participated on the technical working group and supported an earlier wetlands workshop on Old Crow Flats. Bob Hayes helped facilitate several workshops in Whitehorse and Old Crow. K-L Services of Whitehorse provided expertise in editing and layout of the management plan.

We thank the members of the public and non-governmental organizations who attended workshops and open houses and provided their input.

TABLE OF CONTENTS

1 INTRODUCTION

- 2 Management principles
- 3 Purpose of this management plan
- 4 Description of the area
- 5 Background to the planning process
- 6 Regulatory framework and legislation
- 7 Plan review and implementation

8 VISION FOR THE AREA

9 CULTURAL AND ECOLOGICAL VALUES

- 9 Why is Van Tat important?
- 10 Direction from the Elders
- 12 Ecological values and the planning process

15 TOPICS AND RECOMMENDATIONS

- 16 Designation of the Special Management Area

HISTORY

- 18 Traditional use
- 18 Heritage and historic resources
- 19 Paleontological resources

ENVIRONMENT

- 20 Water quality and levels
- 22 Fish
- 23 Wildlife
- 24 Waterbirds and wetlands
- 26 Monitoring and research

RESOURCES

- 27 Forestry
- 28 Oil and gas resources
- 29 Mineral resources

PEOPLE

- 30 Tourism and visitors
- 31 Land dispositions and land use activities
- 32 Access and transportation
- 33 Education and public awareness

36 **APPENDIX A: Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C**

38 **APPENDIX B: Summary of recommendations**

42 **APPENDIX C: Chronology of Old Crow Flats Special Management Area planning**

43 **APPENDIX D: Summary of public comments received during consultation**

47 **APPENDIX E: Bibliography**

49 **APPENDIX F: Maps**

Vuntut Gwitchin cultural use areas in the Old Crow Flats Special Management Area

Porcupine Caribou use of the Old Crow Flats Special Management Area

Old Crow Flats Special Management Area wetlands classification

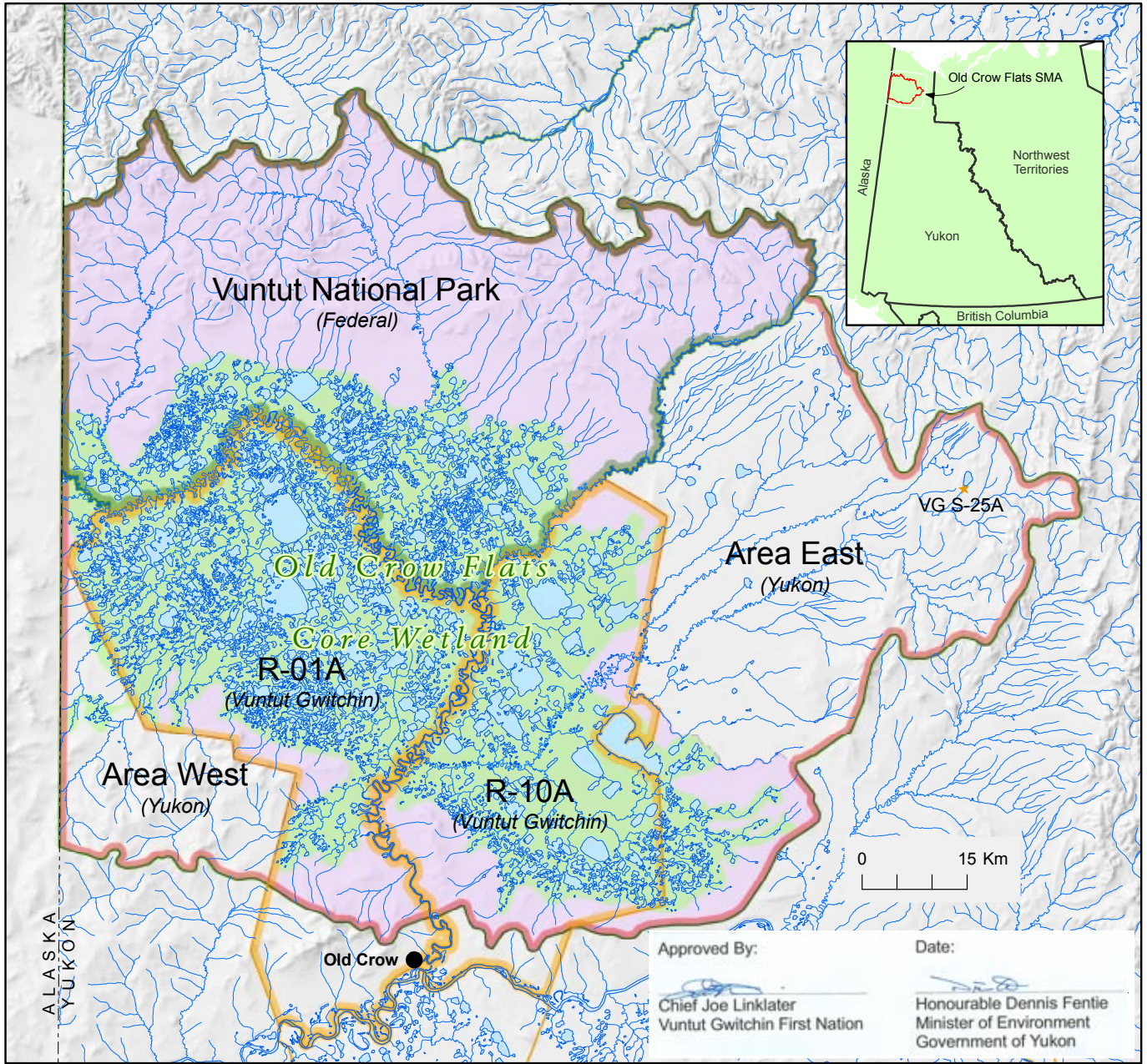
Gas potential of the Old Crow Flats Special Management Area

Mineral potential of the Old Crow Flats Special Management Area

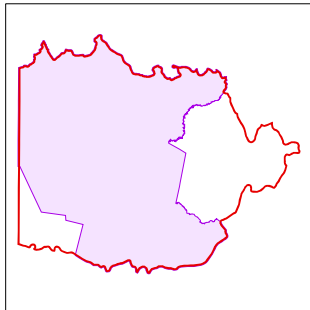
Tourism and recreation on Old Crow Flats Special Management Area

Van Tat K'atr'anahtii

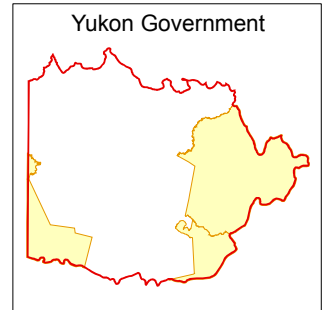
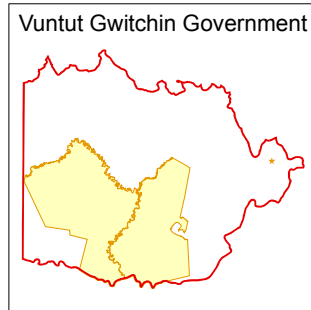
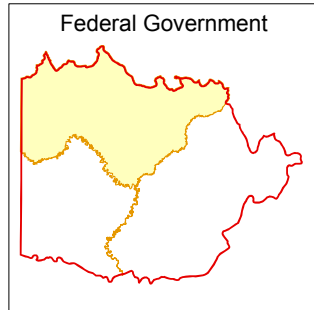
(Old Crow Flats Special Management Area)



Permanently Withdrawn From Industrial Resource Development



Responsibility by Jurisdiction



INTRODUCTION



Canoe on cache, and cabin at David Lord Lake in Crow Flats. (©VGFN, S. Smith)

The Vuntut Gwitchin have lived and depended on the Old Crow Flats since prehistoric times. In recognition of this long relationship, in 1976, the Berger Inquiry recommended a wilderness park be established in the northern Yukon to protect the ecology and traditional way of life in the region. This park was to be between the Alaska-Yukon border and the Yukon-Northwest Territories border, and from the Porcupine River in the south, north to the coast. A federal order-in-council withdrawal was put in place pending resolution of the establishment of a national park and land claims agreements with the Inuvialuit.

In 1982, the ecological value of this area was significant enough that it was designated by Canada as an important wetland under the Ramsar Convention, an international designation of the United Nations. (Old

Crow Flats is the only Ramsar site in the Yukon and one of 36 in Canada. The Ramsar Convention is an intergovernmental treaty which provides a framework for cooperation for the conservation and wise use of wetlands and their resources.)

When the Vuntut Gwitchin First Nation Final Agreement was signed in 1993, under Chapter 10, Old Crow Flats was included in the settlement land. Additionally, the governments agreed to the creation of a Special Management Area, as well as extinguishing existing oil and gas rights in the area.

As shown on the map opposite, the Old Crow Flats Special Management Area includes Vuntut National Park, Vuntut Gwitchin First Nation settlement land parcels R-01A and R-10A, and two sections of crown

land, one to the east and one to the west of the settlement land. The Special Management Area includes the entire drainage of the Old Crow Flats.

In 2003, with devolution of responsibilities for natural resources management, administrative control of the two crown land portions passed from the federal government to the Government of Yukon.

Vuntut National Park, which was formally established on February 14, 1995, forms a significant portion of the Special Management Area. (It is described in Schedule A of Chapter 10 of the final agreement.) In April, 2004, a management plan for Vuntut National Park was approved. The plan provides background information on land use history and a description of the cultural and ecological values in the park. (This plan is available online at http://www.pc.gc.ca/pn-np/yt/vuntut/plan/index_e.asp.) The park is cooperatively managed by Parks Canada, the Vuntut Gwitchin Government and North Yukon Renewable Resources Council, as set out by the management plan as per Schedule A of the final agreement, and the *Canada National Parks Act*.

A key objective of Chapter 10 of the Vuntut Gwitchin First Nation Final Agreement is to maintain important features of the Yukon's natural or cultural environment for the benefit of Yukon residents and all Canadians, while respecting the rights of Yukon Indian people and Yukon First Nations.

Chapter 10, Schedule C, of the final agreement provides guidance for the establishment of the Old Crow Flats Special Management Area. It also describes the management principles and the requirement for the parties (Government of Yukon and Vuntut Gwitchin Government) to develop a management plan for this wetlands complex.

MANAGEMENT PRINCIPLES

Chapter 10, Schedule C, of the Vuntut Gwitchin First Nation Final Agreement lists the following management principles for the Old Crow Flats Special Management Area.

- Strive to maintain the integrity of the area as one ecological unit.
- Recognize and protect the traditional and current uses of the area by Vuntut Gwitchin, while recognizing the changing values and priorities of Vuntut Gwitchin in contemporary Canadian society.
- Protect and conserve fish and wildlife, and fish and wildlife habitat, of national, international and local significance, in particular, migratory birds and the Porcupine Caribou herd and their habitats.
- Protect the full diversity of fish and wildlife populations and their habitats from activities which could reduce the land's capability to support fish and wildlife.
- Recognize the ownership by the Vuntut Gwitchin First Nation of parcels R-01A and R-10A.

PURPOSE OF THIS MANAGEMENT PLAN

As set out by the parties, this management plan considers conservation of natural resources to be the priority for the Old Crow Flats Special Management Area. The plan complements the Vuntut National Park Management Plan and applies specifically to the settlement land R-01A and R-10A, as well as Area East and Area West, crown lands administered by the Government of Yukon.

Strong conservation principles helped guide the Technical Working Group and the Management Committee in their recommendation of this management plan. During open houses, meetings and discussions with the Yukon public, with elders and with the community of Old Crow, the essential need for the on-going protection of the Old Crow Flats was a strong and consistent message.

This management plan describes these important values and how they should be considered in making decisions about the Special Management Area. The plan will provide long-term direction for the governments responsible for managing the lands and resources of the Old Crow Flats Special Management Area.

“When we lived in Crow Flats, that was self government. Long time elders told generations how to carry on their tradition; that is how we live now in Vuntut Gwitchin territory.”

John Joe Kaye

“The old people used to talk about the land that makes people survive. We are still talking about the same thing today, to protect it.”

Lydia Thomas

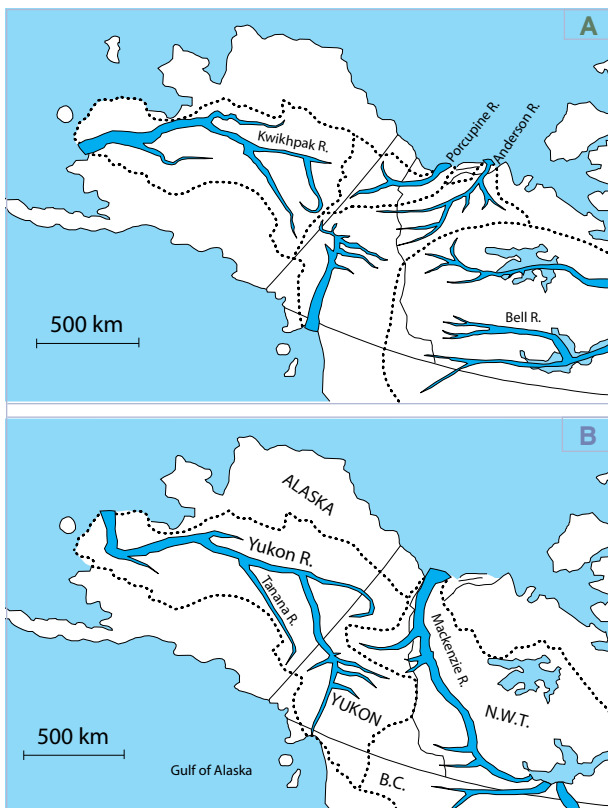


Robert Bruce Jr. translating for John Joe Kyikavichik at the November 29, 2005 elders meeting. (©VGFN: M. Charlie)

DESCRIPTION OF THE AREA

The Old Crow Flats Special Management Area, which is 12,116 square kilometres, is made up of Vuntut National Park, Vuntut Gwitchin First Nation settlement land parcels R-01A and R-10A, and two blocks of crown land, Area East and Area West. Category A settlement lands include surface and subsurface ownership and are administered by the Vuntut Gwitchin Government. The crown land is administered by the Government of Yukon.

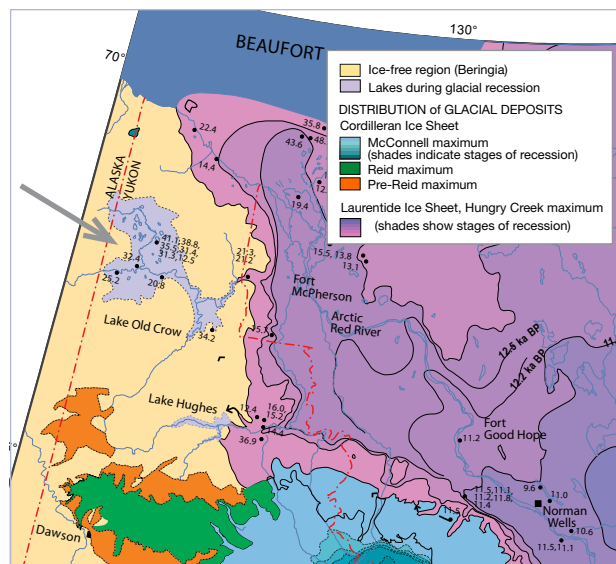
The area known as Van Tat, or Old Crow Flats, is in the traditional territory of the Vuntut Gwitchin, the “people of the lakes.” People travel to Van Tat year-round for trapping, harvesting and to “spring out” on the land at their family’s place, as well as for cultural, health and economic purposes, including collecting oral history stories, research and education.



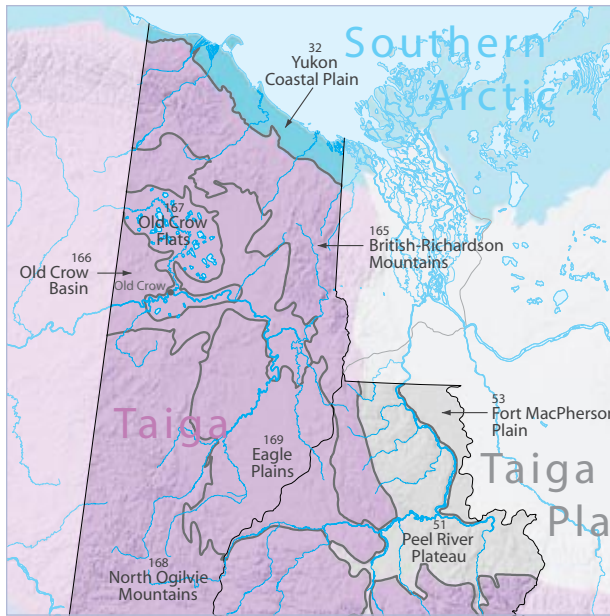
Dramatic changes in the drainage of northwestern North America occurred between pre-glacial (five million years ago) (A), and post-glacial (since about 15 thousand years ago), (B). Dotted lines outline watershed boundaries. Thickness of the drainage outline indicates relative volume of flow. (Ecoregions of the Yukon Territory, 2004)

Prior to the last glaciation, the Porcupine River is thought to have flowed eastward through Rat Pass, emptying into the Beaufort Sea at the site of present-day Mackenzie Delta. Roughly 30,000 years ago, when continental glaciers blocked this route, a large glacial lake formed in the Old Crow Basin. During this time, a deep deposit of lake sediments developed. Before the ice plug at Rat Pass decayed, the lake waters spilled westward, cutting the canyon along the ramparts, and eventually draining the glacial lake as the Porcupine River joined the Yukon River.

Since then, a major wetland has formed in the Old Crow Basin, building up several metres of peat. Permafrost developed in the sediment and peat. The melting of the permafrost, along with wind direction and fires, led to the creation of hundreds of shallow squarish lakes. These lakes make up one of Canada’s most important wetland habitats for migrating and nesting waterfowl. They are also habitat for muskrats, summer moose, migrating Porcupine caribou and fish. The glacial lake, and present-day wetland complex, make up the Old Crow Flats Ecoregion.



Areas of the northern Yukon and western Northwest Territories covered by glaciations in the past three million years. Arrow points to Glacial Lake Old Crow. (Ecoregions of the Yukon Territory, 2004)



Ecoregions of the northern Yukon.
(Ecoregions of the Yukon Territory, 2004)

A network of streams then formed, joining into the Crow River and flowing southward to the Porcupine River. Within the basin, gravelly stream beds have created valleys containing spruce forests and shrub plant communities. These habitats are important to wildlife species such as moose. The larger watershed outside the Old Crow Flats is known as the Old Crow Basin Ecoregion.

The Old Crow Flats is bounded by mountain ranges. To the west are the Davidson Mountains; the British and Barn mountains are to the north and the Richardson Mountains are to the east.

Resource Description and Analysis of Vuntut National Park of Canada, published in 2001, provides a compilation of published information on the park and surrounding areas. It summarizes the aquatic biology, archaeology, birds, climate, ecology, geology, geomorphology, history, hydrology, mammals, palaeontology, soils and vegetation in the area (<http://yukon.taiga.net/vuntutrda/>).

BACKGROUND TO THE PLANNING PROCESS

Direction for management planning for this area has been provided by Schedule C, Chapter 10 of the Vuntut Gwitchin First Nation Final Agreement, including its management principles.

In 2000, a technical committee led by the Vuntut Gwitchin Government initiated planning discussions for Old Crow Flats Special Management Area. The group met several times until 2003, when the transfer of administrative management for federal land to the Government of Yukon led to a suspension of planning until 2005.

In July, 2005, a Letter of Understanding and terms of reference were agreed to by the parties (Government of Yukon and Vuntut Gwitchin Government). As a result, a technical working group and a management committee were established to develop a management plan.

The management committee included representatives from the Vuntut Gwitchin Government, Government of Yukon and Canadian Wildlife Service.

The Technical working group included members from the Vuntut Gwitchin Government, Government of Yukon, Canadian Wildlife Service, North Yukon Renewable Resources Council, Parks Canada, North Yukon Planning Commission, Department of Fisheries and Oceans Canada, Ducks Unlimited, Yukon College, and Yukon Fish and Wildlife Management Board (Community Stewardship Program). With direction from the management committee, the technical working group reviewed technical information, organized the planning process and prepared the management plan.

The major steps in the development of the plan included identification and review of important ecological, cultural and resource information and values; discussion of options for protecting the area and its values; and consideration of possible designations (officially bestowing special status) and land management options. The technical information ranged from limited to

very broad in scope. Discussions in open houses often reflected many values and viewpoints.

The technical working group obtained public input via meetings with the Vuntut Gwitchin First Nation elders, open houses in Old Crow and Whitehorse (November and December, 2005 and March and April, 2006), newsletters and a questionnaire for Vuntut Gwitchin First Nation citizens (April to June, 2006), advertising in Yukon newspapers and on local radio, and one-on-one personal and telephone interviews.

The technical working group acknowledged the previous work done, including planning and workshops, that preceded this management planning process. Also, the community of Old Crow had expressed the desire that the technical working group use existing planning and information already collected.

In particular, the working group built on the development process for the North Yukon Regional Land Use Plan and the information that had been gathered for that region. While the North Yukon Planning Commission did not specifically consider Old Crow Flats, the information gathered and development of maps and posters, such as the significant areas for wildlife populations, were helpful for this planning process.

A list of existing management plans, legislation, policies and reports that were relevant to the work on this management plan is included in Appendix E.

REGULATORY FRAMEWORK AND LEGISLATION

EXISTING FRAMEWORK

At present, the various parts of the Special Management Area are administered as follows:

Entire Special Management Area

The following legislation is applicable to the entire Old Crow Flats Special Management Area.

- Vuntut Gwitchin First Nation Final Agreement
- *Migratory Birds Convention Act* (Canada)
- *Fisheries Act* (Canada)
- *Yukon Environmental and Socio-economic Assessment Act*

Vuntut National Park

The Vuntut Gwitchin First Nation Final Agreement and the *Canada National Parks Act* specify the following areas of responsibility for Vuntut National Park.

- Parks Canada is responsible for matters related to planning, development, management and operation of Vuntut National Park, in consultation with the Vuntut Gwitchin Government and North Yukon Renewable Resources Council.
- The Vuntut Gwitchin Government represents the interests of Vuntut Gwitchin on matters related to Vuntut National Park, including fish and wildlife, harvesting rights and management and oral history work.
- The North Yukon Renewable Resources Council represents public interests and advises on matters related to renewable resources associated with Vuntut National Park.

Vuntut Gwitchin First Nation settlement lands

- Vuntut Gwitchin has the highest level of ownership on settlement land parcels R-01A and R-10A, including surface and subsurface rights.
- The Vuntut Gwitchin Government is developing a *Lands and Resources Act* for land management. This legislation will protect the ecology of the area.

Area East and Area West

The Government of Yukon administers Area East and Area West according to:

- current Order-in Council withdrawal 2005/84 under the *Placer Mining Act* and *Quartz Mining Acts*
- *Territorial Lands (Yukon) Act* (land use dispositions including roads, timber, sand and gravel)
- current Order-in Council withdrawal 2003/143 (land disposition)
- Yukon *Oil and Gas Act* (oil and gas dispositions)
- Yukon *Quartz Mining Act* (quartz mining)
- Yukon *Placer Mining Act* (placer mining)
- Yukon *Wilderness Tourism Act*
- Habitat Protection Areas designated under the Yukon *Wildlife Act* (if applicable)

FUTURE FRAMEWORK

Nothing in this management plan will, or is intended to, take away rights guaranteed to Vuntut Gwitchin by the Vuntut Gwitchin Final Agreement and Self-government Agreement. All legislation of general application, including related federal and Vuntut Gwitchin legislation, and the Vuntut Gwitchin Final Agreement and Self-government Agreement will continue to apply.

This management plan, together with the Vuntut National Park Management Plan, will ensure that the entire Special Management Area is managed as one ecological unit. The plan will continue to recognize the different governments and agencies with jurisdiction over land or resource management.

PLAN REVIEW AND IMPLEMENTATION

Once this management plan is approved, the parties will be obligated to implement the plan. Management of the settlement land will be the responsibility of the Vuntut Gwitchin Government; management of Vuntut National Park will be the responsibility of Parks Canada; and management of the crown land Area East and Area West will rest with the Government of Yukon.

Mandated boards and councils established through the Vuntut Gwitchin First Nation Final Agreement will continue to contribute to the management of the Special Management Area, according to their mandates.

It is anticipated that costs associated with the implementation of the recommendations from this plan will be minimal and, therefore, absorbed operationally by the parties. Administration and operation will be subject to yearly budget appropriations for the respective governments.

All operations and management activities will adhere to this management plan. They will be subject to the requirements of public health and safety, the protection of natural or cultural resources, and response to emergencies. The specific details of implementation are outlined in Appendix B of this plan.

A management committee of one representative each of the Government of Yukon and the Vuntut Gwitchin Government will meet at least annually to coordinate implementation of the management plan, including provision of an annual report to the Yukon Minister of Environment and the Chief of the Vuntut Gwitchin First Nation. Management Committee may invite other agencies to participate as appropriate.

The Government of Yukon and Vuntut First Nation agree to make best efforts to immediately implement this approved management plan. Unless otherwise agreed to, the Government of Yukon and the Vuntut Gwitchin First Nation will review this management plan in 2011, and every 10 years thereafter.

VISION FOR THE AREA



Camp in Crow Flats. (©VGFN, S. Smith)

The vision for the Old Crow Flats Special Management Area, as expressed by the people of Old Crow and the governments, reflects the peoples' desired conditions for the area in the future.

During workshops and meetings, elders stated that the health of the land, water, fish and wildlife was extremely important to the survival of the Vuntut Gwitchin. A vision for the Old Crow Flats Special Management Area includes an area that 50 years from now will continue to support and protect:

- naturally occurring populations of wildlife, such as all order of birds that occupy the area during any given time of the year; fish, bears, mustelids, caribou and moose;
- a healthy watershed, which has natural processes that continue to provide clean water to the region;
- the Vuntut Gwitchin's traditional occupation and use of the Special Management Area;
- fish and wildlife and their habitats;
- the cooperative nature of the governments working in partnership to monitor the area and support research; and
- a management system which maintains the integrity of the area.

CULTURAL AND ECOLOGICAL VALUES



John Joe Kyikavichik, the late Mary Kassi, and Jane Montgomery interviewing Dick Nukon at Irwin Linklater's camp on Crow River. (©VGFN, S. Smith)

WHY IS VAN TAT IMPORTANT?

The cultural and ecological values of Old Crow Flats have very similar meaning for the Vuntut Gwitchin. They have always relied on what the Flats provide, and they continue to do so today. It is the ecological abundance of the waterbirds, fish and wildlife, especially muskrat and caribou, as well as the habitat, that has sustained the culture and the people. These values are not isolated from each other, but work together for the Vuntut Gwitchin.

Old Crow Flats has always been an important life source for the Vuntut Gwitchin. They relied on subsistence

activities in the Flats. Reflecting back to the beginning of the 1900s, elders talk about the Old Crow Flats as part of the seasonal subsistence round. Each family went to their own place on the Flats, where they had been brought up. This was known as their “family’s place” or “family’s country.”

During the time the Vuntut Gwitchin were at their spring camps, caribou would migrate back from the calving grounds and the people in the Flats would get their supply of caribou meat, which they would dry and smoke to preserve. This would be their summer food along with fish and berries.

Life on Crow Flats in the spring was busy with muskratting, setting traps under the snow or on clear ice, and preserving food. Once the lakes were free of ice, muskratting continued by canoe with rifles. Stories tell of the Flats being noisy at this time, with guns being shot off, dogs howling from camps all around, and people visiting each other. A few days before June 15, all muskrat hunting ceased; this was the people's way of conserving the muskrat supply for the next year.

After June 15, the people began readying themselves to return to Old Crow. They used dog teams to relay loads to the river, carrying dried muskrat pelts, dried meat, bone grease, chitsuu, dried muskrat, smoked meat, ducks and fish.



Canvas boats returning from Van Tat after spring muskrat harvesting. (Yukon Archives)

It was an exciting time. Once again, Crow Flats had sustained them. With their spring harvests and dogs, family after family came down the Crow River in handmade canvas boats (replaced today by flat bottom boats with outboards). As they met others on the river, people tied their boats together. Just before Canyon Rapids, they stopped to wait for the rest of the people to arrive. Then, tied together, they ran the Canyon Rapids. Once safely through, they continued to Old Crow by rowing. There, there was a celebration of feasting, dancing and storytelling about other times in Crow Flats.

This was the mainstay for the Vuntut Gwitchin, and they happily did it all over again the next year.

Crow Flats has other cultural significance in addition to the subsistence it provided. There are special places such as King Edward Mountain (Chan Chal), where the people gathered before heading off in all directions to their spring camps, and Potato Hill or Game Mountain (Dinii Zhoo) where people gathered in May, arriving with dog packs and caribou leg toboggans.

In July, people came to the Flats from Arctic Village, Fort McPherson, Arctic Red River (Tsiigehchic) and Old Crow. Their dog packs were laden with meat, pemmican, dried meat, dried fish, bone grease and berries. Here, they shared food, played games such as stick pull, and danced. The women tanned moose and caribou hides and made fancy outfits with porcupine quill decorations, caribou skin mukluks, caribou mitts, animal skin hats and caribou hide blankets. As they were leaving to go back home, they shared and gave away items as gifts for each other.

Geegoo was also a gathering place for feasting, playing games, dancing and storytelling. An elder tells of the four wide trails leading to this gathering place, made by the people coming from all directions.

Other special places include the fishing trap gathering places at Schaeffer Lake (Neetaii) and Crow River (Chyahnjik). Still other places are held sacred because of burial sites and caribou fences from thousands of years ago.

DIRECTION FROM THE ELDERS

Excerpt from OLD CROW ELDERS MEETING, 2000

“The Elders are concerned about protecting the land from activities, toxins and weather changes. They sought reassurance and were happy that the Old Crow Flats were protected from development and traditional activities there could continue.”

Excerpt from NORTH YUKON FISH AND WILDLIFE MANAGEMENT PLAN, 2000

- Provide information that suggests that White Wing Scoters are numerous on the Old Crow Flats, whereas elsewhere, scientific information indicates they are in decline.
- Provide insights on how the falling water levels of the Old Crow Flats affect animals both positively and negatively.
- Confirm the long-held traditional knowledge that intensive trapping can maintain muskrat populations at high levels and describe declines and recovery rates in the past on Old Crow Flats.

Summary from TECHNICAL WORKING GROUP MEETING WITH ELDERS, DECEMBER, 2005

Elders gave direction to protect the land and water from development. They said that many people who lived in Crow Flats are now gone. Each generation told the next generation how to carry on the traditions and how to live in the traditional territory. The most important thing was to keep the water and camps clean. Self-government is talked about today, and when people lived in Crow Flats that was self-government.

They talked about how all of them were “raised up” in Crow Flats and how they, in turn, raised their families there. When they were young, there were lots of people out and they would visit each other often. Now, there is hardly anyone around.

Other changes noted are that the lakes and creeks seem to be drying up, and the willows have grown in around the lakes. Before, one could see far across the lakes, but that is no longer possible. The land was rich for the

people, and they were raised with, and kept alive by, the animals and berries. Old Crow Flats helped people survive and they have always wanted to protect it.

Elders will not be travelling on the land anymore, but it should be protected for the younger generations. The Berger Inquiry and Thomas Berger’s recent visit to Old Crow were mentioned.

The “land freeze,” which prevents oil and gas development around Old Crow, relates to the questions the Elders directed the Technical Working Group to bring up. Essentially, it is felt that major development will not be good for the Old Crow Flats. Water should be protected and the area should not be negatively affected. It is for the younger generations. The Elders stated that there is a lot of information available and work should continue as planned.

QUESTIONNAIRE, JULY 2006

Half of the respondents to a Technical Working Group questionnaire were Elders, or they had grown up in Crow Flats. The other half ranged between 20 and 50 years old, and have spent varying amounts of time in Crow Flats. The questionnaire reflected similar views to those stated in various meetings, as well as concern for the water levels in the lakes and the need to conduct ecological monitoring because of climate change.

Respondents also indicated a desire to implement, or to continue, research into the health of muskrat and other wildlife and fish populations.

Other topics mentioned included the heritage information that has largely been collected through the Vuntut Gwitchin Government oral history and cultural geography projects; a general acceptance for tourism in the area that would involve partnership with Vuntut Gwitchin First Nation; access in which different rules would apply to commercial operators and visitors; exploration and development in the realm of long term, or greater than 30 years; treating the settlement land and the Yukon Government land in the same way; and Old Crow Flats needing to be protected “for grandchildren,” “to preserve our way of life, our culture,” and “to keep

species in good numbers, especially caribou.” As one person stated, “You can always use [renewable resources] but you’ve got to protect it, it’s very sensitive. You’ve got to make sure they’re always there.” And another said, “...security, safety, I guess protection is like knowledge. It’s just like knowing to the best of your ability what’s about to happen next.”

ECOLOGICAL VALUES AND THE PLANNING PROCESS

The biological value of the Old Crow Flats has been well described. In particular, studies have been done on waterfowl, wetlands, fish, Porcupine Caribou and moose.

The Technical Working Group reviewed the available information and traditional knowledge. It considered whether the fish and wildlife resources had been adequately described elsewhere and how best to ensure that the management principles for the area would be achieved through this management plan. Although data was not complete for certain species, such as furbearers, the available information was sufficient to prepare a management plan which would provide direction.

As noted earlier, the Resource Description and Analysis Report, prepared for the Vuntut National Park Management Plan, provides a compilation of all published information on the park and surrounding areas, as of 2001.

The working group focused its review both on ecological features and their use by important wildlife species. These included:

- the extent of the wetlands and lakes complex area, i.e. Old Crow Flats. This area represents one of the Yukon’s most important wetland areas for nesting, brooding and moulting waterfowl, as well as the most important area for traditional use by Vuntut Gwitchin;
- the use of the Old Crow Flats and the rest of the Special Management Area by fish;

- the areas used by Porcupine Caribou, one of the Yukon’s most important herds and vital to traditional use by Vuntut Gwitchin;
- the use of the Old Crow Flats and the rest of the Special Management Area by moose and furbearers; and
- the maintenance of the integrity of the watershed.

Other wildlife and cultural resources were discussed but there was less information available about them.

After consideration of these important ecosystem components, the working group considered how best to meet the management principles outlined in Chapter 10, Schedule C of the Vuntut Gwitchin First Nation Final Agreement. A major part of the discussion in the community and working group was about how to manage the entire Special Management Area as one ecological unit. This plan recognizes that the ecological values are not uniform across the Special Management Area and that different land ownership and management regimes will require a cooperative effort to manage the area.

THE BEAVER AND MUSKRAT STORY by Roy Moses

The old lady settled herself comfortably on the caribou skin mats and called for my attention. “Do you know how the Muskrat came to crow flats?” she asked. Of course I did not know. She ordered her tea cup to be filled and that I sit and listen. This is when she told me the story of the Beaver and the Muskrat.

The young Muskrat had strayed from its family and wandered up and down the river, enjoying the summer. In the same area, a young Beaver was having the same adventure. He had been kicked out of his parents’ lodge as it was getting overcrowded.

Soon the leaves were drying and the grass was withering; the air was getting crisp. The young Beaver had decided to build a lodge on the small creek that ran into the main river. He dammed the creek to raise the water, then built a lodge in the bank upstream from the dam.

The Muskrat was encountering some difficulties on the river. The swift water was getting colder and ice was forming on the shores. He managed to climb a bank near a small stream that ran into the river. Some distance back from the river, there was a small lake. The Muskrat explored it and found that there was plenty of vegetation at the bottom of the lake and along the shore. He soon found a suitable bank and dug out a den. This is how these two animals spent the winter at the head of the waters.

The snow had melted, the sun was shining, birds were singing. Spring had arrived at the head of the waters. There were squeaking and cracking sounds coming from the river. Suddenly, and without warning, there were thundering, grinding sounds coming from the river. The ice was breaking up and flowing down the river. In the meantime, the Muskrat discovered the Beaver’s dam.



Cabin on spit of land. (©VGFN, S. Smith)

The Beaver was well aware of the ice breakup and somewhat anxious for the river to clear so that he could travel. Little did he know what lay ahead! The two met on the small creek where the Beaver had his lodge. They became acquainted and soon referred to each other as cousins.

The two were very anxious to travel so they went to the river. There were logs and much debris drifting down the river. They climbed onto a log that was drifting near the shore. This was the beginning of their journey down river which is now known as the Porcupine River. Whenever they got tired, they would swim ashore and rest. After they replenished themselves by feasting on the new willow shoots and fresh grass, they would resume their journey by swimming out and climbing onto another log or a drifting pile of debris. They made a practice of sampling water in any creek or river that joined the great river.

Very early one morning they came drifting around a long bend and saw a river joining the great river from the north. Their log drifted into an eddy at the point where the two great rivers joined. The Beaver immediately sampled the water and was convinced that it came from lakes. The Muskrat was also convinced that this river came from lakes but was quick to discourage the Beaver from exploring further. They crossed the new river and landed on the north shore to rest. Curiosity overwhelmed the Muskrat. He told his cousin that he would go for a walk. The Beaver, not one for travelling over land, decided to satisfy his hunger with the new willow shoots and fresh grass on the river shore. Later, he got comfortable in the warm sunshine and slept.

In the meantime, the Muskrat started up the hill toward the mountain (which is now known as Crow Mountain.) The Muskrat soon found a caribou trail that went directly north toward the mountain. It was trampled down by herds previously headed north in the spring migration. The Muskrat followed the trail until he came to the top of the

first mountain. From the top of the east end of the mountain he could not believe what he saw. There were lakes! Hundreds of them, as far as one could see. Just past the next mountain, but there they were.

The Muskrat sat down and rested, then resentfully started on his return walk. Because if he did not return, the Beaver was sure to follow him and he definitely did not want to share the many lakes with anyone. He came up with an idea when he was walking down the hill through a rocky creek bed. He stubbed his toe! After stumbling further, he bruised his feet by dropping a handful of rocks on them. When he finally returned to the river, the Beaver helped him with his wounds and decided to delay their journey. But the Muskrat being anxious to be rid of the Beaver, encouraged him to continue his journey by himself. So the Beaver prepared himself to leave. He returned to the shore one last time. This was their farewell.

As friends often do when they part, the Beaver and the Muskrat traded gifts. They traded tails! The Beaver, secretly being suspicious of the Muskrat's journey up the hill, told him, "My long tail is easier for you to walk through the grassy areas, your flat tail will help me signal danger and will also be useful when building dams and lodges." With that he swam out and climbed onto a log and drifted down the river. As he disappeared around the bend, the Muskrat leaped to his feet with joy and headed directly north for the lakes which is now known as the Crow Flats.

This is how the muskrat came to live in Vuntut!

My great grandmother Myra Moses told this story to me when I was 9 years old.



TOPICS AND RECOMMENDATIONS



Boats drawn up at John Charlie's place on Crow River. (©VGFN, S. Smith)

DESIGNATION OF THE SPECIAL MANAGEMENT AREA

HISTORY

- Traditional use
- Heritage and historic resources
- Paleontological resources

ENVIRONMENT

- Water quality and levels
- Fish
- Wildlife
- Waterbirds and wetlands
- Monitoring and research

RESOURCES

- Forestry
- Oil and gas resources
- Mineral resources

PEOPLE

- Tourism and visitors
- Land dispositions and land use activities
- Access and transportation
- Education and public awareness

DESIGNATION OF THE SPECIAL MANAGEMENT AREA

OBJECTIVE

- Review the possible options for designation of the settlement lands and crown land portions of the Special Management Area to recognize the ecological and cultural importance of the area, while allowing a management regime that is agreeable to the parties.

BACKGROUND AND CURRENT SITUATION

Chapter 10, Schedule C, of the Vuntut Gwitchin Final Agreement does not specify a designation for the portion of the Special Management Area outside of Vuntut National Park. A decision was required on whether a designation is necessary for the area and which one, or which combination, is the most appropriate. For clarity, the Vuntut National Park portion is not part of this discussion and was designated a national park in 1995.

The Technical Working Group recognized that management of the Special Management Area would need to be a cooperative effort that considered the different landowners and jurisdictions of the parties. The Category A Settlement Land includes the majority of (the core area of wetlands and lakes). The Government of Yukon administers the land on two adjacent parcels to the east and west. Currently, oil, gas and mineral withdrawals are in place until 2012, or until the management plan, with a recommendation, is complete, whichever occurs first.

The Old Crow Flats Special Management Area contains internationally significant habitat for migratory birds, as recognized under the Ramsar Convention of important wetlands. The cultural and ecological values for the area are described in detail elsewhere in this management plan.

A significant proportion of people who participated at open houses in Old Crow, and through a questionnaire, felt that the whole Special Management Area, including Area East and Area West, should be under the same level of protection and designation. The rationale was to protect the ecological integrity of the whole area and

allow more time for the development of best management practices and guidelines for development.

LEGAL FRAMEWORK

- The Vuntut Gwitchin Government administers settlement land and owns the surface and subsurface rights in parcels R-01A and R-10A, although currently there is neither a lands and resources act nor a land designation system in place.
- Order-in-Council withdrawals from dispositions for mineral and oil and gas are in place until 2012, or until the management plan, with a recommendation about them, is complete, whichever occurs first.
- National Wildlife Areas are a federal designation under the *Canada Wildlife Act* and the Wildlife Area Regulations.
- The Canadian Wildlife Service has jurisdiction over the *Migratory Birds Convention Act* (Canada). The Yukon *Wildlife Act* does not directly protect nests and eggs of migratory birds.
- Habitat Protection Areas are designated under the Yukon *Wildlife Act* but currently there are no specific regulations to govern activities in Habitat Protection Areas. The laws of general application would apply here.

OPTIONS FOR DESIGNATION

The following possible designation options were considered by the technical working group and the management committee.

National Wildlife Area: These areas are established because they contain “nationally significant” habitat for migratory birds, support wildlife or ecosystems at risk, or represent rare or unusual wildlife habitats. Following public consultation, management plans specify which activities are allowed. In the Yukon, there is presently one National Wildlife Area, the Nisutlin River Delta National Wildlife Area, near Teslin.

Habitat Protection Areas: These areas are proposed because of their importance to wildlife populations and

the need to manage them with conservation objectives. The formal designation does not generally occur until after a management plan is prepared. The management plan may make recommendations that regulations be developed to manage activities in the Habitat Protection Area, but otherwise designation is an enabling provision only. An example of a Habitat Protection Area in this region is the Ni'iinlii'Njik (Fishing Branch) Habitat Protection Area which forms part of a larger conservation area that includes the Ni'iinlii'Njik Wilderness Preserve and Ecological Reserve.

Designation of Area East and/or Area West as Habitat Protection Areas: This would recognize the ecological significance of the entire Special Management Area, along with the key wetland conservation values of these portions of the Old Crow Flats wetland. The Government of Yukon would be the principal land manager on Area East and Area West, subject to the management plan, while the Vuntut Gwitchin Government would administer settlement land.

No designations: Chapter 10, Schedule C of the Vuntut Gwitchin First Nation Final Agreement requires that a management plan be prepared for the Special Management Area and that plan recommendations adhere to the stated management principles. The schedule does not specify a designation nor that the area has to be designated at all. The management principles could be met by administering the area with guidelines which recognize the areas of high conservation value and using the laws of general application. The Government of Yukon would administer land use activities on Crown land, while the Vuntut Gwitchin Government would administer activities on settlement land.

RECOMMENDATIONS

1. The core area (see map) of the Special Management Area comprising the Old Crow Flats wetland complex will be protected and managed in a manner that permanently protects the ecological integrity of the Flats, including its diversity and its fish and wildlife populations and habitats, from activities that could reduce the land's capability, while maintaining access to this area by Vuntut Gwitchin citizens for traditional and current harvesting of fish and wildlife resources.



Ice melting on Robert Bruce Lake. (©VGFN, S. Smith)

2. Yukon Government lands outside the Old Crow Flats wetland complex will be managed with the priority of protecting the ecological integrity and diversity of fish and wildlife populations and habitats from activities that could reduce the capability of those lands, including non-industrial uses; and secondarily maintain the future possibility of some industrial resource development.
3. Vuntut Gwitchin First Nation Settlement Lands (R-01A, R-10A, S-25A) will be permanently protected from all industrial activities that could affect the ecological integrity of these areas.
4. The Yukon Government will establish its land (Area East and Area West) as a Habitat Protection Area pursuant to Section 187 of the Yukon *Wildlife Act*.
5. In order to clearly distinguish the borders of the Special Management Area, it is recommended that the parties request an administration plan survey be completed by Natural Resources Canada.

HISTORY

TRADITIONAL USE

OBJECTIVE

- Recognize and protect traditional and current use of the Special Management Area, and ownership of parcels R-01A and R-10A by Vuntut Gwitchin.

BACKGROUND AND CURRENT SITUATION

Old Crow Flats Special Management Area contains traditional use areas (family use areas), some of which overlap, but are considered the “family’s country.” Camps consist of cabins and tent frames belonging to a family (see cultural use areas map in Appendix F) and can be used respectfully by people travelling by, or in cases of emergency.

LEGAL FRAMEWORK

The Vuntut Gwitchin First Nation Final Agreement recognizes and protects traditional use. Chapter 10, Schedule C, specifically refers to traditional use and ownership.

RECOMMENDATION

No specific recommendation is suggested at this time. The Vuntut Gwitchin Government may develop guidelines or legislation in the future on the use of camps and traditional areas, particularly in relation to potential tourism.



Kecia Kassi skinning a muskrat. (Tracy Rispin-Kassi)

HISTORY

HERITAGE AND HISTORIC RESOURCES

OBJECTIVE

- Recognize and protect important historic and archaeological resources in the Special Management Area.

BACKGROUND AND CURRENT SITUATION

Historic resources include sites and objects that are abandoned or are 45 years old or older, and that are of value for their historic or archaeological significance. Historic objects are the product of human art and work skills, and also include plant and animal remains that have been modified or deposited as a result of human activities. As part of the eastern reaches of Beringia, Old Crow Flats was home to the first human populations to colonize the New World and it remains an important place in the history of many subsequent generations.

Some significant archaeological sites and finds, documented to date, in the Special Management Area, include:

- rare traces of possible Ice Age human presence that emerge with eroding bone of Pleistocene (Ice Age) animals from the river bluffs;
- King Edward Mountain, where several sites, likely representing late Ice Age occupations and a number of Holocene (in the past 10,000 years) occupations have been identified;
- Schaeffer Mountain House (MkVI-17), which is a circular, semi-subterranean house with a central hearth;
- Dechyoo Njik (MIVm-4), which is a late prehistoric and historic summer fish camp in Crow Flats; and
- the Driftwood caribou fence complex at the eastern edge of the Crow Flats.

Old Crow Flats has always been considered “the bank” of the Vuntut Gwitchin. Stories about Van Tat and life there are described in the Vuntut Gwitchin Government

Cultural Geography Project, as well as earlier in this plan (page 9-10).

LEGAL FRAMEWORK

Protection and management of historic resources, including historic burial sites, is legislated under the Yukon *Historic Resources Act*, the Archaeological Site Regulations of the Yukon *Historic Resources Act*, and the Vuntut Gwitchin First Nation Final Agreement, Chapter 13 (Heritage). No disturbance is permitted to historic sites and no objects may be removed from them. Discovery of historic resources on settlement lands must be reported to the Vuntut Gwitchin, and on non-settlement lands, to the Government of Yukon, Historic Resources Unit.

RECOMMENDATIONS

1. Support continued fieldwork by the Vuntut Gwitchin Government and the Government of Yukon into heritage and historical resources in the Special Management Area when resources are available.
2. When resources are available, support the ongoing Vuntut Gwitchin First Nation Cultural Geography Project and encourage educational and cultural opportunities which promote visiting the Old Crow Flats for both citizens and visitors.

HISTORY

PALEONTOLOGICAL RESOURCES

OBJECTIVE

- Wisely protect and manage the paleontological resources of the Special Management Area.

BACKGROUND AND CURRENT SITUATION

During the last three million years (the Ice Age), glaciers advanced and retreated many times in the northern hemisphere. During glacial advances, nearly all of Canada was covered by ice. However, most of northwest Yukon, including the Old Crow region, remained ice-free. This ice-free region constituted the northeastern corner of an unglaciated refugium known as Beringia. Beringia extended from the Mackenzie River westward into Alaska, over the Bering Strait (above sea level during glacial periods) and into Siberia as far as the Lena River.

The Old Crow Basin is Canada's most prolific source of Pleistocene (Ice Age) mammal fossils, and one of the most important regions for the study of Beringian environments and fossils. These fossils are preserved in sediments that have been filling the basin for millions of years. These sediments are exposed along river bluffs, and each year, thousands of fossils are eroded from the bluffs.

Sediments exposed in bluffs also preserve other critical elements, including ancient peats, forest beds, pollen, insects and volcanic ashes.

Together, these elements provide some of the best opportunities anywhere to study the evolution of ancient landscapes in the far north and the response of flora and fauna to changing climates and environments.

For all of these reasons, the Old Crow region is a focal point for research, and between two and five research teams from governments and universities conduct paleo-studies in the region each summer.

Ancestors of the Vuntut Gwitchin were the earliest human occupants of this landscape. Their customs and lifestyles evolved with the changes in climate, flora and fauna. Consequently, information on past environments,

plants and animals provides context for the Vuntut Gwitchin to understand and interpret their heritage.

LEGAL FRAMEWORK

- Yukon *Historic Resources Act* covers palaeontological resources, which are fossil and other remains of extinct or prehistoric plants and animals.
- Umbrella Final Agreement and Vuntut Gwitchin First Nation Final Agreement, Chapter 13 (Heritage).
- Federal *Cultural Property Export and Import Act* covers exporting fossils out of the country.

RECOMMENDATIONS

1. Encourage continued multidisciplinary research in the Special Management Area and surrounding area.
2. Increase public awareness of the protected status of fossils.
3. As resources allow, continue to work cooperatively to recover and study fossils which erode along the Old Crow and Porcupine rivers and their tributaries, and identify fossil storage requirements in Old Crow and Whitehorse.



Charlie Thomas beside the remains of his rat canoe at his camp on Crow Flats. His paddle is made from a muskrat stretcher. (©VGFN, S. Smith)

ENVIRONMENT

WATER QUALITY AND LEVELS

OBJECTIVE

- Protect the full diversity of fish and wildlife populations and their habitat from activities which could reduce the land's capability to support fish and wildlife.

BACKGROUND AND CURRENT SITUATION

Elders and others speak of the importance of water and a healthy environment in the Old Crow Flats. Currently, the Old Crow Flats Special Management Area is in pristine condition, with a naturally regulating watershed. Most lakes on the Old Crow Flats are perched well above the major rivers and creeks and are thus not subject to much flooding in the spring.

The lakes in the Old Crow Flats are very shallow and many have abundant aquatic vegetation and invertebrates. These plants and invertebrates are critical to waterfowl and other wildlife using the Old Crow Flats. In summer, the lakes can get quite warm, while in winter some lakes freeze solid. Most of the lakes probably have a lens of permanently unfrozen ground under them. In the case of larger lakes, this lens is large enough, and deep enough, to create an unfrozen "hole" through the permafrost layer, which is only about 60 metres thick.

Shallow lakes in ice-rich permafrost naturally go through cycles of expansion, coalescence (joining), draining and refilling. This complete cycle can take centuries. There are examples in the Old Crow Flats at all stages of this cycle. Ice-rich permafrost is especially vulnerable to melting (disruption) if the ground cover is disrupted, by, for example, vehicle traffic.

Many local residents feel that the Old Crow Flats are drying up, as they see evidence of lower water levels in lakes they have been visiting for decades.

There have been three studies of changing water levels in the area. Each looked at different lake sizes and used slightly different study techniques. There is no single easily described trend, however, the system appears quite dynamic, with a few large lakes having drained over time and some smaller lakes actually increasing in size.

Weather records at the Old Crow airport from 1988 to 2001 suggest a trend in the Old Crow area towards more precipitation compared to evaporation, suggesting slightly wetter conditions overall.

As well, based on weather data from 1969 to 2002, Old Crow has had increasing temperatures in winter and summer, as well as increasing annual precipitation.

Current water use is limited to the village of Old Crow and there are no hydroelectric proposals or reserves in this area.

LEGAL FRAMEWORK

- *Fisheries Act* (Canada) regulates activities which may impact on fish habitat or where deleterious, or harmful, substances are put into water.
- *Yukon Waters Act* regulates the use of water above certain volume thresholds.
- *Migratory Birds Convention Act* (Canada) prohibits deposit of substances harmful to migratory birds in waters frequented by migratory birds.
- *Yukon Environment Assessment and Socio-economic Act* calls for reviews of proposed activities, except those below the activity thresholds. This process provides recommendations to the Vuntut Gwitchin Government and the Government of Yukon. The two governments are then the decision bodies on their respective lands.
- Vuntut Gwitchin First Nation Final Agreement, Chapter 14 (Water management).



Cloud reflections on lake, Van Tat Gwatsal - Little Flats.
(©VGFN, S. Smith)

RECOMMENDATIONS

1. Give the highest level of protection to the wetland and lakes area in the settlement lands and the portions of Area East and Area West which are concentrated wetlands.
2. Do not disrupt the natural processes affecting lake levels, drainage networks and water quality.
3. Avoid or minimize any adverse effects on lake levels or water quality in the watershed from future activities or development.
4. Continue monitoring lake levels and the area of water in the Old Crow Flats.

ENVIRONMENT

FISH

OBJECTIVES

- Maintain the integrity of the land and water of the area to allow fish to continue to fulfil their role in the Old Crow Flats ecosystem.
- Maintain traditional forms of management which support the viability of existing and future Vuntut Gwitchin First Nation fisheries.

BACKGROUND AND CURRENT SITUATION

The great majority of the fish in the Old Crow Flats are non-anadromous, meaning they do not travel to the ocean for part of their life cycle. Most stocks do, however, undertake seasonal migrations between spawning, rearing, feeding and over-wintering sites. Chinook salmon, which are anadromous, migrate through the Old Crow Flats to spawn in the upper tributaries of the Old Crow River.

Traditional use of these fish was for food or to support dog teams, which then allowed people to travel. This mobility was critical to their well-being as a people. Fish were trapped or netted during their migrations, or captured in over-wintering areas. Fish were particularly important in winter.

Fish also support many other animals. These include mammals, such as otter, mink and bear, and birds, such as ducks and eagles. Many smaller insects and animals also feed on fish.

Scientific and technical inventory of fish stocks and habitats was conducted in the Old Crow Flats in the 1970s. There has been little scientific and technical work done since that time. In preparing the North Yukon Land Use Plan, wintering areas and migration routes for freshwater fish were identified as a knowledge gap and a concern.

Climate change appears to be affecting the lands and waters of the Old Crow Flats. Water levels of some water bodies, such as ponds and lakes, will change, and in some cases, the lakes will drain entirely. Flow volumes (the amount of water) and regimes (the seasonality of the flows) will change in water courses. This will benefit some fish stocks at some times in some locations. Other fish stocks will be reduced in number or may disappear. The rate of change is not likely constant and the extent of future conditions is unknown. The direct and indirect effects of vegetation change, and other effects on fish and fish habitat of the Old Crow Flats, are also unknown.

LEGAL FRAMEWORK

- *Fisheries Act* (Canada).
- Umbrella Final Agreement and Vuntut Gwitchin First Nation Final Agreement.
- Fishery (General) Regulations and the Yukon Territory Fishery Regulations

RECOMMENDATIONS

1. Carefully consider the potential impacts of proposed future development on the values of the fisheries and the watershed to maintain ecological integrity.
2. Continue cooperative studies with all agencies, especially to identify wintering areas and migration routes for freshwater fish.
3. Allow sport fishing by residents and non-residents.



People travelling by dog team. (Yukon Archives)

ENVIRONMENT WILDLIFE

OBJECTIVES

- Maintain the integrity of Special Management Area as one ecological unit.
- Protect and conserve the full diversity of wildlife and habitat from activities that could reduce the land's capacity to support them.

BACKGROUND AND CURRENT SITUATION

Caribou are vital to the Vuntut Gwitchin culture and lifestyle for food and sustenance. Traditional knowledge, verified and added to by 40 years of scientific studies, has described the annual movements, biology and harvest of the Porcupine Caribou Herd. Research and monitoring continues to be a priority for the Canadian Wildlife Service, Yukon Department of Environment, United States Fish and Wildlife Service, Alaska Department of Fish and Game, and the Vuntut Gwitchin Government.

Porcupine Caribou migrate through the Special Management Area during their northwestern spring and southeastern fall migrations, and the herd uses the area during winter. Some years, due to late winter snow depth and other environmental conditions, it is not possible for pregnant cows to reach the traditional calving grounds on the Alaskan north slope, and calving by a portion of the herd occurs in the Special Management Area. Fall migration through the eastern area is currently considered the most consistent use of the area by wildlife. These spring and fall migration corridors are critical habitat for the Porcupine Caribou Herd.

If caribou fail to migrate past Old Crow in the fall, moose become an important food item for Vuntut Gwitchin families. Localized hunting for moose along the Porcupine River results in requests for ongoing population monitoring. Reports of declining moose populations in the Southern Brooks Range in Alaska are a concern because many moose migrate from that area to the Old Crow Flats each summer. It is unknown if these declines will affect the number of moose that migrate to the Old Crow Flats.

Moose generally arrive in May, in time for calving, and remain for the summer. Old Crow Flats is ideal summer habitat for moose because of the aquatic vegetation and willows. Deep snow and cold temperatures may be why they leave Old Crow Flats in the winter. It is not known where moose which summer on the eastern portion of the Old Crow Flats go in winter, and it is unknown whether their winter ranges are secure. Another unknown is how changes in lake water levels and willow growth, and shifting tree and shrub lines may affect use of the Old Crow Flats by moose.

The trapping industry for furbearers remains fairly strong in Old Crow, with reportedly healthy populations of fox, lynx, mink and sometimes marten and wolverine. Little is known about the relative importance of populations in the Old Crow Flats in regard to maintaining populations throughout the region. The Vuntut Gwitchin traditional territory is designated a group trapping area, registered to the Old Crow Trapping Group, which is represented by the Vuntut Gwitchin Government. Traditional use and reliance on the spring muskrat harvest are well documented. The continued health of the Old Crow Flats muskrat population is a priority for the community.

Access to the Old Crow Flats by local hunters is generally by boat or snowmachine. The level of use is unknown but it is not thought to be high enough to disrupt wildlife or damage habitat, in most cases. The only exception may be during certain time periods when caribou activities may be affected by the large number of snowmachine users on Crow Mountain.

There is no outfitting concession in the Special Management Area. Yukon hunters with the appropriate license may, under certain conditions, guide non-Yukon Canadian hunters for moose, caribou, black bear, wolf and coyote. The vast majority of harvest in the region is subsistence harvest by Vuntut Gwitchin citizens.

Two mammal and three bird species listed in the federal *Species at Risk Act* occur in the Special Management Area. Anatum Peregrine falcon subspecies is listed as threatened while grizzly bears, wolverine, short-eared owl and Tundra Peregrine falcon are listed as special concern.

LEGAL FRAMEWORK

The Yukon *Wildlife Act* regulates the laws of general application for wildlife management and harvest, and includes the provisions for the creation of Habitat Protection Areas. Yukon residents can hunt on Crown land subject to seasons and limits. Permission is required to hunt on Vuntut Gwitchin First Nation Category A Settlement Land.

The federal *Species at Risk Act* can be applied to designated species. There is currently no Yukon species at risk legislation.

RECOMMENDATIONS

1. Coordinate future and ongoing fish and wildlife studies with all government agencies and other researchers, including Environment Yukon, Canadian Wildlife Service, Parks Canada, Vuntut Gwitchin Government, North Yukon Renewable Resources Council and Ducks Unlimited, and other non-government organizations or researchers.
2. Protect the area to ensure that the watershed and the wetlands, which serve as important year-round wildlife habitat for wildlife populations of national and international importance, including important season migration corridors, remain intact.
3. The Department of Environment should continue to provide updated information about the status of the Porcupine Caribou Herd and the use of the Special Management Area, although no specific additional research is recommended for the herd.
4. Monitor movements and population status of moose that migrate to the Old Crow Flats for the summer.
5. Monitor the effects on moose of changing lake water levels and vegetation growth, particularly willow, and shifting tree and shrub lines.
6. For the purposes of the harvest of renewable resources (hunting, fishing, trapping, gathering), monitor the use of motorized vehicles for unacceptable negative affects on wildlife populations and their habitat.

ENVIRONMENT

WATERBIRDS AND WETLANDS

OBJECTIVE

- Manage the Old Crow Flats Special Management Area as one healthy ecological unit for waterbirds and wetlands.

BACKGROUND AND CURRENT SITUATION

The majority of quality waterbird habitat is located within the Old Crow Flats wetland complex. Little is known about the wetlands within the Special Management Area outside of the Old Crow Flats proper, but fewer birds depend on these areas relative to the Old Crow Flats.

During mid-summer, many lakes on the Old Crow Flats, especially those more in the centre of the complex, provide habitat for thousands of moulting waterbirds. During moulting, a critical stage in waterbirds' life cycle, they must find suitable locations, safe from predators and with ample food, to shed and re-grow their feathers. Typically, at this time of year waterbirds congregate in large groups. During the moult, waterbirds are flightless and confined to particular lakes where they are extremely sensitive to disturbance. There is very limited information on which specific lakes in the Old Crow Flats are used most heavily for moulting, breeding and migration.

The United States Fish and Wildlife Service has been conducting annual breeding waterfowl surveys on the Old Crow Flats since 1955. Aerial and ground-based waterfowl studies were completed by the Yukon Government from 1974 to 1977. University graduate research on moulting waterbirds was conducted in conjunction with the Canadian Wildlife Service and Vuntut Gwitchin First Nation in the mid-1990s. A breeding waterbird survey was conducted by Ducks Unlimited Canada in 2004 on the Little Flats, in the southeast corner of the Special Management Area.

All breeding waterbird work conducted to date indicates the area is used extensively by waterbirds for nesting and breeding. Estimates of 500,000 waterbirds, including

up to 100,000 each of scaup, Northern Pintail and American Wigeon, 80,000 each of White-winged and Surf scoters, 40,000 Canvasback and 30,000 Long-tailed duck, have been reported here each year. Other prominent waterbird species include Tundra Swan, White-fronted Goose and loons.

There has been little research into where waterbirds are building their nests in relation to the nearest open water, but recent unpublished work from other northern locations indicates that the majority of birds are possibly nesting within 200 metres of the nearest open water.

Historically, the Vuntut Gwitchin First Nation has harvested waterbirds, especially geese and black ducks (scoters), although the extent to which traditional harvest is still occurring is not well known.

Global climate change models are generally predicting warmer and drier climates at higher latitudes. Impacts to wetlands in the north could include changes in ice conditions, snowfall patterns and spring thaws, as well as melting of permafrost, altered surficial hydrology (study of water on the earth's surface), and an increase in wildfires. Several recent studies have shown long-term declines in surface water in Arctic environments, and losses of wetland habitats may negatively impact waterbird populations if the trends continue.

Ultimately, habitat loss is the greatest threat to waterbird populations on the Old Crow Flats. Habitat loss could be caused by a number of factors, including, but not limited to, climate change, oil and gas exploration and development, forestry activity, and linear disturbances to the landscape, including roads and seismic lines. Additionally, the use of heavy machinery could impact the ice-retaining properties of wetlands, and possibly lead to wetland drainage.

Tourism activities in the Special Management Area should be planned so there are minimal disturbances to waterbirds at sensitive life-cycle stages, such as nesting, brood-rearing and moulting.



Many birds moult at Old Crow Flats. The area provides plenty of food and has very few predators.

LEGAL FRAMEWORK

- Yukon *Waters Act*.
- *Migratory Birds Convention Act* (Canada).
- Umbrella Final Agreement and Vuntut Gwitchin First Nation Final Agreement.

MANAGEMENT ISSUES OR CONCERNS

1. Consider and manage the Special Management area as one ecological unit.
2. Protect the core wetland complex area from industrial activities.
3. Protect the remainder of the area to ensure the watershed and the wetlands remain intact.

RECOMMENDATIONS

1. Provide a high degree of protection for that part of the Special Management Area where wetlands and waterbirds are concentrated.
2. Encourage the monitoring of breeding, moulting and staging waterbird populations through U.S. Fish and Wildlife Service, Canadian Wildlife Service and Ducks Unlimited Canada, so that noteworthy population changes can be addressed, if they occur.
3. Support further research regarding climate change and its effects on wetlands within the Old Crow Flats.

ENVIRONMENT

MONITORING AND RESEARCH

OBJECTIVES

- Include community-based research and monitoring of the environment, both living and non-living, of the Old Crow Flats.
- Ensure long-term data sets are generated and kept to document changes on the land due to climate change.

BACKGROUND AND CURRENT SITUATION

International projects: A proposal has been submitted to the International Polar Year to conduct multidisciplinary research in the Old Crow Flats area. This research would include the physical environment (ice thickness, permafrost, ground temperature, lake sediment, lake level fluctuations and geologic record); the biological environment (muskrat and moose populations and habitat, as well as vegetation); and the human dimension (Vuntut Gwitchin resiliency to climate change).

Federal projects: Parks Canada has been conducting research on carnivore populations, particularly wolverine, as well as collecting data from a weather station in Vuntut National Park. The Canadian Wildlife Service has conducted a study on changing water levels in the Old Crow Flats area, as well as studies on waterfowl. Parks Canada and the Canadian Wildlife Service have produced a land cover map for the Special Management Area area (see map in Appendix F).

Territorial projects: Arctic Borderlands Ecological Knowledge Cooperative has been collecting environmental information and local and traditional knowledge in numerous northern Yukon and Northwest Territories communities, including Old Crow. Annual reports describing the status of particular environmental factors and reports on indicators of ecological change are produced.

The North Yukon Fish and Wildlife Management Plan, developed in 2002, outlined fish and wildlife issues the community considered important to monitor. These

included waterfowl and furbearer populations and their habitat in the Old Crow Flats.

Local projects: The Vuntut Gwitchin First Nation Game Guardian documents harvest numbers for moose, caribou, ducks, marten, muskrat and freshwater fish.

The Vuntut Gwitchin First Nation Heritage Department has been conducting a program for the collection of local and traditional knowledge, including information on traditional hunting and fishing areas, heritage sites and landmarks where people gathered.

The development of an Old Crow community-based monitoring strategy is underway to document changes in the physical environment over time.

The Vuntut Gwitchin Government may choose in the future to develop specific guidelines regarding visitors or researchers on settlement land who visit family camp areas.

A winter road from the Dempster Highway to Old Crow has been used for several winters, however, it is south of the Special Management Area. Currently, there are no proposed projects which require a winter road.

LEGAL FRAMEWORK

- A *Yukon Science and Explorers Act* permit is required for researchers visiting the area.

RECOMMENDATIONS

1. Inform researchers about the cultural and ecological sensitivity of the Special Management Area.
2. Apply the laws of general application and the Vuntut Gwitchin First Nation Final Agreement to researchers in the Special Management Area.

RESOURCES

FORESTRY

OBJECTIVE

- Recognize that Vuntut Gwitchin First Nation fully owns and controls forestry resources within its settlement land.

BACKGROUND AND CURRENT SITUATION

Forest resources within the Old Crow Flats Special Management Area are found primarily alongside the rivers on settlement lands.

In 2004, the Yukon Forest Management Branch completed a 1:50,000 vegetation inventory (forest inventory) mapping exercise along the Porcupine River around Old Crow, including a limited, southerly portion of the Old Crow Flats Special Management Area. There is no requirement, nor need or plan, to complete any additional forest inventory work in Old Crow Flats Special Management Area. Timber of a merchantable size is very limited and is restricted to riparian sites with adequate drainage. Considering the remoteness of the area, large-scale commercial harvesting of forest resources in Old Crow Flats Special Management Area is not viable.

Vuntut Gwitchin First Nation owns and controls the forest resources closest to Old Crow within its Category A Settlement Lands (parcels R-01A and R-10A) that extend, within the central portion of Old Crow Flats Special Management Area, to the southern boundary of Vuntut National Park.

The local need for fuel wood and building logs will be considered in a small-scale, community-based forest management plan for the area around the Village of Old Crow. This area may include southerly portions of the Old Crow Flats Special Management Area.

Wildfires are monitored by the Government of Yukon's Wildland Fire Management Branch of Community Services. In consultation with First Nations and the public, a zoning system for response to fires has been developed. The Old Crow Special Management Area is in the Wilderness Zone, meaning that fires will be monitored but action to suppress the fires will only take place to protect valuable assets such as camps and cabins.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation Final Agreement.
- Vuntut Gwitchin First Nation *Lands and Resources Act* (draft).
- *Territorial Lands (Yukon) Act* (timber regulations).
- The North Yukon Renewable Resources Council may make recommendations regarding forestry planning (Vuntut Gwitchin First Nation Final Agreement, Chapter 17 (Forest resources)).

RECOMMENDATION

1. The Vuntut Gwitchin Government will address any timber harvest decisions on settlement land in consultation with the North Yukon Renewable Resources Council, recognizing the management principles of this plan.



Shrubland.

RESOURCES

OIL AND GAS RESOURCES

OBJECTIVES

- Recognize that Vuntut Gwitchin First Nation fully owns and controls oil and gas resources within Category A Settlement Land.
- Recognize that any resource exploration or development will require best management practices that are accepted and suited to the sensitivities and vulnerabilities of the Special Management Area and that a Special Management Area requires special care and concern.

BACKGROUND AND CURRENT SITUATION

Oil and gas exploration between 1969 and 1973 consisted of approximately 200 line-kilometres of seismic surveys and a major gravity survey. Order-in-Council withdrawals prohibiting exploration on the lands north of the Porcupine River were established in 1973.

A resource assessment of the geology of the area by Hannigan (2001) estimated a mean gas in-place potential of 1,149 billion cubic feet within the Old Crow Basin (including Vuntut National Park and Old Crow Flats Special Management Area). An additional assessment by Drummond (2004) identified a mean gas in-place potential of 905 billion cubic feet within Old Crow Flats Special Management Area, and excluding Vuntut National Park. These estimates are based upon the geology of the area. The actual distribution of gas resources in the basin is unknown. There are no known oil resources in the Old Crow Flats Special Management Area.

Vuntut Gwitchin First Nation fully owns and controls oil and gas resources within settlement land parcels R-01A and R-10A, which constitutes about 70% of the land base identified as having a gas resource potential within the Old Crow Flats Special Management Area, but outside Vuntut National Park (see map in Appendix F). These parcels also contain the majority of the wetlands, which has the highest ecological value in the Special Management Area.

The Fekete (2005) report indicated natural gas exploration and development in North Yukon is not likely to proceed without a Mackenzie Valley or Alaska Highway pipeline. The report goes on to say that oil and gas development is likely to proceed first in southeastern Eagle Plain and progress northward with time, and is not expected to extend into the Old Crow Flats Special Management Area within the next 20 years.

The Government of Yukon is developing best management practices for oil and gas activities.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation Final Agreement.
- Current Order-in-Council withdrawal from dispositions in place.
- Yukon *Oil and Gas Act* and regulations.
- Associated Yukon and federal regulatory processes triggered by activity on the land, e.g. *Territorial Lands (Yukon) Act*, *Yukon Waters Act*, *Fisheries Act* (Canada).
- *Yukon Environmental and Socio-economic Assessment Act*.



Well site K-58 completed by Devon Canada Corporation in Eagle Plain. Photo taken March 14, 2005. (Marc Dionne, Client Services & Inspections Branch)

MANAGEMENT ISSUES OR CONCERNS

1. Industrial activity is not considered compatible with the cultural and ecological values of the core wetland complex.
2. The current regulatory regime for managing Habitat Protection Areas is considered limited in its ability to manage crown land for conservation principles while permitting industrial activities.
3. There is a concern about the potential impacts of oil and gas development on the traditional use of the area by Vuntut Gwitchin.

RECOMMENDATIONS

1. Vuntut Gwitchin First Nation Settlement Lands (R-01A, R-10A, S-25A) will be permanently protected from all industrial activities that could affect the ecological integrity of these areas.
2. Government of Yukon lands (Area East and Area West) located within the core of the Old Crow Flats wetland complex be permanently withdrawn from all industrial activities.
3. Government of Yukon lands (Area East and Area West) outside the core of the Old Crow Flats wetland complex be withdrawn from all industrial activities for a period of 20 years.
4. The Government of Yukon and the Vuntut Gwitchin Government will review the status of all 20-year withdrawals (including oil and gas and minerals) pertaining to Area East Area West prior to expiration.
5. The Government of Yukon, in consultation with the Vuntut Gwitchin Government, will develop habitat protection regulations for the Yukon Habitat Protection Area prior to expiration of the 20-year withdrawals and for greater certainty prior to any consideration of industrial activities.

RESOURCES

MINERAL RESOURCES

OBJECTIVE

- Ensure that any resource exploration or development does not compromise the ecological integrity of the Special Management Area.

BACKGROUND AND CURRENT SITUATION

Vuntut Gwitchin First Nation fully owns and controls mineral resources on settlement land parcels R-01A and R-10A, which form the core of the Special Management Area. The Yukon Government administers mineral resources on the two crown land portions of the Special Management Area: Area East and Area West.

In 2004, a mineral assessment completed by the Yukon Geological Survey indicated that there is no known mineral potential in the central part of the Special Management Area (see map in Appendix F). The assessment, which included analysis of geochemical data collected in 2004, indicated that there is moderate potential for mineral resources in the western part of the Special Management Area, and low potential in the eastern part of the Special Management Area. These areas are suggestive of appropriate geology for some types of mineral deposits, but more information will not be available without further exploration.

There is no record of any mineral exploration within the boundaries of the Special Management Area before 1973. In 1973, the Special Management Area was withdrawn from mineral exploration.

There are no known mineral occurrences in the Old Crow Flats Special Management Area.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation Final Agreement.
- Current Order-in-Council withdrawal 2005/84 from quartz and placer dispositions in place.
- Yukon *Placer Mining Act*.
- Yukon *Quartz Mining Act*.

- Associated Yukon and federal regulatory processes triggered by activity on the land, e.g. *Territorial Lands (Yukon) Act*, *Yukon Waters Act*, *Fisheries Act*.
- *Yukon Environmental and Socio-economic Assessment Act*.

MANAGEMENT ISSUES OR CONCERNS

1. Industrial activity is considered to not be compatible with the cultural and ecological values of the core wetland complex.
2. The current regulatory regime for managing Habitat Protection Areas is considered to be limited in its ability to manage crown land for conservation principles while permitting industrial activities.
3. There is concern about the potential impacts of mineral development on the traditional use of the area by Vuntut Gwitchin.

RECOMMENDATIONS

1. Vuntut Gwitchin First Nation Settlement Lands (R-01A, R-10A, S-25A) will be permanently protected from all industrial activities that could affect the ecological integrity of these areas.
2. Government of Yukon lands (Area East and Area West) located within the core area of the Old Crow Flats wetland complex will be permanently withdrawn from any industrial activities.
3. Government of Yukon lands (Area East and Area West) outside the core of the Old Crow Flats wetland complex be withdrawn from all industrial activities for a period of 20 years.
4. The Government of Yukon and the Vuntut Gwitchin Government will review the status of all 20-year withdrawals (including oil and gas and minerals) pertaining to Area East and Area West prior to expiration.
5. The Government of Yukon, in consultation with the Vuntut Gwitchin Government, will develop habitat protection regulations for the Yukon Habitat Protection Area prior to expiration of the 20-year withdrawals and for greater certainty prior to any consideration of industrial activities.

PEOPLE

TOURISM AND VISITORS

OBJECTIVE

- Allow appropriate tourism activities in keeping with the management principles from the Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C.

BACKGROUND AND CURRENT SITUATION

While there are few tourism activities in Old Crow Flats now, there is interest in, and potential for, tours that inform and educate visitors about the natural and cultural features of the Old Crow Flats. Because Old Crow Flats is so important to the Vuntut Gwitchin First Nation people, tourism opportunities must be carefully considered to ensure that they do not interfere with the traditional use and values of the area.

Yukon Tourism is working with the First Nation and its economic development corporation on a tourism strategy for North Yukon. Information and guidance from the Old Crow Flats management plan will be reflected in the tourism strategy.

Tourism interests, opportunities and concerns in North Yukon and Old Crow Flats have been identified in the Vuntut National Park Management Plan, Old Crow Flats, the pending North Yukon Land Use Plan, and ongoing work on the North Yukon tourism strategy. Potential tourism activities include boat tours, bird and wildlife viewing, dog mushing, snowmobile and trapline tours, and northern lights viewing. Learning about First Nations culture and traditional lifestyle would be an important part of a tour, and using a local guide would help ensure the land is treated with respect and that visitors are safe. It is also important that the people of Old Crow benefit directly from tourism.

Current visitors to North Yukon include 50 to 60 wilderness travellers each year, mostly on river trips, just over 8,000 visitors driving the Dempster Highway, and a small number of tourists who visit the community. Writers, film crews, researchers and business travellers might also be interested in activities in Old Crow.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation manages activity on settlement land. The Vuntut Gwitchin First Nation Final Agreement, Chapter 6 (Access) includes specific references about the rights of access on undeveloped settlement land for commercial and non-commercial purposes without consent of the First Nation.
- The *Wilderness Tourism Licensing Act* regulates commercially guided trips, including no-trace camping and travelling practices and proper waste disposal. Note that until such time as the First Nation enacts its own legislation regarding guided wilderness tourism, the *Wilderness Tourism Licensing Act* applies on settlement land.

RECOMMENDATIONS

1. Ensure that tourism developments benefit the community, rely on traditional knowledge and respect, and do not interfere with traditional and cultural uses and values of the Old Crow Flats.
2. Ensure that tourism activities recognize the important ecological and cultural values of the area and minimize any negative effects.
3. Reflect information and guidance from the Old Crow Flats Management Plan in the North Yukon tourism strategy.

PEOPLE

LAND DISPOSITIONS AND LAND USE ACTIVITIES

OBJECTIVE

- Maintenance of healthy wetland habitat must be a priority when considering dispositions of land or land use activities.

BACKGROUND AND CURRENT SITUATION

Vuntut Gwitchin First Nation owns and controls the surface resources within Category A Settlement Lands. A draft Vuntut Gwitchin *Lands and Resources Act* has been prepared but not finalized. This act will describe the process for managing surface land use activities and any dispositions of land on settlement land.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation Final Agreement.
- Vuntut Gwitchin First Nation *Lands and Resources Act* (draft).
- *Territorial Lands (Yukon) Act*, including quarrying regulations.
- *Yukon Environmental and Socio-economic Assessment Act*.



Kassi-Elias camp at Crow Flats. (Tracy Rispin-Kassi)

RECOMMENDATIONS

1. Government of Yukon lands (Area East and Area West) located within the core of the Old Crow Flats wetland complex will be permanently withdrawn from all industrial activities.¹
2. Government of Yukon lands (Area East and Area West) outside the core area of the Old Crow Flats wetland complex will be withdrawn from all industrial activities for a period of 20 years.
3. Non-industrial land use activities on Vuntut Gwitchin First Nation lands will be regulated through Vuntut Gwitchin Government lands and resources legislation when promulgated.
4. Non-industrial land use activities on Government of Yukon lands will be regulated under the *Territorial Lands (Yukon) Act* and Habitat Protection Area regulations.
5. The Government of Yukon, in consultation with the Vuntut Gwitchin Government, will develop habitat protection regulations for the Yukon Habitat Protection Area prior to expiration of the 20-year withdrawals and for greater certainty prior to any consideration of industrial activities.
6. Complete a survey administration plan of the Special Management Area to provide clarity on the boundaries for any potential land dispositions within and adjacent to the Special Management Area.

PEOPLE

ACCESS AND TRANSPORTATION

OBJECTIVES

- Maintain the integrity of the area.
- Recognize and protect traditional and current use of the area.
- Protect and conserve habitat as outlined in the Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C.

BACKGROUND AND CURRENT SITUATION

There are traditional trails and routes into and through the Old Crow Flats. In the past, Vuntut Gwitchin citizens used dog teams to travel over the land in the winter. Moose skin and, later, canvas, boats were used on the Crow River in the summer. People currently use snowmobiles and, occasionally, dog team and motorized boat, to travel to and from the Old Crow Flats.

Vuntut Gwitchin First Nation, in partnership with researchers and Vuntut National Park, uses helicopters to access the area, as well as limited fixed-wing flights. (There have been about 15 landings per year over the past five years.)

Vuntut Gwitchin First Nation works with researchers, and acts as a resource in hiring local guides.

¹“Industrial activities” are defined as: 1) development of mines and minerals, oil and gas, hydroelectric and other energy resources, agricultural lands; 2) harvesting of timber resources; 3) development of town sites and; 4) any land use, activity or infrastructure associated with the above.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation administers access on settlement land under the terms and conditions of the Vuntut Gwitchin *Lands and Resources Act* (draft).
- *Yukon Environmental and Socio-economic Assessment Act*.
- *Territorial Lands (Yukon) Act*, administered by Energy, Mines and Resources, applies for access or land use activities on crown land.

RECOMMENDATIONS

1. Monitor use of trails and access and develop guidelines, if necessary.
2. Maintain traditional routes and designate these trails and routes, if necessary.

PEOPLE

EDUCATION AND PUBLIC AWARENESS

OBJECTIVES

- Recognize and protect traditional and current use of the area.
- Protect and conserve habitat as outlined in the Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C.
- Encourage sharing of knowledge and values of Old Crow Flats between elders, researchers and community youth.

BACKGROUND AND CURRENT SITUATION

Each year, Chief Zzeh Gittlit School and the Vuntut Gwitchin Government host traditional spring camps where youth learn cultural activities. Here, they can gain school credit within a land-based education program.

The Vuntut Gwitchin Government Heritage Department has created educational materials that can be used in the school to teach the stories of the elders, and the significance of the Old Crow Flats.



Boats returning to Old Crow. (©VGFN, S. Smith)

Research that is currently conducted in the area involves community members and is shared through research papers. For future programs, a greater research and educational legacy is needed for Old Crow.

Various websites highlight the Old Crow Flats ecosystem and its importance to the world.

The Old Crow Visitor Reception Centre, opening in 2008, will serve to educate the public on the Vuntut National Park and the traditional territory, including the Old Crow Flats.

LEGAL FRAMEWORK

- Vuntut Gwitchin First Nation administers access on settlement land under the terms and conditions of the Vuntut Gwitchin *Lands and Resources Act*.
- *Yukon Environmental and Socio-economic Assessment Act*.

RECOMMENDATION

1. Maintain current program activity levels as described above, until greater education and public awareness efforts are deemed necessary.
2. Educate Yukoners and others about the value and importance of Old Crow Flats.



Trail on Zelma Vavàn-Zelma Lake. (VGFN)

APPENDICES



Camp at Timber Hill looking north. (©VGFN, S. Smith)

- 36 **APPENDIX A:** **Vuntut Gwitchin First Nation Final Agreement, Chapter 10, Schedule C**
- 38 **APPENDIX B:** **Summary of recommendations**
- 42 **APPENDIX C:** **Chronology of Old Crow Flats Special Management Area planning**
- 43 **APPENDIX D:** **Summary of public comments received during consultation**
- 47 **APPENDIX E:** **Bibliography**
- 49 **APPENDIX F:** **Maps**
 - Vuntut Gwitchin cultural use areas in the Old Crow Flats Special Management Area
 - Porcupine Caribou use of the Old Crow Flats Special Management Area
 - Old Crow Flats Special Management Area wetlands classification
 - Gas potential of the Old Crow Flats Special Management Area
 - Mineral potential of the Old Crow Flats Special Management Area
 - Tourism and recreation on Old Crow Flats Special Management Area

APPENDIX A VUNTUT GWITCHIN FIRST NATION FINAL AGREEMENT, CHAPTER 10, SCHEDULE C

1.0 ESTABLISHMENT

- 1.1 The provisions of this schedule shall apply to the Old Crow Flats Area (the “Area”) as of the Effective Date of this Agreement.
- 1.2 The boundaries of the Area are set out on map “Old Crow Flats Area, (OCFA)”, in appendix B – Maps, which forms a separate volume to this Agreement.
- 1.3 No Non-Settlement Land within the Area shall be removed from the application of this schedule without the consent of the Vuntut Gwitchin First Nation.
- 1.4 No Settlement Land within the Area shall be removed from the application of this schedule without the consent of Government.

2.0 FISH AND WILDLIFE

- 2.1 In that part of the Area which is outside of Vuntut National Park, Vuntut Gwitchin shall have the right to harvest Fish and Wildlife in accordance with their Harvesting rights pursuant to Chapter 16 – Fish and Wildlife.
- 2.2 In that part of the Area which is within Vuntut National Park, Vuntut Gwitchin shall have the right to harvest Fish and Wildlife in accordance with their Harvesting rights pursuant to Schedule A – Vuntut National Park, attached to Chapter 10 – Special Management Areas.

3.0 MANAGEMENT PRINCIPLES

- 3.1 Government and the Vuntut Gwitchin First Nation shall manage the Area so as:
 - 3.1.1 to strive to maintain the integrity of the Area as one ecological unit;
 - 3.1.2 to recognize and protect the traditional and current use of the Area by Vuntut Gwitchin, while recognizing the changing values and priorities of Vuntut Gwitchin in contemporary Canadian society;
 - 3.1.3 to protect and conserve Fish and Wildlife, and Fish and Wildlife habitat, of national, international and local significance, in particular migratory birds and the Porcupine Caribou Herd and their habitats;
 - 3.1.4 to protect the full diversity of Fish and Wildlife populations and their habitats from activities which could reduce the land’s capability to support Fish and Wildlife; and
 - 3.1.5 to recognize the ownership by the Vuntut Gwitchin First Nation of Parcels R-1A and R-10A.

4.0 EXISTING OIL AND GAS RIGHTS AND INTERESTS

- 4.1 Canada shall terminate any oil and gas rights or interests existing in the Area at the Effective Date of this Agreement or as soon as practicable thereafter.
 - 4.1.1 If Canada has not, as of the Effective Date of this Agreement, terminated all oil and gas rights and interests existing in the Area, the moratorium on the exercise of the oil and gas rights and interests not terminated shall continue until Canada has terminated those rights or interests.

5.0 MANAGEMENT PLAN

- 5.1 Government and the Vuntut Gwitchin First Nation shall jointly prepare a management plan for that part of the Area which is outside Vuntut National Park, which is consistent with the management principles in 3.0, and which shall be recommended to Government and the Vuntut Gwitchin First Nation for approval.
 - 5.1.1 The park management plan for Vuntut National Park prepared pursuant to Schedule A – Vuntut National Park, attached to Chapter 10 – Special Management Areas, shall be the management plan for that portion of the Area within Vuntut National Park.
- 5.2 The development of the management plan shall include a process for public consultation.
- 5.3 Government and the Vuntut Gwitchin First Nation shall make best efforts to approve a management plan within five years of the Effective Date of this Agreement.
- 5.4 The management plan approved by both Government and the Vuntut Gwitchin First Nation shall be the “Approved Management Plan” for the purposes of this schedule.
- 5.5 The Approved Management Plan shall include recommendations to implement the management principles set out in 3.0.

6.0 MINES AND MINERALS

- 6.1 Neither Government nor the Vuntut Gwitchin First Nation shall issue any right or interest in the Mines or Minerals in that part of the Area outside of Vuntut National Park until there is an Approved Management Plan, or until January 2, 2012, whichever occurs first.
- 6.2 Where there is an Approved Management Plan, Government and the Vuntut Gwitchin First Nation may issue rights and interests in the Mines and Minerals in that part of the Area outside of Vuntut National Park, provided that such issuance is consistent with the Approved Management Plan.
- 6.3 Where there is no Approved Management Plan and the time period described in 6.1 has not expired, the Vuntut Gwitchin First Nation may issue rights and interests in the Mines and Minerals in Settlement land in the Area provided:
 - 6.3.1 the Vuntut Gwitchin First Nation and Government agree to the issuance of the right or interest; and
 - 6.3.2 the issuance is consistent with the management principles in 3.0.
- 6.4 Where there is no Approved Management Plan and the time period described in 6.1 has not expired, Government may issue rights and interests in the Mines and Minerals in Non-Settlement Land in that part of the Area outside of Vuntut National Park, provided:
 - 6.4.1 government and the Vuntut Gwitchin First Nation agree to the issuance of the right or interest; and
 - 6.4.2 the issuance is consistent with the management principles in 3.0.

7.0 IMPLEMENTATION AND REVIEW

- 7.1 Until there is an Approved Management Plan, Government and the Vuntut Gwitchin First Nation shall manage their lands in the Area in a manner consistent with the management principles in 3.0.
- 7.2 Once there is an Approved Management Plan, Government and the Vuntut Gwitchin First Nation shall each manage their land in that part of the Area outside Vuntut National Park according to the Approved Management Plan.
- 7.3 Unless Government and the Vuntut Gwitchin First Nation otherwise agree, Government and the Vuntut Gwitchin First Nation shall review the Approved Management Plan five years after its initial approval and every 10 years thereafter.

APPENDIX B SUMMARY OF RECOMMENDATIONS

The Government of Yukon will legislatively implement this management plan forthwith. The Vuntut Gwitchin Government will implement this management plan through its lands and resources legislation when promulgated, and in the meantime give effect to this intent through a Chief and Council resolution.

Number	Topic	Recommendation	Implementation and key actions
1	Designation	The core area (see map) of the Special Management Area comprising the Old Crow Flats wetland complex will be protected and managed in a manner that <i>permanently protects</i> the ecological integrity of the Flats, including its diversity and its fish and wildlife populations and habitats from activities that could reduce the land's capability, while maintaining access to this area by Vuntut Gwitchin citizens for traditional and current harvesting of fish and wildlife resources.	Government of Yukon will legislatively implement this management plan forthwith. Vuntut Gwitchin Government will implement this management plan through its lands and resources legislation when promulgated, and in the meantime, give effect to this intent through a Chief and Council resolution.
2	Designation	Government of Yukon lands outside the Old Crow Flats wetland complex will be managed with the priority to protect the ecological integrity and diversity of fish and wildlife populations and habitats from activities that could reduce the capability of those lands, including non-industrial uses; and secondarily, maintain the future possibility of some industrial resource development.	Government of Yukon will legislatively implement this management plan forthwith.
3	Designation	Vuntut Gwitchin First Nation Settlement Lands (R-01A, R-10A, S-25A) will be permanently protected from all industrial activities that could affect the ecological integrity of these areas.	Vuntut Gwitchin Government
4	Designation of crown land as Habitat Protection Area	The Government of Yukon will establish its land (Area East and Area West) as a Habitat Protection Area pursuant to Section 187 of the Yukon <i>Wildlife Act</i> .	Government of Yukon will pass a regulation as soon as possible after approval of this plan. one time legal costs of \$5,000 to \$10,000.
5	Designation of settlement land	Vuntut Gwitchin Government will provide an equivalent designation for its lands (R-01A, R-10A, S-25A) through its land and resource legislation when promulgated, and by Chief and Council resolution in the interim.	Vuntut Gwitchin Government General Assembly resolution. <i>Lands and Resources Act</i> expected in the next two years.
6	Withdrawal from mineral and oil and gas activities	Government of Yukon lands (Area East and Area West) located within the core of the Old Crow Flats wetland complex will be permanently withdrawn from all industrial activities.	Government of Yukon will establish withdrawal from disposition orders for minerals and oil and gas. (no cost)
7	Withdrawal from industrial activities in Area East and Area West	Government of Yukon lands (Area East and Area West) outside the core area of the Old Crow Flats wetland will be withdrawn from all industrial activities for a period of 20 years.	Government of Yukon will establish withdrawal from dispositions orders on crown land. (no cost)
8	Review of 20-year withdrawals	The Government of Yukon and Vuntut Gwitchin Government will review the status of the 20-year oil and gas and mineral withdrawals pertaining to Area East and Area West prior to expiration of the withdrawals.	Implementation management committee will discuss during subsequent plan reviews.
9	Land dispositions	No permanent disposition of land for industrial purposes will occur on Vuntut Gwitchin First Nation settlement lands or Government of Yukon lands within the Special Management Area.	Vuntut Gwitchin Government will regulate under the proposed Vuntut Gwitchin <i>Land and Resources Act</i> . Government of Yukon will put in place withdrawal orders.

Number	Topic	Recommendation	Implementation and key actions
10	Land use activities	Non-industrial land use activities on Vuntut Gwitchin First Nation lands will be regulated through Vuntut Gwitchin Government lands and resources legislation when promulgated.	Vuntut Gwitchin Government will ensure legislation is in place.
11	Land use activities	Non-industrial use on Yukon lands will be regulated under the <i>Territorial Lands (Yukon) Act</i> in consultation with the Vuntut Gwitchin Government.	Government of Yukon will administer.
12	Habitat Protection Regulations	The Government of Yukon, in consultation with the Vuntut Gwitchin Government, will develop habitat protection regulations for the Yukon Habitat Protection Area prior to expiration of the 20-year withdrawals and for greater certainty prior to any consideration of industrial activities.	Government of Yukon, Department of Environment will develop regulations as required. (no anticipated costs)
13	Tourism	Tourism development should benefit the community, rely on traditional knowledge and respect, and not interfere with traditional and cultural use and values of the Flats.	Parties will monitor.
14	Tourism	Tourism activities should recognize the important ecological and cultural values of the area and minimize any negative effects.	Parties will monitor.
15	Tourism	Information and guidance from the Old Crow Flats management plan will be reflected in the North Yukon tourism strategy.	Vuntut Gwitchin Government and Government of Yukon will approve the North Yukon tourism strategy.
16	Trails and roads	The parties should monitor use of trails and access, and develop guidelines, if necessary.	Vuntut Gwitchin Government on settlement land. Government of Yukon on crown land. (no direct costs)
17	Trails and roads	Maintain traditional routes and designate these trails and routes, if necessary.	Vuntut Gwitchin Government on settlement land. Government of Yukon on Crown land. (no direct costs)
18	Forestry	Vuntut Gwitchin First Nation will address any harvest decisions with consultation of the North Yukon Renewable Resources Council and recognition of the management principles of this plan.	Vuntut Gwitchin Government to administer. Community forestry plan in preparation. (no additional costs)
19	Traditional use	No specific recommendations at this time. Vuntut Gwitchin Government may develop guidelines or legislation in the future on the use of camps and traditional areas, particularly in relation to potential tourism.	
20	Heritage	Support continued fieldwork on heritage and historical resources by Vuntut Gwitchin Government and Government of Yukon, when and as resources are available.	Continue cooperative research between parties. Government of Yukon, Heritage Resources, to advise applicants for Science and Explorers Permits and Archaeological Sites Regulations Permits of this plan. (no incremental costs)
21	Heritage	Support the ongoing Vuntut Gwitchin First Nation Cultural Geography Project and encourage educational and cultural opportunities which promote visiting the Old Crow Flats, when and as resources are available.	Government of Yukon, Heritage Resources, and Vuntut Gwitchin Government to maintain regular communication on the status of research. (no costs)

Number	Topic	Recommendation	Implementation and key actions
22	Research on paleontological resources	Encourage multidisciplinary paleoenvironmental research in Special Management Area and area.	Continue cooperative research between parties. Government of Yukon, Heritage Resources, to advise applicants for Science and Explorers Permits of this plan.
23	Paleontological resources	Work cooperatively to recover and study fossils which erode along the Old Crow and Porcupine rivers and their tributaries, and identify fossil storage requirements in Old Crow and Whitehorse.	Ongoing Vuntut Gwitchin Government and Government of Yukon. Incorporate into existing programs. (no additional funding requested)
24	Paleontological resources	Increase public awareness of protected status of fossils.	Incorporate into existing programs. (no additional funding requested)
25	Protection of water quality and water levels	Highest level of protection to wetlands in Vuntut Gwitchin First Nation settlement land and in Area East.	Designation by Vuntut Gwitchin Government on settlement lands. Designation by Government of Yukon on Crown land.
26	Protect natural water processes	Natural processes affecting lake levels, drainage and water quality should not be disrupted.	<i>Yukon Environmental and Socio-economic Assessment Act</i> process, obligations of this management plan.
27	Lake levels and water quality	Future activities or developments that affect the watershed should be avoided.	<i>Yukon Environmental and Socio-economic Assessment Act</i> process, obligations of this management plan.
28	Lake levels	Continue monitoring lake levels and the area of water in the Flats.	Monitoring subject to ongoing research. (no additional funding requested)
29	Protection of fish and fish habitat	Fisheries values and ecological integrity of watershed to be carefully considered in reviewing potential development.	Department of Fisheries and Oceans, Vuntut Gwitchin Government and Government of Yukon. <i>Yukon Environmental and Socio-economic Assessment Act</i> process. (no direct costs)
30	Fish	Cooperative studies with all agencies should continue, especially to identify wintering areas and migration routes for freshwater fish.	Department of Fisheries and Oceans, Vuntut Gwitchin Government and Government of Yukon. (as funding opportunities allow)
31	Fish and wildlife studies	Government departments, non-government organizations and researchers will coordinate studies where possible.	Parties maintain good communication. (no additional funding requested)
32	Porcupine Caribou	Protect the area to ensure that the watershed and the wetlands, which serve as important year round wildlife habitat for wildlife populations of national and international importance, including important season migration corridors, remain intact.	Parties maintain good communication. (no additional funding requested)
33	Porcupine Caribou	No specific additional research is recommended for the Porcupine Caribou Herd, however, Department of Environment should continue to provide updated information about the status of the herd and the use of the Special Management Area.	Ongoing program activity of Government of Yukon, Department of Environment.
34	Monitoring moose	Monitor movements of moose and population status in the Old Crow Flats in the summer.	Government of Yukon, as opportunities permit. (no additional funding requested at this time)
35	Monitor effects of moose	Monitor changes of lake levels, vegetation growth and extent of tree and shrub lines in relation to moose distribution and use.	Government of Yukon, as opportunities permit. (no additional funding requested at this time)

Number	Topic	Recommendation	Implementation and key actions
36	Monitor motorized vehicles use	Motorized vehicle use for harvesting should be monitored for possible effects on wildlife.	Vuntut Gwitchin Government, Lands and Government of Yukon, Department of Environment will monitor use and, if necessary, create guidelines or regulations.
37	Protection for wetlands and waterbirds in Special Management Area	Maintain a high level of protection where wetlands and waterbirds concentrate in the Special Management Area.	Vuntut Gwitchin Government conservation designation on the core wetland area on settlement land. Government of Yukon Habitat Protection Area designation. Minimal costs to establish and administer.
38	Monitoring waterbirds	Monitor waterbird populations for breeding, moulting and staging through U.S. Fish and Wildlife Service, Canadian Wildlife Service or Ducks Unlimited.	Ongoing studies. (no additional funding requested)
39	Wetlands and climate change	Support further research regarding climate change and its effects on wetlands within the Old Crow Flats.	Parties to coordinate with other initiatives.
40	Research in the Special Management Area	Researchers should be informed of the cultural and ecological sensitivity of the Special Management Area.	Vuntut Gwitchin Government on settlement land. Government of Yukon on crown land.
41	Research activities in the Special Management Area	Apply laws of general application and Vuntut Gwitchin First Nation Final Agreement to researchers in the Special Management Area.	Vuntut Gwitchin Government on settlement land. Government of Yukon on crown land.
42	Education and awareness of the Old Crow Flats	Maintain current levels of activity as described above, until greater education and public awareness efforts are deemed necessary.	Parties maintain good communication. (no additional funding requested)
43	Implementation	The Government of Yukon and Vuntut Gwitchin Government agree to make best efforts to immediately implement this approved management plan.	Government of Yukon and Vuntut Gwitchin Government
44	Implementation	The Government of Yukon will legislatively implement this management plan;	Government of Yuko
45	Implementation	The Vuntut Gwitchin Government will implement this management plan through its lands and resources legislation when promulgated, and in the meantime give effect to this intent through a Chief and Council resolution;	Vuntut Gwitchin Government
46	Implementation	A management committee of one representative each of the Government of Yukon and the Vuntut Gwitchin Government will meet at least annually to coordinate implementation of the management plan, including provision of an annual report to the Yukon Minister of Environment and the Chief of the Vuntut Gwitchin First Nation. Management Committee may invite other agencies to participate as appropriate;	Government of Yukon and Vuntut Gwitchin Government
47	Implementation	Unless otherwise agreed to, the Government of Yukon and the Vuntut Gwitchin Government will review this management plan in 2011 and every 10 years thereafter.	Government of Yukon and Vuntut Gwitchin Government
48	Land survey	In order to clearly distinguish the borders of the Special Management Area, it is recommended that the parties request an administration plan survey be completed by Natural Resources Canada.	Parties will submit request to Natural Resources Canada. Government of Yukon Lands Branch will coordinate. (costs are expected to be paid by Natural Resources Canada)

APPENDIX C CHRONOLOGY OF OLD CROW FLATS SPECIAL MANAGEMENT AREA PLANNING

Date	Activity
1993	Effective date of Vuntut Gwitchin Final Agreement
2001	Planning group started under the leadership of Canadian Wildlife Service
2003	Devolution of administrative management of crown land to Government of Yukon Yukon Government now the lead on the management planning
2005	June Establish Technical Working Group, Management Committee, Letter of Understanding, terms of reference and operating guidelines
	29 June Initial meeting of the Technical Working Group, confirm representatives for Technical Working Group
	6 August Draft work plan presented to Management Committee
	13 September Technical Working Group meeting in Whitehorse
	18 October Technical Working Group meeting in Whitehorse
	16 November Technical Working Group meeting in Whitehorse to plan upcoming workshops Preparation of posters for open houses
	23 November Meeting with Management Committee
	29 November Presentation to elders in Old Crow Presentation to Chief and Council
	30 November Open house in Old Crow
	1 December Technical Working Group meeting in Old Crow
	14 December Open house in Whitehorse
2006	24 January Technical Working Group meeting in Whitehorse to plan next workshop, develop table of contents and review next steps
	29 March Open house in Old Crow
	3 April Open house in Whitehorse
	4 April Technical Working Group meeting in Whitehorse Meeting with Management Committee
	June Community survey
	July Draft plan prepared
	August Vuntut Gwitchin Government consultation with members in Old Crow Management plan endorsed by the parties

APPENDIX D A SUMMARY OF PUBLIC COMMENTS RECEIVED DURING CONSULTATION

The following is a summary of the discussions at open houses in Old Crow and Whitehorse in November and December, 2005 and March and April, 2006.

- It is a very important area for Vuntut Gwitchin who have been living there as long as the land has been around. Every spring when people used to go out there they'd help each other, and live off the caribou and muskrat. These must remain healthy. Gwich'in from all over would go to Crow Flats if they needed help. It is a place to show the youth how to live off muskrat trapping. There is a need to take care of the water, especially with the Crow River and the water eventually flowing through Alaska and where others live off the river.
- We can't make a plan that will impact our way of life and our culture. We don't want a negative impact on the community.
- The elders for a long time now, way back, before their father's father, they talk about the land in the Crow Flats, and now they talk about it because they raised their family, and they raised their family's family.
- It's a very important area. We've been living there just as long as the land has been around. We like to keep and take our children there and show them how we live off the muskrat in the spring.
- Those old people are all gone, they left this life behind. We'll be the same place some day. We're worried about our younger generation.
- Lots of kids behind, lots more coming. We don't know how long it's going to last.
- Old story, cause, you heard a lot of old story about how our great great grandfather used to live on there, on this land, lots of animal and fish and water, that's why we try to protect that, for our children, today and our future.
- People done a lot of good in Crow Flats. They help each other out on that lake. That's how people used to live. Help each other.
- They used to do everything out on Crow Flats; it was rich for them. Today, people go to the store.
- A long time ago, there were lots of meetings; we have always wanted to protect Crow Flats, always.
- An active trapper, or Elder, someone who "touched it" should follow the planning process to provide guidance from start to finish. Crow Flats has been talked about forever and it is important to acknowledge the elders who spoke in the past for it. Keep gathering information and take direction from the elders.
- The timeline is a bit concerning for this process since the Old Crow Flats is such an important place. Good work must be done, especially by holding the Traditional Knowledge and wildlife values in high regard. The Flats provided economically and historically. When the Berger Inquiry took place, the Elders were quite healthy and now some have passed on. Oil and gas development remains to be a concern.
- I'm in favour of VGG creating their own legislation to cover the whole area (including East and West wings). In 20 years, you want to see that you still cover the principles and manage the whole area as one ecological unit.
- Have a long-term vision, 25 years, and say that. The two biggest R-blocks are excellent places for the First Nation to make a designation, excellent area for First Nation to exercise their rights, north of Porcupine, and north of Bell. An Order-in-Council for the SMA is stopping the rest of North Yukon from being open; there is no reason to hold it there.

- “Strongest sentence” ecological unit, manage it that way. In 20 years you want to see that you still cover the principles and manage the whole area as one ecological unit.
- Crow Flats “what you’re going to do about Crow Flats?” It needs protection. In a 20 year period, we continued that.

EAST AND WEST AREAS

- On the west wing, it should have the highest protection. Go back to TK stories, when it was Rampart. The trail to Crow Flats has many burial sites. Years ago people gathered at the Potato Hill, west wing, like what we do today to celebrate. West should be like the core. Years ago people travelled from Alaska to Crow Flats, on the east wing, old trail to Hershel. We need some kind of good protection on the east wing, because before there used to be lots of mineral claims, and oil. Water flows down to the Flats.
- Water flows down to the Flats. Many make that statement that area should have the highest protection to protect the drainage. We’re not doing this for today, but for the young kids in school, set up a good foundation so they could have it for the future.
- Many make that statement that the area should have the highest protection to protect the drainage. We’re not doing this for today, but for the young kids in school, to set up a good foundation so they could have it for the future. I think the highest protection is already set on the R-blocks; the biggest concern is the water drainage in the other areas. As for moose population, understand in our history that the moose migrate into Crow Flats from Alaska and NWT. I’d like to see the conservation area as the highest protection in the core.
- There should be a legislative framework (especially for Areas East and West), which offers the protection needed and have a long-term vision of 25 years. Manage it as one ecological unit. Create regional and international partnerships to help in long-term management.

- Someone remarked that the east and west areas should have full protection. Old Crow Flats should be protected for the children, today, and our future. The Vuntut Gwitchin need to make use of that land out there and are setting up the Vuntut Hunters and Trappers Association as a way to get out on the land we care for.
- On the east side, all of the water runs into Crow Flats, and if development happens, it’ll pollute the water in Crow Flats.

LITTLE FLATS

- Families used Little Flats in the past. I would prefer the boundary expanded to include all the lakes in the Flats for protection. Sarah Abel, that’s where she raised her family, I strongly recommend that it have the highest level of protection.
- The Little Flats are on the migration route of the Porcupine area in the spring and fall. The centre is also important when they come straight through Old Crow.
- Little Flats ... the whole area is important to waterfowl and other animals, and I agree to it having the same level of protection.

OIL AND GAS AND MINERAL EXPLORATION AND DEVELOPMENT

- They want to protect it. Make sure that there’s no development that happens in Crow Flats — mineral or oil or gas.
- Some of the elders talked about pipeline, caribou, birds and migration, so there’s a lot of that kind of information that has been passed on from other elders.
- My other concerns with oil and gas won’t happen right away, but somewhere down the road, if a pipeline goes through down the road, and anywhere in the north, for that matter, because it has to be tied into the pipeline, and if it goes ahead, it’s scary for people who live here to see that happen in north Yukon.

- There's lots of (break) on this land. This is closest area to you, so don't destroy it. Us elders won't be using the land any more, but the younger generations will; this is why we need to protect that area very stringently.
- If we bring an oil company up to tell them that we never want oil development on this area, maybe that would be a way to let them know that we don't want this in that area.
- Thirty years ago I spoke, when I was eleven years old, about the Berger inquiry — this kinds of reminds me of that.
- We're talking about the same thing. I wonder what kind of information there might be from that inquiry. I know that at the time I was living with my mom on the Flats and a lot of the information came from the people directly.
- What if the Americans pressure VG and YG to drill. Historically, in 92'-93', further back John Abel at every session with YG and the Feds always brought up Crow Flats "what you're going to do about Crow Flats?" It needs protection. In a 20 year period, we continued that. In Claims negotiations, Mike Whittington (sp?) of the Feds, bought out the Gulf lease in that land. Keep the watershed contained; why would you want to manage it differently? Intent was to the highest standards of the day. Vuntut National Park was the guiding principle. Were those guiding principles ever used?
- If the calving ground is developed, will the Old Crow Flatss and the Yukon side become more important caribou habitat?
- Be prepared for future oil and gas development and a pipeline in North Yukon. That possibility is open unless this plan recommends that development in the Old Crow Flatss SMA does not occur. The Berger Inquiry was mentioned, with the thought that it would be valuable to see what information came directly from people in Crow Flats.
- The area is to be treated as one ecological unit. Looking at 20 years in the future, resource extraction, why would Canada give it the highest level of protection? What about mining Uranium? Was not John Abel's intent in Yellowknife to have a road to tide water?
- I don't understand why resource extraction would be an option. It would destroy the principles.
- If you allow for exploration, you must be prepared for development.
- Development would require a pipeline — Mackenzie Valley pipeline, only then would there be economic interest for a Dempster lateral. In the Eagle Plains basin there are known plays, oil and gas development would occur there first before looking at other areas.
- There are no mineral resources in the area. No mineral showings, no exposed rock that I know of.

TOURISM AND ACCESS RULES

- The plan is done in Vuntut National Park; if we develop tours we'd have to cross the Flats. What kind of protection do we have, or do we have to make our own rules? The reason I say that is that we have the core area ... there is potential of tourism by land in the VNP. If the core area has the highest protection, we'd have to have regulations, I don't want to see too many regulations so people don't get mixed up.
- Tourism: I don't want it to be confusing, with many different sets of rules. Years ago Crow Flats were full of people; years ago people were very careful, so I know we could set the rules.
- It should be easier to do things in the Old Crow Flatss than the VNP. Suggestions are cultural experience, bird watching, and importance of paleontology. Tourism should come from Old Crow and most of the benefits should go to the community. There should be specific rules for caribou fences.

- In the ancient language, my grandfather's language, between June 15 and the end of July no one should be in there. Timing is important. There is an ancient traditional law for all the young ones to grow, law that our people never go in there. Only go in by river.
- Tourism suggestions are cultural experience, bird watching, and importance of paleontology. Tourism should come from Old Crow and most of the benefits should go to the community. There should be specific rules for caribou fences.

MONITORING

- More studies and monitoring were requested, including looking at vegetation, wolves, caribou and moose.
- There are lots of studies that need to be done in the Crow Flats.
- This group, does it have money for monitoring to happen?
- A long time ago, the most important thing that the elders taught us was to keep the water clean, keep the camp clean. Today this is happening in the school, by way of all of the people who are educated, they are doing that for us here today.
- Now you come to us to talk about his land; now you want to move forward. If you are comfortable with this, you have the info, then do this and try to protect it for the people. Move forward with it, and try to protect it to the best of your ability.

APPENDIX E BIBLIOGRAPHY

- Drummond, K.J., December 2004. *Hydrocarbon Resource Assessment of the Old Crow Flats Special Management Area*. Report prepared for Government of Yukon by Drummond Consulting, 47 pages.
- Fekete Associates and Vector Research, 2005. *North Yukon Conceptual Oil and Gas Development Scenario and Local Benefits Assessment*. Prepared for North Yukon Oil and Gas Working Group, Energy Mines and Resources, Government of Yukon.
- Gray, D.R. and B.T. Alt., 2001. *Resource Description and Analysis of Vuntut National Park of Canada*. Parks Canada.
- Hannigan, P.K., March 2001. *Petroleum Resource Assessment of the Old Crow Basin, Yukon Territory, Canada*. Report prepared by Geological Survey of Canada for Oil and Gas Resource Branch, Department of Economic Development, Government of Yukon, 64 pages.
- Porcupine Caribou Technical Committee, 1993. *Sensitive habitats of the Porcupine caribou herd*. International Porcupine Caribou Board. Unpublished report, 28 pp.
- Russell, D.E., Whitten, K.R., Farnell, R. and van de Wetering, D., 1992. *Movements and distribution of the Porcupine caribou herd, 1970-1990*. Technical Report Series No. 138. Canadian Wildlife Service, Pacific and Yukon Region, British Columbia, 139 pages.
- Ryder, J.L., McNeil, P. Hamm, J., Nixon, W.A., Russell, D.E. and S.R. Francis (Rangifer in review). *An integrated assessment of Porcupine caribou seasonal distribution, movements, and habitat preferences for regional land use planning in Northern Yukon Territory, Canada*.
- Taiga Net, 2006. *Porcupine caribou herd satellite collar project*. Taiga Net website, accessed June 13, 2006, <http://www.taiga.net/satellite>.
- Yukon Ecoregions Working Group, 2004. *Old Crow Basin and Old Crow Flats*. In: *Ecoregions of the Yukon Territory: Biophysical Properties of Yukon Landscapes*, C.A.S. Smith, J.C. Meikle and C.F. Roots (eds.), Agriculture and Agri-Food Canada, PARC Technical Bulletin No. 04-01, Summerland, British Columbia, pages 107-122.



VUNTUT GWITCHIN GOVERNMENT

Yukon
Environment